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## PREFACE.

The University of Sydney was incorporated by an Act of the Legislature of New South Wales, which received the Royal Assent on the 1st of October, 1850. This Act was amended by subsequent Acts, enlarging the scope of the University, and the whole were consolidated in the University and University Colleges Act, 1900.

By a Royal Charter issued 7th February, 1858, the same rank, style, and precedence are granted to Graduates of the University of Sydney as are enjoyed by Graduates of Universities within the United Kingdom.

By the University and University Colleges Act the University of Sydney is declared to be a body politic and corporate, consisting of a Senate constitrited by sixteen elective Fellows, and not fewer than three nor more than six "ex officio" members, who shall be Professors of the University, in such branches of learning as the Senate shall by by-law select. The Chancellor and Vice-Chancellor are elected by the Senate from their own body. The term of office of the Chancellor is fixed by by-law at three years; that of the Vice-Chancellor is limited by statute to one year. In both cases the retiring officer is eligible for reelection. The Senate has power to appoint all Professors and other officers, and has the entire management and superintendence over the affairs of the University, with power to make by-lawis governing the discipline and curriculum and other matters, which by-laws, however, must be submitted for the approval of the Governor.

Vacancies in the Senate are filled by means of a convocation of electors, consisting of the Fellows of the Senate, Professors, Public Teachers and Examiners in the Schools of the University, Principals of Incorporated Colleges within the University, Superior Officers declared to be such by By-law, Masters and Doctors in any Faculty, and Bachelors of three years' standing.

The Senate is empowered to give such instruction, and to grant such degrees and certificates in the nature of degrees as it thinks fit, in all branches of knowledge except Theology and Divinity. Women are admitted to all University privileges equally with men.

The income of the University is derived chiefly from three sources-the Government annual endowment of $£ 10,000$, with $£ 2,000$ per annum for evening lectures; the income of private foundations, viz., the Cballis Fund for general purposes, the Peter Nicol Russell Fund for the School of Engineering, and the Fisher Fund for the Library, and the fees of students.

An additional grant has been made by the Government of $£ 5,000$ per annum, for the establishment of Schools of Veterinary Science and Agriculture.

There are four Faculties in the University, viz., Arts, Law, Medicine and Science.

In the Faculty of Arts two Degrees are given-namely, Bachelor of Arts and Master of Arts. The curriculum of study for the Degree of B.A. extends over a period of three years, during which students are required to attend lectures and pass examinations. The subjects of study are the English, Latin, Greek, French and German Languages, Ancient and Modern History, Mental Philosophy and Logic, Mathematics, Chemistry, Physics, Geology and Palæontology, Biology, Physiology, \&c.

Evening Lectures are given, which include all the subjects necessary for the Degree of Bachelor of Arts, with limited options. A three-year course for a diploma in Economics and Commerce has been established.

In the Faculty of Law the Degrees of LL.B. and LL.D. are given. The curriculum of study for the Degree of LL.B. extends over five years. The Degree of Bachelor of Law is recognised under certain conditions by the Board for the admission of Barristers in New South Wales as a qualification for admission to the Bar.

Graduates in Arts of this University enjoy certain privileges granted by Act of Parliament, exempting them from all examinations other than an Examination in Law before admission as Barristers of the Supreme Court. The Rules of the Supreme Court also provide for a shortening of the period of Studentship-at-Law, in the case of Graduates in Arts, from three years to
two, one of which may be concurrent with the final year of studentship at the University. Graduates who enter into articles of clerkship with attorneys and solicitors are required to serve for three years only instead of five.

The Universities of Oxford and Cambridge extend certain privileges to students who have completed two years' study in the University of Sydney and who desire to compete in the Examinations for Honours. Graduates of the University of Sydney who comply with certain requirements may be admitted as "advanced students" in the University of Cambridge. "Advanced students" may, under special conditions, proceed to the Degree of Bachelor of Arts or Bachelor of Law in that University, or obtain a certificate testifying to their proficiency in research.

In the. Faculty of Medicine three Degrees are granted, viz., Bachelor of Medicine, Doctor of Medicine, and Master of Surgery. The course of study for the Degrees of M.B. and Ch.M. extends over a period of five years. A Diploma in Public Health is also granted.

The Degrees in Medicine and Surgery granted by the University of Sydney may be registered upon the Colonial List of the Britisb Medical Register, under section 13 of The Imperial Medical Act of 1886.

In the Faculty of Science the Degrees of Bachelor of Science and Doctor of Science are given, and Degrees are also given in the several branches of Engineering, viz., Civil Engineering, Mechanical and Electrical Engineering, and Mining and Metallurgy. The course for the Degree of B.Sc. extends over a period of three years, during which the subjects of study are Mathematics, Chemistry (theoretical and practical), Physics (theoretical and practical), Mineralogy, Geology and Palæontology, Biology, etc. The curriculum in Civil Engineering covers three years, that in the other two departments four years.

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A department of Military Studies, providing instruction in Military History and Science, Military Engineering, Military Topography and Military Administration and Law, with a threeyear curriculum including practical instruction, was brought into operation in 1907.

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Senior and Junior Public Examinations are held annually in Sydney, and at other places where persons approved by the Senate can be found to superintend the examinations.

The lectures of the Professors are open to persons not members of the University, upon payment of the fee prescribed for each course.

An Act to provide for the establishment of Colleges of Residence in connection with different religious denominations was passed by the Legislature during the Session of 1854. Ample assistance was offered towards their endowment; and the maintenance of the fundamental principles of the Universitythe association of students without respect of religious creeds, in the cultivation of secular knowledge-is secured consistently with the most perfect independence of the College authorities within their own walls. Colleges in connection with the Church of England, and the Roman Catholic and Presbyterian Churches, have been established. A College for Women has also been established on a non-sectarian basis. The Colleges have all been erected on the University grounds.

## Sydney University Calendar 19II-I9I2.

## Syoned aniocrsitg Calendar

 1911.
## MARCH XXXI.

| 1 | W | - |
| :---: | :---: | :---: |
| 2 | Th |  |
| 3 | F | ; |
| 4 | S |  |
| 5 | S | First Sunday in Lent. |
| 6 | M | Senate meets. Lent Term begins. University Examinations |
| 7 | Tu | [begin, viz., Matriculation Examination, Drferred Annual |
| 8 | W | [Examinations. Annual Law Examinations, Honour Exami- |
| 9 | Th | [nations in the Faculty of Arts, and Department of Enoi[neerino. P. N. Russell Scholarship Examination. Latert |
| 10 | F | [date for receiving Competitive Prize Compositions and |
| 11 | S | [Theses for the degree of M.A. |
| 12 | S | Second Sunday in Lent. |
| 13 | M | Examinations for Higher Degrees begin. |
| 14 | Tu |  |
| 15 | W |  |
| 16 | Th |  |
| 17 | F | [Examination for Articled Clerks on April 3rd. |
| 18 | S | Last day for receiving entries for the Preliminary |
| 19 | S | Third Sunday in Lent. |
| 20 | M | Lectures begin. |
| 21 | Tu |  |
| 22 | W | Board of Studies in Engineering. |
| 23 | Th |  |
| 24 | F |  |
| 25 | S |  |
| 26 | S | Fourth Sunday in Lent. |
| 27 | M | Faculty of Science. |
| 28 | Tu |  |
| 29 | W |  |
| 30 | I'h |  |
| 31 | F | Finance Committee. |

## Syoney dnibersity Calendat 1911.

APRIL XXX.

| 1 | S |  |
| :---: | :---: | :---: |
| 2 | S | Fifth Sunday in Lent. |
| 3 | M | Senate meets. Preliminary Examination for |
| 4 | ${ }^{\text {ru }}$ | [Articled Clerks. |
| 5 | W |  |
| 6 | The. |  |
| 7 | F | . . ${ }^{\text {. }}$ |
| 8 | S |  |
| 9 | S | Palm Sunday. |
| 10 | M |  |
| 11 | 'I'u |  |
| 12 | W | Faculty of Arts. |
| 13 | 'hh |  |
| 14 | F | Good Friday: |
| 15 | S |  |
| 16 | S | Easter Day. |
| 17 | M |  |
| 18 | 'l'u |  |
| 19 | IV | . |
| 20 | 'I'b |  |
| 21 | F |  |
| 22 | S | : $\quad$. |
| 23 | S | First Sunday after Easter. |
| 24 | M | Professorial Board. |
| 25 | Tu | Profesorial Board. |
| 26 | W | - [on Juno at |
| 27 | 'Ih | [on June 6th. |
| 28 | F | Finance Committee. [Public Examinations |
| 29 | S | Last day for receiving applications for Locar. Junior |
| 30 | S | Second Sunday after Easter. |

## Spumed anibersity dalenax

1911. 

MAY XXXI.


## Syoneg enibersity ©alenoat 1911. JUNE XXX.



## Syumen antocrsity Calendar

1911. JULY XXXU.

| 1 | S |  |
| :---: | :---: | :---: |
| 2 | S | Third Sunday after Trinity. |
| 3 | M | Senate meets. |
| 4 | Tu |  |
| 5 | W |  |
| 6 | Th |  |
| 7 | F |  |
| 8 | S |  |
| 9 | S | Fourth Sunday after Trinity. |
| 10 | M | Professorial Board. |
| 11 | Tu |  |
| 12 | W | ; |
| 13 | Th |  |
| 14 | F | $\cdots$ |
| 15 | S |  |
| 16 | S | Fifth Sunday after 'rinity. |
| 17 | M |  |
| 18 | Tu |  |
| 19 | W |  |
| 20 | ${ }_{\text {Th }}$ |  |
| $\stackrel{2}{2}$ | F |  |
| 22 | S |  |
| 23 | S | Sixth Sunday after Trinity. |
| 24 | M |  |
| 25 | Tu |  |
| 26 | W |  |
| 27 | Th | Finance Committee. $\quad$on August 17th. <br> Gingering Examination |
| 28 | $\stackrel{\mathrm{S}}{\mathrm{S}}$ | Finance Committee. <br> [ginefriva Examinations <br> Last day for receiving entries for Medical and En- |
| 30 | S | Seventh Sunday after Trinity. |
| 31 | M | S . |

## 

 1911.AUGUST XXXI.

| 1 | Tu |  |
| :---: | :---: | :---: |
| 2 | W | . . |
| 3 | Th |  |
| 4 | F |  |
| 5 | S |  |
| 6 | S | Eighth Sunday after Trinity. |
| 7 | M | Public Holiday. |
| 8 | Tu |  |
| 9 | W |  |
| 10 | Th |  |
| 11 | F |  |
| 12 | S |  |
| 13 | S | Ninth Sunday after Trinity. |
| 14 | M | Senate meets. |
| 15 | Tu |  |
| 16 | W |  |
| 17 | Th | Examinations in Medicine and Engineering. |
| 18 | F |  |
| 19 | S | Trinity Term ends. |
| 20 | S | Tenth Sunday after Trinity. |
| 21 | M |  |
| 22 | ${ }^{\prime} \mathrm{I}$ u |  |
| 23 | W |  |
| 24 | Th |  |
| 25 | F | Finance Committee. |
| 26 | S |  |
| 27 | S | Eleventh Sunday after I'rinity. |
| 28 | M |  |
| 29 | Tu | - . |
| 30 | W | $\because$ |
| 31 | Th |  |

## Suoney annbersity ©alendar

1911. 

SEPTEMBER XXX.

| 1 | F |  |
| :---: | :---: | :---: |
| 2 | S |  |
| 3 | S | Twelfth Sunday after Trinity. |
| 4 | M | Senate meets. |
| 5 | Tu |  |
| 6 | W |  |
| 7 | Th |  |
| 8 | F |  |
| 9 | S |  |
| 10 | S | Thirteenth Sunday after Trinity. |
| 11 | M |  |
| 12 | Tu |  |
| 13 | W |  |
| 14 | Th |  |
| 15 | F |  |
| 16 | S |  |
| 17 | S | Fourteenth Sunday after Trinity. |
| 18 | M |  |
| 19 | Tu |  |
| 20 | W |  |
| 21 | Th |  |
| 22 | F |  |
| 23 | S |  |
| 24 | S | Fifteenth Sunday after Trinity. |
| 25 | M | Michaelmas Term begins. |
| 26 | Tu |  |
| 27 | W |  |
| 28 | $\mathrm{Th}^{\text {Th }}$ |  |
| $29$ | $\stackrel{\text { F }}{\text { S }}$ |  |
| 30 | S | Latest date for receiving applications for Local Sentor [and Matriculation and Scholarsihip Ex[aminations on November 13th. |

## Syoney antuersity ©alendar

1911. 

OCTOBER XXXI.

| 1 | S | Sixteenth Sunday after Trinity. |
| :---: | :---: | :---: |
| 2 | M | Holiday. |
| 3 | 'tu |  |
| 4 | W |  |
| 5 | Th |  |
| 6 | F |  |
| 7 | S |  |
| 8 | S | Seventeenth Sunday after Trinity. |
| 9 | M | Senate meets. |
| 10 | Tu |  |
| 11 | W |  |
| 12 | Th |  |
| 13 | F |  |
| 14 | S |  |
| 15 | S | Eighteenth Sunday after Trinity. |
| 16 | M | Board of Studies in Engineering. |
| 17 | 'I'u |  |
| 18 | W | Faculty of Arts. |
| 19 | ${ }_{\text {F }}{ }^{\text {Th }}$ | [nations on Norember 13th. |
| 20 | F | [uation, and Matriculation and Scholarship Exami- Latest date for receiving entries for the Senior Public Exami- |
| 22 | S | Nincteenth Sunday after Trinity. |
| 23 | M | Faculty of Science. |
| 24 | Tu |  |
| 25 | W |  |
| 26 | Th | [on November 13 th. |
| 27 | F | Finance Committee. [nation for Articled Clerks |
| 28 | S | Latest day for entries for the Preliminary Exami- |
| 29 | S | Twentieth Sunday after Trinity. |
| 30 | M | Professorial Board. |
| 31 | Tu | Latest date for recemng entries for the Anndal Unitebsity [Examinations in December. |

## Syoney dubersity ©alendar <br> 1911. <br> NOVEMBER XXX.



## Sponen anubrsity Calendar

 1911.DECEMBER XXXI.

| 1 | F |  |
| :---: | :---: | :---: |
| 2 | S | Lectures cease. |
| 3 | S | Advent Sunday. |
| 4 | M | Senate meets. Anvual Examinations begin. |
| 5 | ${ }^{\text {I'u }}$ |  |
| 6 | W |  |
| 7 | I'h |  |
| 8 | T | . |
| 9 | S |  |
| 10 | S | Second Sunday in Advent. |
| 11 | M |  |
| 12 | Tu |  |
| 13 | W |  |
| 14 | Th |  |
| 15 | F |  |
| 16 | S | Mrofaelmas Term ends. |
| 17 | S | Third Sunday in Advent. |
| 18 | M |  |
| 19 | ${ }^{\text {T }}$ |  |
| 20 | W |  |
| 21 | Th |  |
| 22 | F | Finance Committee. |
| 23 | S | - |
| 24 | S | Fourth Sunday in Advent. |
| 25 | M | Christmas Day. |
| 26 | Tu |  |
| 27 | W |  |
| 28 | Th |  |
| 29 | F |  |
| 30 | S |  |
| 31 | S | First Sunday after Christmas. |

## Syomed anibersity Calendar <br> 1912.

JANUARY XXXI.

| 1 | M | Federation of Australia, 1901. |
| :---: | :---: | :---: |
| 2 | Tu |  |
| 3 | W |  |
| - 4 | 'Th |  |
| 5 | F |  |
| 6 | S | Epiphany. |
| 7 | S | First Sunday after Epiphany. |
| 8 | M |  |
| 9 | ${ }^{T} \mathbf{T}$ |  |
| 10 | W |  |
| 11 | Th |  |
| 12 | F |  |
| 13 | S |  |
| 14 | S | Second Sunday after Epiphany. |
| 15 | M |  |
| 16 | Tu |  |
| 17 | W |  |
| 18 | Th |  |
| 19 | F |  |
| 20 | S |  |
| 21 | S | Third Sunday after Epiphany. |
| 22 | M |  |
| 23 | 'Iu | $\cdots$ |
| 24 | W | $\cdots$. |
| 25 | Th |  |
| 26 | F | Foundation of N.S.W., 1788. Finance Committee. |
| 27 | S |  |
| 28 | S | Fourtli Sunday after Epiphany. |
| 29 | ${ }_{\text {M }}$ |  |
| 30 | $\mathrm{Tu}^{\mathrm{W}}$ |  |

## Syomed anibersity dalendar

1912. 

FJBBRUARY XXIX.


## Syonen anibersity $\mathbb{C}$ alendar

 1912.MARCE XXXI.

| 1 | F |  |
| :---: | :---: | :---: |
| 2 | S |  |
| 3 | S | Second Sunday in Lent. |
| 4 | M | Senate meets. Lent Term begins. Uuiversity Examinations |
| 5 | Tu | [begin, viz., Matriculatron Examination, Diferred Annval |
| 6 | W | (Examinations, Annual Law Examinations, Honour Exami- |
| 7 | Th | nations in the Faculty of Arts, and Department of Enai- Evering. P. N. Rossel Scholarship Examination. Latest |
| 8 | F | date for receiving Competitive Prize Compositions, and |
| 9 | S | [Theses for the Degree of M.A. |
| 10 | S | Third Sunday in Lent. |
| 11 | M | Examinations for Higher Degrees begin. |
| 12 | Tu |  |
| 13 | W |  |
| 14 | Th |  |
| 15 | F | [Examination for Articled Clerks on April 1st. |
| 16 | S | Last day for receiving entries for the Preliminary |
| 17 | S | Fourth Sunday in Lent. |
| 18 | M | Lectures begin. |
| 19 | 'Tu |  |
| 20 | W | Board of Stuclies in Engineering. |
| 21 | Th |  |
| 22 | F |  |
| 23 | S |  |
| 24 | S | Fifth Sunday in Lent. |
| 25 | M | l'aculty of Science. |
| 26 | Tu |  |
| 27 | W | Faculty of Arts. |
| 28 | Th |  |
| 29 30 | $\stackrel{F}{\text { F }}$ | Finance Committee. |
| 30 31 | S | Palmı Sunday. |
|  |  |  |

## Sponey anduetsitg ©alendax 1912. <br> APRIJ, XXX.



## Syomed Gubersity Calendar

1912. 

MAY XXXI.


## Spame faibersity Calendar

1912. 

JUNE XXX.

| 1 | S |  |
| :---: | :---: | :---: |
| 2 | S | Trinity Sunday. |
| 3 | M | King's Birthday. |
| 4 | Tu | Junior Publio Examination begins. |
| 5 | W |  |
| 6 | Th |  |
| 7 | F |  |
| 8 | S |  |
| 9 | S | First Sunday after Trinity. |
| 10 | M | Senate meets. Trinity Term begins. |
| 11 | Tu |  |
| 12 | W |  |
| 13 | Th |  |
| 14 | F |  |
| 15 | S |  |
| 16 | S | Second Sunday after 'Trinity. |
| 17 | M | Board of Studies in Engineering. |
| 18 | Tu |  |
| 19 | W | Faculty of Arts. |
| 20 | Th |  |
| 21 | F |  |
| 22 | S |  |
| 23 | S | Third Sunday after Trinity. Prince of Wales |
| 24 | M | [Birthday. |
| 25 | Tu | Faculty of Science. |
| 26 | W |  |
| 28 | F | Finance Committee. |
| 29 | S |  |
| 30 | S | Fourth Sunday after Trinity. |

## Syoned ©nibersitg Calendar

1912. 

JULY XXXI.

| 1 | M | Senate meets. |
| :---: | :---: | :---: |
| 2 | Tu |  |
| 3 | W |  |
| 4 | Th |  |
| 5 | F |  |
| 6 | S |  |
| 7 | S | Fifth Sunday after Trinity. |
| 8 | M | Professorial Board. |
| 9 | Tu |  |
| 10 | W |  |
| 11 | Th |  |
| 12 | F |  |
| 13 | S |  |
| 14 | S | Sixth Sunday after Trinity. |
| 15 | M | Sixth Sunday aftor Trinity. |
| 16 | Tu |  |
| 17 | W |  |
| 18 | Th |  |
| 19 | F | . |
| 20 | S |  |
| 21 | S | Seventh Sunday after Trinity. |
| 22 | M |  |
| 23 | Tu |  |
| 24 | W |  |
| 25 | Th | Tin Lon August 15th. |
| 26 | F | Finance Committee. [ainerrnga Examinations |
| 27 | S | Last day for receiving entries for Medicali and En- |
| 28 29 | S $\mathbf{M}$ | Eighth Sunday after Trinity. |
| 30 | Tu |  |
| 31 | W |  |

## Syomey ©abersity Calendar

 1912.AUGUS' XXXI.


## Syoney anibersity $\mathbb{C a l e m} \mathfrak{a r}$

1912. 

SEPTEMBER XXX.


## Suoney faibersitg Talemon

1912. 

OCTOBER XXXI.

| 1 | ${ }^{\mathrm{T}} \mathbf{}$ |  |
| :---: | :---: | :---: |
| 2 | W | . |
| 3 | Th |  |
| 4 | F |  |
| 5 | S |  |
| 6 | S | Eighteenth Sunday after Trinity. |
| 7 | M | Public Holiday. |
| 8 | Tu |  |
| 9 | W |  |
| 10 | Th |  |
| 11 | F |  |
| 12 | S |  |
| 13 | S | Nineteeath Sunday after Trinity. |
| 14 | M | Senate meets. |
| 15 | Tu |  |
| 16 | W |  |
| 17 | Th | [nations on November 11th. |
| 18 | F | [nation, and Matriculation and Scholarship Exami- |
| 19 | S | Latest date for receiving entries for the Senior Public Exami- |
| 20 | S | Twentieth Sunday after Trinity. |
| 21 | M | Board of Studies in Engineering. |
| 22 | Tu |  |
| 23 | W | Faculty of Arts. |
| 24 | Th | CClerks on November 11th. |
| 25 | F | Finance Committee. Examination for Articled. |
| 26 | S | Last day for receiving entries for the Preliminary. |
| 27 | S | Twenty-first Sunday after Trinity. |
| 28 | M | Faculty of Science. |
| 29 | Tu |  |
| 30 | W |  |
| 31 | Th | Latent date for receiving entries for the Annoal University [Examinations in December. |

## Syonen anibersity $\mathbb{C}$ alendar

 1912.NOVEMBFR XXX.


## Spomey anibersity Calemoar

 1912.DECEMBER XXXI.

| 1 | S | First Sunday in Advent. |
| :---: | :---: | :---: |
| 2 | M | Senate meets. Avnual Examinations begin. |
| 3 | 'lu |  |
| 4 | W |  |
| 5 | Th | . . |
| 6 | F |  |
| 7 | S |  |
| 8 | S | Second Sunday in Advent. |
| 9 | M |  |
| 10 | Tu |  |
| 11 | W |  |
| 12 | Th |  |
| 13 | F |  |
| 14 | S | Michaelmas Term ends. |
| 15 | S | Third Sunday in Advent. |
| 16 | M |  |
| 17 | Tu | . |
| 18 | W |  |
| 19 | Th |  |
| 20 | F |  |
| 21 | S |  |
| 22 | S | Fourth Sunday in Advent. |
| 23 | M |  |
| 24 | Tu |  |
| 25 | W | Christmas Day. |
| 26 | Th |  |
| 27 | F | Finance Committee. |
| 28 | S |  |
| 29 | S | First Sunday after Christmas. |
| 30 | M |  |
| 31 | 'I'u |  |

## ROYAL CHARTER

OF THE

## UNIVERSITY OF SYDNEY.

February 27th, 1858.

Gictorin, by the Grace of God, of the United Kingdom Recites Act of Great Britain and Ireland, Queen, Defender of the poration. Faith, to all to whom these presents shall come Greeting: Whereas under and by virtue of the provisions of an Act of the Governor and Legislative Council of our Colony of New South Wales, passed in the fourteenth year of our reign, No. 31, intituled "An Act to Incorporate and Endow the University of Sydney," and to which our Royal Assent was granted on the 9th day of December, One Thousand Eight Hundred and Fifty-one, a Senate, consisting of Sixteen Fellows, was incorporated and made a body politic with perpetual succession, under the name of the University of Sydney, with power to grant, after Examination, the several degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, and Doctor of Medicine, and to examine for Medical Degrees in the four Branches of Medicine, Surgery, Midwifery, and Pharmacy. And whereas our trusty and well-beloved Sir William Thomas Denison, Knight Commander of our most honourable Order of the Bath, Lieutenant-Colonel in the Royal Engineers, our Captain-General and Governor-in-Chief

Petition of Senate.
in and over our said Colony, has transmitted to us the humble Petition of the Senate of the said University of Sydney under their common seal, dated the 9 th of February One Thousand Eight Hundred and Fifty-seven, wherein is set forth a statement of the establishment of the said University, the appointment of learned Professors of the Faculty of Arts, and the provisions adopted and to be adopted in respect of the faculties of Lams and Medicine, and the course of Education and discipline for

Soliciting recngnition of Degrees conferred by the University. the Scholars, Undergraduates, and Graduates of the said University, and in which it is humbly submitted that the standard of acquirements which must be attained by Graduates in the University of Sydney is not below that prescribed by the most learved Universities of the United Kingdom, and the direction of the studies in the said University has been committed to Professors who have highly distinguished themselves in British Universities, that the rules under which the high standard in the University has been fixed cannot be altered without the approval of our representative in the Colony, and that there is invested in him the power of interfereuce should the rules laid down be unduly relaxed in practice, and that, therefore, the Memorialists confidently hope that the Graduates of the University of Sydney will not be inferior in scholastic requirements to the majority of Graduates of British Universities, and that it is desirable to have the degrees of the University of Sydney generally recognised throughout our dominions; and it is also humbly submitted that although our Royal Assent to the Act of Legislature of New South Wales hereinbefore recited fully satisfies the principle of our law that the power of granting degrees should flow from the Crown, yet cthat as that assent was conveyed through an Act which has effect only in the territory of New South Wales, the Memorialists believe that the degrees granted by the said University under the authority of the said Act, are not legally entitled to recognition beyond the limits" of New South Wales; and the Memorialists are in consequence most desirous to obtain a grant from us of Letters Patent requiring all our subjects to recognise the degrees given under the Act of the Local Legislature in the same manner as if the said University of Sydney had been an

University established within the United Kingdom under a Royal Charter or an Imperial enactment; and the Memorialists therefore hereby most humbly pray that we will be pleased to take the premises into our gracious consideration and grant to the University of Sydney Letters Patent effective of the object therein set forth. Now know ye that we, taking the premises into consideration, and deeming it to be the duty of our Royal office, for the advancement of religion and morality and the promotion of useful knowledge, to hold forth to all classes and denominations of our faithful subjects, without any distinction whatsoever, throughout our dominions encouragement for pursuing a regular and liberal course of education, and considering that many persons do prosecute and complete their studies in the Colony of New South Wales, on whom it is just to confer such distinctions and rewards as may induce them to persevere in their laudable pursuits; do, by virtue of our Prerogative Royal and our especial Grace and certain knowledge and mere motion, by these presents of us, our heirs and successors, will, grant, and declare that the Degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, and Doctor of recognition Medicine, already granted or conferred or hereafter to be granted or conferred by the Senate of the said University of Sydney shall be recognised as Academic distinctions and rewards of merit, and be entitled to rank, preceldence, and consideration in our United Kingdom and in our Colonies and possessious throughout the world as futly as if the said Degree had been granted by any Uuiversity of our said United Kingdom. And we further will and ordain that any variation of the Constitution of the said University which may at any time or from time to time be made by an Act of the said Governor and Legislature shall not, so long as the same or a like standard of knowledge is in the opinion of the said Governor preserved as a necessary condition for obtaining the aforesaid degrees therein, in any manner annul, abrogate, circumscribe, or diminish the privileges conferred on the said University by these our Royal Letters Patent, nor the ranks, rights, privileges, and consideration conferred by such degrees. And, lastly, we do hereby for us, our
heirs, and successors, grant and declare that these our Letters Patent or the enrolment or exemplification thereof shall be in and by all things valid and effectual in law according to the true intent and meaning of the same, and shall be construed and adjudged in the most favourable and beneficial sense to the best advantage of the said University, as well in all our courts as elsewhere, notwithstanding any non-recital, uncertainty, or imperfection in these our Letters Patent. In witness whereof we have caused these our Letters to be made Patent.

Witness ourself at Westminster, the Twenty-seventh day of February, in the Twenty-first year of our Reign.

By warrant under the Queen's sign manual.
C. ROMILLY.

## THE UNIVERSITY

AND

## UNIVERSITY COLLEGES ACT,

$$
1900 .
$$

An Act to consolidate the Acts relating to the University of Sydney and Colleges within the University of Sydney.
[Assented to 22nd September, 1900.]
Whereas it is expedient for the better advancement of religion and morality and the promotion of useful knowledge, to hold forth to all classes and denominations of Her Majesty's subjects resident in New South Wales, without any distinction whatsoever, an encouragement for pursuing a regular aud liberal course of education; and to ascertain by means of examination the persons who acquire proficiency in literature, science, and art, and to reward them by academical degrees as evidence of their respective attainments and by marks of honour proportioned thereto; and to encourage and assist the establishment of colleges within the University of Sydney, in which colleges systematic religious instruction and domestic supervision, with efficient assistance in preparing for the University lectures and examinations, shall be provided for students of the University: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Legislative. Council and Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows :-

Part I.
Preliminary.

1. This Act may be cited as the "University and University Colleges Act, 1900," and is divided into Parts and Divisions, as follows :-

Part I.--Preliminary.-ss. 1-5.
Part II.-Theorporation and constitution of the University and provisions relating to the Senate.-ss. 6-18.
Part III.-Evaminations and degrees.-ss. 19-23.
Part IV.-Endowment and finance.-ss. 24-29.
Part V.—Students, licensed masters, and privileged officers.-8s. 30-32.
Part VI.-Colleges within the University-
Division 1.-Interpretation.-s. 33.
Division 2.-Endoument and subscribed fund--
(i.) Conditions of endowment.-ss. 34, 35.
(ii.) Endowment for building.-s. 36.
(iii.) Endowment for principal.-ss. 37-39.
(iv.) Interest on subscribed fund.-s. 40.

Division 3.-Government of students.-8. 41.

Repeal
Schedule.

Officers under Acts hereby repeuled.

Regulations or by-laws under Acts hereby repealed.

Interpretation.
2. (1) The Acts mentioned in the Schedule to this Act are, to the extent therein expressed, hereby repealed.
(2) All persons elected or appointed under the Acts hereby repealed, and holding office at the time of the passing of this Act, shall continue in office as if this Act had been in force at the time they were appointed, and they had been appointed hereunder.
(3) All regulations or by-laws made under the authority of any Act hereby repealed, and being in force at the time of the passing of this Act, shall be deemed to have been made under the authority of this Act, and references in such regulations to the provisions of any Act hereby repealed shall be deemed to be references to the corresponding provisions of this Act.
3. In this Act, unless the context or subject-matter otherwise indicates or requires, -
"Bachelor" means any persou upon whom the degree of Bachelor has been conferred by the University.
"Doctor" means any person upon whom the degree of Doctor has been conferred by the University.
"Fellow" means a member of the Senate.
"Master" means any person upon whom the degree of Master has been conferred by the University.
"University" means the University of Sydney.
4. Nothing in this Act shall be deemed to affect or Act not to interfere with any right, title, or interest of Her with rights Majesty, Her Heirs and Successors, or in any way to $\begin{gathered}\text { Mrjesty }\end{gathered}$ limit the Royal Prerogative.
3. The benefits and advantages of the University. Women to and the provisions of this and any other Act relating beadmitted thereto shall be deemed to extend in all respects to sity priviwomen equally with men.
leges.
47 Vic. No.
17, s. 3.

> Part II.

Incorporation and constitution of the University and provisions relating to the Senaite.
6. The University of Sydney is the body politic and The Univercorporate incorporated by that name under the Act ${ }_{14}^{\text {sity vic. }}$, No fourteenth Victoria number thirty-one, and shall, by ${ }^{31, \text { s. } 1 .}$ that name, have a perpetual succession and a common seal and power to sue and be sued, and to take, purchase, and hold all real and personal property whatsoever, whether the same is situate in New South Wales or elsewhere, and to grant, demise, alien, or otherwise dispose of the same, and also to do all other matters and things incidental or appertaining to a body politic.

Provided that the University shall not, uuless with Proviso. the approval of the Governor, alienate, mortgage, charge, or demise any of its lands, except by way of lease for any term not exceeding thirty-one years from the making thereof, by which lease there shall be reserved and made payable during the whole of the term the best yearly rent that can reasonably be obtained without any fine or foregift.

University to consist of a Senate. Ibid. s. 4. 24 Vic. No. 13, в 2.

Elections of Fellows. Ibid. is. 4. 44 Vic. No. 22, s. 3 .

Vacuncies.
24 Vic. No. 13, s. 4.
7. The said body politic and corporate shall consist of a Senate which shall be constituted by-
(a) sixteen elective fellows, who shall be elected as hereinafter provided, and of whom at least twelve shall be laymen; and
(b) not fewer than three nor more than six ex officio Fellows, who shall be Professors of the said University in such branches of learning as the Senate shall from time to time by any by-law select.
8. Every vacancy occurring by death, resignation, or otherwise among the elective Fellows shall be filled up as it occurs by the election, at a meeting duly convened for the purpose, of such other fit and proper person as may be elected to fill such vacancy by the majority of the following persons present at such meetings, that is to say, -
(a) Fellows;
(b) Officials declared by this Act to have the same rights and privileges within the University as Masters and Doctors;
(c) Graduates keeping their names in accordance with any by-law in that behalf on the register of the University who have taken within the University the degree of Master or of Doctor ;
(d) Bachelors and all other persons who obtain any certificate which the Senate by by-law declares to be equivalent to the degree of Bachelor, if such Bachelors or other persons are of three years standing in the University, after obtaining such degree or certificate, and are of the age of twenty-one years.
9. Unless by death or resignation no vacancy among the elective Fellows shall occur for any cause not previously specified in some by-law of the University.

[^0](2) Whenever a vacancy occurs in the said office by Varancies in death, resignation, or otherwise, the Senate shall, in Chancellor. like manner, elect out of their own body, a person to fill that office.
11. (1) The Senate shall annually, on a day of which due notice has been given, elect out of their own body a Vice-Chancellor of the University, who shall hold office for one year.

Vice-Chan-
(2) Whenever a vacancy occurs in the said office by 14 Vie. No. death, resignation, or otherwise before the expiration of $\begin{aligned} & \text { ottice of } \\ & \text { vichan- }\end{aligned}$ the year of office, the Senate shall, as soon as con- cellor. veniently may be, hold a meeting of which due notice has been given, and at such meeting elect out of their own body some other person to be Vice-Chancellor for the remainder of the year.
(3) Any Fice-Chancellor shall be capable of re- vice-Chanelection as often as is deemed meet.
cellor eligible for 12. (1) At every meeting of the Senate the Chancellor $\begin{gathered}\text { reelection. } C h i r m a n . ~\end{gathered}$ or, in his absence, the Vice-Chancellor shall preside as ${ }_{31}$, vic. 10. No chairman, but if the Chancellor and Vice-Chancellor are 24 Vic. No. both absent, the Fellows present shall elect a chairman.
13. (1) All questions which come before the Senate Questions shall be decided at any meeting duly convened, at which how decided. a quorum is present, by a majority of the votes of the 31, s. 9. Fellows present.
(2) The chairman at any such meeting shall have Chairman. a vote, and in case of an equality of votes a second or casting vote
(3) At any such meeting-
(a) five Fellows of whom the Chancellor or ViceChancellor shall be one; or
(b) in the absence of both the Chancellor and Vice-Chancellor, eight Fellows
shall form a quorum.
14. (1) The Senate shall have full power to appoint appointand and dismiss all professors, tutors, officers, and servants dismiss of the University.

Quorum.
ilid.
16 Vic. No. 2s, s. 1 .
 31, s. 6 . 13, Vic. No. 13, s. 5.

Bý-laws.
Ibid. ss. 8 , 15,"21.
44 Vic. No. 22, 8. 2 .

Approval of Governor.

To be laid before the Legislative Council end Legislative Assembly.

Evidence.

University to report their proceedings to the Governor. 14 Vic . No. 31, s. 22. Copy of
eport to be
laid before Legislative Council or Legislative Assembly.
property of the University, and in all cases unprovided for by this Act the Senate may act in such manner as appears to them to be best calculated to promote the purposes of the University.
15. (1) The Senate may make by-laws and regulations relating to-
(a) the discipline of the University; and
(b) examinations for and the granting of scholarships, exhibitions, degrees, certificates or honours ; and
(c) the conferring of ad eundem degrees;
(d) the mode and time of convening meetings of the Senate; and
(e) all other matters whatsoever regarding the University;
Provided that no such by-law or regulation shall be repugnant to any existing law or to the general objects and provisions of this Act.
reduced to witing and be and approval of the Governor, and when approved shall be countersigned by hin, and when so countersigned and sealed with the seal of the University shall be of full force and effect.
(3) The Colonial Secretary shall lay every such by-law and regulation before the Legislative Council and Legislative Assewbly during the session of Parliament in which it becomes in force or within six weeks after the beginning of the next ensuing session.
(4) Any such by-law or regulation may be proved in any Court by the production of a verified copy under the seal of the University.
16. (1) The Tniversity shall once at least in every year, and also whenever the pleasure of the Governor may be signified in that behalf, report their proceedings to the Governor.
(2) A copy of such report shall be laid before the Legislative Council and Legislative Assembly within six weeks after it is made if Parliament is then in session; or, if not, then within six weeks after the beginning of the next ensuing session.
17. The Governor of New. South Wales shall be the Visitor. visitor of the University, with authority to do all things that pertain to visitors as often as he deems meet.
18. No religious test shall be administered to any Religious person in order to entitle him to be admitted as a tests. student of the University, or to hold any office therein, or to partake of any advantage or privilege thereof.

Provided that this enactment shall not be deemed to prevent the making of regulations for securing the due attendance of the students for divine worship at such church or chapel as their parents or guardians may approve. .

> Pakt III.

Eथaminations and degrees.
19. (1) The Senate may give such instruction as it Degrees. thinks fit, and may, after examination, confer the several 14 Vic. No. degrees of Bachelor, Master, and Doctor, and such other ${ }^{47}$ Vic. No. degrees and such certificates in the nature of degrees as it thinks fit in all branches of knowledge, except theology and divinity.

Provided that no student in the University shall be compelled to attend lectures upon or pass examinations in ary of the following subjects, namely:-Ethics, metaphysics, and modern history.
(2) All persons who obtain any certificate or quali- status of fication which the Senate by by-law declares to be of holders of equivalent rank to the degree of Bachelor shall have Ibid. s. 2. the same rights and privileges within the University as Bachelors.
20. (1) At the conclusion of every examination of Examiners candidates the examiners shall declare the name of to declare every candidate whom they deem entitled to any degree, examinaand also-
(a) the departments of knowledge in which his proficiency has been evinced; and
(b) his proficiency in relation to that of other candidates.

Certifcates. (2) The Chancellor shall give every such candidate a certificate under the seal of the University and signed by such Chancellor, in which the particulars so declared shall be stated.

Ad eundem 44 Vic No. 22, s. 1.

## Rights of holders.

21. (1) When any person has obtained in any University, recognised by the by-laws of the University in force for the time being, any degree corresponding or equivalent to any degree which the Senate is now or may hereafter be empowered to confer after examination, the Senate may confer such latter degree upon such persons without examination.
(2) The persons upon whom degrees are conferred, under the provisions of the preceding subsection, shall be entitled to the same rights and privileges as appertain to those who have taken the same degrees in the ordinary course in the University.
22. (1) The Senate may authorise any college or educational establishment, whether incorporated or not, instituted for the promotion of literature, science, or art, to issue to candidates for the degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, and Doctor of Laws certificates to the effert that the candidate for any such degree has completed such course of instruction therefor as the Senate by regulation prescribes.
(2) Any person who presents to the Senate any

Upon which degrees may begranted.

Report on medical establishments by Senate ${ }_{14}$ Vic. No. 31, s. 12.

## Candidates

from such establishments may be admitted to degrees. such certificate may be admitted as a candidate for the degree to which it has reference.
23. (1) For the purpose of granting the degrees of Bachelor of Medicine and Doctor of Medicine, and for the improvement of medical education in all its branches, as well in medicine as in surgery, midwifery, and pharmacy, the Senate may report to the Governor the medical institutions and schools, whether incorporated or not, in the city of Sydney, from which, either singly or jointly with other medical institutions and schools in New South Wales or in foreign parts, it appears to the Senate fit and expedient to admit candidates for medical degrees.
(2) On approval of such report by the Governor, the Senate shall admit as a candidate for the degree of Bachelor of Medicine or Doctor of Medicine any person
who presents to the Senate a certificate from any such institution or school to the effect that such person has completed the course of instruction therefor which the Senate by regulation prescribes.

Part IV.

## Endowment and finance.

24. (1) By way of permanent endowment for the Permanent University the Governor is hereby empowered by war- Ibdid. $\mathrm{B}, \mathrm{s}$. rant, under his hand, to direct to be issued and paid out of the Consolidated Revenue Fund the sum of five thousand pounds in every year as a fund for building, and for defraying the several stipends appointed to be paid to the several professors or teachers of literature, science, and art, and to such necessary officers and servants as are from time to time appointed by the Senate, and for defraying the expense of such prizes, scholarships, and exhibitions as are awarded for the encouragement of students in the University, and for providing gradually a library for the same, and for discharging all incidental and necessary charges connected with the current expenditure thereof.

Provided that the Senate may apply any portion of Proviso. the said endowment fund to the establishment and ${ }^{\text {Ibid.s. } 11 .}$ maintenance of a college in connection with and under the provisions of the University.
(2) The said sum shall be paid in four equal To bo paid quarterly instalments, on the first day of January, the instalmente. tirst day of April, the first day of July, and the first day of October, in every year.
25. The Senate may charge such reasonable fees for Fees for the respective degrees conferred as they with the appro- dearees. No. bation of the Governor direct. Such fees shall be carried ${ }^{31, \text { s. } 13 .}$ to one general fee fund for the payment of the expenses of the University.
26. The Senate may by any by-laws or regulations Fees to Proprovide for payment by the students of the University feasorsand of reasonable fees to the professors or teachers for Ibid. a.
attendance on their lectures. Such professors or teachers may, in addition to their stipends, demand and receive such fees from the students.
Fees for en-
trance, $8 c$. 27 . The Senate may in like manner provide for payItaid. s. 17 ment by such students of reasonable fees for entrance, degrees, certificates, and other University charges. The Treasurer of the University shall, on behalf of the University, collect such fees from the students.

Powers of the Senate in respect of Levey's legacy. 17 Vic. No.
28. The securities representing the investments of the sum of money bequeathed by the late Solomon Levey, Esquire, to the Sydney College, with the interest thereon, shall be held by the Senate upon trust to continue to hold the same, or to alter them from time to time in favour of other investments at interest upon such security and in such manner in all respects as the Senate in their absolute discretion think fit, and the clear or net interest or income arising therefrom shall be applied in or towards the endowment of a scholarship. in the University under such regulations as the Senate, in their absolute and uncontrolled discretion in respect of making and altering the same, deem to be as nearly as circumstances permit in accordance with the intention. of the said Solomon Levey in making the aforesaid bequest.
Accounts of
annual 29. The Senate shall once in every year transmit a annual and full account of the whole income and expenditure of the ${ }_{\text {expenditure }}^{\text {to be laid }}$ University to the Colonial Secretary, who shall submit. before the the same to the Legislative Council and Legislative ${ }_{\text {Lougislative }}$ Council and Assembly to be subjected to such examination and audit. Assembly. as such Council and Assembly may direct.
14 Vic. No.
31, s. 13.
$\mathrm{P}_{\mathrm{Arr}} \mathrm{V}$.
Students, licensed masters, and privileged officials.

Residence of 30 . No student shall be allowed to attend the lectures students.
Ibid. s. 18. . or classes of the University unless he dwells-
(a) with his parents or guardian ; or
(b) with some relative or friend selected by his parents or guardian and approved by the Chancellor or Vice-Chancellor ; or
(c) in some collegiate or other educational establishment ; or
(d) with a tutor or master of a boarding-house licensed by the Chancellor or Vice-Chancellor as hereinafter mentioned.
31. (1) Every person desirous of being licensed as a Licensing tutor or master of a boarding-house in connection with $\begin{gathered}\text { persons with } \\ \text { whom }\end{gathered}$ the University shall apply for his license to the Chan- students cellor or Vice-Chancellor in writing under his hand may reside. specifying the house or houses belonging to or occupied ${ }^{31,}$ s. 19. by the applicant and intended by him for the reception of students, and the number of students who may .be conveniently lodged and boarded therein.
(2) Such Chancellor or Vice-Chancellor may require powers of of any such applicant testimonials of character and or or vicellor fitness for the office, and thereupon may grant or with- Chancellor. hold the license for the academical year then current or then next ensuing.
(3) Every such license shall be registered in the License archives of the University and shall lapse at the end of to be the academical year in which it was registered, but may be renewed by the Chaucellor or Vice-Chancellor and re-registered.
(4) Every such license shall be revocable at any Revocation time, and the Chancellor or Vice-Chancellor may forth- of license. with revoke the same in case of any misbehaviour of such tutor or master of a boarding-house or of the students under his care which, in the opiniou of the Chancellor or Vice-Chancellor and a majority of the professors of the University, ought to be punished by immediate revocation of such license.
32. Each and every of the following officials, that is Members to say-
(a) every professor and other public teacher and University. 24 Vic. No. examiner in the schools of the University; and
(b) every principal of any incorporated college within the University; and
(c) every superior officer of the University declared to be such by any by-law
shall, during his tenure of office, but no longer, have the same rights and privileges within the University as are enjoyed by Masters and Doctors.

Part VI.
Colleges within the University.
Division 1.-Interpretation.

Interpretation. 18 Vic. No. 37, s. 10.
33. In this part of this Act, unless the context or subject-matter otherwise indicates or requires, -
"College" means a college within the University.
"Principal" includes the master, warden, rector, or any other head of a college.

Division 2.-Endowment and subscribed fund.
(i) Conditions of endowment.

Endowment of Colleges. 18 Vic. No. 37, s. 1 .
34. Whenever-
(a) any college has been established and incorporated by any Act; and
(b) the founders of or subscribers to such college have complied with the conditions mentioned in the next section,
such college shall be entitled to the endowments hereinafter severally mentioned, which said endowments shall be paid by the Treasurer under warrants signed by the Governor.
35. No such college although incorporated shall be entitled to such endowments unless and until the sum of ten thousand pounds at the least has been subscribed by its founders, and of that sum not less than four thousand pounds has been paid and invested in such manner as the Governor approves, and the residue has been to his satisfaction secured to be paid within three years next following; nor unless
(a) the whole of the said ten thousand pounds is to be devoted exclusively to the erection of college buildings on land granted for that purpose by Her Majesty to the University in trust for such
college, if any is so granted, and if not then upon land otherwise conveyed to and accepted by the University in such trust; and
(b) it has been agreed by the founders that the entire amount shall be so expended, if the University so requires, within five years next after the first payment on account of either of such endowments.
(ii) Endowment for building.
36. Thereshall be paid out of the Consolidated Revenue, in aid of the building fund of every college so incorporated,

Endowment a sum-or sums not exceeding in the whole twenty thousand pounds, nor more than has been from time to time actually expended by the college out of its subscribed funds for the purpose of building.

## (iii) Endowment for principal.

37. There shall be paid out of the said Consolidated Endowment Revenue annually, to such incorporated college in per- for principetuity, a sum of five hundred pounds for the use of and Ibid.s.4. as a salary to the principal of such college or in aid of such salary.
38. Every such principal shall be entitled to the annual Conditions salary hereby provided for on the production of his own as to such certificate at the time of each payment that he has ibtd.s.5. during the period to which it relates performed the duties of his office.

Provided that he shall transmit to the Colonial Secretary once in each year a certificate to the like effect under the hands of such persons as are for that purpose appointed by the constitution or rules of the particular college.
39. Where any person selected to be the principal of Provision any such college is out of New South Wales at the time of his appointment no such certificate shall be required untl after he has actually eutered on his duties, but he shall be entitled to the salary, and the college to which he has been appointed may receive the same accordingly for his use from the day of his emberkation for New South Wales.

Provided that every principal shall actually enter on his duties within six months after such embarkation unless the Governor, upon being satisfied that unavoidable obstacles have intervened, thinks fit to extend that term to nine months.
(iv) Interest on subscribed fund.

Accruing proceeds of subscribed fund until expended in building. Ibid. s. \%.
40. Until the subscribed fund is required for the erection of college buildings as aforesaid, the interest or other proceeds accruing from the investment thereof, or of the portion remaining unexpended from time to time, may be applied to the general purposes of the college as the goveruing body of such college may determine.

Division 3.-Goverament of students.

Students of Colleges to 3e members of Univer:sity and attend lectures. Ibid. s. $\overline{8}$.
41. All students in any such college shall immediately upon entering therein matriculate in the University, and shall thereafter suhmit and be subject to the discipline thereof, and shall be required duly and regularly to attend the lectures of the University on those subjects an examination and proficiency in which are required for honours and degrees, with the exception, if thought fit by any such college, of lectures on ethics, metaphysics and modern history.

SCHEDULE.

| Reference to Act. | Title or Short Title. | Exteut of repeal. |
| :---: | :---: | :---: |
| 14 Vic. No. 31. | An Act to incorporate and endow the University of Sydney. | The whole. |
| 16 Vic. No. 28. | An Act to amend an Act intituled an Act to incorporate and endow the University of Sydney. | The whole. |
| 17 Vic. No. 18. | An Act to enable the University of Syduey to purchase the Sydney College with the land attached thereto. | The whole. |
| 18 Vic. No. 37. | An Act to provide for the establishment and endowment of colleges within the University of Sydney. | The whole. |
| 22 Vic. No. 8. | Ar: Act to amend an Act intituled an Act to provide for the establishment and endowment of colleges within the University of Sydney. | The whole. |
| 24 Vic. No. 13.. | An Act to amend the Sydney University Incorporation Act. | The whole. |
| 44 Vic. No. 22. | $\because$ Ad eundem Degrees Act of 1881." | The whole. |
| 47 Vic. No. 17. | "University Extension Act of 1884." | The whole. |

# THE UNIVERSITY AND UNIVERSITY COLLEGES (AMENDMENT) ACT, 1902. 

[Assented to 4th December, 1902.]


#### Abstract

An Act to amend the University and University Colleges Act 1902.


Be it enacted by the King's Most Excellent Majesty, by and with the advice and consent of the Legislative Assembly of New South Wales in Parliament assembled, and by the authority of the same, as follows:-

Short title.

1. This Act may be cited as the "University and University Colleges (Amendment) Act, 1902," and shall be construed with the University and University Colleges Act, 1900, hereinafter called the Principal Act.
Increase of endowment from $£ 5000$ to $£ 10,000$. Principal Act is amended by the substitution of the word "ten" in place of the word "five" where it occurs in that subsection.
students of 3. The Senate shall allow students of training training schools and others to attend lectures on arts or science free.
2. Subsection one of section twenty-four of the schools established under the Public Instruction Act of 1880 and such other persons training for the position of teacher under the Department of Public Instruction as the Minister may approve to attend, for the purpose of graduating in Arts or Science, the University lectures for the period required for such graduation, without the payment of any fees, provided that such students and other persons shall previously have passed the entrance examination prescribed by the University by-laws.

## BY-LAWS OF THE UNIVERSITY.


#### Abstract

All By-laws heretofore passed by the Senate and now in force are hereby repealed, and in liew thereof the following By-laws shall be and are hereby declared to be the By-laws under which the University of Sydney shall henceforth be governed. Provided always, that nothing herein contained shall be deemed to revive any By-law previously repealed, or to prejudice any matter already done or commenced under any By-law hitherto in force.


Chapter I. -THE chancellor and vice-chancellor.
1.-The election to the office of Chancellor shall take place 5-i-87 at a duly convened meeting of the Senate to be held in Lent Term.
2.-The Chancellor shall be elected for a period of three 5-7-87 years (except as hereinafter provided), to be computed from the date of election, but shall be eligible for re-election.
3.-In the event of the office of Chancellor becoming vacant ${ }^{5-7-87}$ by death, resignation, or otherwise, before the expiration of the full term of office herein prescribed, the election of a successor shall be proceeded with at the next ensuing regular meeting of the Senate, and the Chancellor so appointed shall hold office until the Lent Term next after the expiration of three years from the date of such election.
4.-The election of Vice-Chancellor shall take place annually 5-7-87 at a duly convened meeting of the Senate, to be held in Lent 64. Term, except as in cases otherwise provided by the Act of s. 11. Incorporation.
5.-The Chancellor and Vice-Chancellor shall be members 6-5-90 ex-officio of every Faculty, Board, or Committee appointed by any By-law or otherwise by the Senate; and at every meeting of any such Faculty, Board, or Committee, the Chancellor, or in his absence the Vice-Chancellor, or, in the absence of both, the Chairman shall preside, or in his absence a member elected for that sitting. The President at such meetings shall have a vote, and in case of an equality of votes, a second or casting vote.

Note.-The dates in the margin are the dates of the approval of the various By-laws by His Excellency the Governor in Council.

Chapterit.-SEnate.
MEPTINGS AND RUIES OF PROCFDURE.
7-11-93
1.- The Senate shall meet on the first Monday in every month, or on the nearest convenient day should such first Monday be a public holidry, and may adjourn from time to time to conclude any unfinished business.
5-7-87 2.-At any time in the interval between such meetings it shall be competent for the Chancellor, or in his absence the Vice-Chancellor, in any case of emergency, to call a special meeting of the Senate, to be held as soon as conveniently may be, for the consideration of any business which he may wish to submit to them.
5-7-87 3.-Upon the written requisition of any three members the Chancellor, or in his absence the Vice-Chancellor, or in the absence of both, the Registrar, shall convene a special meeting of the Senate, to be held as soon as conveniently may be after the expiration of seven days from the receipt of such requisition.
5-7-87 4.-Except in any case of emergency as aforesaid, no motion initiating a subject for discussion shall be made but in pursuance of notice given at the previous meeting, and every such notice shall be entered in a book to be kept by the Registrar for that purpose.
5-7-87 5.-The Registrar shall issue to each member of the Senate a summons with a written specification of the various matters to be considered at the next meeting of the Senate, whether such meeting be an ordinary or special one; and such summons, except in any case of emergency, as aforesaid, shall be issued at least three days previous to such meeting.
5-7-87 6.-In the event of a quorum* of the Senate not being present at any meeting within half an hour after the hour appointed, the members then present may appoint any couvenient future day, of which at least three days' notice shall be given by the Registrar in the usual manner.
5-7-87 7.-All the proceedings of the Senate shall be entered in a journal, and at the opening of each meeting the minutes of the preceding meeting shall be read and confirmed, and the signature of the chairman then presiding shall be attached thereto.
13-7-83 8.-If any Fellow shall, without leave from the Senate, be absent from the aforesaid meetings for six consecutive calendar months his fellowship shall, ipso facto, become vacant; provided that, in computing the said six consecutive months, the month of January shall not be taken into account.

[^1]blection to vacancers.
9.-At the first meeting of the Senate after the occurrence 5-7-s7 of a vacancy among the Fellows, a day shall be fixed for a Convocation for the election of a successor, șuch day to be within sixty days from the date of such Senate meeting, and to be announced at least thirty days before such Convocation, by notice posted at the University and by advertisement in one or more of the daily newspapers. Due notice shall also be given of the day on which a ballot shall be taken, should such be required. Provided that no Convocation shall be held in the month of January.
10.-No person shall be eligible for election to fill any vacancy $5-7-87$ amóng the Fellows unless his candidature shall have been communicated to the Registrar under the hands of two qualified* voters ten clear days at least before the intended Convocation, and seven clear days at least after the fixing of the day for such Convocation; and it shall be the duty of that officer to cause the name of such person and the fact of his candidature to be forthwith advertised in one or more of the daily uewspapers published in Sydney, and to be posted in a conspicuous place in the University for eight clear days at least before such Convocation.
11.-The Convocation for the election of a Fellow shall be 5-7-87 held in the University, $\dagger$ and shall be presided over in the same manner as if it were a meeting of the Senate. Every candidate submitted for election must be proposed and seconded by legally qualified voters. If one candidate only or one only for each vacancy be so proposed and seconded, then such candidate or candidates shall be declared by the President to be duly elected. But if more candidates are proposed and seconded than there are vacancies in the Seuate to be filled at such Convocation, a show of hands shall be taken; and unless a ballot be demanded by at least two members of Convocation then present, the President shall declare the candidate or candidates in whose favour there shall be the greatest show of hands to be duly elected. Should a ballot be demanded it shall be conducted in the following manner :-
(a) The voters then present shall choose two or more members of Convocation to act as scrutineers.

[^2](b) The ballot shall not be held earlier than one week from the day of nomination at Convocation, and shall be notified by notice posted in the University and by advertisement in one or more of the daily newspapers.
(c) The ballot shall commence at 10 a.m., and close at 2 p.m., on the day appointed.
(d) At the expiration of the time allotted for the ballot the scrutineers shall proceed to the examination of the voting papers, and shall report the result to the President, who shall then declare the candidate or candidates having the majority of votes to be duly elected to the vacant seat or seats in the Senate.
(e) In the event of an equality of votes, the election shall be decided by the casting vote of the President.
5-7-87 12.-Before the time fixed for the Convocation for the election of a Fellow, the Registrar shall prepare for the President's use a complete list of all persons entitled to vote under the provisions of the lan, and a copy of such list shall be posted in a conspicuous. place in the University for two days at least before the time of Convocation.
5-7-87 13. -None but legally qualified voters shall be allowed to be present during the taking of a ballot.

## EX-OFFICIO MEMBERS.

[University and University Colleges Act, 1900, Sec. 7 (b)]
27-9-10
14.--The Senate hereby makes and declares the following selections of brauches of learning, the Professors in which shall be ex-officio members of the Senate-that is to say, Modern Literature, Law, Physiology and Engineering such selections to take effect from the date of the Governor's assent hereto, and to endure until the thirtieth day of September, one thousand nine hundred and twelve, unless sooner revoked by the authority of ${ }^{-}$ the Senate, and with the approval of the Governor.

## Ghaptrer LU.-meetings of convocation other than for the ELECIION OF FELLOWS.

25-11-s7 1.-The Chancellor, or in his absence, the Vice-Chancellor, shall, in pursuance of a resolution of the Senate, or upon the receipt of a requisition signed by at least twenty members of ${ }^{-}$ Convocation, summon a meeting of Convocation to be holden at.
such time and place as he shall direct. And such meeting shall be held accordingly within twenty-eight days from the date of the requisition. And notice of such meeting shall be given by public advertisement not less than fourteen days before the day appointed for the meeting. Provided that every such requisition shall specify the subjects which it is proposed to bring before Convocation. And if, in the opinion of the summoning officer, the subjects so specified, or any of them, are such as ought not to be discussed in Convocation, he shall refer the matter to the Senate, which shall decide whether the meeting shall be held or not. Provided that no such meeting shall be held in the month of January.
2.-At all meetings so summoned the Chancellor, or in his 25-11-87 absence the Vice-Chancellor, shall preside. In the absence of the Chancellor and Vice-Chancellor, the members of Convocation present shall elect one of their number to be president of that meeting.
3.-The presence at any meeting of twenty-five members of $25-11-87$ Convocation shall be necessary to form a quorum. And if within half an hour from the time of meeting there shall be no quorum present, the meeting shall lapse.
4.-At all meetings of Convocation the Registrar shall act 25-11-87 as Secretary, and keep the minutes of all proceedings.
5.-Every meeting may be adjourned by the President to 25-11-87 such day and hour as may be fixed by resolution.
6.-All questions submitted to the Convocation shall be 25-11-87 decided by a majority of members present. The President shall have a deliberative as well as a casting vote.
7.-All resolutions of Convocation shall be signed by the 25-11-87 President, and shall be laid by the Registrar before the Senate at its next meeting.
8.-All members of Convocation attending any such meeting 25-11-87 shall appear in the habit of their Degree.

Chapter IV.-SUPERIOR OFFICERS.
[University and University Colleges Act, 1900. Section 32 (c).]
1.-The Chief Clerk and Accountant, Robert Ambrose 1-3-09 Dallen, and the Auditor, David Fell, are hereby declared to be Superior Officers of the University, entitled to the rights and privileges conferred by Section 32 of the University and University Colleges Act, 1900.

Chapter V.-The registrar.
5-i-87 1.-The Registrar shall keep all necessary records of the proceedings of the University, conduct all necessary correspondence, and keep such registers and books of account as may be required.
5-7-87 2.-All fees, fines, or other sums received by the Registrar in his capacity as such shall be paid into the Bank of the University; in order that the same may be applied, accounted for, and audited in such manner as the Senate may from time to time appoint.
27-9-10 3.-Notwithstanding the provisions of existing by-laws constituting the Professorial Board and the Faculties of Arts, Law, Medicine and Science, the Board for conducting the Public Examinations and the Library Committee, the present Registrar, Henry Ebenezer Barff, M.A., shall be a member of the aforesaid Boards and Faculties while holding office as Registrar.

> Chaptbr vi.-the seal of the university.

5-7-87 1.-The Seal of the University shall be placed in the charge of the Chancellor or Vice-Chancellor and Registrar, and shall not be affixed to any document except by order of the Senate.

Chapten VII.-THE FACULTTIES.
5-7-87 1.-There shall be four Faculties in the University, viz.:-

1. Arts. 2. Law. 3. Medicine. 4. Science.

DEASE of FACl:LTIES.
9-2-92 2.-A Dean for each of the Faculties in the University, shall be appointed by the Senate from time to time for a term not exceeding two years.
4-8-08 3.-In the event of the office of Dean becoming vacant by death, resignation, or otherwise before the expiration of the full term of office herein prescribed, the appointment of a successor shall be proceeded with at the next ensuing regular meeting of the Senate; and the Dean so appointed shall hold office until the expiration of the term of the Dean whose office has become vacant.

Chapter Vill.-Limptation of the title of professor.
5-7-87 1.-The title of Professor shall be distinctive of those Public Teachers of the University upon whom the Senate shall have conferred that title, and no person in or belonging to the University, or any College within it, shall be recognised as Professor without the express authority of the Senate.

Chapter IX.- Protessomal board.
1.-The Professors in the four Faculties, with the Chancellor ${ }^{87-9-92}$ and Vice-Chancellor, shall form a Board to be called "The Professorial Board."
2. -Subject tn the By-laws of the University, the Professorial ${ }^{27-9-92}$ Board shall manage and superintend the discipline of all students in the University, and shall have power to determine all matters concerning the studies and examinations which affect the students of more than one Faculty.
3.--For these purposes the Professorial Board shall make 10-7-94 such rules as it may think fit, provided that these rules be not repugnant to any existing By-law; and shall have power to impose ayy penalties, in accordance with Academic usage, on any student for breach of such rule, or misconduct of any kind. All Public Teachers in the University shall be authorised to inflict a fine for breach of discipline, not exceeding two pounds, provided that every Public Teacher who inflicts any such fine shall immediately report the circumstances in writing to the Professorial Board.
4. - Any member of the University affected by any decision ${ }^{27-9-92}$ of the Board, or any member of the Board, may appeal therefrom to the Senate, and thereupon the Senate may review such decision, and either confirm, vary, or annul the same.
5.-It shall also be the duty of the Professorial Board from ${ }^{27-9-92}$ time to time to consider the By-laws which deal with the discipline of the University, and the By-laws which deal with the studies of students of more than one Faculty; and when the Board is of opinion that any such By-laws require amendment, it shall send up recommendations to the Senate to that effect.
6.-A precis of the proceedings of the Board shall be laid ${ }^{27-9-92}$ upon the table of the Senate once in ench Term, or forth with in matters of special importance, and the Senate shall have power of its own motion to review any decision of the said Board.

## CHATHMANSIIPOF BUARD.

7.-The Chairman of the Professorial Board shall be elected $7-1-02$ by the members present at a duly convened meeting to be held in Michaelmas Term. He shall hold office for a period of three years, and shall enter upon his office on the first day of January next following the date of his election. In the event of the office becoming vacant by death, resiguation, or otherwise before the expiration of the full term herein prescribed, the election of a
successor shall be proceeded with at the next ensuing meeting of the Board, and the Chairman so elected shall hold office for three years from the first day of January preceding the date of his election.
convesing and quoruy of boabds.
18-7-93 8.-Every meeting of any Board or Faculty shall be convened by written notice from the Registrar, by direction of and on a day named by the Chancellor, Vice-Chancellor, or Chairman, and on the requisition of any two members, addressed to the Registrar, a meeting shall be convened in like manner. At any meeting of the Professorial Board five shall form a quorum, and at any other meeting three shall form a quorum, unless otherwise provided. In case of an equality of votes, that of the presiding Chairman included, such Chairman shall have a casting vote.

HEGISTRAR TO ATTEND.
5-7-87 9. -It shall be the duty of the Registrar, if required, to attend the meetings of the several Boards and record their proceedings, to collect all fines imposed by the Professorial Board, and generally to assist in carrying out the directions and rules of every Board.

> Chapter X.-Matriculation.

241-05 1.-Candidates for any of the Degrees granted by the University shall be required to matriculate before entering upon the prescribed course.
24-1-05 2.-Candidates before being admitted to matriculation shall have passed one of the examinations required by the By-laws for admission to the prescribed courses in the different Faculties, or shall have been admitted ad eundem statum.
24-1-05 3.-Undergraduates of other Universities may, at the discretion of the Professorial Board, be admitted ad eundem statum in this University without examination. Provided always that they shall give sufficient evidence of their alleged status and of good conduct.
24-1-05 4.-Any person desirous of attending University lectures may do so without matriculation upon payment of such fees as the Senate may from time to time direct.
3.1-11 5.-All candidates for Matriculation shall be required to pass an examination in the following subjects:-

1. English.
2. Mathematics.
3. Latin, Greek, French or German.
-4. One or more of the following, in accordance with the regulations prescribed hereinafter for admission to the several Faculties or Departments:-
(a) One or more of the foregoing languages not already taken.
(b). Mechanics.
(c) History. (i.) English History, (ii.) Modern History.
(d) One of the following Science subjects:-(i.) Botany, (ii). Chemistry (Inorganic), (iii.) Geology, (iv.) Physics, Part I., (v.) Physiology, and (vi.) Zoulogy.
In all subjects, except Science and Mechanics, there shall be a higher and a lower standard. A pass at the lower standard shall be deemed sufficient except in the cases where the provisions for admission to the several Faculties or Departments, as described in Section 6, expressly state that the higher standard is required. The lower standard ill each subject corresponds to the pass standard of the Junior Public Examination, and the higher standard to that of the Senior Public Examination. In History, English History is held to be the lower standard subject, and Modern History the higher standard subject. The Examinations in Mechanics and the Science subjects are at the higher standard only.

Candidates must pass in all the subjects of the examination at one and the same examination.

Provided (a) that a candidate who has passed the Junior Public Examination or the Senior Public Examination will be permitted to complete his qualification at the Matriculation Examination in November or March, on the condition that he passes in all the prescribed subjects at not more than two examinations; and
(b) That any person who has passed both the Junior Public Examination and the Senior Public Examination, and who presents one Junior certificate and one Senior certificate showing that he has passed in the whole of the subjects prescribed for matriculation at the required standards in any Faculty or Department may be admitted to matriculation in that Faculty or Department without further examination.

Any person who has passed the Senior Public Examination at one and the same examination in all the subjects prescribed for matriculation in any Faculty or Department may be admitted to matriculation in that Faculty or Department without further examination.

But any candidate who has obtained Honours in one or more subjects of the November Matriculation Examination, without passing the Senior Public Examination, shall be permitted to complete his qualification at the Matriculation Examiuation in March.
3-1-11 6.-Candidates for matriculation in one of the several Faculties or Departments, besides passing at either the lower or higher standard in the other compulsory subject or subjects, must pass at the higher standard in the following subjects according to the Faculty or Department to which they seek admission.
*(a) Faculty of Arts-
Latin and one other subject.
(b) Faculty of Law -

Latin and two other subjects. Candidates must pass in Greek or French or German at the higher or lower standard.
(c) Faculty of Medicine and the Department of Dentistry -

Three subjects, one of which must be Latin, Greek, French or German. If Latin be not selected at the higher standard, it must be taken at the lower standard. Candidates must pass in Greek or French or German at the higher or the lower standard.
(d) Faculty of Science and the Department of Agriculture-

Three subjects, one of which must be Latin, Greek, French or German.
(e) Department of Engineering-

Mathenatics, Mechanics, and one of the following languages:-Latin, Greek, French or German. They shall also be required to pass in a general paper in Engltsh, comprising questions in English and Geography.

[^3]
## CHAFTER XI.-TERMS. CHAPTER XII.-LECTURES. 31

( $f$ ) Department of Veterinary Science-
Two. subjects, one of which must be Latin, Greek, French or German.
7.-A student who has passed the Matriculation Examina- 24-1-05 tion for the Faculty of Arts, has attended the lectures prescribed for students in the First Year of the Faculty of Arts, and has passed the First Year Examination in Arts, shall be qualified for admission to the curriculum in the Faculties of Law, Medicine and Science, and the Department of Engineering without further examination.
8.-The Matriculation Examination shall take place at the 24-1-05 commencement of Lent Term, but the examiners in special cases, with the sanction of the Chancellor or Vice-Chancellor, are authorised to hold such examinations at such other times as may be deemed expedient.
9.-The examination shall be conducted by means of written 24-1-0.5 or printed papers, but the examiners shall not be precluded from putting vivâ
10.-The names of all candidates who have passed the 24-1-05 Matriculation Examination shall be arranged and published in such order as the Board of Examiners shall determine.
11.-Any person who shali have passed an examination 24-1-05 qualifying for admission to his faculty or department, and shall have paid a fee of two pounds to the Registrar, may be admitted as a matriculated student.

Chapter XI.--TERMS.
1.-The Academic year shall contain three terms, that is to $5-7-87$ say:-

LentTerm.-Commencing on the tenth Monday in the year and terminating with the Saturday before the twenty-second Monday in the year, with a recess at Easter not exceeding nine days.

Trinity Term.-Commencing on the twenty-fourth Monday in the year and terminating with the Saturday before the thirtyfourth Monday in the year.

Mifhaelmas Term-Commencing on the thirty-ninth Monday in the year and terminating with the Saturday before the fiftyfirst Monday in the year.

Chapter XII.-LECTURES.
1.-Lectures shall commence on the first day of Term, except 5-7-87 in Lent Term, in which they shall commence on the third Monday of Term. In Michaelmas Term the lectures shall cease on the Saturday before the forty-ninth Monday in the year.
2.-Lectures of an hour each shall be given by the Professors and other teachers at such times and in such order as the Senate may from time to time direct.
5-7-87
3.-Before the admission of a student to any course of lectures he shall pay to the Registrar of the University the fee appointed by the Senate.
6-7-87 4.-Full and complete tables of lectures and subjects of examinations shall be printed annually in the Calendar, and posted at the University from time to time.
18-7-93 5.-Each Professor and Lecturer shall keep a daily record or class roll of the lectures delivered by him, showing the number and names of the students present at each lecture. These class rolls shall be laid on the table at the end of each Term.

27-9-92
6.-Any undergraduate not holding a scholarship in the University, nor being a member of a college established under ${ }_{\mathrm{Pt} . \mathrm{vi} \text {. }}^{\mathrm{Act}} 1900$ the provisions of the Act 18 Victoria, No. 37 , may be exempted from attendance upon any or all of the prescribed lectures, upon producing evidence which shall satisfy the Faculty to which he belongs that there are sufficient reasons for such exemption. Provided that no such exemption shall be granted for more than one year at any time.
27-9-92
7.-No such exemption shall be granted until the Examiners shall have specially certified to the Faculty that the abilities and attainments of the applicant are such as to enable him, in their opinion, to keep up with the usual course of study at the University without attendance upon lectures. Undergraduates admitted ad eundem statum, and who are not required to pass the Matriculation Examination, shall nevertheless be required to pass a special examination, to be certified by the Examiners as above, before obtaining exemption from attendance upon lectures.
1-10-88 8.-Notwithstanding the provisions of By-laws 6 and 7, matriculated students, who are students in a Training Institution for teachers organised under the Department of Public Instruction, may be admitted to the First Year Examination in the Faculty of Arts without having attended the University lectures, upon presenting a certificate from the Under Secretary for Public Instruction to the effect that they have attended the course of instruction in such training institution for one year after matriculating. Students of a Training Institution who have passed the First Year Examination may be admitted to the Second Year

Examination in the Faculty of Arts without having attended the University lectures of the second year, upon presenting a similar certificate to the effect that they have attended a second course of instruction in such Training Institution for one year after passing their First Year Examination. All such students having passed the Second Year Examination shall have the status of students commencing the third year in the Faculty of Arts.

Chapter XIII--YEARLY EXAMINATIONS.
1.-In the Faculties of Arts, Law and Science the yearly 24-1-05 B.A. and B.Sc. Examinations shall be held during the last week of Michaehmas Term, with the exception of the Examinations for Honours and Distinctions, which may be held at the beginning of Lent Term.
2.-No undergraduate not exempted under Section 6, Chap. 24-1-05 XII., from attendance upon lectures shall be admitted to these examinations who, without sufficient cause, shall have absented himself more than three times during any one term from any prescribed course of lectures. At every yearly examination students must pass the prescribed examinations in the subjects of lectures before they can proceed with their course.
3.-Students who fail to pass, or neglect to attend their 24-1-05 annual examinations in any subject or subjects, may be required by their respective Faculties, upon the report of the examiners, to attend again the lectures on such subject or subjects before again presenting themselves for examination.
4.-Every undergraduate exempted from attendance upon $24-1-05$ lectures under Section 6, Chap. XII., shall, before being admitted to any yearly examination, pay to the Registrar a fee of two pounds.
5.-Undergraduates who have passed the yearly examina-24-1-0s tions may, at the discretion of the Dean, and upon application, receive certificates to that effect, signed by the Dean of the Faculty in which they are pursuing their studies, and by the Registrar.
6.-Students who show proficiency in the examinations at the 24-1-05 termination of individual courses shall be classified as having passed with High Distinction, Distinction, or Credit. The term Honours shall be reserved to indicate special proficiency at graduation, and shall not be used in connection with the examinations at the termination of individual courses.

24-1-05
7.-At each examination additional papers shall be set where necessary for Honours and Distinctions, and a list of the subjects prescribed for Honours and Distinctions shall be published annually in the Calendar.
24-1-05
8.-The names of those candidates who obtain Honours or Distinctions shall be arranged in order of merit.
9.-Examiners shall be appointed from time to time by the

24-1-05 Senate to conduct the examinations provided for under these by-laws.

Chapter XIV.-SCHOLARSHIPS.
E-7-87
1.-Scholarships shall be awarded after examination as the Senate may from time to time appoint.
18-7-93 2.-No Scholarship shall be awarded except to sucb candidates as exhibit a degree of proficiency which shall be satisfactory to the Examiners. Scholars shall be required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.
${ }^{5}-7-87$ 3.-The examination for Scholarships shall be concurrent with the Matriculation and Yearly Examinations, additional papers and questions being set when required.
30-4-01 , 4.-No student of the University shall be allowed to hold more than two Scholarships at oue time.

Chapter XV.-faculty of arts.
29-12-09
1.-The Faculty of Arts shall consist of the Professors of Classics, Mathematics, Modern Literature, History, and Logic and Mental Philosophy, together with the Assistant Professors and Assistant Lecturers in the same suibjects, and the Professor or Lecturer in Education.
24-1-05 2.-The Faculty shall meet for the purpose of considering and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations, and degrees in Arts, and such questions as may be referred to it by the Senate, and shall have the general direction and superintendence over the teaching in Arts, subject to the By-laws, and to such resolutions as the Senate may pass in relation thereto.
24-1-05 3.-The Professors in the Faculty of Arts, together with such other persons as may from time to time be appointed by the Senate, shall form a Board of Examiners for conducting the examinations in the Faculty of Arts; and of this Board the Dean of the Faculty, or in his absence the Professor next in seniority, shall be Chairman.
4.--The Board of Examiners shall from time to time, and in accordance with the provisions of the By-laws for the time being, framé rules and appoint times and places for the several Examinations in the Faculty of Arts.
5.-At the conclusion of each Examination the Board shall transmit to the Senate a report of the result, signed by the Chairman and by at least two other members.
6.-Candidates for the degree of Bachelor of Arts shall be - required at the commencement of their course to pass the Matriculation Examination for the Faculty of Arts prescribed in Chapter X., Sections 5 and 6.
7.-Candidates for the degree of Bachelor of Arts shall be required to attend the courses of lectures, covering a period of three years, and to pass the examinations prescribed in the following By-laws, subject to the following conditions:-
*(a) Eyery candidate shall be required to attend one full science course with practical work at some time during his curriculum, but the student may take csuch course in any of his years, and all otheri regulations notwithstanding, may, for this purpose, take a First Year course in his third year.
(b) Of the ten courses necessary for graduation, at least two continuous courses shall be taken in two subjects, provided that, for the purposes of this By-law, the courses in Law shall be held to be continuous with those in History and Philosophy.
8.-Candidates for the degree of Bachelor of Arts shall, 23-12-07 during their First Year, attend four of the following University courses, provided-(a) That two at least be taken from list A; (b) that one of them be a Language; and (c) that one be Mathematics, unless the student has complied with one of the following conditions, viz.: (i.) Has passed in Higher Mathematics at the Matriculation Examination; (ii.) has gained a firstclass in three Higher Language subjects. Students who claim exemption under (ii.) must attend two Language courses, and obtain Distinction in the subjects of these courses at the First Year Examination, otherwise they will be required to take Mathematics I. in their Second Year.

[^4]List A.
I. Latin I.
II. Greek I.
III. English I.
*IV. French I.
*V. German I.
VI. History I.
VII. Philosophy I.

List B.
VIII. Mathematics I.
IX. Chemistry I., including laboratory practice.
X. Physics I.,
XI. Geology I.
XII. Biology I.,
XIII. Economics and Commerce I.

## 24-1-05

9. Students of the First Year shall be required to pass an examination in the subjects in which they have attended lectures under Section 8.
10. Candidates for the degree of Bachelor of Arts shall, during their Second Year, attend three University courses from either of the following lists (A and B), provided-(a) That one be a Language; (b) that one at least be taken from list A; and (o) that any selected frcm list B have not already been taken.

List A.
I. Latin II.
II. Greek II.
III. Mathematics II.
IV. English II.
V. French II.
VI. German II.
VII. History II.
VIII. Philosophy II.
IX. Chemistry II., including laboratory practice.
X. Physics II.,
XI. Geology II.,
XII. Biology II., "
XIII. Physiology I., "
XIV. One of the following-(a)'Roman Law, (b) Constitutional Law, (c) Jurisprudence and Interuational Law.

[^5]XV: Military History and Science.
XVI. Economics antl Commerce II.
XVII. Education.

List B.
The courses prescribed in Section 8 for the First Year.
11. -Students of the Second Year shall be required to pass 21-10-05 an examination in the subjects of the lectures which they have attended under Section 10.
12.-Candidates for the degree of Bachelor of Arts 23-12-07. shall, during their Third Year, attend three University courses from either of the following lists (A and B), provided-(a) That one of them be a Language, unless three Language courses have already been taken; (b) that one at least be taken from list A; and (c) that none of the three have already been taken.

## List A.

I. Latin III.
II. Greek III.
III. Mathematios III.
IV. English III.
V. French III.
VI. German III.
VII. History III.
VIII. Philosophy III.
IX. Chemistry III., including laboratory practice.
X. Physics III.,
XI. Geology III.,
XII. Biology III., A and B,
XIII. .Physiology II.,
XIV. Roman Law.
XV. Constitutional Law.
XVI. Jurisprudence and International Law.
XVII. Introductory Anatomy, Practical Histology, and Biology III., A.
XVIII. Economics and Commerce III.

List B.
The Courses in Section 10 prescribed in List A for the Second Year.

24-1-05 13.—Students of the Third Year shall be required to pass an examination in the subjects of the lectures which they have attended under Section 12.
1-10-07 14:-The work of students attending lectures maj be tested by means of written and oral class examinations, class exercises, or essays, and the results of such tests shall be reported to the Senate.
24-1.05 15.-In determining the results of the Annual Examinations, the Examiners shall take into account the results of the tests described in Section 14.
21-1-05 three pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same degree he shall pay a fee of two pounds.
24-1-05 17. - The examination shall be conducted in the first instance by means of printed papers, and at the termination of such examination each candidate shall undergo a vivâ voce examination if the Examiners think fit.
24-1-05 18. - The degree of Bachelor of Arts with Honours in any given subject shall be awarded only to candidates who have attended a course of not less than two years' study in that subject, who have obtained Credit or Distinction at the Annual Examinations, and have satisfied the examiners as to their general proficiency.
24-1-c5 19.-Students proceeding to the Degree of Bachelor of Arts who have passed the Second Year Examination with Distinction either in Classics (Latin and Greek) or in Mathematics, may elect to attend lectures during their third year in that subject only in which they have so passed; and if they obtain First'or. Second Class Honours in that subject they shall be held to have passed their Third Year Examination.
1-10-07 20.-The candidate for Honours who shall have most distinguished himself at the B.A. Examination in Classics, Mathematies, Logic and Mental Philosophy, or French and German jointly, shall, if he possess sufficient merit, receive a bronze medal.

## MASTER OF ARTS

5-7-87 21.-There shall be a yearly examination for the Degree of M.A. during Ient Term, or at such other times as the Examiners, with the sanction of the ChancellororVice-Chancellor, may appoint.
22.-Every candidate for ${ }^{\text {th }}$ this Degree must have previously $5-7-87$ obtained the Degree of B.A., and two years must have elapsed since the time of his examination for such Degree. He will also be required to furnish evidence of having completed his twentyfirst year.
23.-The fee for the Degree of M.A. shall be five pounds. 18-4-06 No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same Degree he shall pay a fee of tro pounds.
24.-Candidates for the Degree of M.A. shall elect to be 9-8-09 examined in one or more of the following branches of knowledge :-
I. Classical Philology and History.
II. Mathematics and Natural Philosopliy.
III. Logic, Moral, Mental and Political Philosophy..
IV. Modern Literature and Language.
V. Modern History.

Provided that candidates for the Degree of Master of Arts, who have taken First Class Honours in Mathematics or in any other two subjects at the B.A. Examination, may be tested by thesis only.

The candidate most distinguished in each branch at the examination shall, if he possess sufficient merit, receive a bronze medal.
25.-The Senate may, at its discretion, admit to examination 5-7-87 for the Degree of Master of Arts any person who shall have obtained at least two years previously the Degree of Bachelor of Arts, or equivalent first Degree in Arts, in any other University approved by the Senate. Every candidate for admission under this By-law must make application in writing to the Registrar and supply satisfactory evidence of his qualification as aforesaid, and that he is a person of good lame and character; and upon the approval of his application shall pay to the Registrar a fee of two pounds for the eutry of his name in the University books, in addition to the prescribed fee for his Degree. Every candidate before he is admitted to this Degree shall be required to furnish evidence of having completed his twenty-first year..

Chapter XVI--evening Lectures.
30-i-94 1.-Courses of Evening Lectures, embracing all the subjects necessary for the Degree of Bachelor of Arts, shall be given at such times and in such order as the Senate may from time to 。 time direct.
30-7-94 2.-Any person desirous of attending a course of Evening Lectures may be allowed to do so upon payment of such fees as the Senate may from time to time direct.
24-t-05 3.-Students who desire to qualify themselves for graduation by attendance upon Evening Lectures shall be required to attend the courses of instruction and pass the examinations prescribed in Chapter XV. for candidates for the degree of Bachelor of Arts, subject to the following provisons:-
(a) Evening students shall be allowed to distribute the lectures and examinations prescribed for First and Second Year Students over a longer period, taking the individual courses of instruction and corresponding examinations in any order they please. Provided that course I. in any subject must be taken before course. II., except with the permission of the Professor of such subject.
(b) The examinations in the whole of the subjects prescribed for students of the Third Year must be taken concurrently.
(c) Students must have completed the examinations prescribed for First and Second Year Students one Academic year before attending the Third Year Examination.
(d) An evening student may attend the courses prescribed for First Year Students with a view to graduation before he has completely passed the prescribed Matriculation Examination, but the attendance of such unmatriculated student on the courses in Latin, French or Mathematics shall not be allowed to count towards graduation unless he has previously passed the appropriate part of the matriculation or some equivalent examination.
(8) No evening student shall be admitted to the courses prescribed for Second Year Students until he has matriculated, nor to the degree of Bachelor of Arts until he is a matriculated student of nine terms standing.
4. - In all cases not provided for in the preceding By-laws 30-7-94 of this Chapter, Evening Students shall be subject to the same By-laws, Rules and Regulations as other students.

Chapter XVIa.-DIPLOMA IN EDUCATION.
The Diploma in Education may be awarded to candidates who have satisfied the provisions of the following by-laws-
1.-The diploma shall testify that the candidate has passed through a general professional training in the principles, art and practice of education. The courses shall be so arranged that they may be taken in preparation for either primary or secondary teaching.
2.-Candidates for the diploma in education shall, before admission to the curriculum, produce evidence of having graduated in Arts or Science.
3.-The diploma in education shall be conferred only apon those candidates who have completed the course of lectures and of practice in teaching hereinafter prescribed in Section 4.
4.-Candidates for the diploma in education shall be required. to attend the following courses of instruction :-
(1) The Mental and Physical Life of School Children.
(2) The Principles of Education.
(3) The History of Educational Theory and Practice:
(4) The Principles of Class Teaching and Management.

Before presenting himself for the examination for the diploma in education, a candidate shall produce evidence satisfactory to the Senate that he has pursued a course of practice in teaching, including-
(a) Observation of Class Teaching.
(b) Continuous Practice in the Class-room.
(c) Observing and giving special lessons, and taking part in discussions upon them.
5.-The work of the diploma course shall be so arranged that it may be completed in one year in the case of those who can devote their whole time to the work of the course.
6.-The fee for the diploma in education shall be £3. No candidate shall be admitted to the examination unless he sball have previously paid this fee to the Registrar. For any re-examination for the same diploma he shall pay a fee of $£ 2$.

Chapter xvi--faculty of law.
20-1-03
1.-The Professor or Professors and Lecturers in the subjects of the curriculum in Law, together with such Fellows of the Senate as are members of the Legal Profession, shall constitute the Faculty of Law.

20-1-03
2.-The Faculty shall meet for the purpose of considering and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations, and degrees in Law, and such questions as may be referred to it by the Senate.
20-1-03 3.-The Dean of the Faculty of Law shall act as Chairman at all meetings of the Faculty, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at such meetings shall have a vote, and in case of an equality of votes, a second or casting vote.
20-1-03 4.-It shall be the duty of the Registrar to summon meetings of the Faculty at such times as may be required by the Dean; provided that upon a written requisition by three members of the Faculty, the Dean, or, in his absence, the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members.
20-1-03 5. -The Dean of the Faculty of Law shall exercise a general direction and superintendence over the teaching in law, subject to such resolutions in relation thereto as may be passed by the Senate or by the Faculty of Law.
20-1-03
6. -There shall be two degrees granted in the Faculty of Law, viz. :-Bachelor of Laws (LL.B.) and Doctor of Laws (LL.D.)
24-05 7.-Candidates for the degree of Bachelor of Laws (LL.B.) shall, before admission to the Law School, produce evidence either, (i.) of having graduated in Arts; or (ii.) of having completed two years in the Faculty of Arts and passed the Second Year Examination in Arts; or (iii.) of having completed the First Year in the Faculty of Arts in accordance with the provisions of Chapter X., Section 7; or (iv.) of having passed the Entrance Examination prescribed in Chapter X., Sections 5 and 6.
22-12-0s 8.-Thereafter candidates for the Degree of LL.B. shall attend such courses of instruction as may be prescribed by the Faculty in the following subjects, that is to say:-
I. In the First Year-

Constitutional Law;
Roman Law ; and
The Law relating to Coutracts (including Mercantile Law), Torts, Crimes and Domestic Relations. $\dagger$
II. In the Second Year-

Jurisprudence, Legal History and the Elements of Political Science ;
Public International Law;
The Law of Property and the Elements of Conveyancing, and
The Rules of Legal Interpretation.
III. In the Third Year-

Procedure in Civil and Criminal Cases, both before the Supreme Court in its cormmon law jurisdiction, and before courts of inferior jurisdiction; together with the Law of Evidence and Pleading;
Equity and Company Law; the Law relating to Bankruptcy, Probate and Divorce; together with procedure in those jurisdictions; and
Private International Law.
Provided that candidates who have already graduated in Arts shall be at liberty to take this course in two years, in which case the subjects' shall be taken in such order as shall be (approved by the Dean of the Faculty; whilst candidates who have not completed two years in Arts shall be required to extend this course over a period of not less than four years: Provided also that the order in which these courses of instruction are taken, may, in the case of any individual candidate, be varied with the written consent of the Dean of the Faculty.
9.-Candidates for the degree of Bachelor of Laws shall 22-12-18 also be required to pass two examinations, which shall be called respectively "the Tytermediate LL.B." and "the Final LL.B." Examinations, and which shall be hold at the commencement of Lent Term in each year, or at such other times as may be prescribed by the Faculty. Candidates who have not acquitted themselves satisfactorily in such class or term examinations, or
+In this and all other professional subjects the law referved to is the law iu force in New South Wales.
other exercises (including participation in moots and attendance in court) as may be preseribed by the Faculty, may be refused admission to these examinations.
22-12-08 10.-At the Intermediate LL.B. Examination candidates shall be examined in:-(1) Constitutional Law ; (2) Roman Law ; (3) Jurisprudence, Legal History, and the Elements of Political Science; and (4) Public International Law. Provided that candidates shall be at liberty to take this examination in two sections, of which Section I. shall include the subjects numbered herein (1) and (2), and Section II. shall include the subjects numbered herein (3) and (4).
22-12-0s 11.-At the Final LL.B. Examination candidates shall be examined in:-(1) The Law relating to Contracts (including Mercantile Law), T'orts, Crimes, and Domestic Relations; (2) the Law of Property, and the Elements of Conveyancing; (3) the Rules of Legal Interpretation; (4) Procedure in Civil and Criminal Cases, both before the Supreme Court in its common law jurisdiction and before courts of inferior jurisdiction, together with the Law of Evidence and Pleading ; (5) Equity and Company Law, the Law relating to Bankruptcy, Probate and Divorce, together with procedure in those jurisdictions; and (6) Private International Law.

Provided that candidates shall be at liberty to take this examination in two Sections, of which Section I. shall include the subjects numbered herein (1), (2) and (3), and Section II. shall include the subjects numbered herein (4), (5) and (6).
22-12 c8 12 -The names of candidates who pass in the Intermediate LL.B. Examination, or either section thereof, or who pass the Final LL.B. Examination, or either section thereof, shall be published in order of merit. But as regards candidates who have completed the Final LL.B. Examination, a separate list shall also be published stating (1) the names of candidates who have obtained First-class Honours; (2) the names of candidates who have obtained Second-class Honours; and (3) the names of candidates who have passed; and in determining the place of candidates in this list, the examiners may take into consideration the results of both the Intermediate and Final Examinations.

Provided (1) that a candidate who does not pass the Intermediate LL.B. Examination within two years of his commencing his course in law shall not be eligible for any prize or scholarship awarded for proficiency in the subjects of that examination;
and (2) that a candidate who does not pass the Final LL.B. Examination within three years of passug the Intermediate LL. B. Examination, shall not be eligible for Honours or for any prize, medal, or scholarship, awarded for proficiency-in the subjects of that examination.
13.—Candidates shall be exempt from attending lectures and 22-12-08 passing examinations in any of the prescribed subjects which may have formed part of their course for the degree of Bachelor of Arts, or which in the event of any change in the curriculum may have formed part of their course for the degree of Bachelor of Laws.
14.-The degree of LT.D. shall not be conferred until after 20-1-03 the expiration of two years from the granting of the degree of LL.B.
15.-Candidates for the degree of Doctor of Laws shall be 20-1-03 required to pass one examination, which shall be called "the LL.D. Examination," and which shall be held in Trinity Term in each year.
16.-At the LL.D. Examination candidates shall be examined 20-1-03 in (1) Legal History; (2) Roman Law (including a special subject from the Digest to be indicated from time to time); (3) One of the following special subjects:-(a) Common Law, including Mercantile Law, Criminal Law, the Law of Evidence, and Procedure; (b) Equity and Company Law, the Law relating to Bankruptcy, Probate and Divorce, together with procedure in those jurisdictions; (c) the Law of Property, and the Practice of Conveyancing ; or (d) Constitutional Law ; and (4) International Law (Public and Private).
17.-The candidates who distinguish themselves most highly 20-1-03 at the Degree Examinations respectively shall, if of sufficient merit, receive a bronze medal.
18. -The fees for the Degrees of Bachelor of Laws and 18-4-06 Doctor of Laws shall be ten pounds respectively. These fees shall be paid to the Registrar before the examination, and shall not in any case be returned to the candidate.
19.-Candidates who fail to pass the examination for 8 -4-08 either degree shall be required, upon presenting themsolves for any further examination for the same degree, to pay a fee of five pounds.
20.- Students at Law and Articled Clerks and other persons 20-1-03 may be admitted to such lectures and examinations in Iaw as
they may desire, and in the event of their passing in the subjects of any course, they shall be entitled to receive certificates to that effect.

## Chapter XVIII--Faculty of medicine.

20-1-03
1.-The Chancellor and Fice-Chancellor, the Fellows of the Senate who are legally qualified members of the Medical Profession, and the Professors and Lecturers in the subjects of the Medical Curriculum shall constitute the Faculty of Medicine.
20-1-6s 2.-The Dean shall exercise a general superintendence over the administrative business connected with the Faculty, and it shall be the duty of the Registrar to summon meetings of the F'aculty at such times as may be required by the Dean, provided that upon the written requisition of any three members of the Faculty, the Dean, or in his absence the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members. In the absence of the Chancellor and Vice-Chancellor the Dean shall act as Chairman at all meetings of the Faculty; but in his absence the members then present shall elect a Chairman from among themselves. The Chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings and to record the pruceedings.

20-1-0s 3.-The Faculty shall meet for the purpose of considerinn and reporting to the Senate upon such subjects as have relatiog to the studies, lectures, examinations and degrees in Medicine, and such questions as may be referred to it by the Senate.

20-1-03
4.-Class Examinations shall be held during each course of instruction in each term, unless such term immediately precedes the annual examination in the subject of the course. Students shall not absent themselves from these examinations except upon a medical certificate, and at the end of each course a report of the result, signed by the responsible teacher, shall be presented to the Senate by the Dean. The results of these examinations may be taken into account by the examiners at the annual examinations.
5.-There shall be three Degrees granted in the Faculty of Medicine, viz. : Doctor of Medicine (M.D.), Bachelor of Medicine (M.B.), and Master of Surgery (Ch.M.).
6.-Candidates for the degree of Bachelor of Medicine (M.B.) ${ }^{\text {24-1-05 }}$ shall, before admission to the Medical School, produce evidence either (i.) of having graduated in Arts or in Science; or (ii.) of having completed the First Year in the Faculty of Arts, in accordance with the provisions of Chapter X., Section 7; or (iii.) of having passed the Matriculation Examination for the Faculty of Medicine prescribed in Chapter X., Sections 5 and 6.
7.-Candidates for the Degrees of Berchelor of Medicine ${ }^{24-5-10}$ and Master of Surgery shall attend the following courses of instruction:-

## I. In the First Year-

Biology and Practical Biology-Lent and Trinity Terms.
Inorganic and Organic Chemistry-Lent, Trinity and Michaelmas 'Lerms.
Practical Chemistry-Trinity Term.
Physics-Lent, Trinity and Michaelmas Terms.
Practical Physics.-One Term.
Introductory Human Anatomy.-Michaelmas Tëerm.
II. In the Second Year-

Descriptive Anatomy-Lent and Trinity Terms.
Dissections-Lent, Trinity and Michaelmas Terms.
Physiology-'Trinity and Michaelmas Terms.
Practical Histology - Lent Term.
Experimental Physiology-Trinity Term.
Physiological Chemistry-Michaelmas 'L'erm.

## III. In the Third Year-

Physiology-Lent Terin.
Experimental Pharmacology -Trinity Term.
Regional Aratomy-Lent and Trinity Terms.
Dissections-Lent and Trinity Terms.
Surgery-Michaelmas Term.
Pathology and Bacteriology-(including Laboratory Practice)-Michaelmas Term.
Tutorial Surgery-Michaelmas Term.

## IV. In the Fourth Year-

Pathology and Bacteriology-(including Laboratory
Practice)-Lent and Trinity Terms.
Surgery-Lent 'Term.
Materia Medica and Therapeutics-Trinity Term.
Tutorial and Practical Pharmacy - One 'Term.
Clinical Surgery-Lent,Trinity and Michaelmas 'Terms.
Surgical-Anatomy and Operative Surgery-Lent Term.
Medicine-Michaelmas Term.
Tutorial Medine-Michaelmas Term.
Midwifery-Michaelmas Term.
Three of the following elective courses -
(i.) Diseases of Children.
(ii.) Diseases of the Skin.
(iii.) Diseases of the Ear, Nose and Throat.
(iv.) Diseases of the Mind.
(v.) Diseases of the Eye.

In the long vacation.

The courses in each of these five elective subjects shall consist of fifteen meetings of the class, including at least five cliniques.
V. In the Fifth Year-

Medicine-Lent T'erm.
Tutorial Medine-Lent Term.
Gynæcology-Lent Term (30 lectures).
Medical Jurisprudence - 20 lectures-'Trinity Term.
Public Health-30 lectures - Trinity 'Ierm.
Clinical Medicine-Lent, Trinity and Michaelmas Torms.
8. For the Degrees of M.B. and Ch.M. the examinations shall be as follows :-
(i.) A First Degree Examination at the end of the First Year in Physics, Chemistry and Biology.
(ii.) A Second Degree Examination at the end of Trinity Term of the Second Year in Anatomy and Physiology.
(iii.) A Third Degree Examination at the end of Trinity Term of the Third Year in the entire subjects of Anatomy and Physiology. No candidate shall be admitted to this examination unless he has completed the dissection of every part of the body at least once.
(iv.) A Fourth Degree Examination at the end of Trinity Term of the Fourth Year in Pathology, Surgical Anatomy and Operative Surgery, and Materia Medica and Therapeutics.*
(v.) A Fifth Degree Examination in Medical Jurisprudence and Public Health at the end of Trinity Term of the Fifth Year.
(vi.) A Final Degree Examination at the beginning of Lent Term after the completion of the Fifth Year, in Medicine (including Clinical and Tutorial Medicine), in Surgery (including Clinical and Tutorial Surgery), in Midwifery and in Gynæcology. Provided that candidates who have not passed the examination in Medical Jurisprudence and Public Health as described in sub-section (v.) shall be required to take those subjects as a part of their Final Examination. -
9. Before admission to the Final Examination, candidates 24-5-10 shall also be required to present the following certificates at least ten clear days before the date of the examination :-
(i.) Of Hospital Practice during Michaelmas 'Ierm of the Third Year, and during the Fourth and Fifth Years, and the long vacation at the completion of the Fifth Year, in accordance with a hospital time-table, approved by the Faculty.
(ii.) Of having been engaged during at least ten attendances. of two hours each in compounding and dispensing drugs in a Laboratory or Dispensary, or other place for compounding medicines, approved by the Faculty.
(iii.) Of baving acted in a recognised hospital during not less. than nine months as Dresser in the Surgical Wards, not. less than twelve months as Clinical Clerk in the Medical Wards, and not less than three months in each of the
following capacities, viz.: Clinical Clerk and Dresser in in the Gynæcological In-patients' Department, Student in attendance upon the Surgical Out-patients' Department, Student in attendance upon the Medical Out-patients' Department, Student in attendance upon the Gynæcological Out-patients' Department.
(iv.) Of attendance at twenty-five Post-mortem Examinations and Demonstrations after passing the Second Degree Examination.
(v.) Of attendance on at least twelve cases of child-birth after having attended the course of lectures upon Midwifery, and under. such supervision as may be approved by the Faculty.
(vi.) Of proficiency in Vaccination, signed by a legally qualified Medical Practitioner.
(vii.) Of proficiency in the Administration of Anæsthetics from a recognised hospital.
20-1-03 10, -No candidate shall be admitted to the Final Examination until he shall have produced evidence of having completed his twenty-first year. Each candidate shall also furnish a certificate of good fame and character, signed by two competent persons.

20-1-03 11.-At each examination candidates shall be required to give proof of their knowledge by written answers to the questions set, to be followed by a practical or a vivá voce examination in all subjects whatsoever.
20-1-03 12.-Students who fail to pass, or neglect to attend their examinations in any subject or subjects, may be required by the Faculty, on the report of the Bxaminers, to attend again the Courses of Instruction or Hospital Practice in such subject or subjects before again presenting themselves for examination.

20-1-93 13.-Candidates who have passed all the examinations to the satisfaction of the Examiners shall be recommended to the Senate for admission to the Degree of Bachelor of Medicine, and to the Degree of Master of Surgery if they so elect.

20-1-03 14.-Honours at graduation shall depend upon the proficiency sbown in the examinations, in accordance with regulations adopted by the Senate from time to time, and the candidate who shall have
been most distinguished shall receive a bronze medal, provided that he shall have obtained First Class Honours.
15. - Accredited certificates of attendance on courses of instruc- 20-1-03 tion from other Universities and Schools of Medicine recognised by the University of Sydney may, on the report of the Dean, be accepted by the Senate as proof of the attendaace on courses of instruction pro tanto required by these By-laws. Provided always that no person shall be recommended to the Senate for admission to the Degrees of Bachelor of Medicine or of Master of Surgery by examination unless he shall present certificates of having attended within the University of Sydney, during each of at least nine Terms, not less than two courses of instruction in subjects included in the Medical Curriculum of the University. In all such cases a Degree in Arts or in Science, or some certificate of general education satisfactory to the Senate, will be required. Every candidate making application under this By-law must present a certificate of good fame and character, signed by two competent persons.
16. -Bachelors of Medicine and Masters of Surgery of this 20-1-03 University shall not possess any right to assume the title of Doctor of Medicine.
17.-The Degree of Doctor of Medicine shall not be conferred ${ }^{20 \cdot 1-03}$ until after the expiration of two Academic years from the granting of the Degree of Bachelor of Medicine.
18.-Candidates for the Degree of Doctor of Medicine must 20-1-03 produce evidence that, after having obtained the Degree of Bachelor of Medicine, they have spent at least two years in Medical or Surgical practice, or that they have been engaged in a manner approved by the Faculty for a like period in the study of any subject or subjects included in the Medical Curriculum of the Eniversity of Sydney.
19.-Candidates for the Degree of Doctor of Medicine sball 20-1-03 be required to pass an examination conducted by means of set papers and by vivâ vace interrogations in any one of the following departments of Medical Science and Practice, viz., (i.) Medicine, (ii.) Medical Jurisprudence and Public Health, (iii.) Surgery, (iv.) Midwifery and Gynæcology; or in any one of the scientific subjects included in the Medical Curriculum. They shall further be required to present, and if called upon to defend, to the satisfaction of the Examiners, a previously unpublished thesis on some subject included in the Medical Curriculum of the Uni-
versity. Three printed or type written copies of the thesis on paper eight inches wide and ten inches deep must be transmitted to the Registrar at least two months before the date fixed for the examination.
20-1-03 20.- Bronze medals may be awarded for special excellence or originality of the theses presented.
20-1-03 21. -The Degree of Master of Surgery shall not be conferred on any person tho has not already been admitted a Bachelor of Medicine.
20-1-03 22.-The fees for the Degrees of Doctor of Medicine, Bachelor of Medicine, and Master of Surgery shall be ten pounds respectively. The fees shall be paid to the Registrar before the examination, and shall not in any case be returned to the candidate.
3-11-03 23.-Candidates who fail to pass the examination for any Degree shall be required upon presenting themselves for any further examination for the same Degree to pay a fee of five pounds.
24.- Undergraduates in Medicine who have passed the First, Second and Third Degree Examinations in Medicine, and have in addition, attended an advanced course of and passed an advanced examination in accordance with the requirements of the Faculty of Science in one of the following divisions, viz.-(a) Chemistry, (b) Physics, (c) Biology, (d) Geology-may, on the report of the Dean of the Faculty of Science, be admitted by the Senate to the Degree of Bachelor of Science.

Cuapter xIX---diploma in public healith.
17-7-06

1. A Diploma, entitled "Diploma in Public Health of the University of Sydney," may be awarded to candidates who have satisfied the provisions of the following by-laws. The Diploma shall testify to the candidate's proficiency in all the branches of study, scientific and practical, which are necessary for the proper performance of the duties of a Medical Officer of Health.

17-7-06
2. An examination in the branches of knowledge which specially relate to the functions of a Medical Officer of Health shall be held from time to time and at such times as the Senate shall appoint, and shall be called "The Examination for the Diploma in Public Health." The times appointed for holding the examination shall be published in the Calendar.
3. The Examination for the Diploma in Public Health shall ${ }_{17-7-06}$ be in two parts, viz. :-Part I., relating to the General Principles of Sanitary Science ; and Part II., relating to State Medicine and to the Applications of Pathology and Sanitary Science to Public Health. Schedules of these subjects shall be prescribed from time to time by regulations made in accordance with these by-laws.
4. Application by a candidate for the Diploma in Public 17-7-06 Health for leave to present himself for examination shall be made to the Registrar not less than four weeks before the time appointed for the holding of the Examination.
5. Before presenting himself for Part I. of the Examination 17-7-06 for the Diploma in Public Health a candidate shall produce evidence satisfactory to the Senate-
(i.) That he is a qualified medical prantitioner, registered by the New South Wales Medical Board;
(ii.) That a period of not less than twelve months has elapsed since he obtained registrable qualifications in Medicine, Surgery and Midwifery; and
(iii) That since obtaining reyistrable qualifications in Medicine, Surgery and Midwifery,
(a) He has during a period of not less than six months attended Special Public Health courses in the University of Sydney of Practical Laboratory Instruction in Chemistry, in Physiological Chemistry, and in Bacteriology and Parasitology.
(b) He has attended elsewhere than in a laboratory a course of Practical Instruction, approved by the Senate, in those Diseases of Animals which are trausmissible to man; and
(c) He has attended such other courses of instruction in Public Health as may from time to time be prescribed by regulations made in accordance with these by-laws.
6. Before presenting himself for Part II. of the Examina-1i-7-06 tion for the Diploma in Public Health a candidate shall produce evidence satisfactory to the Senate, that, since obtaining registrable qualifications in Medicine, Surgery, and Midwifery, -
(a) He has been, for a period of six months (of which at least three months shall be distinct and separate from the period of Instruction required in sub-clause (a) of clause (iii.) of section 5 , diligently engaged in acquiring a practical knowledge of the duties, routine and special, of Public Health Administration under the supervision of a Medical Officer of Health approved by the Senate.
(b) He has, for a period of not less than three months, attended the practice of a "Hospital for Infectious Diseases," approved by the Senate, such Hospital being one at which opportunities are afforded for the study of methods of administration. "Methods of Administration" shall include the methods of dealing with patients at their admission and discharge, as well as in the wards, and the medical superintendence of the hospital generally ; and
(c) He has attended such other courses of instruction in Public Health as may from time to time be prescribed by regulations made in accordance with these by-laws.
17-7-06
7. A candidate may present himself for Part I. and for Part II. of the examination separately, or for Part I. and Part II. together ; but in no case shall a candidate present himself for Part II. separately from Part I., unless he shall already have satisfied the examiners in Part I.
17-7-C8 8. The examination for the Diploma in Public Health shall extend over not less than four days.

Both Part I. and Part II. of the examination shall be oral and practical, as well as in writing.

One day at least during the holding of Part I. shall be devoted to practical work in a laboratory ; and one day at least during the holding of Part II. shall be devoted to practical examination in, and reporting on, subjects which fall within the special outdoor duties of a Medical Officer of Health.
17-7-08 9. The result of the examination for the Diploma in Public Health shall not, in the case of any candidate, be published until he has satisfied the examiners in both Part I. and Part II.
17-7-06 10. The fee payable for the Diploma in Public Health shall be £10. This fee shall include the fees for the examination, and shall be paid to the Registrar at the date of application for
leave to present himself for examination, and shall not in any circumstances be returned. A candidate who has presented himself for Part I. of the examination, and has failed to satisfy the examiners, shall pay a further fee of $£ 3$ before presenting himself again for Part I. A candidate who has presented himself for Part II. of the examination, and has failed to satisfy the examiners, shall pay a further fee of $£ 3$ bekore presenting himself again for Part II.

Chapter XX.-DEpartment of dental studies.
1.-The Chancellor and Vice-Chancellor, the Dean of the ${ }^{9-8-10}$ Faculty of Medicine, the Medical Members of the Senate, the Professors and Lecturers in the subjects of the Dental Curriculum, a representative elected from among themselves by the Honorary Dental Officers of the Uuited Dental Mospital of Sydney and the President of the Dental Board of New South Wales shall constitute the Board of Dental Studies.
2.-The Dean of the Faculty of Medicine shall exercise a $12-6-05$ general superintendence over the administrative business connected with the Board, and it shall be the duty of the Registrar to summon meetings of the Board at such times as-may be required by the Dean, provided that upon the written requisition of any three Members of the Board the Dean, or in his absence, the Registrax, shall convene a special meeting. No question shall be decided at any meeting of the Board unless there shall be present at least five members. In the absence of the Chancellor and Vice-Chancellor, the Dean of the Faculty shall preside at meetings of the Board, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at any such meeting shall have a rote, and in case of an equality of votes, a second or casting vóte. It shall be the duty of the Registrar to attend all meetings of the Board and to record its proceedings.
3.-The Board shall meet for the purpose of considering 12-6-05 and reporting to the Senate upon such subjects as have relation to the Studies, Lectures and Examinations in Dentistry, and upon such questions as may be referred to it by the Senate.
4. - The Degree of Bachelor of Dental Surgery shall be ${ }^{18-6-0.5}$ granted after examination in the subjects of the Curriculum in Dentistry.
5.-Candidates for the Degree of Bachelor of Dental Surgery, 12.6-05 before commencing their studies, shall pass the Matriculation

Examination for the Faculty of Medicine, or shall produce. satisfactory evidence of having passed an equivalent examination elsewhere. Surgery shall, during the Third Year, attend the following courses of instruction:-

1. Physiology (one term, Lent).
2. Surgical Dentistry.

3: Mechanical Dentistry.
4. Materia Medica and Therapeutics.
5. General Pathology.
6. Surgery
7. Practice in Surgical and Mechanical Dentistry at the Dental Hospital.
so-40: 9.-Candidates for the Degree of Bachelor of Dental Surgery shall, during the Fourth Year, attend the following courses of instruction:-

1. Special Dental Surgery.
2. Practical Pathology and Bacteriology.
3. Anæsthetics.
4. Practice in Surgical and Mechanical Dentistry at the Dental Hospital.
5. Special Clinical Courses.
(a) Medicine.
(b) Surgery.
10.-Candidates for the Degree of Bachelor of Dental ${ }^{9-8-10}$ Surgery shall be required to pass the following examinations :-

At the end of the First Year, an examination in Physics and Chemistry.
At the end of Trinity Term of the Second Year, an examination in Anatomy.
At the end of the Second Year, an examination in Surgical and Mechanical Dentistry.
At the end of Trinity Term of the Third Year, an examination in Physiology.
At the end of the Third Year, an examination in Suryical Dentistry, Mechanical Dentistry, Materia Medica and Therapeutics.
At the end of Trinity Term of the Fourth Year, an examination in Pathology and Bacteriology.
At the end of the Fourth Year, an examination in Clinical, Surgicaland Mechanical Dentistry, Surgeryand Special Dental Surgery.
11.-The fee for the Degree of Bachelor of Dental Surgery ${ }^{12-6005}$ shall be ten pounds. This fee shall be paid to the Registrar before the final examination, and shall not, in any case, be returned to the Candidate. A Candidate who fails to pass the examination may be allowed to present himself for a further examination upon payment of the sum of five pounds.
12.-At each Degree Examination the Candidates shall be ${ }^{12-6005}$ required to give proof of their knowledge by written answers to the questions set, and also by a practical or viva voce examination in all the subjects.
13.-Before admission to the final Degree Examination, 12.6-15 each Candidate shall furnish evidence of having completed his twenty-first year, and also a certificate of good fame and character, to the satisfaction of the Senate.

12-6-05 14.-Candidates who have passed all the examinations to the satisfaction of the Board may be recommeuded to the Senate for the Degree of Bachelor in Dental Surgery.
12-6-05 15.-Accredited certificates of attendance on courses of instruction from other Universities or Schools of Medicine or of Dentistry may, on the report of the Dean, be accepted pro tanto by the Senate as proof of the attendance on courses of instruction required by these By-laws. Provided always that no person shall be recommended to the Senate for the Degree in Dental Surgery unless he shall have attended, within the University of Sydney, during each of at least six terms, not less than two courses of instruction in subjects included in the Dental Curriculum of the University. In all such cases some certificate of general education satisfactory to the Senate will be required. Any Student who has served or is serving an apprenticeship in Mechanical Dentistry with a registered dentist may, on the report of the Board of Dental Studies, be exempted from the whole or a part of the prescribed workshop practice in that subject.
12-605 16.-A Graduate in Medicine of the Uñiversity may be admitted to examination for the Degree in Dental Surgery on presenting satisfactory evidence that after graduation in Medicine he has devoted at least four terms to the study of Dentistry, and that he has attended the following courses of instruction prescribed for Students in Dentistry, viz.:-1. The Special Course of Lectures on the Anatomy of the Teeth. 2. Practical Metallurgy. 3. The Lectüres in Surgical and Mechanical Dentistry. 4. Attendance during one year at a Dental Hospital, with Practical Instruction in Surgical and in Mechanical Dentistry. The examination in such cases shall be confined to the Anatomy of the Teeth, to Practical Metallurgy, and to Surgical and Mechanical Dentistry.
12-6-05 17.-Any persun who has been admitted to the Licence in Dental Surgery of the University of Sydney may proceed to the Degree of Bachelor of Dental Surgery, after attending for one year such special courses and passing such examinations as may be prescribed by the Senate.

Chapter XXI.-FaCULTY OF SCIENCE.
1.-The Faculty of Science shall consist of the Professors in the subjects required for the Degrees in Science, one representative for the Department of Mechanical and Electrical Engineering, one representative for the Department of Mining

Eugineering and Metallurgy, and two representatives from each of the Boards of Studies in Engineering, Veterinary Science and Agriculture.

The representatives from the Boards' of Studies shall be elected by their respective Boards for periods of two years, and shall be eligible for re-election. They shall, where possible, be independent lecturers on these Boards.

The Lecturer in Mechanical Engineering and the Lecturer in Electrical Engineering shall be the representatives of the Department of Mechanical and Electrical Engineering on the Faculty, holding office alternately for periods of two years.

The Lecturer in Mining and the Lecturer in Metallurgy shall be the representatives of the Department in Mining and Metallurgy on the Faculty, holding office alternately for periods of two years.
2.-The Dean shall exercise a general superintendence over 24-1-05 the administrative business connected with the Faculty, and it shall be the duty of the Registrar to summon meetings of the Faculty at such times as may be required by the Dean, provided that upon the written requisition of any three members of the Faculty, the Dean, or in his absence the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Faculty unless there be present at least five members. The Dean shall act as Chairman at all meetings of the Faculty, but in his absence the members then present shall elect a Chairman from amongst themselves. The Chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings and record the proceedings:
3.-The Faculty shall meet for the purpose of considering 3 :-3-10 and reporting to the Senate upon such subjects as have relation to the studies, lectures, examinations and degrees in Science, and such other subjects as may be referred to it by the Senate; and the following Boards of Studies shall be constituted to report to the Faculty in each department of study :-
(a) Board of Studies in Pure Science.

| (b) | $"$ | ,$"$ | Engineering. |
| :--- | :--- | :--- | :--- |
| $(c)$ | $"$ | $"$ | Veterinary Science. |
| $(d)$ | $"$ | ,$"$ | Agriculture. |

The Board of Studies in Pure Science shall consist of the Professors, Independent Lecturers, Assistant-Professors, and Assistant-Lecturers and Demonstrators in the subjects required for the Degree of Bachelor of Science (B.Sc.). Its chairman shall be the Senior Professor on the Board, but in his absence the members then present shall elect a chairman from amongst themselves.

The Board of Studies in Engineering shall consist of the Professors of Engiveering, Mathematics, Physics, Geology and ('hemistry, the Independent Lecturers in Engineering subjects, the Assistant-Lecturers and Demonstrators in Engineering Design and Assaying. Its chairman shall be the Professor of Engineering, but in his absence the members then present shall elect a chairman from amongst themselves.

The Professors of Mathematics, Physics, Geology and Chemistry may at any time appoint as their deputies at a meeting of the Board of Studies, an Assistant-Professor, Lecturer, or Assistant-Lecturer and Demonstrator from their respective departments.

The Board of Studies in Veterinary Science shall consist of the Professors of Chemistry, Biology, Physics, Physiology and Pathology, and the Professors, Independent Lecturers, AssistantProfessors and Assistant-Lecturers and Demonstrators in the other subjects required for the Degree of Veterinary Science. Its chairman shall be the Professor of Veterinary Science, but in his absence the members then present shall elect a chairman from amongst themselves.

The Board of Studies in Agriculture shall consist of the Professors of Biology, Chemistry, Engineering, Geology, Physics, and the Professors, Independent Lecturers, Assistant-Professors and Ássistant-Lecturers and Demonstrators in the other subjects required for the Degree of Bachelor of Science in Agriculture. Its chairman shall be the Professor of Agriculture, but in his absence the members then present shall elect a chairman from. amongst themselves.

The Chancellor, Vice-( hancellor, and Dean of the Faculty of Science shall be ex officio members of these Boards of Studies.

24-1-C5
4.-There shall be four degrees in Science, viz. : Bachelor of Science (B.Sc.), Dector of Science (D.Sc.), Bachelor of Engineering (B.E.), and Master of Engineering (M.E.).
5.-Candidates for the degree of Bachelor of Science (B.Sc.) 24-1-0.5 shall, before admission to the curriculum in Science, produce evidence either (i.) of having graduated in Arts; or (ii.) of having completed the First Year in the Faculty of Artsin accordance with the provisions of Chapter X., Section 7 ; or (iii.) of having passed the Matriculation Examination for the Faculty of Science, prescribed in Chapter X., Sections 5 and 6.
6.-Candidates for the degree of Bachelor of Science shall, 24-1-05 during the First Year, attend the courses of instruction upon and pass the examinations in the following subjects:-
I. Chemistry I., including laboratory practice.
II. Physics I., including laboratory practice.
III. and IV. Two of the following :-

Biology I., including laboratory practice.
Geology I., ", Mathematics I.
7.-Candidates for the degree of Bachelor of Science shall, ${ }^{24-1-05}$ during the Second Year, attend the courses of instruction upon and pass the examinations in three of the following subjects:-
I. Biology II., including laboratory practice.
II. Chemistry II., ",
III. Geology II., "
IV. Mathematics II.
V. Physics II., including laboratory practice.
VI. Physiology I.,
8. Candidates tor the degree of Bachelor of Science shall, 15-9-8 during the Third Year, attend the courses of instruction upon, and pass the examinations in two of the following subjects :-
I. Biology III., including laboratory practice.
II. Chemistry III.,
III. Geology III.,
IV. Mathematics III.
V. Physics III., including laboratory practice.
VI. Physiology II., ,"

Can idates intending to compete fur Honours in two or more subjects may be permitted, with a view to acquiring greater proficiency in practical work, to postpone the examination in one of the suljects requiring practical nork until the end
of the iourth year, during which they must devote their whole time to work in connection with the subject of the postponed examination to the satisfaction of the Facully.
24-1-05 9. Honours at graduation in any subject of the Science, curriculum shall be awarded only to such students as have passed through courses I., II., and III. of such subject.
${ }_{2+1-05}$ 10.-The candidate for Honours who shall have most distinguished himself at the Bachelor of Science examination shall, if he possess sufficient merit, receive a bronze medal.
24-1-05 11.-The examination for the degree of Bachelor of Science shall take place once a year.
24-1-0 12. - No candidate shall be admitted to this examination unless he produce a certificate from the Dean of the Faculty of Science that he is of nine Terms' standing, and that he has passed all the examinations required since his admission to the University.
241-05 13. The fee for the degree of Bachelor of Science shall be three pounds. No candidate shall be admitted to the examina-: tion unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him. For any re-examination for the same degree he shall pay a fee of two pounds.
14.--The Annual Examinations shall be conducted in the 24-1-05 first instance by means of printed papers, practical exercises, and reference to specimens when necessary; and at the termination of such examinations each candidate shall undergo a vivâ voce examination if the Examiners think fit. At least one written Class Examination shall be held during each Term of the first two years except in the mathematical subjects. Students shall not absent themselves from these examinations "except upon a medical certificate. Students who fail to pass the Class Exami-

- nations may, at the discretion of the Board of Examiners, be refused adnuission to the Annual Examinations.
24-1-05 15.-The Examination for the degiee of Doctor of Science (D.Sc.) shall take place once a year.

24-1-05
16.-Every candidate for the degree of Doctor of Science must have held the degree of Bachelor of Science for at least two years. He shall be required to pass an examination in one of: the following branches of Science:-Botany, Chemistry, Geology, Mathematics, Palæontology, Physics, Plysiology, Zoology.

He shall also be required to present; and if called upon, to defend, a thesis not previously published, embodying the results of an original investigation in the branch of science selected: Five printed or type-written copies of this thesis must be in the hands of the Registrar at least two months before the date fixed for the examination. The candidate may also present, for the consideration of the examiners, any original contribution or contributions to the branch of Science selected, which he may desire to submit in support of his candidature.
17.- Any candidate for this degree whose qualifications shall ${ }^{24-1-05}$ be of sufficient merit shall receive a bronze medal.
18. - The fee for the degree of Doctor of Science shall be ten 24-1-05 pounds. No candidate shall be admitted to the examination unless he have previously paid this fee to the Registrar. If a candidate fail to pass the examination the fee shall not be returned to him, but he shall be admissible to one further examination for the same degree without the payment of an additional fee. For each subsequent examination that may be required he shall pay the sum of five pounds.

## *DEPARTMENT OF ENGINEERING.

19. The degree of Bachelor of Engineering shall be given in 2t-1-0s the three branches of (i.) Civil Engineering, (ii.) Mining and Metallurgy, (iii.) Mechanical and Electrical Engineering.
20.-Candidates for the degree of Bachelor of Engineering 21-1-05 shall, before admission to the curriculum in Engineering, produce evidence either (i.) of having graduated in Arts or in Science; or (ii.) of having completed the tirst year in the Faculty of Arts in accordance with the provisions of Chapter X, Section 7, or (iii.) of having passed the Matriculation Examination for the Department of Engineering prescribed in Chapter X, Sections 5 and 6.

> GIVIL ENGINFERING.
21. Candidates for the degree of Bachelor of Engineering 28-12-09 in Civil Engineering shall, during the First Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-

[^6]I. Chemistry I., including laboratory practice.
II. Physics I., including laboratory practice.

- III. Mathematics I.
IV. Descriptive Geometry.
V. Geology I., including laboratory practice.
VI. Engineering Design and Drawing.

Students are recommended to attend the course of mechanical workshop practice prescribed for First Year Students in the Department of Mechanical and Electrical Engineering.
22. Candidates for the degree of Bachelor of Engineering in Civil Engineering shall, during the Second Year, attend the courses of instruction upon, and pass the examination in, the following subjects:-
I. Mathematics II
II. Engineering Construction, including laboratory practice.
III. Mechanical Engineering I, including laboratory practice.
IV. Physics II., including laboratory practice.
V. Chemistry II. (for engineers).
VI. Engineering Design and Drawing.
23. Candidates for the degree of Bachelor of Engineering in Civil Engineering shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Mathematics IlI. (Spherical Trigonometry, one term).
II. Materials and Structures I., including laboratory practice.
III. Mechanical Engineering II. A, including laboratory practice.
IV. Electrical Engineering I., including laboratory practice.
V. Surveying I., including field work.
VI. Architecture and Building Construction.
VII. Engineering Drawing and Design.

The annual examinations of Third Year students shall be held at the end of I'rinity Term. Before entering upon his Fourth Year each student shall be required to present a certificate showing that he has had six months' practical work on approved engineering works or in approved offices or workshops.
24. Candidates for the degree of Bachelor of Engineering 28-12-09 in Civil Engineering shall, during the Fourth Year attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Materials and Structures II., including laboratory practice.
II. Civil Engineering $A$ and $B$, including laboratory practice.
III. Surveying . II.
IV. Engineering Design and Drawing.

Every candidate is required to prepare and submit to the Board of Examiners an original thesis or set of working drawings and specifications for machinery or works.
mining and metallergy.
25.-Candidates for the degree of Bachelor of Engineering 28-13-09 in Mining and Metallurgy shall, during the First Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Chemistry I., including laboratory practice.
II. Physics I., including laboratory practice.
III. Mathematics I.
IV. Descriptive Geometry.
V. Geology I., including laboratory practice.
VI. Engineering Design and Drawing.

Students are recommended to attend the course of mechanical workshop practice prescribed for First Year Students in the Department of Mechanical and Electrical Engineering.
26.—Candidates for the degree of Bachelor of Engineering 28-12-09 in Mining and Metallurgy shall, during the Second Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Engineering Construction, including laboratory practice.
II. Mechanical Engineering I.
III. Physics II. (two terms)
IV. Engineering Design and Drawing.
V. Chemistry II. (for engineers).
VI. Geology II., including laboratory practice.
VII. Chemistry, quantitative.

28 12-09 27.-Candidates for the degree of Bachelor of Engineering in Mining and Metallurgy sball, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Mineralogy, including laboratory practice.
II. Materials and Structures I., including laboratory practice. III. Mechanical Engineering II. A, including laboratory practice.
IV. Electrical Engineering I., including laboratory practice.
V. Surveying I, including field work.
VI. Building Construction.
VII. Practical Metallurgy and Assaying I.
VIII. Engineering Design and Drawing.
IX. Mining (Michaelmas Term).

Before commencing the Fourth Year, students are recommended to spend at least two months on an approved mine.
28:12-09 28.-Candidates for the degree of Bachelor of Engineering: in Mining and Metallurgy shall, during the Fourth Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Mining.
II. Metallurgy.

1II. Practical Metallurgy and Assaying II.
IV. Engineering Design and Drawing.
V. Surveying III., with field work.

Every Candidate is require to prepare and submit to the Board of Examiners an original thesis, or set of working drawings and specifications for machinery or works.

MECHANICAL AND ELEGTEICAL ENGINEERING.
28-12-09
29.-Candidates for the degree of Bachelor of Engineering in Mechanical and Electrical Engineering shall during the First Year attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Chemistry I., including laboratory practice.
II. Physics I., including laboratory practice.
III. Mathematics I.
IV. Descriptive Geometry.
V. Engineering Design and Drawing.
VI. Mechanical Workshop Practice.
30.-Candidates for the degree of Bachelor of Engineering 28-12-09 in Mechanical and Electrical Engineering shall, during the Second Year, attend the courses of instruction upon, and pass the examinations in, the following, subjects:-
I. Mathematics II.
II. Engineering Construction.
III. Mèchanical Engineering I., including laboratory practice.
IV. Physics II., including laboratory practice.
V. Chemistry II. (for engineers).
VI. Engineering Design and Drawing.
31.-Candidates for the degree of Bachelor of Engineering 28-12.09 in Mechanical and Electrical Engineering shall, during the Third Year, attend the courses of instruction upon, and pass the examinations in, the following subjects:-
I. Mathematics III. (Differential Equations, one term).
II. Mechanical Engineering II., including laboratory practices.
III. Electrical Engineering I.,, including laboratory practice.
IV. Materials and Structures I., including laboratory practice.
V. Surveyitg I., with field work.
VI. Engineering Design and Drawing.

The annual examination of third year students shall be held at the end of Trinity Term. Before entering upon his Fourth Year each student shall be required to present a certificate showing that he has had six months' practical workshop experience in some approved engineering works.
32.-Candidates for the degree of Bachelor of Engineering 23-12-09 in Mechanical and Electrical Engineering shall, during the Fourth Year, attend the courses of instruction upon, and pass the examinations in, the following subjects :-
I. Mechanical Engineering III., including laboratory practice.
II. Electrical Engineering II., including laboratory practice.
III. Engineering Design and Drawing.
IV. Civil Engineering.

Every candidate is required to prepare and submit to the Board of Examiners an original thesis or set of working drawings and specifications for machinery or works.
33.-A candidate shall not be admitted to the Degree of Bachelor of Engineering unless he shall produce a certificate from the Dean of the Faculty of Science that he is of twelve Terms ${ }^{7}$ standing, that he has passed all the examinations, and has satisfactorily complied with all the other conditions required of him since his admission to the University.
14-1-08 34. The candidate who shall have most distinguished himself at the Final Examination for the Degree of Bachelor of Engineering in any department shall, if he possess sufficient merit, receive a bronze medal.
8-10-89 35.-The examination for the Degree of Master of Engineering shall take place once a year. This degree shall not be conferred until after the expiration of three Academic years from the granting of the B.E. Degree.

9-2-82
36.-Every candidate shall be required to produce to the Board of Examiners satisfactory certificates or other evidence of hsving been engaged during three years in the practice of one of the branches of Engineering specified in By-law 37, one year at least of which must have been spent in acquiring a practical knowledge of the branch or branches selected, under the direction of an Engineer or Architect practising the branch or branches in which he wishes to be examined.

13-12-92 37.-Candidates for the Degree of Master. of Engineering shall have taken Honours in the Professional subjects of the examination for the Degree of B.E. ; or must attain the standard for Honours at some subsequent B.E. Examination, and shall be required to pass examinations in one of the following divisions or branches:-
I. Engineering Construction in Iron, Steel, Timber, Masonry and Concrete.
II. Hydraulic and Sanitary Engineering.
III. Railway Engineering, including railway location, Permanent Way, Locomotives and Rolling Stock, and Railway Appliances.
IV. Architecture, Building Construction and Sanitation.
V. Mechanical Engineering and Machine Construction.
VI. Mining and Metallurgy.
VII. Electrical Engineering.

Candidates must give at least twelve months' notice of their intention to proceed to the Master's Degree.

Candidates shall be required to prepare a complete set of working drawings and specifications of such works or machinery as the Examiners may require in the particular division or branch of Engineering selected.
38.-The diplomas for the Degrees of Bachelor and Master 8-10-80 of Engineering shall specify the branch or branches of Engineering for which they are granted.
39.-The fees for the degrees of Bachelor and Master of 18-4.08 Engineering shall be ten pounds respectively. These fees shall be paid to the Registrar before the examination, and shall not in any case be returned to the candidate. Candidates who fail to pass the examination for either degree shall be required, upon presenting themselves for any further examination for the same degree, to pay a fee of five pounds.
40.-Graduates in Engineering in any branch may, upon 8-10-89 passing the Degree Examination in any other branch or branches, and producing satisfactory evidence of practical work therein, receive a certificate for such additional branch or branches.
41.-The fee for such additional examination for the Degrees 8 -10-89 of Bachelor and of Master of Engineering shall be ten pounds.
42.-The candidate who shall most distinguish ${ }^{\text {a }}$ imself in 11-9-93 the examination for the Degree of Master of Engineering shall, if of sufficient merit, receive a bronze medal.
43.-Notwithstanding the provisions of sections 6, 7 and 8 18-408 of this chapter,-

1. Undergraduates who have completed two years of the course prescribed for students in the Department of Civil Engineering, and have passed the second year examination, may proceed to the degree of Bachelor of Science by attending the third year courses of instruction in Mathematics and Physics and passing the examinations in those subjects.
2. Undergraduates who have completed three years of the course prescribed for studonts in the Department of Mining and Metallurgy, and have passed the third year examination, may proceed to the degree of: Bachelor of Science by attending the third year courses of instruction in Chemistry and Geology and passing the examinations in those subjects.
3. Undergraduates who have completed two years of the course prescribed for students in Mechanical and Electrical Engineering, and have passed the second year examination, may proceed to the degree of Bachelor of Science by attending the third year courses of instruction in Mathematios and Physics and passing the examinations in those subjects.
Provided that no student who takes advantage of this section shall be at liberty during the period to which this section applies to take up any course except those prescribed by this section.

Chapter XXII-DEpARTMENT OF VETERINARY SCIENCE.
9s-09 1.-The Chancellor and Vice-Chancellor, the Professors and Lecturers in the subjects of the Veterinary Science Curriculum, and three persons appointed from time to time by the Senate for periods of three years, shall constitute the Board of Veterinary . Science.
as-09 2:-The Professor of Veterinary Science shall be the Director of the Department of Veterinary Science, and it shall be his duty to exercise a general supervision over its management and discipline.
9.8-9
3.-The Director shall exercise a general superintendence over the administrative business connected with the Board, and it shall be the duty of the Registrar to summon meetings of the Board at such times as may be required by the Director, provided that upon the written requisition of any three members of the Board, the Director, or in his absence the Registrar, shall convene a special meeting. No question shall be decided at any meeting of the Board unless there be present at least five members. In the absence of the Chancellor and ViceChancellor the Director shall act as Chairman at all meetings of the Board, but in his absence the members then present shall elect a Chairman from among themselves. The Chair-

## CHAPTER XXII.-DEPARTMENT OF VETERINARY SCIENCE. 71

man at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote. It shall be the duty of the Registrar to attend all meetings and to record the proceedings.
4.-The Board shall meet for the purpose of considering 9-s.e and reporting to the Senate upon such subjects as have relation cto the studies, lectures, examinations, degrees and licenses in Veterinary Science, and such questions as may be referred to it by the Senate.
4.-Class Examinations shall he held during each course of 9-8-09 instruction in each term, unless such term immediately precedes the annual examination in the subject of the course. Students shall not absent themselves from these examinations except upon a medical certificate, and at the end of each course a report of the result, signed by the responsible teacher, shall be presented to the Board. The result of these examinations may be taken into account by the Board at the annual examinations.
6.-There shall be granted (a) a License in Veterinary 9-8-09 Science, viz., Licentiate in Veterinary Science (L.V.Sc.), and (b) a Degree in Veterinary Science, viz., Bachelor of Veterinary Science (B.V.Sc.).
7. Candidates may be admitted to the I)epartment of 9-8-09 Veterinary Science on passing such entrance examination as the Senate may from time to time prescribe.
8.-Candidates for the License in Veterinary Science shall 9-8-09 attend the following courses of instruction, ie.:-
I. In the First Year-

Biology.
Practical Biology.
Inorganic and Organic Chemistry.
Practical Chemistry.
Physics (Elementary).
Veterinary Anatomy, Junior (Osteology and Arthrology).
II. In the Second Year-

Physiology (with special course in Supplementary Veterinary Physiology).
Practical Physiology, including Histology and Physiological Chemistry.

Equine Anatomy and the comparative anatomy of the other domesticated animals.

Practical Veterinary Anatomy with Dissections, extending over three terms, and including not less than twenty demonstrations on the anatomy of the domesticated animals other than the horse.
III. In the Third Year-

Veterinary Pathology and Bacteriology.
Pharmacology.
Agricultural Botany.
Veterinary Hygiene and Dietetics.
Veterinary Materia Medica, Therapeutics and Pharmacy.
Stable Management, Manipulation of Domesticated Animals, and Principles of Horse-shoeing.
Clinical Instruction.
And such further practical work as may from time to time be prescribed by the Board.
IV. In the Fourth Year-

Veterinary Medicine.
Veterinary Surgery.
Veterinary Obstetrics.
Veterinary Parasitology:
Meat Inspection.
Examination of Horses for Unsoundness.
Clinical Instruction.
And such further practical work as may from time to time be prescribed by the Board.

0-8-09 9.-Candidates for the License in Veterinary Science shall be required to pass the following examinations:-
(i.) A First Annual Examination at the end of the first year in Biology, Inorganic and Organic Chemistry. Elementary Physics, and Junior Veterinary Anatomy,
(ii.) A Second Annual Examination at the end of the. second' year in Physiology, Equine Anatomy and Comparative Anatomy of the Domesticated Animals. No candidate shall be admitted to this examination unless he has completed the dissection of every part of the body of the horse at least once, and has attended twenty demonstrations on the Anatomy of other domesticated animals.
(iii.) A Third Annual Examination at the end of the third year in Veterinary Pathology and Bacteriology, Pharmacology, Agricultural Botany, Veterinary Hygiene and Dietetics, Principles of Horseshoeing, Veterinary Materia Medica and Therapeutics.
(iv.) A Fourth Annual Examination in Veterinary Medicine, Veterinary Surgery, Veterinary Obstetrics, Veterinary Parasitology, Meat Inspection, Examination of Horses for Unsoundness, and such further practical work as may from time to time be prescribed by the Board.
10.-At each examination candidates shall be required to $9-8-09$ give proof of their knowledge by written answers to the questions set, and also by practical or viva voce examination, or by both.

11 --Students who fail to pass or neglect to attend their 9-8-09 examinations in any subject or subjects may be required by the Board to attend again the course or courses of instruction in any such subject or subjects before again presenting themselves for examination.
12.-No candidate shall be admitted to the Final Examina- 9-8-09 tion until he shall have produced evidence satisfactory to the Senate of having completed his twenty-first year and of being a person of good fame and character.
13.-Candidates who have passed all the above mentioned $9-8-09$ examinations to the satisfaction of the Board, and have duly complied with these by-laws, may be recommended to the Senate for admission to the License in Veterinary Science.
14.-Accredited certificates of attendance on courses of in- $9-8-9$ struction from other Universities or Schools of Medicine or of Veterinary Science may, on the report of the Board of Veterinary Science, be accepted by the Senate as proof of
attendance on courses of instruction pro tanto required by these by-laws. Provided always that no person shall be recommended to the Senate for the License in Veterinary Science unless he shall have attended for at least three terms and passed examimations in the subjects of the fourth year's course, and have produced some certificate of general education satisfactory to the Senate.
9-8-09 15.-The fee for the License in Veterinary Science shall be five pounds. This fee shall be paid to the Registrar before the Final Examination and shall not in any case be returned to the candidate. A çandidate who fails to pass the examination may be allowed to present himself for a further examination upon payment to the Registrar of a sum of three pounds for each subsequent examination.

DEGREE OF BACHELOR OF VETERINARY SCLENCE.
9-8-09 16.-Candidates who have been admitted to the License in Veterinary Science may proceed to the Degree of Bachelor of Veterinary Science.
9-8-09 17.—Candidates for the Degree of Bachelor of Veterinary Science shall, after admission to the License, attend the prescribed courses of instruction, and pass written, oral and practical examinations in the following subjects:-

Advanced Practical Physiology-one term.
Advanced Veterinary Pathology and Bacteriology-three terms.
Advanced Veterinary Hygiene and Sanitary Sciencetwo terms.
And such further laboratory and practical work as may from time to time be prescribed by the Board.
9-8-09 .18.-Students who fail to pass or neglect to attend their examinations in any subject or subjects may be required by the Board to attend again the course or courses of instruction in such subject or subjects before again presenting themselves for examination.
9-8-09 19. - Candidates who have passed examinations in all the prescribed subjects to the satisfaction of the Board, and have duly complied with these by-laws, may be recommended to the Senate for admission to the Degree of Bachelor of Veterinary Science.
20.-The fee for the Degree of Bachelor of Veterinary 9-8-09 Science shall be ten .pounds. This fee shall be paid to the Registrar before examination for the Degree, and shall not in any case be returned to the candidate. A candidate who fails to • pass the examination may be allowed to present himself for a further examination upon payment to the Registrar: of the sum of five pounds for each subsequent examination.
21.-Notwithstanding anything to the contrary in any 9-8-09 by-law of this University, candidates who produce satisfactory evidence of having qualified at any Veterinary School teaching: an approved curriculum of not less than three years, and having subsequently been residents in Australasia or New Zealand for ${ }^{1}$ a period of twelve months, may be admitted to such status in the course of the Degree of Bachelor of Veterinary Science as the Senate, on the recommendation of the Board of Veterinary Science, shall in each case determine; or if the Senute on the same recommendation so determines, candidates who are members of the Royal College of Veterinary Surgeons may be admitted to the Degree of Bachelor of Veterinary Science on presenting and defending a. Thesis to the satisfaction of the examiners on a subject approved by the Board of Veterinary Science, not less than three printed or typewritten copies of the Thesis being transmitted to the Registrar at least two months before the date fixed for the examination. This by-law shall not remain in force after the beginning of March, $191 \%$.

Chapter XXIIa, DEPaRTMENT of AGRICULTURE.
1.-In the Department of Agriculture there shall be granted the Degree of Bachelor of Science in Agriculture.
2.-Candidates for the Degree of Bachelor of Science in Agriculture shall, before admission to the curriculum in Agriculture, produce evidence either-
I. of having graduated in Arts or in Science ; or
II. of having completed the First Year in the Faculty of Arts in accordance with the provisions of Chapter. X., Section 7 ; or
III. of having passed the Matriculation Examination for the Faculty of Science prescribed in Chapter X., Sections 5 and 6.
3.-Candidates for the - Degree of Bachelor of Science in Agriculture shall, during the First Year, attend the courses of instruction upon and pass the examinations in the following subjects:-
I. Chemistry I., including laboratory practice.
II. Biology I.
III. Geology I.
IV. Physics I.
V. Mathematics I.' (Trigonometry only).

Provided that any student who has passed in Higher Mathematics at Matriculation, or has presented some certificate of having passed an examination in Trigonometry at the Senior standard, shall be exempt from the lectures and annual examination in that subject.
4.-Candidates for the Degree of Bachelor of Science in Agriculture shall, during the Second Year, attend the courses of instruction upon and pass the examinations in the following subjects:-
I. Chemistry (Organic and Physical) with.laboratory practice.
II. Botany (Systematic and Physiological) with laboratory practice.
III. Agricultural Geology, with laboratory practice.
IV. Principles of Agriculture I.
V. Economic Entomology.
5.-Candidates for the Degree of Bachelor of Science in Agriculture shall, during the Third Year, attend the courses of instruction upon and pass the examinations in the following subjects:-
I. Agricultural Chemistry, including laboratory practice.
II. Agricultural Botany
III. Plant Pathology

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IV. Veterinary Hygiene and Dietetics.
V. Stable Management, Manipulation of Domesticated Animals and Principles of Horse-shoeing.
VI. Veterinary Pathology.
and shall perform such further practical work as may be required.
6.-Candidates for the Degree of Bachelor of Science in Agriculture shall, during the Fourth Year, attend the courses of instruction upon and pass the examinations in the following subjects:-
I. Principles of Agriculture II,
II. Principles of Fruit Culture and Viticulture,
III. Economic Science applied to Agriculture,
IV. Principles of Forestry, with practical exercises,
V. Agricultural Engineering, with practical exercises,
VI. Veterinary Parasitology,
VII. Agricultural Bacteriology, including laboratory practice, and shall perform such further practical work as may be required.
7.-Before admission to the Degree of Bachelor of Science in Agriculture, each candidate shall be required to produce evidence of having spent a period of not less than twelve months, which need not be continuous, at an Agricultural College or approved farm, where he has been engaged in practical field operations
8.-No candidate shall be admitted to the Degree of Bachelor of Science in. Agriculture unless he shall produce a certificate from the Dean of the Faculty of Science that he is of twelve terms standing, and that he has passed all the examinations, and has satisfactorily complied with all the other conditions required of him since his admission to the University.
9.-The candidate who shall have most distinguished himself at the Annual Examinations throughout the course for the Degree of Bachelor of Science in Agriculture shall, if he possess sufficient merit, receive a bronze medal.
10.-The fee for the Degree of Bachelor of Science in Agriculture shall be three pounds. No candidate shall be admitted to the examination unless he shall have previously paid this fee to the Registrar. If a candidate fail to pass the examination, the fee shall not be returned to him. For any re-examination for the same Degree he shall pay a fee of two pounds.

0-7-87 1.-Admission ad eundem gradum in the University may, at the discretion of the Senate, be granted without examination to Graduates of the following approved Universities-that is to say, the Universities of Oxford, Cambridge, London and Durham, the Victoria University, the University of St. Andrew's, Edinburgh, Glasgow, Aberdeen and Dublin, the Queen's University of Ireland, and the Royal University of Ireland, lately established in its place; and the Universities of Melbourne, New Zealand and Adelaide; and may also be granted to Graduates of such other Universities as the Senate may from time to time determine; provided always that they shall give to the Registrar, to be submitted to the Senate, sufficient evidence of their alleged Degrees respectively, and of their good fame and character. Upon the approval of his application each candidate shall pay to the Registrar a fee of two pounds for the entry of his name on the University books, in addition to the prescribed fee for his Degree.

Chapter XXIV.-REGISTER OF GRADUATES.
${ }^{8-7-87}$ 1.-A Register of Graduates of the University shall be kept by the Registrar in such manner as the Senate shall from time to time direct.
5-7-87 2.-A Reyister of the Members of Convocation shall be kept by the Registrar in such manner as the Senate shall from time to time direct, and such Register shall be conclusive evidence that any person whose name shall appear thereon at the time of his elaiming a vote at a Convocation is so entitled to vote.

Chapter XXV.-SUBSTITUTES FOR OFFICERS.
6-7-87 1. -Any act required by the By-laws to be performed by any officer of the University may, during the absence or other incapacity of such officer, unless otherwise provided, be performed by a person appointed by the Senate to act in his place.

Chapter XXVI.-ACADEMIC COSTUME.
2••-82 $\quad$ 1. -The Academic Costume shall be for-
The Chancellor and Vice-Chancellor-a robe and cap similar to those worn by the Chancellor of the University of Oxford. In undress, the silk gown worn by other members of the Senate, black velvet cap and gold tassel.

A Member of the Senate-the habit of his Degree, or a black silk gown of the description worn by Graduates holding the Degree of Doctor, with tippet of scarlet cloth, edged with white fur, and lined with blue silk, black velvet trencher cap.
Doctor of Laws, Medicine or Science-the gown worn by Graduates holding the Degree of Doctor in the Universities of Oxford or Cambridge, black cloth trencher cap.
Doctor of Laws-hood of scarlet cloth, lined with blue silk.
Doctor of Medicine-hood of scarlet cloth, lined with purple silk.
Doctor of Science-hood of scarlet cloth, lined with amber-coloured satin.
Master of Arts-the ordinary Master's gown of Oxford or Cambridge, of silk or bombazine with black silk hood lined with blue silk, black cloth trencher cap.
Master of Surgery - the ordinary Master's gown of Oxford or Cambridge, of silk or bombazine, with hood of scarlet cloth lined with French grey, black cloth trencher cap.
Master of Engineering-a Master of Arts gown, with black silk hood, lined with light maroon-coloured silk, black cloth trencher cap.
Bachelor of Laws or Medicine-the black gown worn by civilians in Osford or Cambridge holding Degrees, black cloth trencher cap.
Bachelor of Laws-hood of black silk, edged with blue silk.

Bachelor of Medicine-hood of black silk, edged with purple silk.
Bachelor of Airts, Science or Engineering-a plain black stuff gown, black cloth trencher cap.
Bachelor of Arts-hood similar to that worn by the B.A. at Cambridge.

Bachelor of Science-hood of black stuff, edged with amber-coloured silk.

Bachelor of Engineering-hood of black stuff, edged with light maroon-coloured silk:
Bachelor of Dental Surgery-hood of black stuff, edged with purple and cream-coloured silk.
Bachelor of Veterinary Science-black gown similar to that worn by the Bachelors of Laws and Medicine, hood of black silk, edged with ambercoloured and purple silk.
An Officer not being a Graduate-a black silk gown of the description worn by civilians not holding Degrees, black cloth trencher cap.
Undergraduate-a plain black stuff gown, black cloth trencher cap.
Scholar-plain black stuff gown, with a velvet bar and shoulder strap, black cloth trencher cap.
${ }_{5-7-87} \quad$ 2.-Members of the University shall on all public occasions, when convened for Academic purposes, appear in their Academic costume.
18-408 3.-The Undergraduates shall appear in Academic costume when attending lectures, and on all public occasions in the University; and, whenever they meet the Fellows, Professors, or other Superior Officers of the University, shall respectfully salute them. Provided that students in any Faculty shall be permitted, if deemed expedient by the Faculty, to dispense with Academic dress at such courses of instruction as the Faculty may determine.

Chapter XXVII.-PUBLIC EXAMINATIONS.
s-7-87 1.-Two public examinations shall be held every year, the one to be called the Junior Public Examination and the other to be called the Senior Public Examination, and shall be open to all candidates, male or female, who may present themselves.
${ }_{s-7-87} \quad$ 2. -The Public Examinations shall be held at such times and at such places as the Senate may from time to time appoint.
5-7-87 3.-The subjects of the Junior Public Examination shall be the English Language and Literature, History, Geography, the Latin, Greek, French and German Languages, Arithmetic, Algebra, Geometry, Natural Science, and such other branches of learning as the Senate may from time to time determine.
4.-The subjects of the Senior Public Examination shall be $\mathrm{s}_{-7 \text { - }-8 \mathrm{~m}}$ those mentioned in the foregoing section, together with higher Mathematics, Drawing, Music, Natural Philosophy, and such other branches of learning as the Senate may from time to time determine.
5.-Every candidate who shall pass either of these exami-5-7-87. nations, or such portions of either of them as may be required by the Rules or Orders of the Senate in force for the time being, shall receive a certificate to that effect, specifying the subjects in which he shall have passed, signed by the Chairman of the Board and by the Registrar.
6.-No person shall be admitted to either of the Public 5-7-87 Examinations until he shall have paid such fees as may be required by the Rules or Orders of the Senate in force for the time being.
7.-The Professors and Assistant Professors not engaged in 18-7-93: tuition except publicly within the University, together with such other persons as the Senate may from time to time appoint, shall form a Board for conducting the Public Examinations; and of this Board the Chairmanyshall be elected at its first meeting in the year.
8.-At the conclusion of each examination the Board shall 27-9-92: publish the result and transmit to the Senate a copy of it, signed by the Chairman and at least one other member.
9.-Subject to these By-laws, the Public Examinations shall 5-7-87 be conducted according to such rules and orders as the Senate may from time to time establish.

## Chapter XXVIIL.-UnIVERSITY EXTENSION.

1.-There shall be a Board, consisting of not more than 12-6-05. eighteen members, of whom four at least shall be membèrs of the Senate, and four at least shall be members of the Teaching Staff, and not less than two shall be persons not being members of the Senate or of the T'eaching Staff. The Board shall be appointed annually by the Senate, at its monthly meeting in November, and shall be held to be duly constituted upon the appointment of twelve persons to be members thereof, and the Senate may fill vacancies and appoint additional members from time to time if it shall think fit during the year, but so that the total number of members of the Board shall not exceed eighteen.
at any time. Membership of the Board shall continue from the time of appointment until the next annual appointment of the Board, when all memberships shall lapse, but all retiring members shall be eligible for re-election.
12.9-92 2.-The Board shall at its first meeting after its appointment in each year elect a Chairman for the year, and may recommend to the Senate the appointment of a Secretary, the tenure of whose office and the amount of whose salary (if any) shall be determined by the Senate. The Chairman shall convene meetings of the Board, and three members shall form a quorum.
12-9-92 3.-All action taken by the Board shall be subject to the By-laws, and to any directions which may be given by the Senate.
12-9-92 4.-The Board shall from time to time recommend to the Senate the names of certain persons to be authorised for employment as University Extension Lecturers, and the Senate shall at its discretion authorise the employment of such persons to deliver lectures under the direction of the Board.
12-9-9 5.-The Board may appoint any person whose employment as Lecturer has been authorised by the Senate to deliver such courses of lectures, and to hold such classes and examinations on such subjects, and at such times and places as the Board may see fit.
12-9-92
6.-The Board shall determine the tenure of office of the Lecturers, the duties to be performed by them, the fees and charges to be paid for the lectures, classes and examinations, and the mode and time of payment of the fees and charges.
22-9-92 7.-The payments to be made to the Lecturers shall be determined by the Board in accordance with regulations as to the rate of payment to be laid down by the Senate.
12-8-92 8.-The Board shall make all other arrangements requisite for the delivery of lectures and the holding of classes and examinations, and may amard such certificates as it shall think fit.
18-406 9.-The fees received, together with any Government grant, donations, and such sums as may from time to time be assigned for the purpose by the Senate, shall be the fund for the payment of lecturers and other expenses.
18-4.06 10.-The Board shall, in the month of November in each year, lay before the Senate a report of its proceedings for that year.

## Chapter XXIX.-TENUURE OF OFFICE OF LECTURERS.

1.-All appointments of Public Teachers in the schools of 29-8-91 the University, other than Professors, shall be terminable by a notice of not less than six calendar months, which may be given by the Senate at any time, but which, if given by the Teacher, must expire on the 31st December. This By-law shall not apply to any case in which the Senate shall direct that the appointment shall be for a limited period.
2.-All independent Lecturers or Public Teachers other than 7-1-02 Professors and Assistant Lecturers and Demonstrators shall, unless specifically appointed for a shorter term, hold office for a period not exceeding seven years, which shall terminate on December 31 st next preceding the expiration of seven years from the date of appointment. During such period the appointment shall be terminable at six months' notice, as provided in Section 1 of this chapter, and at the expiration of such period the appointment shall terminate; but the holder shall be eligible for reappointment.

Chapter XXX.-FiNANCE.
1.-The general supervision of the financial affairs of the $11-\mathrm{e}-\mathrm{e}$ University shall, subject to the direction and control of the Senate, be entrusted to a Finance Committee, consisting of the Chancellor, the Vice-Chancellor, and four elected Fellows of the Senate, of which number three shall constitute a quorum.
2.--The elected members of the Committee shall be chosen i-6-92 anuually by the Senate, and shall remain in office until their successors shall have been appointed. All casual vacancies shall be notified by the Registrar at the next meeting of the Senate, and shall be filled by the Senate as soon thereafter as conveniently may be.
3.-The Finance Committee shall meet once a month, and $7-6-92$ at such other times as the Senate shall have directed, or when it shall be summoned by the Registrar under the direction of the Chancellor or Vice-Chancellor.
4.-The Registrar shall attend all meetings of the Committee, $i-6.02$ and shall keep due records and minutes of their proceedings, and shall act generally as executive officer of the Committee. And the University Solicitor may be required by the Committee to attend any of its meetings with reference to the investments or other matters requiring legal advice or assistance.

7-6-82
5.-It shall be the duty of the Finance Committee to submit to the Senate, towards the end of each Academic year, an estimate of the expected revenue for the next ensuing year, together with a statement of the proposed expenditure as already authorised by the Senate or apprehended to be necessary, such estimates and expenditure to be arranged under as many heads as shall be convenient. And the Senate shall, as soon after as may be, consider such estimates and pass votes for expenditure during such coming year, which votes shall not be exceeded unless upon special grounds and on the report of the Finance Committee that sufficient funds are available for the expenditure.
7-6-68 6.-The Finance Committee shall, as soon as practicable after the close of each Academic year, submit to the Senate a report and a duly audited statement of the accounts and transactions during the past year.

J-6-92
7.-The Registrar and Accountant shall present to the Finance Committee in each month a statement showing, with such details and particulars as the Committee shall have required, the full state and condition of the University's financial affairs at that time, and the Registrar shall then inform the Committee of all financial matters proper to be considered at that meeting, and shall produce the Bank Pass Books of the University made up to the preceding day.
7-6-92 8.-The Finance Committee shall once in each month present a report setting forth a pay sheet for the disbursements required for that or the next month, as occasion may arise, in accordance with the general estimates and votes for expenditure for the current year, or with any specific order previously made by the Senate, and also setting forth any other demands which the Committee shall, after enquiry and examination, see reason to submit for allowance and payment in that month.
7-0-02 9.-The Finance Committee shall also in each month present to the Senate a report showing the general state and condition of the University's financial affairs, and setting forth all receipts and disbursements since the last preceding report of like character, and shall therein distinguish all loans and repayment of loans from other disbursements and receipts, and the Committee shall, at such meeting and other meetings, promptly report any default in the payment of interest on any investment or in the payment of any principal money which may be due to the University.
10.-No expenditure of funds of the University, otherwise 7-6-92 than by way of investment on loan upon the authority of the Finance Committee, with the approval of the Chancellor or Vice-Chancellor, shall be made unless the same shall have been :authorised by the Senate.
11.-All moneys received on behalf of the University shall 7-6-92 be forthwith paid by the Registrar to the credit of the University at its Bank of deposit, on General or Special Account, as the case may require.
12.-All disbursements of money belonging to the University, 20-9-98 whether the same shall be by way of payment or of investment, shall be by cheque on the University Bank; signed by two members of the Senate and countersigned by the Registrar.
13.-The investment of moneys shall be confined within the 20-0-98 following classes of securities:-
(a) Deposit with the Government of the State at interest, if allowed by the Government for the time being.
(b) Purchase of Debentures or Inscribed Stock, or Treasury Bills, or other form of security issued by the Government of any of the Australian States.
(c) Debentures or other Loan issues of Municipal or other public bodies within this State, having statutory powers to borrow moneys within limits then open, or of any incorporated body or society having such authority and within such limits.
(d) Mortgages of Land and Premises held in fee simple to the extent of two-thirds the estimated value, with sufficient insurance on destructible improvements or articles included in such estimates.
(e) Mortgages of Leasehold Lands and Premises held under leases which will not have less than thirty years to run at the date of expiration of such mortgages, to an extent not exceeding three-fifths of like approved estimates, and with like insurance on destructible improvements or articles.
(f) Deposits at interest in any Bank of the State.
(g) Purchase of Freehold or Leasehold Lands, with or without improvements, provided that no investment under this sub-section shall be made without the special authority after special notice of a meeting of the Senate.

## THE FISHER LIBRARY.

In 1885 the sum of $£ 30,000$, or thereabouts, was bequeathed to the University by Thomas Fisher, Esq., "to be applied and expended by the Seuate for the time being of the University in establishing and maintaining a Library for the use of the University, for which purpose they may erect a building, and may purchase books, and do anything that may be thought desirable for effectuating the purposes aforesaid."

The Government of the State having decided in 1901 to defray the cost of the erection of a new building at the University, to be called the Fisher Library, the principal money of the Fisher Fund is, by direction of the Senate, to be kept as a perpetual endowment fund for keeping up and adding to the Library.

## REGULATIONS.

1. The Library Committee shall consist of the Chancellor, the Vice-Chancellor, the Professors, the Librarian, and such other nembers as may from time to time be appointed by the Senate. At its first meeting in any year a Chairman shall be elected for the year.
2. There shall be an Executive Committee, consisting of the Chairman, two members of the Library Committee elected annually by that Committee, and the Librarian. The Executive Committee shall meet at least once a month. The Chairman of the Library Committee shall be the Chairman of the Executive Committee.
3. The Librarian shall have the ordinary management of the Library, subject to the supervision of the Library Committee and the Executive Committee.
4. The Library shall be open for purposes of study and the issue and return of books from $9 \mathrm{a} . \mathrm{m}$. till $4.30 \mathrm{p} . \mathrm{m}$. on each week-day, except Saturday, when it shall close at noon. It shall also be open on each week-day during term, except Saturday, from 6 p.m. till 9 p.m., and also in vacation at such times in the evening as may be decided by the Executive Committee.

Provided that the Library shall be closed on Sundays and public holidays, and for the purpose of allowing the Librarian sufficient time to inspect the books, during the first fortnight in the month of January.
5. Silence must be observed in the reading-room. Any reader disturbed by a breach of this regulation should bring it to the notice of the Librarian. Readers are required to sit at the tables, and are not permitted to stand about in the readingroom.
6. No person shall use iuk in the reading-room, except with a fountain pen, without the permission of the Librarian, and then only at the tables assigned for the purpose.
7. No person shall be allowed to use or borrow any book until it has been entered in the catalogue and stamped.
8. Except as hereinafter provided, no person shall be allowed to take books out of the Library but Fellows of the Senate, Professors and other public teachers in the University, members of the University administrative staff, Graduates and Undergraduates.
9. Scholars engaged in special inquiry or research, and other parsons who make application and satisfy the Library Committee or the Executive Committee that they are able to use the Library with advantage, shall have the privilege, renewable monthly, of using the Library for purposes of reading and reference, and under exceptional circumstances may have the additional privilege of borrowing books.
10. No person shall be admitted to any of the privileges of the Library until he has signed an undertaking to observe and be bound by the regulations of the Library as authorized by the Senate.
11. No person, unless he be a Fellow of the Senate or an officer of the University, shall be allowed to borrow any book from the Library, until he has lodged with the University Accountant a deposit of one pound sterling (£1) in security for the due return of books and payment of any fines that may be incurred. The deposit, subject to deductions aforesaid, shall be returued when the borrower no longer wishes to use the Library.
12. A reading or borrowing voucher for each book must be filled in, legibly and in ink, and deposited with the Librarian. No book may, under any circumstances, be taken out of the

Library until a borrowing voucher has been given for it. Any infringement of this regulation shall render the borrower liable to a fine of not less than ten shillings.
13. Everyone who borrows any book from the Library shall return it whensoever he is required to do so by the Librarian, and without formal notification must return all books in his possession on or before the last day of Lent aud Michaelmas Terms respectively, under penalty of two shillings for every volume, payment of such penalty to become due upon the first day on which the Library is open after the date specified. Each penalty shall be repeated every fortnight till it amounts to twice the value of the book, or till the book be returned, or another of the same edition and equal value be placed in its room.
14. No borrower, unless he be a professor or other public teacher in the University, shall be allowed to have in his possession more than three volumes belonging to the Library, except with permission of the Executive Committee.
15. Readers or borrowers of books shall be held responsible for any injury, mutilation, or disfigurement by writing or other marks, and shall be required to pay the full value of new copies of such books, and may also be fined or suspended from the privileges of the Library at the discretion of the Library Committee or the Executive Committee. Any defect in, or injury to, a printed book should be pointed out to the Librarian; and readers and borrowers should report at once the loss or injury sustained by any book while in their possession.
16. So long as a fine remains unpaid, and so long as any person remains in possession of a book which he is not entitled to retain, the right of the defaulter to the use of the Library shall be suspended and remain in abeyance.
17. No book belonging to the Library shall be issued on loan by any person but the Librarian or his accredited representative.
18. Rare books, books difficult of replacement, books not sufficiently protected by the binding. unbound parts of works (except periodicals), works of general reference, M.SS., and such other books as the Committee may determine, shall not be lent out of the Library.
19. Periodicals shall be issued from the Library only to Public Teachers in the University. Other accredited readers may consult them in the Library. Within one month of the completion of any volume unbound parts must be returned to the Librarian for binding.
20. It shall be in the power of the Librarian at any time to withdraw any work from circulation.
21. Besides the Library staff, none but Fellows of the Senate, Professors, Lecturers, Assistant-Professors and AssistantLecturers shall have the right to enter the book-stack or the periodical room. No person shall enter the stack except in the company of an officer of the Library.
22. The Librarian shall be authorised to exclude temporarily any person infringing the regulations of the Library.

## NICHOLSON MUSEUM OF ANTIQUITIES.

Committee of Management-Professor Butler, B.A.; Professor Wood, M.A.; Professor Woodhouse, M.A.; Josiah Mullens, Esq. Honorary Curator-Professor Woodно⿱se, M.A.

## REGU̇LATIONS.

1.-The Bedell shall have charge of that portion of the building devoted to the Museum, and during the absence. of the Curator shall be responsible for the due care of the collection.
2.-The Museum shall be open for the admission of visitors every Saturday from the 1 st May to the 31 st October, from two to five p.m.: and from the 1 st November to the 30 th April, from two to six p.m. 'Visitors may also be admitted at any other convenient time when accompanied by a Member of the Senate, or by any Professur or Superior Officer of the University, or by the Curator or the Bedell in charge of the Museum.
3.-All visitors to the Museum shall be required to give their names and addresses, which shall be entered in a book to be kept for that purpose.
4.-Children under 15 years of age shall not be admitted unless accompanied by older friends.

## MACLEAY MUSEUM.

Committee of Mranagement-The Challis Professor of Biology, the Professor of Geology and Physical Geography.

Curator-G. Masters.
In the year 1874 the Hon. Sir W. Macleay, M.L.C., undertook to present to the University of Sydney his collection of Natural History, together with an eudowment for the stipend of a Curator, as soon as a suitable building should have been provided for its reception. The conditions attached to this donation were-

1. That the present Curator should be continued in office;
2. That the endowment of $£ 6,000$ for the salary of a Curator should be used for this and no other purpose; and
3. That the Museum should be made easily accessible to students of Natural History and members of the Linnean Society of New South Wales.
Under these conditions the Senate gratefully accepted Mr. Macleay's gift; and the Parliament having made liberal provision for the buildings required, the collection is now in the University.

## MUSEUM OF NORMAL AND MORBID ANATOMY.

Committee of Management-The Dean of the Faculty of Medicine, The Challis Professor of Anatemy, The Professor of Pathology.
Honorary Curator-Professor D. A. Welsh, M.A., B.Sc., M.D.
REGULATIONS.
1.-The Museum shall be called the Museum of Normal and Morbid Anatomy, and shall be established for the benefit of all the Medical Departments of the University.
2.-The Museum shall be under the control of a Committee of Management, to be appointed by the Senate at its first meeting in Lent Term.
3.-The Committee shall cousist of the Dean of the Faculty of Medicine for the tine being, together with two members of the Medical Teaching Staff to be chosen by the Senate.
4.-The working Curator shall be under the control of the Cómmittee of Management; and in the second Thurday of each Torm he shall transmit to the Dean, for the Senate, a report, to be written in a separate book kept for that purpose, of all the work he has done since the last report.
: 5.-Requisitions for the expenditure of money in connection with the Museum shall be submitted by the Committee of Management to the Finance Committee of the Senate for its approval.

## UNIVERSITY EXTENSION LECTURES.

gee also by-laws, chap. xxyiti. (page 81).
University Extrasion Board, 1911.-Members of the Senate: The Charicellor, the Vice-Chancellor, Judge Backhouse, M.A.; Mr. H. C. L. Anderson, M. A.; and Mr. R. Teece, F.I.A. Members of the Teaching Staff : Professors M. W. MacCallum, M.A., L.L.D.: G. Arnold Wood, M.A. ; F. Anderson. M. A.; T. W. E. David, C.M.G., B.A., F.R.S.; W.J. Woodhouse, M.A.; and Mr. F. A. Todd, B.A.. Pa.D. Unofficial Members: Rev. A. Harper, M.A., D.D.; Messrs. E. B Taylor; J. M. Taylor, M.A., LL.B.; R. F. Irvine, M.A.; J. P. Cochrane; H. Y. Braddon; E. S. Edwards, M.A. Secretary : Mr. E. R. Holme, M.A.

DIRECTIONS AND REGULATIONS REFERRING TO LECTURE COURSES.
1.-The Board is prepared to receive and consider applications for courses of University Extension Lectures to be delivered in Sydney, or in any suburb of Sydney or country town.

Applications may be made either by a public institution such as a School of Arts, or by a Home Reading Circle, or by a Committee specially formed for the purpose. They should be addressed to the Secretary of the University Extension Board, the University, Sydney, who will forward a list of available Lecturers and subjects, and give any other information that may be desired. The Board will, as far as possible, consult the wishes of the applicants in the selection of Lecturer and subject, and in fixing the dates of the lectures and the intervals between them.

The courses may be longer or shorter, may be miscellaneous or continuous, and may he delivered by one lecturer or more. In country centres, especially those at a distance from Sydney, courses by a singular lecturer will generally involve smaller travelling expenses. As a rule it will be practicable to supply such centres only with short courses of three or four lectures.
2.-Applicants must undertake to become responsible for the local management and local expenses of the lectures, and for the payment of the charges made by the Board.

The local management undertaken by the applicants will include securing a suitable lecture room, with provision, if possible, of desks or tables for the convenience of such of the audience as may desire to take notes; advertising the lectures;
printing tickets of admission, and arranging for their sale; and providing a room with suitable appliances and supervision for the concluding examination, if such be held.

The local committee will also be responsible for putting up the Lecturer during his stay, either at an hotel or by means of private hospitality.

The charge payable to the Board has been fixed at the rate of £3 per lecture; but if the lectures are delivered in country towns. it will be reduced to $£ 2$ per lecture. The arrangements for the sale of tickets for the course (including the fixing of their price), will be left in the hands of the Local Committee, which may use the proceeds to defray all the expenses which have been incurred. It. is left to the option of the local centre to raise the requisite amount by sale of tiokets, by subscription, or by a combination of these methods; but the amount payable, or a satisfactory guarantee for its payment, must be lodged with the Secretary of the Board before the course begins.
3.-Every person who attends the course will be suppliedwith a syllabus containing an analysis of each lecture. TheBoard will pay for the printing of the syllabus, and will issue copies to the Local Secretary. Each lecture will be of at least an hour's length, and at the close the Lecturer will invite and answer questions and explain difficulties.
4. The Local Secretary should make arrangements to obtainaccurate statistics of the attendance at each lecture, and immediately after the last lecture the Lecturer should send these statistics to the Secretary of the Board.

Systematic courses of ten lectures and upwards may conclude with an examination, which will be conducted, in consultation with the Lecturer, by an Examiner appointed by the Board, and certificates may be awarded on the results. If an examination is held, the local centre must bear the expense.

## MATRICULATION EXAMINATION.

By-Laws, Cbapter X., Sections 5 and 6.
5.-All candidates for Matriculation shall be required to pass an examination in the followíng subjects:-

1. English.
2. Mathematics.
3. Latin, Greek, French or German.
4. One or more of the following, in accordance with the regulations prescribed hereinafter for admission to the several Faculties or Departments:-
(a) One or more of the foregoing languages not already taken.
(b) Mechanics.
(c) History. (i.) English History, (ii.) Modern History.
(d) One of the following Science subjects:-(i.) Botany, (ii.) Chemistry (Inorganic), (iii.) Geology, (iv.) Physics, Part I., (v.) Physiology, and (vi.) Zoology.
In all subjects, except Science and Mechanics, there shall be a higher and a lower standard. A pass at the lower standard shall be deemed sufficient except in the cases where the provisions for admission to the several Faculties or Departments, as described in Section 6, expressly state that the higher standard is required. The lower standard in each snbject corresponds to the pass standard of the Junior Public Examination, and the higher standard to that of the Senior Public Examination. In History, English History is held to be the lower standard subject, and Modern History the higher standard subject. The Examinations in Mechanics and the Science subjects are at the higher standard only.

Candidates must pass in all the subjects of the examination at one and the same examination.

Provided (a) that a candidate who has passed the Junior Public Examination or the Senior Public Examination will be permitted to complete his qualification at the Matriculation Examination in November or March, on the condition that he passes in all the prescribed subjects at not more than two examinations; and
(b) That any person who has passed both the Junior Public Examination and the Senior Public Examination, and who presents one Junior certificate and one Senior certificate showing that he has passed in the whole of the subjects prescribed for matriculation at the required standards in any Faculty or Department may be admitted to matriculation in that Faculty or Department without further examination.

Any person who has passed the Senior Public Examination at one and the same examination in all the subjects prescribed for matriculation in any Faculty or Department may be admitted to matriculation in that Faculty or Department without further examination.

But any candidate who has obtained Honours in one or more subjects of the November Matriculation Examination, without passing the Senior Public Examination, shall be permitted to complete his qualification at the Matriculation Examization in March.
6. Candidates for matriculation in one of the several Faculties or Departments, besides passing at either the lower or higher standard in the other compulsory subject or subjects must pass at the higher standard in the following subjects according to the Faculty or Department to which they seek admission.
(a) Faculty of Arts- :

Latin, and one other subject.
(b) Faculty of Law-

Latin, and two other subjects. Candidates must pass in Greek or French or German at the higher or lower standard.
(c) Faculty of Medicine and the Department of Dentistry-

Three subjects, one of which must be Latin, Greek, French or German. If Latin be not selected at the higher standard it must be taken at the lower standard. Candidates must pass Greek or French or German at the higher or the lower standard.
(d) Faculty of Science and the Department of A griculture-

Three subjects, one of which must be Latin, Greek, French or German.
(e) Department of Engineering-

Mathematics, Mechanics, and one of the following languages:-Latin, Greek, French or German. They shall also be required to pass in a general paper in English, comprising questions in English and Geography.
(f) Department of Veterinary Science-

Two subjects, one of which must be Latin, Greek, French or German.

Regulations.
An examination for matriculation is held in the beginning of Lent Term (March) in accordance with Chap. x., Sec. 8, of the by-laws.

No candidate will be admitted to this examination unless he make a declaration that, if successful in passing, he intends to pursue his studies in one of the Faculties or Departments.

There shall be an examination at the ligher standard in the month of November concurrently with the Senior Public Examination.

## DETAILS OF SUBJECTS.

The details of subjects are as follows:-
Lower Standard.

1. English-Questions on the language geverally and on the set book. For students in Engineering, a general paper comprising questions in English and Geography. *Subjects for March, 1912-(a) For special study, Laureata (Arnold) ; (b) F'or general reading, Dickens' Old Curiosity Shop (any unabridged edition). Subjects for composition will be set with reference to (b).
*Subjects for March, 1913-(a) For special study, Ballads, Ancient and Modern (ed. Smeaton, Dent); "Kinmont Willie," "Sir Patrick Spens," "Chevy Chace," "Rosabelle," and then from "The Battle of Agin-

[^7]court" to the end, also Coleridge "AncientMariner" (ed. McWilliam, Dent). (b) For general reading, Scott, "Legend of Montrose" (any unabridged edition). Subjects for composition will be set with reference to (b).
2. Latin-Translation from specified books, with questions on language and subject matter. •asy passages will also be given for translation at sight from Latin into English and from English into Latin.
*Subject for March, 1912-Cæsar, Gallic War, Book VII. (Peskett, Pitt Press.), or Compton (Bell).
*Subjects for March, 1913-Cicero pro Archia (Reid, Cambridge), and pro lege Manilia (Wilkins, Macmillan).
3. Mathematics-The examination will consist of two papers comprising questions in Arithmetic, Algebra and Geometry as described below. The examiners may reject a candidate who shows exceptional weakness in any one of the three sections of these papers.
(a) Arithmetic.-With respect to the English Tables of Weights and Measures, only those parts which are in general use will be required.
(b) Algebra.-Up to quadratic equations with two unknown quantities, ratio, proportion, surds, and simple questions in fractional and negative indices. Questions may be set involving the use of squared paper in simple equations and simple simultaneous equations.
(c) Geometry.-For the regulations as to the Geometry paper see Appendix to the Manual of Fublic Examinations for the year 1911 at page xci. et seq.
4. (a) Greek.-An examination similar to that in Latin.
*Subject for March, 1912-Lucian, Vera Historia (R. E. Yates, G. Bell \& Sons).
*Subject for March, 1913-Plato, Apology (ed. J. Adam, Pitt Press).
(b) French.-The examination will comprise questions on accidence and syntax, and translation at sight from French into English and from English into French.

[^8]Candidates will also be required to write a short letter or theme in French on some simple subject of which they may be all expected to have some knowledge.

Candidates are recommended to read about 250 pages of modern French prose. No special books are prescribed, but some such as appear in the following list will be found suitable :- De Maistre, Voyage autour de ma chambre; Souvestre, Le Serf; Desnoyers, Les Mésaventures de J.-P. Choppart; Perrault, Contes de Fées; Erckmann-Chatrian, Le vieux Tailleur; Töpffer, Le Col d'Anterne; Vigny, La canne de jonc; George Sand, La petite Frdette; Mérimée, L'Enlèvement de la Redoute.
(c) German.-An Examination similar to that in French, including free composition in German.

Candidates are recommended to read about 200 pages of modern German prose. No special books are prescribed, but some such as appear in the following list will be found suit-able:-Grimm, Fairy Tales: Hauff, Das Wirthshaus im Spessart; Goebel, Rübezahl; Storm, In St. Jürgen; Baumbach. Waldnovellen; Arnold. Aprilwetter; Hoffimann, Heute mir, Morgen dir; Campe, Robinson der jüngere; Seidel, Die Geschichte des jungen Herrn Anton; Zoschke, Der Zerbrochene Krug.
(d) English History.-The History of the British EmpireThe paper will be divided into two parts, A. and B.
A.-Outline of the History of the British Empire from 1485 to the present time.
B.-A special subject.

Subject for March, 1912-'The Expausion of the British Empire.
Books Recomaended.-Woodward's Outline History of the British Empire (Crimbridye Press), 1/6; or Woodward's Expansion of the British Empire (Cambridge Press), 4/- ; or Jose's Growth of the Empire, $4 ; 6$.
Subject for Murch, 1913-The History of Australia.
Books Recomsended.-Jose's History of Australia, 2/5.
Higier Standard.

1. Higher Latin.-Translation from specified books, with questions on language and subject matter. Translation at sight from Latin into English, and from English into Latin. .

Subjects for November, 1911; and March, 1912-Sallust, Jugurtha to the end of Chapter 86 (Summers, Cambridge, or Capes, Oxford); Cicero, pro Archia (Reid, Cambridge); Virgil, Æneid, Book II. (Sidgwick, Pitt Press, or Page, Macmillan).
Subjects for November, 1912, and March, 1913-Cicero, The Fourth Verrine, to the end of Chapter 55 (Hall, Maenillan), Horace, Odes, Book I. (Page, Macmillan)
2. Higher English.-Questions on the structure and origin of the language ; on the derivation and the meaning of words; on idioms and usages. Composition. Questions on a set subject.
Subjects for November, 1911, and March, 1912-(a) Suakespeare, King Lear (Warwick Edition); (b) English Odes (Ed. Marsh, Bell).
Subjects for November, 1912, and March, 1913-(a) Shakespeare, Macbeth (Warwich Edition) ; (b) Representative English Poems (ed. Brett, Mracmillan) from Johnson to Browning, inclusive, omitting "Rabbi ben Ezra."
3. Higher Mathematics.-The examination will consist of two papers comprising questions in Algebra, Geometry and Trigonometry as described below. The examiners may reject a candidate who shows exceptional weakness in any one of the three sections of the papers.
(a) Algebra, including the three progressions, the binomial theorem for a positive index, and the properties and use of logarithms.
(b) Geometry, including Mensuration. The regulations for this subject are the same as those for the Geometry Paper in the Senior Public Examination, omitting Schedules C and D.
(c) Plane Trigonometry up to solution of triangles.
4. Higher Greek.-An examination similar to that in Higher Latin.
Subjects for November, 1911, and March, 1912-Thucydides, Book IV., Chaps. 1-81.(Ed. Graves, Macmillan); Euripides, Andromache (Ed. G. Norwood, Murray).

Subjects for November, 1912, and March, 1913—Herodotus, Book V (ed. Shuckburgh, Pitt Press); Euripides, Alcestis (ed. Hadley, Pitt Press).
5. Higher French.-An examination similar to that in Higher Latin; along with free composition in French. Subjects for November, 1911, and March, 1912-(a) Feuillet, Le Roman d'un Jeune Homme Pauvre (Clarendon Press); (b) Du Pontet, Poèmes Choisis (Arnold).
Subjects for November, 1912, and March, 1913-(a) Balzac, César Birotteau (Clarendon Press); (b) La Fontaine, One hundred fables (Ginn \& Co.).
6. Higher German.-An examination similar to that in

Higher Latin, along with free composition in German. Subjects for November, 1911, and March, 1912-(a) Freytag, Soll und Haben (abridged edition, Files, Heath's Modern Language Series); (b) Goethe, Hermann und Dorothea (Blackie's Little German Classios); Sudermaun, Teja (Heath's Modern Language Series).
Subjects for November, 1912, and Mlarch, 1913-(a) Frenssen, Gravelotte (ed. Heller, Ginn \& Co.); Goethe, The Road to Italy (blackie's Little German Classics); (b) Ballads, illustrating German History (ed. Wagner, Cambridge, University Press).
7. Mechanics.-The elements of Statics and Dynamics.

The course of study for this paper is the same as that for the corresponding subject in the Senior Public Examination.
8. One of the following Science subjects-

A-Botany. $\dagger$

1. The general structure and physiology of plants.
2. The characteristic features of the following classes:Fungi, Algæ, Muscineæ, Filicineæ, Gymnospermeæ, Angiospermeæ.
3. The leading characteristics of the following orders of flowering plants:-Ranunculaceæ, Cruciferæ, Rutaceæ, Malvaceæ, Leguminosæ, Labiatæ, Epacrideæ, Casuarineæ, Myrtaceæ, Umbelliferæ, Proteaceæ, Compositæ, Liliaceæ, Orchidaceæ, Graminacee. Candidates may be required to distinguish examples of these orders

[^9]4. Candidates will be required to submit note-books with each page duly attested by their science teacher, and with a voucher for the whole on the last page by their head teacher or some person approved by the Senate, showing :-
(a) That they have practically studied the structure of the flower and the fruit in one example at least of each of the orders enumerated above.
(b) That they have themselves performed or had demonstrated to them the experiments described under Section XV. (b) of the Junior Public Examination.
(c) That they have studied under the microscope (i.) Mucor (see Dendy \& Lucas, pp. 33-38); (ii.) Pteris (rhizome, frond and sporangia), Dendy \& Lucas, pp. 57-67, pp. 68, 69 and pp. 72, 73 ; (iii.) Vicia (stem and leaf), Dendy \& Lucas, pp. 95-100 and 101.
Books aecommenden.--J. W. Oliver's Elementary Botany (Blackie and Son) ; and Dendy \& Lucas's Iurroduction to the Study of Botany (Melville \& Mullen). For the practical instructions teachers are recommended to consult Buwer and GwynneVaughan's Practical Botany for Begimers (Macmillan).
B. $\dagger$-Inorganic Chemistry.-The more important elements and their principal compounds.

The periodic arrangement of the elements should be used as a basis for the detailed study of the elements and their ompounds.

With regard to the metals, candidates should have a knowledge of the most important naturally-occurring compounds. A knowledge of the methods by which the metal (if the metal itself is of importance) and its chief compounds are made from the naturally-occurring compounds is necessary, but details of metallurgical processes will not be required. The chief states of oxidation of each metal, corresponding to the different salts, should be known, and the properties of important salts.

- Practical Work.

Quantitative Analysis.-Preparation and use of decinormal solutions of acids and alkalies; preparation and use of

[^10]deci-normal solution of potassium permanganate and similar volumetric estimations. Rstimation by gravimetric analysis of one or more of the following:-Copper in copper sulphate, silver in silver nitrate, chromium in potassium bi-chromate, calcium in calcium chloride, mercury in mercuric chloride, and barium in barium chloride.

Qualitative Analysis.-Analysis (using both dry and wet reactions) of simple salts containing the folluwing metals and acids:-Lead, silver, mercury, copper, bismuth, cadmium, arsenic, antimony, tin, iron, aluminium, chromium, zinc, manganese, cobalt, nickel, barium, stroutiun, calcium, magnesium, potassium, ammonium and sodium; sulphuric, hydrochloric, nitric, carbonic, phosphoric, sulphurous, boric, hydrobromic and hydriodic acids. Special stress should be laid on the reasons for each step in the analytical process.

Text Books Recommended. - Newth's Inorguuic Chemintry (Longmans). or similar book; NTewth's Chemical Analysis, or similar book.
Books reconmended to Teachers.- Ostwald's Principles of Inorganic Chemistry (Macmillan); Alexander Swith's Inorganic Chemistry (by Bell \& Sons).
C. $\uparrow$-Geology.-Candidates will be expected to show a knowledge of the same divisions of this subject as those required for the Junior Examination but at a higher standard. Stratigraphy and Palæontology, however, should be studied in greater detail than for the Junior, and knowledge of a few characteristic fossils of the different Geological systems will be required. Candidates will be asked to name and classify the specimens placed before them of common rocks, rock-forming minerals and fossils. Candidates should also be taught elementary field mapping.

All candidates must submit note books certified to on each page by their science teacher, and on the last page by the head teacher, or some person approved by the Senate, containing the results of original observations in the field and laboratory.

These books should contain matter similar to that required from Junior candidates (Manual, p. cv), with the addition of:-

Description of fossils, and of recent organisms of types which occur as fossils, when such fossil types cannot be obtained.

Geological sketch maps, or traverses, aud geological sections, of at least one area studied in the field.

Work already submitted for a Junior Examination may be re-subiwitted for the Senior, but must not make up more than fifty per cent. of the work sent in.

Books Recommended.-Elementary Physical Geography, Professor
Davis; Geology for Begimuers, W. W. Watis (or Students' Elements of Geology, by Lyell, Second Edition, by Judd, 1896. This is somewhat more comprehensive than Watts); Volcanoes, Professor Judd.
For Reference.-Chamberlin \& Salisbury, Geology, in 1 vol.; or Geikie, A Text.book of Geology, 2 vols. These books are not essential, as they are too expensive for most students. Teachers will obtain much help from them. A fine book, at a much more moderate price, is Geikje, J., Structural and Field Geology.
D-Perysics (Part I.) $\dagger$.-Elementary Mechanicstt, the Properties of Matter, Sound, Heat, Light, and the Elements of Electricity and Magnetism. $\dagger \dagger$

Elementary Mechanicst $\dagger$ and Properties of Matter.Kinematics, simple harmonic motion, elements of statics, including hydrostatics and pneumatics, dynamics, including elasticity and hydraulics, surface tension.
Sound.-Waves and wave motion, resonance, production and propagation of sound, reflection, interference, pitch, quality, musical scale and musical instruments.
Heat.-Thermometry, calorimetry, transfer of heat, expansion, change of molecular state, nature of heat, elements of kinetic theory of gases.
Light.-Propagation, speed, reflection, refraction, dispersion, interference, diffraction, double refraction and polarisation, optical instruments.
Electricity and Magnetism. $\dagger \dagger$ Magnets, the earth's magnetic field, magnetic induction charge, potential capacity, production of currents, elementary measurements, chemical, heating and magnetic effects of currents.
Book recommended.-Crew's General Physics (The Mfacmillan Co.), or Watson's Text-book of Physics.
Books recommended to Teachers.-Poynting and Thomson's Text Books.

Note-Each candidate will be required to produce a laboratory note book, or note books, containing his original records and reductions of practical work. For candidates who have passed the Junior Examination in Physics, since 1909, the laboratory work must include at least twenty-five independent quantitative experiments distributed over the sections of the syllabus of the theoretical examination, and must be of a more advanced character than that required for the Junior Examination. In the case of all other candidates the practical work unist include, in addition, twenty experiments as required for a Junior Examination.

Each page of the notebooks must bear the initials of the science teacher, and the last page the signature of the head teacher, or some person approved by the Senate, as evidence that the practical work has been performed by the candidate.

E-Physiologn. $\dagger$-The Elements of Animal Physiology.
Boor recommended.*-Manual of Human Physiology, Leonard Hill, M.B. (Educard Arnold).
F-Zoology.t-

1. The general structure and life-history of animals.
2. The characteristic features of the following phyla and classes :-Phylum Protozoa (classes Rhizopoda and Infusoria); Phylum Coelenterata (classes Hydrozoa and Actinozoa) ; Phylum Platodes (classes Trematoda and Cestoda) ; Phylum Echinodermata (classes Asteroidea and Echinoidea); Phylum Annulata (class Chætopoda) ; Phylum Arthropoda (classes Crustacea and Insecta); Phylum Mollusca (classes Pelecypoda, Gastropoda and Cephalopoda); Phylum Chordata (classes Pisces, Amphibia, Reptilia, Aves, Mammalia.)
3. Candidates will be required to submit note-books with each page duly attested by their science teacher, and with a voucher for the whole on the last page by their head teacher or some person approved by the Senate, showing that they have studied practically the structure of the following animals:-Paramœcium or Vorticella; the Liver Fluke; the Fresh-water Crayfish (Astacopsis) or Sea Lobster (Palinurus), the Snail or the Fresh-water Mussel. the Frog.

Boof recommbnded*-- Parker. and Haswell's Manual of Zoology - (Macmillan), with the omission of Section I., (ii. and iv.), Section III., Section IV. (ii. and iv.), Sectior V. (ii. and iv.), Section VI., Section VII. (ii., iv. and v.), Section VIII., Sertion IX. (ii.). Section X. (ii., iv. and v.). Section XI. (ii.),

Section XII. (pages 310-326). For practical directions teachers are recommended to consult Marshall and Hurst's Practical Zoology (Smith, Elder fo. Co.), or Huxley and Martin's Elementary Practical Biology (Afacmillan), or Parker and Parker's Practical Zoology (Macmillan).
> 9. Modern History.-

> Subject for November, 1911, and March, 19i2—The History of Western Europe from the German invasions and the break-up of the Roman Empire.
> Boors Rbcommended.-Robinson's History of Western Europe (Gim of Cu.) ; Robinson's Readings from European History, abridged edition (Ginn \& Cu.), 8/6.
> Subject for November, 1912, and March, 1913-The History of Modern Europe from 1643 to the present time.
> Boors Recommended.-Robinsou and Beard's Development of Modern Europe (Ginn \&'Co.) ; Robiuson and Beard's Readiugs in Modern European History (Ginn \& Co.).

HONOURS AT MATRICULATION.
Tee Esamination for Matriculation Scholarships and Honours, for candidates inteuding to enter the University in March, takes place in the previous November, coucurrently with the Senior Public Examiuation. All candidates for the Senior Public Examiuation may compete for Matriculation Scholarships and Honours upon giving due notice of their desire to do so. Those who wish to compete for Scholarships and Honours in special subjects, without entering for the Senior Public Examination, may do so upon payment of the Matriculation fee of two pounds; and if they have not already passed an examination which qualifies for Matriculation, they may attend the Pass Matriculation Examination in the following March, without paying an additional fee. Cundidates who gain Honours in any subject in November are exempt from taking the corresponding pass paper in the following March. Honours are awarded in Latin, Greek, English, French, German, and Mathematics.

Scholarshif for General Proficiency.
The Scholarship for General Proficiency will be awarded to the candidate who shows the greatest proficiency in not more than ten of the following twelve subjects :-(i.) English, (ii.) Latin, (iii.) Greek, (iv.) French, (v.) German, (vi.) Algebra, (vii.) Geometry and Mensuration, (viii.) Trigonometry, (ix.) (a) Mechanics or (b) Conic Sections, (x.) Ancient History, (xi.) Modern History, (xii.) One Science subject.

## LANGUAGES.

The specified booke will be the same as those set for the Matriculation Examination subjects at the higher standard.
Latin.-Translation from specified books, with questions on language and subject matter. Translation at sight from Latin into English, and from English into Latin. The Examination will iuclude questions on Roman History ; and questions may be asked on any subject included under the study of the Latin language and literature.
History of Rome, from the Tribunate of Tiberius Gracchus to the Battle of Actium (b.c. 133 to 31 ).

Greer.-An Examination similar to that in Latin.
History of Greece, from the Archonship of Solon to the end of the Pelsponnesian War (b.c. 594 to 404).

Englist. - Examination on specified books; also a paper containing questions on English Literature generally, with special reference to its great movements and chief representations. The best outline of the subject will be found in Stopford Brook's "Primer of English Literature." Fuller details are supplied in books like Gosse's "Modern English Literature." But candidates are recommended to read illustrative extracts for themselves. A good selection is contained in Stobart's Epochs of English Literature (Arnold.)
French and German.-Translation from specified books, with questions on language and subject matter. Translation at sight from French and German into English, and from English into French and German; also a paper iucluding questions on Grammar, Philology, Literature, Phonetics and other subjects connected with the study of Modern Languages.

## Mathematics.

The Honour papers in Mathematics will be the papers in Algebra, Geometry, Trigonometry, Mechanics or Conic Sections of the Senior l'ublic Examination.
Candidates will be provided with Barraclough's Four Figure Trigonometrical Tables (Angus \& Robertson, 6d.) for use in the Algebra and Trigonometry papers.

## PRELIMINARY EXAMINATION FOR ARTICLED CLERKS.

Preliminary Examinations for Articled Clerks are held at the University in the months of April and November, commencing on the first Monday in April, and the second Monday in November. The notice for this examination, accompanied with the fee, $£ 510 \mathrm{~s} .6 \mathrm{~d} . ;$, should be sent to the Secretary of the Solicitors' Admission Board, at the Supreme Court, 'Sydney. Such notice must contain the full name and address of the candidate, and also his place of education or teacher's name. Every candidate should also state which of the optional subjects (Greek, French or German) he proposes to take.

The subjects of examination are-(1) English; (2).Latin; (3) Mathematics (three papers, Arithmetic, Algebra and Geometry) ; (4) Greek or French or German, as prescribed for the Lower Standard of the Matriculation Examination.

The stated subjects of the Examinations to be held in November, 1911, and April, 1912, will be the same as those prescribed for the Matriculation Examination of March, 1912, and so on in future years.

# TIME TABLES OF LECTURES 

## FACULTY

TIME TABLE
Laboratory practice is

| Repbrence <br> Number <br> то <br> Synopish. | Subuect. |  |  | Lent Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Mon. | Tu. | W. | Th. | Fri. |
| 37 | Chemistry I. .. |  |  | 11, 2-5 |  | 11,2-5 |  | 11, 2-5 |
| 36 | §Physics I. .. | :. | $\cdots$ |  | 12,2-5 | 11,2-5 | 12,2-5 |  |
| 50 | Biology I. .. | . | $\because$ | 9, 2-4 | 9 | 9,2-4 | 9 | 9, 2-4 |
| 38, 44 | **Geology I. .. | . | . |  | 11 | , 2 | 11 | .. |
| 1 | ¢SLatin I. | $\cdots$ |  | 9 |  | 9 |  | 9 |
| 3 | T+Mathematios I. | . | .. | 10 | 10 | 10 | 10 | 10 |
| 1 | $\ddagger$ Greek I. .. |  | .. | 11 | . | 11 | . | 11 |
| 2 | ${ }_{+}^{+}$Engrlish I. ${ }^{\text {I }}$ | $\cdots$ |  | 12 |  | 12 | $\cdots$ | 12 |
| 2 | $\ddagger$ French I. $\quad$. | $\ldots$ | .. | 1 | 9 |  | 9 | 10 |
| 2 | $\pm+$ German I. |  |  | 11 |  | 11 |  | 11 |
| 6 | History I. | $\cdots$ | $\cdots$ | 1 | 3 | I | 3 | 3 |
| 4 | Philosophy I. .. | . | $\cdots$ | . | 2 | 2 | . | 2 |
| 1 | $\pm+$ Latin II. and III. | . | . | 10 | 10 | 10 | 10 | 10 |
| 1 | Greek II. and III. | . | . |  |  | 9 | 9 | 9 |
| 3 | Mathematics II. | $\ldots$ | $\cdots$ | 9 | 9 | 9 | 9 | 9 |
| 2 | $\ddagger$ English II. and III. | . | $\cdots$ | 11 |  | 11 | 11 |  |
| 2 | ${ }_{+}{ }^{\text {French II. and III. }}$ |  | . | 12 | 11 |  | 12 | 11 |
| 2 | $\ddagger+$ German II. and III. | $\ldots$ | . | .. | 9 | 9 |  | 9 |
| 6 | History II. and III. | . |  | .. | 2 |  | 2 | 2 |
| 4 | Philosophy II. and III. |  | . |  | 12 | 12 | . | 12 |
| 5 | Education . |  |  | 2 | 12 |  | 2 | . |
| 37 | Chemistry 11. | $\cdots$ |  |  | 12, 2-5 | . | 12,2-5 |  |
| 36 | Physics II. |  |  | 2-0 | 10 |  | 10 | 2-5 |
| 39, 45 | GeologyII, |  |  | 12 | 9 | 12 | 9 | . |
| 50 | Biology II | . |  | .. | 11,2-5 |  | 11,2-5 |  |
| 17 | Physiology I. | . |  | 25 | . |  | 2-5 | ( |
| 9 | $\dagger$ Roman Law | .. |  | 12-20 |  | $\ldots$ | 12-20 |  |
| 10 | +Constitutional Law |  |  |  | 12-20 |  |  | 12-20 |
| 8 | $\dagger$ Jurisprudence | . | $\cdots$ |  | T11-20 | 11-30 |  | .. |
| 11 | +International Law |  |  |  | T11-20 | 12-30 |  |  |
| 3 | Mathematics III. |  |  | 11 | 11 | 11 | 11 | 11 |
| 50 | Biology III.-A |  |  | $2-5$ | 1 | 2-5 | 11 | 2-5 |
| 50 | Biology III.-B |  |  |  | . |  | .. | .. |
| 16 | Introductory Anatomy | $\ldots$ | .. | $\cdots$ | . | . $\cdot$ | . | . |

+ Or at other times to be arranged $\ddagger$ Honour classes will be arranged at other times. IT Alternate weeks. The Practical work in Physics will be held in three divisions, A $2-5$ on Tuesdays, B 2-5 on Thursdays Lent and Michaelmas Terms, C 2-5 Tuesdays and Thursdays Triaity Term. ** Practical two hours a week for two terms at times to be arranged. $\dagger t$ Classes A and B meet also at 10 on Friday. $\ddagger \underline{d}$ Honours Class, Monday, 2 to 3 p.m. $\ddagger \ddagger$ Tatin III., Honours Class, 12 noon to $1 \mathrm{p} . \mathrm{m}$. Wednesdays.

OF ARTS.
of LECTURES.
indicated by block type.

| Referencee Number Tu Innopses. | Trinuty Term. |  |  |  |  | Micharlmar Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mon. | Tues. | Wed. | Thur. | Fri. | Mon. | Tues. | Wed. | Thur. | Fri. |
| 37 | 11 |  | 11 |  | 11 | 11 |  | 11 |  | 11 |
| 36 |  | 12, 2-5 | .. | 12, 2-5 | .. |  | 12, 2-5 | . | 12, 2-5 |  |
| 50 | 9 |  | 9 |  | 9 | 2-4 |  | $\cdots$ | - | 2-4 |
| 38, 44 | . . | 11 | . | 11 | . | . . | 11 | . | 11 |  |
| 1 | 9 | . | 9 |  | 9 | 9 | $\cdots$ | 9 |  | 9 |
| 3 | 10 | 10 | 10 | 10 |  | 10 | 10 | 10 | 10 |  |
| 1 | 11 | . | 11 | . | 11 | 11 | . | 11 |  | 11 |
| 2 | 12 | $\cdots$ | 12 |  | 12 | 12 | $\cdots$ | 12 |  | 12 |
| 2 | 1 | 9 | . | 9 | 10 | 1 | 9 | . | 9 | 10 |
| 2 | 11 | . | 11 | . | 11 | 11 | . | 11 | . | 11 |
| 6 | .. | 3 | 3 | .. | 3 | . | 3 | 3 | . | 3 |
| 4 | .. | 2 | 2 | $\ldots$ | 2 | $\cdots$ | 2 | 2 |  | 2 |
| 1 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 3 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 2 | 11 | $\ldots$ | 11 | 11 | $\cdots$ | 11 | . | 11 | 11 |  |
| 2 | 12 | 11 | . | 12 | 11 | 12 | 11 | . | 12 | 11 |
| 2 | $\cdots$ | 9 | 9 | . | 9 | . | 9 | 9 | . | 9 |
| 6 | $\cdots$ | 2 | 2 | $\cdots$ | 2 | $\cdots$ | 2 | 2 | . | 2 |
| 4 | . | 12 | 12 | $\cdots$ | 12 | $\cdots$ | 12 | 12 | $\cdots$ | 1.2 |
| 5 | 2 | 12 | . | 2 | . | 2 | 12 | . | 2 | . |
| 37 | $\cdots$ | 12, 2-5 | $\cdots$ | 12,2-5 | . |  | 12,2-5 | $\cdots$ | 12, 2-5 |  |
| 36 |  | 10 |  | 10 | .. | $2-5$ | 10 |  | 10 | 2-5 |
| 39, 45 | 12 | 9 | 12 | 9 | . | 12 | 9 | 12 | 9 | .. |
| 50 |  | 11,2-5 |  | 11,2-5 |  |  | 11,2-5 |  | 11,2-5 |  |
|  | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 17 | 2-5 |  |  | 2-5 |  | 2-5 |  |  | 2-5 | . |
| 9 | 12-20 |  |  | 12-20 |  | 12-20 |  | $\cdots$ | 12-20 |  |
| 10 | .. | 12-20 |  |  | 12-20 | .. | 12-20 |  | .. | 12-20 |
| 8 | . | T11-20 | 11-30 | $\cdots$ | .. | $\cdots$ | T11-20 | 11-30 | .. | .. |
| 11 |  | T11-20 | 12-30 |  |  |  | T11-20 | 12-30 |  |  |
| 3 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 50 | 2-5 | 11 | 2-5 | 11 | 2-5 |  |  |  |  |  |
| 50 |  | . | .. | . | .. | 2-5 | 11 | 2-5 | 11 | 2-5 |
| 16 |  |  | $\cdots$ | . | . | 9 | , | 9 | 9 | 9 |
|  |  | - | . |  |  |  |  |  |  |  |

Bcience Courses III. as in science Time Table.

|  | Subject. | Lifnt Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. | Tu. | w. | Th. | F. |
| 10 | * first year. <br> Constitutional Law |  | 4-5 | $\cdots$ | 4-5 | -• |
| 9 | Roman Law . . | 4-5 | . | . | 5-5 | . |
| 12 | Status. Contracts, Torts aud Crimes | 5-5 | . | 5-5 | . . | 5-5 |
| 8 | SECOND YEAR. <br> Jnrisprudeuce | $\ldots$ |  | †4-5 | $\ldots$ | 4-5 |
| 11 | Public International Law |  | 5-5 | +4-5 | . | -.. |
| 13 | The Law of Property, Conveyancing and Interpretation. . | 9 | .. | 9 | . | 9 |
| 11 | THIRD YEAR. <br> Private International Law |  |  |  |  |  |
| 14 | Procedure, Pleading \& Evidence | 4-5 |  | $4-5$ | . | 4-5 |
| 15 | Equity and Company Law, Bankruptcy. Probate and Divorce | 5-5 | . | 5-5 | . | 5-5 |

* The first two years of the course are the same as in the Faculty of Arts.
+ In alternate Feeks.
Notr.-This time toble is subject to revigion.

OF LAW.
of LEC'TURES.

| Reperbince | Trinity Term. |  |  |  |  | Micharlmas Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SYNOP8ES. | M. | Tu. | W. | Th. | F. | M. | Tu. | W. | Th. | F. |
| 10 | . | 4-5 |  | 4--5 | . |  | 4-5 | . | 4-5 | . |
| 9 | 4-5 | $\cdots$ | . | j-5 |  | . $4-5$ | . . | . $\cdot$ | 5-5 |  |
| 12 | 5-5 | $\ldots$ | 5-5 | .- | 5-5 | 5-5 | $\cdots$ | 5-0 | $\ldots$ | 5-5 |
| 8 | -• |  | †4-i) | . | 4-5 | . | $\cdots$ | $\dagger 4-5$ | - | 4-5 |
| 11 | . | 5-5 | †4-5 | - | . | . | 5-5 | +4-5 | . | - |
| 13 | 9 | $\cdots$ | 9 | . | 9 | 9 | $\ldots$ | 9 | . | 9 |
| 11 |  |  |  | 9 |  |  | - |  | 9 |  |
| 14 | 4-5 |  | 4-5 |  | 4-5 | 4-5 | - | 4-5 | .. | 4-5 |
| 15 | 5-5 | - | 5-5 | . | $5-5$ | 5-5 | . | 5-5 | . | 5-5 |

# FACULTY OF TIME TABLE 

Tabocatory Practice is

| 包웅 | Subject. | Lent Tebir. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. | Tu. | w. | Th. | F. |
|  | FIRSt Year. |  |  |  |  |  |
| 50 | Biology I... | 9 | 9 | 9 | 9 | 9 |
| 37 | Chemistry I. | 11 |  | 11 |  | 11 |
| 36 | Physies I. | 10 | 12 |  | 12 | 10 |
| 50 | *Practical Biology (A and B) | 2-4 | 10-12 | 2.4 | 10-12 | $2-4$ |
| 37 | Practical Chemistry $\quad \because \quad$.. .. | . |  | . |  | .. ${ }^{\text {. }}$ |
| 36 | *Practical Physics (A and B) .. .. | $\cdots$ | 2-5 | $\cdots$ | 2-5 | . |
| 16 | Human Anatomy (Introductory) | . | .. | . | .. | $\cdots$ |
| 16 | Descriptive Anatomy year. | 9 | 9 | 9 | 9 | 9 |
| 17 | *Experimental Physiology ( $A$ and B).. |  |  | . |  |  |
| 17 | Physiology |  |  | $\cdots$ | . |  |
| 17 | *Physological Chemistry (A and B) |  |  | . | . | . |
| 16 | Dissections-daily |  |  |  |  |  |
| 17 | * Practical Histologry (A and B) | 2.5 | 2.5 | $\cdots$ | 2-5 | 2.5 |
|  | thisd year. |  |  |  |  |  |
| 17 | Physiology | 10 | 10 | 10 | 10 | 10 |
| 16 | Regional Anatomy $\quad \ddot{\text { B }}$ | 11 | 11 | 11 | 11 | 11 |
| 17 | *Pharmacology (A and B) .. | . | . | . | .. | . |
| 16 | Dissections-daily during Lent and Trinity Terms | , |  | . |  |  |
| 18 | Pathology aud Bacteriology .. .- |  |  | . |  |  |
| 19 | Surgery . $\quad . \quad . \quad$. | $\cdots$ |  | $\cdots$ |  |  |
| 22 | *Hospital with 'Tutorial Surgery | $\ldots$ | $\ldots$ | . |  |  |

* Divided into two sections, A and B, which meet alternately


## MEDICINE.

## OF LECTURES.

indicated by block trpe.

| Reference: Numbra To Synopses. | Thinity Tebm. |  |  |  |  | Miciameane Tebn. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | x. | Tu. | w. | Th. | F. | M. | Tu. | w. | Th. | F. |
| 50 | 9 | .. | 9 | . | 9 |  | $\ldots$ |  | . |  |
| 37 | +11 | $\cdots$ | 11 | $\cdots$ | 11 | 11 | $\cdots$ | 11 |  | 11 |
| 36 | 10 | 12 | . | 12 | 10 | 10 | 12 | . | 12 | 10 |
| 50 | $\cdots$ | 2-4 | $\dot{9} 5$ | $2-4$ |  | . | . | $\cdots$ |  | . |
| 37 | †2-5 | $\cdots$ | 2.5 | - | 2.5 | . |  | - |  | $\cdots$ |
| 36 | . | $\cdots$ | . | . | .. |  | 2.5 | $\cdots$ | 2-5 | $\cdots$ |
| 16 | . | . | $\cdots$ | . | . | 9 | 9 | 9 | 9 | 9 |
| 16 | 9 | 9 | 9 | 9 | 9 | $\cdots$ | . | $\ldots$ | . | . |
| 17 | 2-5 | 2-5 | . | 2-5 | 2-5 |  | $\ldots$ |  |  |  |
| 17 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 17 | . | . | . | . . | . | 2-5 | 2.5 | ., | 2-5 | 2-5 |
| 16 | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | .. | .. | - | . | . |
| 17 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | . |
| 17 |  |  |  |  |  | $\cdots$ | . | $\cdots$ | $\cdots$ | $\cdots$ |
| 16 | 12 | 12 | 12 | 12 | 12 | $\cdots$ | . | $\cdots$ | $\cdot$ | . |
| 17 | 9-12 | 9-12 | . | 9-12 | 9-12 | $\ldots$ | . | $\cdots$ | - | . |
| 16 |  |  | . | $\cdots$ | . |  |  |  |  |  |
| 18 |  |  |  | . | . | 9-12.45 | 9-12.45 | 9-12.45 | 9-12.45 | 9-12.45 |
| 19 |  | . | $\cdots$ | $\cdots$ | $\cdots$ | 1.45 | 1.45 | 1.45 | 1.45 | 1.45 |
| 22 | . | $\ldots$ | $\cdots$ | $\cdots$ |  | . | . |  | . | .. |

## For Fourth and Fifth Years see next page.

$\dagger$ A section of these classes in Trinity Term may meet at another time to be arranged in Lent Term.

## FACULTY OF TIME TABLE

|  | Subirct. | Lent Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. | Tu. | W. | Th. | F. |
| 30 | Materia Medicarth Year. |  |  |  |  |  |
|  | Tutorial and Practical Pharmacy |  |  |  |  |  |
| 18 | TPathology and Bacteriology .. | 11-12.30 | 11-12.30 | 11-12.3 | 11-12.30 | 11-12.30 |
| 18 | Special Prathology .. |  |  |  |  |  |
| 19 | Surgery .. . | 1.30 | 1.30 | 1.30 | 1.30 | 1.30 |
| 20 | Surgical Anatomy \& Operative Surgery. | 2.30 | 2.30 | 2.30 |  | 2.30 |
|  |  | $\ddagger+8.30-$ | $\ddagger 8.30-$ | $\pm+8.30-$ | $\pm 8.30$ | $\ddagger 8.30-$ |
| 21 | Hospital, with Clinical Surgery, etc. | ${ }^{+} 10.30$ | 10.30 | 10.30 | 10.30 | $\left.\right\|^{+} 10.30$ |
| 23 26 | Medicine .. | . | . | . |  |  |
| $\stackrel{26}{25}$ | Midwifery.. . |  |  |  | . |  |
| 25 | Hospital, with Tutorial Medicine and Out Patients | . | . | . | . | . |
| 23 | FIFTH YEAR. | 9.30 | 9.30 | 9.30 | 9.30 | 9.30 |
| 27 | Gynæcologrv (first 6 weeks of term) | 8.30 | 8.30 | 8.30 | 8.30 | 8.30 |
| 28 | TMedical Jurisprudence ( 20 lectures) |  | .. | .. |  |  |
| 29 | Public Health (30 lectures) |  |  |  |  |  |
| 31 | [ Diseases of the Mind . |  |  |  |  |  |
| 32 | Diseases of the Eye |  |  |  |  |  |
| 65 | * L Diseases of Children . . .. .. |  |  |  |  |  |
| 33 | Diseases of the Ear, Nose, and Throat |  |  |  |  |  |
| 34 | (Diseases of the Skin .. .. |  |  |  |  |  |
| 24 | $\dagger$ Hospital, with Tutorial and Clinical |  |  |  |  |  |
|  | Medicine | 11-5 | 11-5 | 11-5 | 11-5 | 11-5 |

TTo commence after the course in Public Health.
fContinued throughout the long vacation until the Final Degree Examination in March.

## MEDICINE．

OF LECTURES．

|  | Trinity Term． |  |  |  |  | Michablasas Term． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M． | Tu． | w． | Th． | F． | M． | Tu． | W． | ＇Th． | F． |
| 30 | 12.30 | 12.30 | 12.30 | 12.30 | 12.30 |  |  |  |  |  |
|  | $11-1230$ | 1－12 30 | 11－12．30 | 11－12．30 | 11－12．30 |  |  |  |  |  |
| 18 | $\cdots$ | ． | ． | $\cdots$ | ． |  | $\cdots$ | $\cdots$ | $\cdots$ |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  | ＋8．30－ | ＋8．30－ | ＋8．30－ | $\pm 8.30$ | ＋8．30－ | ． | ． | $\cdots$ | ． |  |
| 21 | ${ }^{+10.30}$ | $+$ | ${ }^{+} 10.30$ | $+$ | 10.30 | $\cdots$ |  | $\cdots$ | ． | $\cdots$ |
| 23 | ．． | ． | ．． | ．． | ．． | 9.30 | 9.30 | 9.30 | 9.30 | 9.30 |
| 26 | ． | ． | ． | ． | $\cdots$ | 8.30 | 8.30 | 8.30 | 8.30 | 8.30 g |
| 2.5 | ． | ． | ．． | ． | ． | 11－5 | 11.5 | 11－5 | 11－5 | 11－5 |
| $\begin{aligned} & 28 \\ & 29 \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | $\cdots$ |  |  |  | $\cdots$ |
|  | 8.30 | 8.30 | 8.30 | 8.30 | 8.30 |  |  |  |  |  |
|  | 8.30 | 8.30 | 8.30 | 8.30 | 8.30 | $\cdots$ | $\ldots$ | $\cdots$ | ． |  |
|  | $\cdots$ | ． | ． | $\cdots$ | ． | $\cdots$ |  | $\cdots$ | $\cdots$ | $\cdots$ |
|  | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
|  | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ |  | $\cdots$ | $\cdots$ |
|  |  |  | ． | ． | ． |  |  |  |  | ．． |
| 24 | 10－5 | 10.5 | 10－5 | 10－5 | 10－5 | 9－5 | 9－5 | 9－5 | 9－5 | 9－5 |

$\}$ Two hours one day a weet for each student．
＊In Long Vacation of 4 th Year． $\ddagger$ And afternoon．


Pharmary students are required to take the Chemistry course in two stages, in the folowing Organic Chemistry and Practical Urganic Proparations. Both akages may be taken in one

OF 'DENTISTRY'.
OF LEC'TURES.


PHARMACY STUDENTS.

| 30 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 10 | 9 | 10 | 10 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 | $\ldots$ | $10-1$ | $\ldots$ | $10-1$ | $\ldots$ | $\ldots$ | $10-1$ | $\ldots$ | $\ldots$ | $\ldots$ |
| 37 | 11 | $\ldots$ | 11 | $\ldots$ | 11 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| 50 | 9 | $\ldots$ | 9 | $\ldots$ | 9 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| 37 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 11 | $\ldots$ | 11 | $\ldots$ | 11 |

order: - Inorganic Chemistry and Practical Chemistry, including Volametric Analyees; year. The whole Chemistry Examination must be taken at one time.

FACULTY
tIME TABLE
Laboratory practice

| Rbperence <br> Numberto Synopses. | Subiect. |  | Lent Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | M. | Tu. | w. | Th. | F. |
| 37 | Chemistry I. |  | 11 |  | 11 |  | 11 |
| 3 | Mathematics I. |  | 10 | 10 | 10 | 10 | 10 |
| 50 | Biology I. |  | 9, 2-4 | 9 | 9, 2-4 | 9 | 9,2-4 |
| 36 | Physics I. |  |  | 12 |  | 12 |  |
| 38,44 | Geology I. |  | 12 | 11 | 12 | 11 | $\ldots$ |
| 37 | Chemistry II. | $\cdots$ |  | 12, 2-5 |  | 12, 2-5 |  |
| 3 | Mathematics II. |  | 9 | -9 | 9 | -9 | 9 |
| 36 | Physics II. |  | 2-5 | 10 |  | 10 | 2-5 |
| 50 | Biology II. |  |  | 11,2-5 |  | 11,2-5 | .. |
| 39, 45 | Geology II. |  | 12 | 9 | 12 | 9 |  |
| 17 | Physiology I. |  | 2-5 | .. | .. | 2-5 |  |
| 3 | Mathematics III. |  | 11 | 11 | 11 | 11 | 11 |
| 43, 49 | Geology III. |  | 9, 11 |  | 9, 11 | . |  |
| 50 | Biology III. | . | 2-5 | 11 | 2-5 | 11 | $2-5$ |
| 37 | Chemistry III. |  |  | 2-5 | 2-5 | 2-5 |  |
| 36 | Physics III. |  | 12, $2-5$ |  |  |  | $12,2{ }^{2}$ |
| 17 | $\dagger$ Physiology II. |  | 12 | 12 | 12 | 12 | 12 |

$\dagger$ Practical work as arranged.

## OF SCIENCE.

OF LECTURES.
is indicated by block type.

| Rbference Number to Sinopges. | Trinjpy Term. |  |  |  |  | Migharlmas Trrm. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | Tu. | W. | Th. | F. | M. | Tu. | w. | Th. | F. |
| 37 | 11, 2-5 |  | 11,2-5 |  | 11, 2-5 | 11 | $\cdots$ | 11 | $\cdots$ | 11 |
| 3 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 50 | 9 |  | 9 |  | 9 | 2-4 |  | . |  | 2-4 |
| 36 |  | 12, 2-5 |  | 12, 2-5 |  | .. | 12 | $\cdots$ | 12 |  |
| 38, 44 | 12 | 11 | 12 | 11 | .. | . . | 11 | . | 11 | . |
| 37 |  | 12, 2-5 |  | 12, 2-5 |  |  | 12.2-5 |  | 12,2-5 |  |
| 3 | 9 | 9 | 9 | ${ }^{12}$ | 9 | 9 | 9 | 9 | 9 | 9 |
| 36 | . . | 10 | .. | 10 | . | 2-5 | 10 | $\cdots$ | 10 | 2-5 |
| 50 |  | 11, 2-5 | $\cdots$ | 11,2-5 | . |  | 11,2-5 |  | 11,2-5 | .. |
| 39, 45 | 12 | 9 | 12 | 9. |  | 12 | 9 | 12 | 9 |  |
|  | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 17 | $2-5$ | . |  | 2-5 | . | 2-5 | . | . | 2-5 | .. |
| 3 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 43,49 | 9. 11 |  | 9, 11 |  |  | 9, 11 |  | 9, 11 |  |  |
| 50 | 2-5 | 11 | 2-5 | 11 | 2-5 | 2-5 | 11 | 2-5 | 11 | 2-5 |
| 37 |  | 2-5 | 2-5 | 2-5 |  |  | 12,2-5 | 2-5 | 12,2-5 |  |
| 36 | 12, 2-5 | . |  |  | 12, 2-5 | 12,2.5 | , | .. | , | 12, 2-5 |
| 17 | . | $\cdots$ | $\cdots$ | $\cdots$ | . | . | $\cdots$ | $\cdots$ | $\cdots$ | . |
|  |  |  |  |  |  |  |  | . |  |  |

## DEPARTMENT OF <br> CIVIL EN TIME TABLE

Laboratory Practice is

|  | Subject. | Lent Ters. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | M. | 'Tu. | W. | Th. | F. |
| 37 | $\begin{aligned} & \text { FIRST YEAR. } \\ & \text { Chemistry I. } \end{aligned}$ | 11,2-5 |  | 11, 2-5 |  | 11, 2-5 |
| 36 | Physics I. .. .. |  | 12 |  | 12 |  |
| 3 | Mathematics I. | 10 | 10 | 10 | 10 | 10 |
| 51 | Descriptive Geometry | 9 | 9,2-5 |  | 9 | 9 |
| 58 | Engineering Design \& Drawing I. |  |  | -9 | 2 -5 |  |
| 38, 44 | Geology I. . ${ }^{\text {a }}$. $\quad . \quad .$. | 12 | 11 | 12 | 11 |  |
|  | Mechanical Workshop Practice (optional) | . |  |  |  |  |
| 36 | SECOND Year. |  |  |  |  |  |
|  | Physics II... .. | 2-5 | 10 | . | 10 | 2-5 |
| 55 | Engineering Construction | 12 | $\cdots$ | 12 |  |  |
| $\begin{array}{r} 53 \\ 52,58 \end{array}$ | Mechanical Engineering I. | 10 |  | 10 |  | 10-1 |
|  | Engineer. Design \& Drawing II. | 11 | †¢9-5 | 11-1 | $\dagger \oint 3-5$ |  |
| -3 | Mathematics II. .. .. .. | 9 | 9 | - | 9 | 9 |
| 37 | Chemistry .. .. .. | . | 2 |  | 2 |  |
| 3 | third year. |  |  |  |  |  |
|  | Mathematics III. (Spherical Trig.) | . |  | . | . |  |
| 53 | Mechanical Engineering II. A. | $\cdots$ | 12 | $\ldots$ | 12,2-5 |  |
| 56 | Materials and Structures A. .. | 2-5 | 10 |  | 10 |  |
| 54 | Electrical Engineering I. | 11 | . | 11,2-5 | . | 11 |
| 59 | *Surveying I. .. .. | . | 9 |  | 9 |  |
| 60, 55 | Building Construction and Architecture |  |  |  |  |  |
| 52,58 | Engineer. Design \& Drawing III, | 9 | 2-5 | 9 |  | 2-5 |
| 56 | FOURTH YEAR. |  |  |  |  |  |
|  | Materiais and Structures B |  | 11, ©-11 |  | 11,9-11 |  |
| 57 | Civil Engineering A. and B. | 9-12 | 12 | 9-12 | 12 | 9.12 |
| 5952,58 | Surveying II. .. .. .. |  |  |  |  |  |
|  | Engineer. Design \& Drawing IV. | 2-5 | 2-5 | . | 2-5 | 2-5 |

[^11]
## ENGINEERING.

GINEERING.
OF LECTURES.
indicated by block type.

| Reference Number to Synopseg. | Trinitr Term. |  |  |  |  | Miguablmas Term: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | 'ru. | W. | Th | F. | M. | Tu. | W. | 'rh. | F. |
| 37 | 11 |  | 11 |  | 11 | . | 2 | $\cdots$ | 2 |  |
| 36 |  | 12, 2-5 | . | 12, 2-5 |  |  | 12 |  | 12 | . |
| 3 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 51 |  |  |  |  |  |  |  | $\ldots$ | $\therefore$ |  |
| 58 | $2-5$ | . | 2-5 | $\cdots$ | 9 |  | 3-5 |  | 3-5 | 9,11-1 |
| 38, 44 | .. | 11 | .. | 11 |  | 12 | 11 | 12 | 11 | . |
|  | .. | . | . | . | 2-5 | 2-5 | . | $\ldots$ | .. | 2-5 |
| 36 | . | 10 | . | 10 |  | 2-5 | 10 | . | 10 | 2.5 |
| 55 \{ | 12 | . | 12 | . | 12, $10-12$ | . | 12 | . | 12 | 10-1 |
| 53 | 10 | 2-5 | 10 |  |  |  |  | . |  | . |
| 52, 58 | 11 | 11-1 |  | 2-5 | . | 11 | 2-5 | $\ldots$ | 2-5 |  |
| 3 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 37 | . | $\cdots$ | . | $\cdots$ | $\ldots$ | . | . | . $\cdot$ | $\ldots$ | .. |
| 3 |  |  |  |  |  |  |  |  |  |  |
|  | . |  |  |  | . | $\ldots$ | $\cdots$ | $\cdots$ | . | - |
|  | $\cdots$ | $\cdots$ | . |  | . | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  |
| 56 | $\cdots$ | 10 |  | 10, 3-5 | . | . | $\cdots$ | $\ldots$ | . | $\cdots$ |
| 54 , | 11 | . | 11, 2-5 | . | 12 | . | . | $\cdots$ | . | . |
| 59 ! | $\cdots$ | 9 | . | 9 |  | . | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| 60, 55 |  |  |  |  |  |  |  |  |  |  |
|  |  | 12, 2 |  | 12, 2 |  | . | .. | $\cdots$ | $\ldots$ | $\cdots$ |
| 52,58 | 2-5 | . | 9,10 | $\cdots$ | 2-5 |  | . |  | . $\cdot$ | .. |
| 56 |  |  |  |  | . |  |  |  |  |  |
| 57 | $10-1$ | 12 | 10-1 | 12 |  | 12 |  | 12 |  | 12 |
| 59 | 9 |  | 9 |  | 9 |  |  |  |  |  |
| 52, 58 | 2-5 | 2.5 | .. | 2-5 | 10-5 | $2-5$ | 10.5 |  | 10-5 | $2-5$ |

TOr other practical work.

# DEPARTMENT OF <br> MINING AND TIME TABLE 

Laboratory Practice is


[^12]
## ENGINEERING.

METALLURGY.
OF LECTURES.
indicated by bluck type.

| Reference Nubberto Synopses. | Trinity Term. |  |  |  |  | Micharlmas Trim. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | Tu. | w. | Th. | F. | M. | Tu. | w. | Th. | F. |
| 37 | 11 |  | 11 |  | 11 |  | 2 |  | 2 | . |
| 36 |  | 12,2-5 |  | 12,2-5 | - . |  | 12 |  | 12 |  |
| 3 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 51 |  | . |  |  |  | . |  | $\ldots$ |  |  |
| 58 | 2-5 |  | 2-5 |  | 9 |  | 3-5 |  | 3-5 | 9, 11-1 |
| 38, 44 | .. | 11 | .. | 11 |  | 12 | 11 | 12 | 11 |  |
|  | $\cdots$ | . | $\ldots$ | .. | 2-5 | 2.5 | . | . | . | 2-5 |
| 36 | 2-5 | 10 | . | , 10 | 2-5 | . | . | . | . | . |
| 55 | 12 | . | 12 | . | 12, | $\ldots$ | 12 | . | 12 | 10-1 |
| 53 ( | 10 | 2.5 | 10 |  |  |  |  |  |  |  |
| 52. 58 | 11 | 11-1 |  | 2-5 |  | $11+2-5$ | $2-5$ |  | 2-5 | $2-5$ |
| 40, 46 | 9 | 9 | 9 | 9 | 9 | +9 | 9 | 9 | 9 | 9 |
| 37 | . | . | . | . | . | . | . | 10-1 | . | . |
| 37 | $\cdots$ | . . | . | $\ldots$ | $\ldots$ | $\ldots$ | . . | . . | . | $\cdots$ |
| 53 | . |  | . |  |  |  |  |  |  |  |
| 56 | . | 10 | . | 10, 3-5 | $\cdots$ | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| 54 \{ | 11 | . | 11,2-5 |  | 12 | . | $\cdots$ | . | . | $\cdots$ |
| 59 , |  | 9 |  | 9 | . | $\cdots$ | \% ${ }^{10}$ | . | 10 |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 41,47 | 9-11 |  |  |  |  |  | . |  | . |  |
| 37 | 9-11 | 12 | 9-11 | 12 | 9-11 | 9-11 $11-5$ | . |  |  | 11-5 |
| 52, 58 | . | 3-5 | $\ldots$ | $\because$ | 2-5 | . | 2.5 | 1011-1 | $2-5$ | .. |
| 61 | $\cdots$ | . | . | $\cdots$ | . | . | 9 |  | 9 | . |
| 61 | 9 | 9 | 9 | 9 | 9 | 9 | . | 9 | . | 9 |
| 69 |  |  |  |  |  | 11 |  | 11 |  |  |
| 62 | 10 |  | 10 |  | 10 | 10 |  | 10 |  | 10 |
| 37 | 11-5 | 10-4 |  | 10-4 | 11.5 | 10-4 | 2,10-4 |  | 2,10-4 | 10-4 |
| 52. 58 |  | .. | 12-1 |  | .. | - |  | $12-1$ |  | 1.. |

iT Or other practical work.

DEPARTMENT OF
MECHANICAL AND TTME TABIJE OF

Laboratory practice is

|  | Subject. | Lent Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mon. | Tues. | Wed. | Thur. | Fri. |
| 37 | Chemistry I. ${ }_{\text {first year. }}$ | 11,2-5 |  | 11,8-5 |  | 11,2-5 |
| 36 | Physics I... .. .. |  | 12 |  | 12 |  |
| 3 | Mathematics I. .. | 10 | 10 | 10 | 10 | 10 |
| 51 | Descriptive Geometry .. .. | 8 | 9,2-5 |  | 9 | 9 |
| 58 | Engineering Design and Drawing I... \||Mechanical Workshop Practice | $\cdots$ | $\cdots$ | 9 . | $2-5$ | . |
| 36 | Physics II. SECOND YEAR. | 2-5 | 10 |  | 10 | 2-5 |
| 55 | Engineering Construction | 12 | . | 12 | . | . |
| 53 | Mechanical Engineering I. | 10 |  | 10 |  | 10-1 |
| 52, 38 | Engineering Design and Drawing II. . | 11 | 3-5 | 11-1 | 3-5 |  |
| 3 | Mathematics II. .. .. .. .. |  | 9 | - | 9 | 9 |
| 37 | Chemistry | . | 2 | .. | 2 | . |
|  | third year. |  |  |  |  |  |
| 53 | Mechanical Engineering II.-A \& B | 12 | 12 | 12 | 12 | 12, 2-5 |
| 56 | Materials and Structures A | $2-5$ | 10 |  | 10 |  |
| 54 | Electrical Engineering I. | 11 | . | 11,2-5 | . | 11 |
| 59 | *Surveying I. .. |  | 9 |  | 9 |  |
| 52,58 | Engineering Design and Drawing III. | 9 | 2.5 | 9 | $2-5$ |  |
| 53 | FOURTH YEAR. <br> Mechanical Engineering III. | 11-1 | 10 | 11-5 | 10 |  |
| 54 | Electrical Engineering II. | 10,2-5 | 2-5 | 10 |  | 10 |
| 52, 58 | Engineering Design and Drawing IV. |  | 11 |  | 11,2-5 | 2-5 |
| 57 | Civil Engineering-A .. .. .. |  | 12 |  | 12 | . |

[^13]
## ENGINEERING.

ELECTRICAL.
LECTURES.
indicated by block type.


TOr other practical work.

DEPARTMENT OF
-TIME TABLE
Laboratory practice in

|  | Subject. | Lemt Term. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mon. | Tues. | Wed. | Thur. | Fri. |
|  | first year |  |  |  |  |  |
| 65 | Anatomy-Junior | 10 |  | 10 |  |  |
| 63 | Practical Biology. $\quad$ - | . | 10-12 |  | 10-12 | 11-1 |
| 37 | Chemistry .. .. |  | 12 | 12 | 12 |  |
| 63 | Biology .. .. | 9 | 9 | 9 | 9 | - |
| 36 | Physics-Elementary . |  |  |  | ®. | 10 |
| 37 | Practical Chemistry .. | 2-5 | . | 2-5 | . | 2-5 |
|  | SECOND YEAR |  |  |  |  |  |
| 65 | Anatomy-Senior | . | 11.30 |  | 11.30 | 11.30 |
| 55 | Dissections |  | 2-5. | 2-5 | 2-5 | 2-5 |
| 66 | Physiology | 10 | 10 | 10 | 10 | 10 |
| 66 | Practical Histology | 2-5 | . |  | . |  |
| 66 | Physiological Chemistry | . |  |  | $\ldots$ | . |
|  | third year |  |  |  |  |  |
| 69 | Hygiene and Dietetics . | 9 | . | 9 | $\ldots$ | $\ldots$ |
| 71 | Materia Medica. Therapentics and   <br> Pharmacy .. .. .. |  | 9 |  | 9 | . |
| 68 | Agricultural Botany and Mycology .. | . | . | $\cdots$ | . | $\cdots$ |
|  | Pharmacology .. ... .. .. | . | . | .. |  | . |
| 72 | Stable Management, Manipulation of Domestic Animals and Principles of |  |  |  |  |  |
|  | Horse-shoeing |  |  |  |  | 9-11 |
|  | Clinical Instruction ... .. | 10-12 | 10-12 | 10-12 | 10-12 | 11-12 |
| 67 | Pathology and Bacteriology | 12 | 12 | 12 | 12 | 12 |
| $\begin{gathered} 74,75 \\ 76 \end{gathered}$ | FOURTH YEAR Surgery and Obstetrics.. .. .. | $\begin{gathered} 9 \\ \ddot{10-12} \\ 12 \end{gathered}$ | $\begin{gathered} 9 \\ 10-12 \\ 12 \end{gathered}$ | $\begin{gathered} 9 \\ \ddot{10-12} \end{gathered}$ | 9 | 9 , |
|  |  |  |  |  |  |  |
|  | Parasitology . |  |  |  |  |  |
|  | Clinical Instruction |  |  |  | 10-12 | 11-12 |
| 73 | Medicine . |  |  |  | 12 | 12 |
| 77 | Meat Inspection.. |  |  |  | . |  |
| 706760 | FIFTH YEARAdvanced Hygiene \& Sanitary Science |  |  |  |  |  |
|  |  |  | 9 |  | 9 |  |
|  | Advanced Pathology and Bacteriology | 9 | .. | 9 |  | 9 |
|  | Advanced Practical Physiology <br> Hospital Practice-Daily | .. | . | 2.5 |  | $\cdots$ |

## VETERINARY SCIENCE.

of LECTURES.
indicated in block type.

| $\begin{gathered} \text { Reperence Number } \\ \text { of } \\ \text { Stwopses } \end{gathered}$ | Trivity Temar. |  |  |  |  | Micharlatas Tebm. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mon | Tu. | Wed. | Th. | Fri. | Mon. | Tu. | Wed | Th. | Fri. |
| 65 | . | 1130 | . | 11.30 | .. | 10 | . | 10 | 10 | 10 |
| 63 | $\cdots$ | 9-11 | $\cdots$ | 9-11 |  | . | . | . |  |  |
| 37 | 11 | . | 11 | .. | 11 | . | 2 | $\cdots$ | 2 | $\cdots$ |
| 63 | 9 | .. | 9 | . | 9 | $\cdots$ | $\cdots$ | . | $\cdots$ |  |
| 36 |  | $\cdots$ | . | . | 10 | . | . |  | . |  |
| 37 | $\cdots$ | .. | $\cdots$ | $\cdots$ | . . | .. | . | . | . | . |
| 65 | 11.30 |  | 11.30 |  | 11.30 |  | 11.30 |  | 11.30 |  |
| 55 | 2 -5 | $2-5$ | $2-5$ | 2-5 | 2-5 | 2-5 |  | 2-5 | 2-5 | $2-5$ |
| 66 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 66 | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | .. | 2.5 | $\cdots$ | $\cdots$ | . |
| 69 | 9 | $\cdots$ | 9 |  | $\cdots$ | $\cdots$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| 68 | $\cdots$ |  | . | $\cdots$ | -12 | 9 | $\cdots$ | 9 | . | . |
| 72 | . | .. | . | $\cdots$ | 0.12 | . | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
|  | 10-12 | 10-12 | 10-12 | 10-12 | 10-12 | 10-12 | 10-12 |  | 10-12 | 10-12 |
| 67 | 12 |  | 12 | 12 |  | $2-4$ |  | 2-4 |  | 2-4 |
| 74,75 | 9 |  | 9 | 9 | 9 | 9 | . | 9 | 9 | 9 |
|  | 10-12 | 10-12 | 10-12 |  | 10-12 | 10-12 | 10-12 |  |  | 10-12 |
| 73 | 12 | 12 |  | 12 | - | 12 | 12 | - | 12 | - |
| 73 | . |  | 2 |  | . | . | . | . | . | . |
| 70 |  | 9 |  | 9 |  |  | . |  | .. |  |
| 67 | 9 | . $\cdot$ | 9 | .. | 9 | 9 | . | 9 | . | 9 |
| 66 | . | . | 2-5 | . $\cdot$ | . | . | $\cdots$ | $\cdots$ | $\cdots$ | . |

## FACULTY OF ARTS.-EVENING LECTURES.

TIME TABLE.


- Practical-Three terms.
+ Practical-Two terms.
$\$$ A fourth hour to be arranged
:i Details according to arrangement.


## REGULATIONS.

REGULATIONS PASSE! BY THE PROFESSORIAL BOARD.
It shall be the duty of the Chairman of the Professorial Board to exercise a general supervision over the discipline of the University.

Every fine shall be paid to the Registrar within forty-eight hours from the time of its imposition. If not so paid, the fine shall be doubled; and if the double fine be not paid within one week from the time when the original fine was imposed, the Registrar shall report the fact to the Professorial Board, in order that suitable means may be taken against the offender for his contumacy.

The Dean of each. Faculty shall call upou every student in his Faculty who shall have absented himself for more than ten per cent of any prescribed course of lectures in any one term to show sufficient cause for such absence. The Dean shall at his discretion either decide that the cause shown is sufficient, or submit the matter to the Professorial Board for decision. Such students as fail to show sufficient cause for such absence, are under Section 2 of Chapter XIII, of the By-laws, excluded from admission to the Yearly Examinations.

No excuse.for absence from lectures shall be received from any undergraduate unless tendered in writing to the Registrar within one week after he resumes attendance. Every written excuse for absence from lectures in any Faculty shall be submitted to the Dean of that Faculty, who may at once decide that such excuse shall be accepted, or in cases of doubt, may call a meeting of the Professorial Board to adjudicate thereon.

Matriculated students who have lost their places in their own proper year, either by non-attendance at the prescribed course of lectures or by failing to pass the required examinations, are not allowed to compete for honours, scholarships, or prizes at subsequent Yearly, Professional, or Degree Examinations uniess by express permission of the Professorial Board.

No verbal information regarding the result of an examination shall be given by any Professor, Lecturer, or other officer of the University. Answers to enquiries of such a nature shall be put in writing, and forwarded to the Registrar, who shall advise the student accordingly.

REGULATIONS OF THE FACULTY OF MEDICINE.

1. No student in the Faculty of Medicine, who has not been specially exempted, shall receive a certificate of attendance upon any course of instruction who shall not have been present at sixty per cent., at least, of the meetings of the class.
2. A.-First Degree Examination.

Candidates for the First Degree Examination in Medicine may be permitted to take the examination in two of the three prescribed subjects, Chemistry, Physics and Biology in December, and to present themselves for the third subject in March. Students taking advantage of this privilege who fail in one subject or in both subjects in December shall be required to take the examination in all three subjects in March. Students taking the whole examination in December and failing in two subjects must present themselves for the whole examination in March, but students who fail in one subject only may present themselves in March in the subject in which they fail.
All examinations for Distinctions and Scholarships shall be in December. No student shall be entitled to obtain a Distinction or Scholarship unless he pass the whole examination in December.
B.-Second Degree Examination in Anatomy and Physiology at the end of Trinity Term, Second Year.
Students who fail in this examination may be allowed to present themselves for re-examination in the following March.
C.-Fourth Degroe Examination in Pathology, Surgical Anatomy and Operative Surgery, and Materia Medica and Therapeutics at the end of Trinity Term of the Fourth Year.
Students who fail in this examination may be allowed to present themselves for re-examination in the following December.
D.-Final Examination.

Students who fail in the Final Examination at the beginning of Lent Term after the completion of the Fifth Year may be allowed to present themselves for re-examination at the end of Trinity Term following.
E.-Students who have failed to pass any of the prescribed examinations shall before again presenting themselves for examination, attend again the courses of instruction in which they have failed unless they receive exemption at the discretion of the Boards of Examiners. For such reattendance half-fees shall be çharged.
3. That the following Boards of Studies be established :-
(a) A Board of Studies in Medicine, to include the Lecturers in Medicine and Clinical Medicine, one Hon. Physician nominated by the Medical Board of each Hospital, and the Tutor in Medicine.
(b) A Board of Studies in Surgery, to include the Lecturers in Surgery and Clinical Surgery, one Hon. Surgeon nominated by the Medical Board of each Hospital, and the Tutor in Surgery.
(c) A Board of Studies in Midwifery and Gynæcology, to include the Lecturers in Midwifery and Gynæcology, one Hon. Gynæcological Surgeon nominated by the Medical Board of each Hospital, and the. Tutor in Midwifery.

These Boards of Studies shall meet once in each term to discuss all matters relating to instruction in their several subjects and generally to co-ordinate the teaching. The Tutors in the several subjects shall act as secretaries of the Boards and shall be responsible for summoning the meetings of the Boards.

## REGULATIONS FOR DIPLOMA IN PUBLIC HEALTH.

1. PartI. of the Examination having reference to the General Principles of Santtary Science will comprise the subjects set forth in the following schedule, viz. :- The elements of chemistry and physics : methods of chemical analysis, and in particular the analysis of air and water. The laws of heat and the elements of pneumatics, hydrostatics, and hydraulics, in their application to warming, ventilation, water-supply and drainage. The geological and other conditions determining the healthiness of sites for dwellings. Sources, storage, and purification of watersupply. The elements of meteorology in relation to health. Principles of building-construction in their application to
dwellings, hospitals; and schools. The disposal of sewnge and refuse, and the general principles of sanitary engineering. Disinfectants, their chemistry and use. The chenical and microscopical examination of foods, and the detection of the commoner forms of contamination. The methods of bacteriological investigation and analysis. The chemistry and bacteriology of air, water, food and soil. The general patholowy of infection and of the diseases of animals that are transmissibleto man.
2. Part II. of the Examination having reference to State Medicine and the Applications of Pathology and Sanitary Science to Public Healti will comprise the subjects set forth in the following schedule, viz. :-The law and statutes of New South Wales* relating to public heallth, and the by-laws and regulations made thereunder. The model by-laws of the lioard of Health of New South Wales*. Sanitation of dwellings, schools, factories and workshops, and of villages and towns. Inspection of premises liable to inspection under statute. Inspection of meat and other articles of food. General epidemiology, with special reference to the origin, pathology, symptoms, propagation, geographical distribution, and prevention of the epidemic, endemic, and other infective diseases. The methods applicable to the investigation of epidemics. Effects on health of overcrowding, vitiated air, impure water, polluted soils, and bad or insufficient. food. Unwholesome trades and occupations, and the diseases towhich they give rise. Nuisances injurious or dangerous to health. The effects on health of season and climate. The principles and methods of vital statistics in relation to public health.
3. The foregoing schedules are not to be understood as limiting the scope of the Examination, which may include every branch of Sanitary Science, including Tropical Hygiene. No candidate will be approved by the Examiners who does not show a distinctly high proficiency in all the branches of study, scientific and practical, which bear upon the duties of a Medical Officer of Health.

Regulations about diseases of animals transmissible to man:

[^14]REGULATIONS FOR DIPLOMA IN EDUCATION.

## A.-Lecture and Demonstration Courses-

Course 1.-Outlines of Psychology, with special reference to the mental life of children. (Education I. A, and I. B. at 'Teachers' College, or Philosophy I. at the University),
Course 2.-(a) The Principles of Education.
(b) History of Education.
(c) Organisation and Administration of Education.

Course 3.-Principles of Teaching-
(a) General Method.
(b) Special Method.

Course 4.-The Physical Life of School Children.

> B. - Practice in Teaching.

1. Continuous Practice.-In order to gain experience in ordinary school work, each student will be required to teach for a continuous period or periods in an ordinary school. The amount of time will vary according to the previous experience of the student, but will not, except in special circumstances, be less than 180 hours. For this work the student will be attached to an approved school, the principal of which will forward periodical reports on the work of the student. . The student's work will also be under the supervision and direction of the Professor of Education.
2. Observation, Demonstration and Criticism Lessons.This course will occupy 180 hours during one year, and will embrace the following:-(a) Courses of weekly lessons throughout three terms; $(b)$ a course of demonstration lessons and discussions of two hours per week for three terms.

## REGULATIONS FOR ADVANCED STUDENTS IN ARTS AND SCIENCE.

1. The Faculties of Arts and Science may admit as Advauced Students persons of the age of 21 years or upwards not graduates of this or of another University who give such evidence of general education and special qualification for advanced study and research as may be approved by the Faculty with which their proposed course of study and research is most nearly connected.

The evidence of general education shall include a satisfactory record of a full three years' course of study, either as a matriculated or unmatriculated student, at a University.
2. The Faculty of Science may also admit graduates in Arts as Advanced Students in Science, provided they give such evidence of special qualification for advanced study and research as may be approved by that Faculty.
3. An Advanced Student who has been admitted to a course of advanced study and research shall pursue that course under the direction and supervision of one or more of the Professors of the University, and under such other conditions as may, on the recommendation of the Professorial Board, be approved by the Senate.*
4. Application for admission as Advanced Students shall, in general, be submitted not later than the first day of November in the year previous to that in which the applicant proposes to begin his course. The application shall not be granted unless it shall appear that the course or courses of advanced study and research can be conveniently pursued within the University.
5. An Advanced Student may in the sixth or any subsequent term after his admission submit to his Faculty a dissertation containing an account of and embodying the results of his. research or researches. The dissertation shall be referred to one or more persons appointed by the Faculty who shall have power to examine the student orally or otherwise upon the subject thereof, and upon the courses of study which he has pursued, and shall report thereon to the Faculty.

The Faculty shall have power to take into consideration, together with the dissertation, any published memoir or record of work done by the student which he may desire to submit to them.
6. If the Faculty, after hearing the report of the referees, be of opinion that the work submitted by the student is of distinction as an original contribution to learning, or as a record of original research; they shall draw up a statement to this effect, indicating therein the subject or subjects of the student's research, and the degree B.A. or B.Sc. for which his work shall be a qualification, subject to the regulations which follow.
7. The statement drawn up by the Faculty shall be embodied by the Registrar in a certificate of research in a form approved by the Professorial Board.

[^15]Each candidate before receiving a certificate of research shall deposit in the University Library two printed copies of his dissertation in a form approved by the Professorial Board, but if the dissertation has been accepted for publication in some scientific journal, the Librarian may accept a typewritten copy to be replaced by a printed copy or its publication in that journal.
8. A student who has obtained a certificate of research, and has completed six terms as an Advanced Student, may be admitted, on payment of the usual degree fee of $£ 3$ for the degree of B.A. or B.Sc. indicated in his certificate, and thereafter under the usual conditions to other degrees in the University.
9. An Advanced Student shall not be admissible as a candidate for any University Prize or Scholarship which is only open to Undergraduates.

REGULATIONS FOR RESEARCH STUDENTS IN THE SCIENTIFIC LABORATORIES.

1. Research. students may be admitted to the University laboratories from year to year on the recommendation of the head of the department in which they propose to work.
2. A research student in any University laboratory shall be under the control of the head of the department as regards the use of the laboratory apparatus and materials. The Professor, as director of the laboratory, shall have the right to make himself acquainted with the character and progress of the work done by any research student working in his laboratory.
3. Research students may work in the University laboratories during laboratory hours in Term time, and at such other times as may be arranged by the Professor in charge.
4. Each research student shall pay to the University a fee of five guineas per Term for the expense of material, etc.; such fee to be paid to the credit of the maintenance vote of the department. All expensive apparatus or material required for special investigations shall be purchased by the research student.

The Professor in charge shall be the sole judge of what apparatus and material should be provided by the University or purchased by the student.
The University should be provided with printed copies of all scientitic papers published by research students.

## REGULATIONS FOR THE USE OF MICROSCOPES.

In the Practical Courses of Biology, Physiology, Pathology, and Bacteriology, students may use the microscopes provided by the University, for the use of which a charge is made. But they are strongly recommended to purchase for themselves microscopes of an approved pattern, and to use them throughout their course. A microscope suitable for bacteriological work, and for the proper clinical examination of the blood, and which must also include an oil iumersion-lens, is now an essential part of the equipment of every medical man. It is, moreover, a great advantage for the student to use his own microscope during his undergraduate course, as he thus becomes familiar with its working, and is in a better position to profit by its use in after years. With the exercise of a little care the efficiency of a good microscope will not thereby be impaired.

Excellent microscopes are supplied by the English firms, Beck, Ross, Swift, and Watson; by the American firm, Bausch and Lomb; and by the Continental firms, Zeiss, Reichert, and Leitz. The student is particularly warned against the purchase of an inferior type of microscope which will nut be approved by the Professors, and it is hardly necessary to point out that not every microscope made by the above-named firms is of a type that can be approved. Students are, therefore, invited to consult the Professors before making any purchase.

The following types of microscope, procurable in Sydney from agents of the manufacturers, are recommended as adequate, and at the same time moderate in price. With the accessories given they are adapted for the Practical Biology and the Practical Physiology courses :-
W. Watson \& Sons' Edinhurgh Student's Microscope, Stand "B," with $\frac{2}{3}$ and $\frac{1}{6}$ inch objectives, Nos. 2 and 4 eye-pieces, double nose-piece, and illuminating apparatus. Price, $£ 101.2 \mathrm{~s} .6 \mathrm{~d}$.

Or W. Watson \& Sons' Stand "C," similar to "B," but with compound rackwork substage and better illuminating apparatus. etc. $£ 1217 \mathrm{~s} .6 \mathrm{~d}$.

Bausch \& Lomb's Microscope BB6, with Abbé condenser and iris diaphragm, double nose-piece, two eye-pieces, two objectives $\frac{2}{3} \mathrm{in}$. and $\frac{1}{6}$ in (N.A. 066 ) etc., $£ 11 \mathrm{l} 2 \mathrm{~s}$.

Leitz Microscope, Stand Ma, with Abbë condenser and iris diaphragm, double nose-piece, two eyepieces, III. and IV., two objectives 3 and 6 , etc., $£ 10$ 10s.

Reichert's "New Sydney. University" Stand, with Abbé condenser and iris diaphragm, double nose-piece, two eyepieces, III. and IV., two objectives, 3 and 6 , of best quality, etc., £11.

For Practical Pathology and Bacteriology, a $\frac{1}{12}$-inch oilimmersion objective is also required, and costs about $£ 55 \mathrm{~s}$.

The microscope and íts accessories should be selected, not only with a view to the immediate requirements of the student, but also with regard to his future work. Since for practitioners of Medicine microscopic work consists mainly in the examination of bacteria and of the blood, students will find it advantageous to purchase from the beginning a triple instead of a double nose-piece, and to see that the ordinary high power objective is adapted for the counting of blood cells in a Thoma-Zeiss, chamber.

Deparitment of Geology and Mineralogy.
Students may use their own microscopes in the demonstrations on Petrology, provided they are of an approved pattern. Students who wish to obtain a microscope suitable for both Biology and Geology should purchase a petrological, and not simply a biological, stand. Advice will always be willingly given to any students desiring to purchase a microscope. The microscopes in use for demonstrations are the following :-
(1) Student's Petrological Microscope, with centering stage or nose-piece, revolving double nose-piece, and two objectives, both of highest numerical aperture. The latter should be 1 inch and $\frac{1}{6}$ inch, or $1 \frac{1}{2}$ inch and $\frac{1}{4}$ inch. The best combination is of three or triple nose-piece, $1 \frac{1}{2}$ inch, $\frac{1}{2}$ inch, and $\frac{1}{6}$ inch. Price in Loudon, about $£ 15$, including two objectives.
(2) The Dick Petrological Microscope, with revolving nosepiece and objectives as in (1). Price in London, about £23, including two objectives.
The above microscopes are made by Messrs. James Swift and Son, 81 Tottenham Court Road, Loudon, W., and can be obtained in Sydney at a very slight advance upon London prices.

## LECTURE SUBJECTS FOR I9II-I2. <br> LECTURES.

The following regulations have been passed by the Senate :-non-matriculated students.
It shall be open to any non-matriculated student, who has attended the full courses of lectures upon any subject, to compete for Honours or Pass in the regular examinations upon his subject, and to have his name published and recorded in the regular class lists, with a distinguishing mark; but he shall be incapable of holding any scholarship or receiving any prize of those already established for students proceeding to a Degree.

Each such student shall be entitled to receive a certificate of attendance upon the lectures or laboratory practice in the subjects which he has selected, and proficiency therein, as ascertained by the regular and ordinary examinations within the University.

The above regulations do not apply to the lectures and examinations in the Faculty of Medicine.

The following regulation has been adopted by the Faculty of Science:-"There shall be only one standard for Honours in Scientific subjects; viz., that adopted in the Faculty of Science."
N.B.-The numbers refer to the Time Tables of Lectures on pages 108-128.

## FACULTY OF ARTS.-B.A. DEGREE. <br> 1.-CLASSICS-LATIN AND GREEK.

Professor Butler, Professor Woodhouse, Dr. F. A. Todd.
Subjects selected for Lectures and Examinations :-
LATIN-1911.
lírst Year, Pass.—Livy, Book IX.; Virgil, Æneid, Books II., III.

Distinction.—Cicero, de Oratore, Book I.; Virgil, Aneid, Books I., IV., V., VI. Roman History to the Tribunate of Ti. Gracchus.

Second Year, Pass.—Sallust, Jugurtha; Pliny, Selected Letters (Merrill); Horace, Satires (Selections).

Distinction.-Plautus, Captivi and Trinummus; Cicero, Philippics I., II., III., V., VII. ; Tacitus, Agricola.

Pass and Distinction.- Roman History from the Tribunate of Ti: Gracchus to the battle of Actium.

Third Year, Pass.-As Second Year, Pass, with Plautus, Captivi and Trinummus. Roman History from the battle of Actium to the death of Marcus Aurelius.

Honours.-Martial (Selections) ; Tacitus, Histories I., II., III. Roman Literature.

## LATIN-1912.

First Year, Pass.-Cicero in Verrem, Book V.; Virgil, Aneid, V., VI.

Distination.-Livy XXII.; Æneid. VII., VIII., IX., X. ; Roman History to the Tribunate of Ti. Gracchus.

Second Year, Pass.-Cicero's Letters (Watson), Parts IV. and V.; Martial Select Epigrams (Stephenson), Books I. to XII ; Horace, Odes, Books I. and II.

Distinction-'Terence, Andria; Catullus (selections); Sallust, Jugurtha; Cicero de Provinciis Consularıbus.

Pass and Distinction.-Roman History from the Tribunate of Ti. Gracchus to the battle of Actium.

Third Year, Pass.-As Secoud Year, with 'Terence, Andria; and Catullus (selections). Roman History from the Battle of Actium to the Death of Marcus Aurelius.

Honours.-'Tacitus, Anuals, I., II., III.; Lucretius (selections) ; Roman Literature.

GREEK-1911.
First Year, Pass.-Homer, Odyssey, XIV., XIX., XXII.; Xenophon, Hellenica, Books I. and II.; Uuseeu Translation; Outlines of Greek History to the Death of Demosthenes.

Additional for Distinction.-Thucydides, Book V.; Aristophanes, Peace. Greek Prose Composition.

Second Year, Pass.-Sophocles, Electra; Euripides, Electra; Herodotus, Book V. ; Demosthenes, De Corona, with the history of the period $360-338$ b.c. Unseen Translation.

Additzonal for Distinction.-Aeschylus, Eumenides. Greek Prose Composition. A course of lectures on the historical development of Greek Sculpture (with reference to both literary and monumental sources) ; or an equivalent course on some selected subject.

For Third Year, Pass.-Same subjects as for Second Year Pass.

Third Year, Honours.-Same subjects as for Second Year Distinction (with the exception of Greek Prose Composition), also General Paper; Advanced Unseen Translation; Homer, Odyssey, XIV., XVII., XIX., XXI., XXII., XXIV.

GREEK-1912.
First Year, Pass.-Herodotus, Book VIII.; Euripides, Iphigenia in Tauris; Outlines of Greek History to the Death of Demosthenes; Unseen Translation.

Additional for Distinction.-Aristophanes, Wasps; Demosthenes, Private Orations (Sandys and Paley, Select Private. Orations, Part I.) with Lectures on Attic Legal Antiquities. Greek Prose Composition. Unseen 'lranslation.

Second Year, Pass.-Sophocles, Aias; Homer, Odyssey I. -VIII. ; Aristotle, Politics I.-III. Unseen Translation.

Additional for Distinction - Special subiect (to be arranged); Theocritus (selections). Greek Prose Composition Unseen Translation.

Third Year, Pass.-Same subjects as for Second Year, Pass.
Third Year, Honours.-Same subjects as for Sccond Year. Distinction (with the exception of Greek Prose Composition). General Paper. Advanced Unseen Translation. Aristotle, Politics (the whole).

## CLASSICS.

Books Recomatended*-
Lewis and Short's Latin Dictionary (Clarendon Press)
Roby's Latin Grammar (Macmillan).
Gildersleeve and Lodge's Latin Granmar.
Liddell and Scott's Greek Lexicon.
Goodwin's or Hadley and Allen's Greek Grammar.
Comparative Grammar of Greek and Latin, by Victor Henry, translated by R. T. Elliott: or, Giles' Manual of Comparative* Philology for Classical Students (Macmillan).
Rutherford's First Greek Grammar.
Thompson, Syntax of Attic Greek.
Goodwin, Greek Moods and Tenses.
Companion to Latin Stadies, Saudys (Cambridge).
Ancient History-
Mommsen's History of Rome, translated by Dickson (Bentley).
Mommsen, The Provinces under the Roman Empire.
Greenidge's Roman Public Life.

[^16]Greenidge's History of Rome (Methuen).
T. M. Taylor, Constitutional and Political History of Rome.

Pelham's Outlines of Roman History.
Bury's Student's Roman Empire (Murray).
Strachan-Davidson, Cicero. Warde Fowler, Julius Cæsar.
Grote's History of Greece.
Greenidge, A. H. J., Haudbook of Greek Constitutional History (Macmillan).
Bury's History of Greece (Mamillan).
G. L. Dickinson, The Greek View of Life (Methuen).

A Holm's History of Greece, trans. in 4 vols. (Macmillan).
Eriedlaender, Roman Life and Manners, trans. in 3 vols. (Routledye).
G. Ferrero, Grèatness and Decline of Rome, 5 vols. (Heinemann).

- Warde Fowler, Social Life at Rome in the age of Cicero (Macmillan). Dill, Roman Society from Nero to Marcus Aurelius (Marmillan).


## Ancient Athas-

Atlas Antiquus, Kiepert (Berlin).
Murray's Small Classical Atlas, ed. Grundy.
Murray's Handy Classical Maps, ed. Grundy (each separate, and distinct from the maps in the Atlas).

## Greek and Ronan Literature-

Teuffel's History of Roman Litevature, translated by H゙are (Bell).
History of Roman Literature, Critheell.
Roman Poets of the Republic, Sollar.
Roman Poets of the Augustan Age, Sellar.
Virgil, Sellar.
Mackail's Latin Literature.
History of Ancient Greek Literature, Mchaffy.
Bury, Lectures on the Greek Historians.
Butler, Post-Augustan Poetry from Seneca to Jusenal.

## Editions of Latin Authors.

For Pass Students:
Gicero, 2nd Philippic, J. E. B. Mayor (Macmillan), or leskett (Cambridge) ; pro Milone, Reid (Cambridge), or Colson (Macmillan); pro Sestio, Holden (Macmillan); pro Murena, Heitland (Cambridge) ; in Catilinam, Withens (Macmillan); pro Lege Manilia, Willins (Macmillan); Select Letters (Text, only), Watson (Oxford); pro Archia, Reid (Cambridge) ; Plilippics I., II., V., King (Oxford); de Provinciis Consularibus (Baiter and Kayser), in Verrem, Book V., Laming (Rivington).
Horace, Odes, Wickham (Oxford), or Page (Macmillan) ; Satires, Palmer (Macmillan); Epistles, Wilkins (Macmillan).
Juvenal, Duff (Cambridge).
Livy (text, in 8 parts, sold separately) Madvig; Book II., Stephenson (Macmillan); Books XXI., XXII. (text and notes), Capes (Macmillan); Book XXI. (Bell); Book XXVI., Nicholls
(Angus \& Robertson, Sydney); Book V., Whibley (Pitt. Press) ; Book IX., Stephenson (Pitt Press), or Woodhouse (Clive).
Lucretius, Book I.-III., Lee (Macmillan).
Lucretius, Book V., Duff (Cambridge).
Pliny, Selected Letters, Merrill (Macmillan).
Sallust, Jugurtha, Sumners; Catiline, Summers (Pitt Press) ; Catilina, Cook (Macmillan).
Martial, Select Epigrams, Stephenson (Macmillan).
Tacitus, Annals, Books I. to IV., Furneaux's abridged edition; Histories, Books I., II., and Books III., IV., V., Godloy (Macmillan), Book I., Duvis (Cambridse), Book III. (Summers) Campbridge.
Virgil, Sidgwick (each book sold separately, Cambridge), or Georgics. Page (Macmillan) and AEneid, Puge (Macmillan).

## For Students Reading for Honours-

Cicero, de Finibus (Critical edition, Latin Notes), Madvig; Letters (select), Watson (Oxford) ; Letters, Tyrrell (Longmans); Philippics, King (Oxford) ; de Oratore, Wilkins (Oxford); Brutus (text and German Notes), Jahn or Piderit; or Kellogg (Ginn \& Co.) ; Orator, Sandys (Cambridge).
Catullus, Ellis (Oxford), or Simpson (Macmillan).
Horace, Odes, Satires and Epistles, Wiclcham (Oxford); or Satires, Palmer (Macmillan) ; Epistles, Wilkias (Macmillan).
Juvenal, Mayor (Macmillan).
Lucan, Haskins (Bell).
Lucretius, Munro (Bell).
Plautus, Captivi, Lindsay (Methuen) or Hallidie (Macmillan); Trinummus, Gray (Cambridge).
Quintilian, Book X., Peterson (Clareudon Press).
Tacitus, Annals, I.-VI., Fiuneaux, larger edition (Oxford); Histories, Spooner (Macmillan); Germania and Agricola, Furneaux (Oxford); Dialogus de Oratoribus, Gudeman (Ginn \& Co.). or Peterson (Oxford).
Terence, Wagner (Bell) ; Phormio, Bond \& Walpole (Macmillan) ; Aridria, Freenan \& Slomun (Oxford)
Virgil, Conington (Bell).
Editions of Greek Authors.
Æschylus, Eumenides, ed. A. W. Verrall (Macmillan), 10/-.
Aristophanes, Clouds, Birds, Acharnians, Frogs, Knights, Peace, Merry' (Oxford) ; Knights, ed. Neil, cheap ed. 5/- (Cam. Pitt) :Wasps, Starkie (Macm.)
Aristotle, Ethics, Books I. to TV., ed. Mnore; the whole, ed. Grant, 2 vols.
Demosthenes, Orations against Philip, Abbott \& Mathesoni (Oxford); (Vol. I. contains Phil. I. and Olynth. I. to III. Vol. II, coutains De Pace, Phil. II., De Chers., and Phil. III.)or Sandys, the same (Macmillan); De Corona, Goodivin.

Herodotus, translation by Rawlinson, with abridged notes, ed. Grant, 2 vols. (Murray); Book VII., ed. Butler (Macmillan); Book VI., text and notes, ed. Strachan (Macmillan); Book V. and VIII., ed. Shuckiburgh (Pitt Press) ; Books IV.-IX., 5 vols., ed. Macan. (Macm.).
Homer, Iliad, Leaf' (Macmillan), 2 vols., 2nd ed., or Leaf \& Bayfield (Macmillan); Odyssey, Merry (Oxford); larger edition, Books I.-XII., Merry and Riddell; Books XIII.-XXIV., ed. Monro. Introduction to Homer, Jabb (Maclehose, Glasgow) ; Homer and the Epic, A. Lang (Longmans) ; Rise of the Greek Epic, by G. Muray, 6/- (Clar.) ; Companion to the Iliad, I.euf (Macmillan); H. Brovere, Handbook of Homeric Study; Homeric Grammar, Monro (Oxford) ; Odyssey, trans. Butcher \& Lang, (Macmillan).
Euripides, Medea ed. Filliamison (Blackie) ; Electra, ed Fecne (Bell); Paley ed. of Euripides in 2 vols.; 'Text in G. Murray's ed. (Oxford Classical Texts) in vol. ii., $3 / 6$.
Sophocles, in single plays, large editiou $12 /-$, Jelb (Rivington).
Thucydides, Book I., lorbes (Oxford); II., Marchant (Maemillan), or Shilleto (Bell); III., Spratt (Cambridge); IV. and V., Graves (Macmillan); VI., VLI., Marchent (Macmillan); VIII., Tucker (Macmillan). (Translation and Notes), Jowett (Oxford).

- Xenophon, Hellevica I., II., ed. Uinderhill (Clar.)

Greek Historical Inscriptions, Ind edition 12/6, ed. Hicks \& Hill (Clar.).
Historical Greek Coins, ed. Hill.
Sources of Greek History, ed. Hill, 2nd edition 10/- (Clar.).
History of Greek Sculpture, by E. A. Gordeer, in two parts or in one vol. 10/-(Macm.)

## 2 -MODERN LI'TERATURE.

Professor MacCallum, Assistant-Professor Holme, Mr. G. G. Nicholson, Mr. C. J. Brennan.

> FRENCH-1911.

Course I., Pass.-Composition: 'Trechmann, Passages for Translation (Angus \& Robertson). Phonetics and Dictation. Lectures dealing with the authors treated. Prescribed Books: Augier et Sandeau, Le Gendre de M. Poirier (Heath); Rostand, Les Romanesques (Ginn) ; Balzac, Le Père Goriot (Heath) ; Pascal, La Rochefoucauld, Vauvenargues (ed. Balier, Macmillan); Théophile Gautier, España and Emaux et Camées (Clarendon Press).

Add. for Distinction.-Darmesteter, Historical Grammar (Macmillan) ; Extraits des Auteurs Français der XVIIme Siecle (ed. Mansion, Mc Dougall); Sainte-Beuve, TroisPortraitsLittéraires (ed. Savory, Clarendon Press).

Course II., Pass.-Composition: Trechmann, Passages for Translation (Angus $\&$ Robertson). Lectures (in French) on the Literature of the Seventeenth Century. Prescribed Books: Corneille, Polyeucte (Heath); Rotrou, SaintGenest (Ginn); Boileau L'Art Poétique (Hachette) ; Choix de Lettres du XVIl ${ }^{\text {e Siècle }}$ (ed. Lanson, Hachette); Molière, Le Misanthrope (Hachette); Sainte-Beuve, Trois Portraits Littéraires (ed. Savory, Clarendon: Press).

Add. for Distinction.-Lectures on the Literature of the Middle Ages. Prescribed Books: Chanson de Roland, Extraits (ed. G. Paris, Hachette). Joinville, Extraits (Garnier); Paris, Récits du Moyen Age. (Hachette):

Course III., Pass.-Cowrse II., Pass, along with Ia Bruyère, Caractères (Hachette'.

Additional for Honours. - Cowrse II., Distinction, along with Extraits des Chroniqueurs (ed. Paris \& Jeanroy, Hachette). Candidates must satisfy a conversational test.

## FRENCH-1912.

Course $I$., Fass.-Composition: Nicholson and Brennan, Passages for Translation. Phonetics and Dictation. Lectures dealing with the authors treated. Prescribed Bools: Bazin, Les Oberlé (C'almann-Lévy, Bibliothèque contemp.); Vigny, Chatterton (Clarendon Press) ; Coppée, Poésies Choisies (Clarendon Press) ; Pailleron, Lee Monde oùl'on s'ennuie (Calmann-Lévy); Montesquieu, Lettres persaues (Siepmann's Series, Macmillan).

Additional for Distnaction.-Lectures on Historical Grammar. Prescribed Books: Darmesteter, Historical Grammar (Mfacmillan) ; Oxford Book of French Verse (Clarendon Press); Gautier, Trois Grotesques (Clarendon Press).

Course $I I_{:}$, Pass.-Composition: Nicholson and Brennan, Passages for Translation. Lectures (in French) on the Literature of the Eighteenth Century. Prescribed Books: Fontenelle, Dialogues des Morts et Jugement de PJuton (Bibliothèque Nationale); Lesage, Pages Choisies (Colin); Regnard, Le Joueur (Machette); Marivaux, Le Jeu de l'Amour et du Hasard (Macmillan); Montesquieu, Lettres persanes (Macmillan) ; Buffon, Discours sur le style (Hachette) ; Rousseau, Lettre à d'Alembert (ed. Fontaine, Garnier); Paul Albert, Littérature française au XVIIIe siècle (Hachette).

Additional for Distinction.-Lectures on the Literatures of the Sixteenth Century. Prescribed Book: Montaigne, Extraits (ed. Petit de Julleville, Delagrave).

Course 1II., Pass.-Course II., Pass, along with Beaumarchais, Barbier de Séville (Clarendon Press), and Voltaire, Siècle de Louis XIV (Any edition).

Additional for Honours.-Course II., Distinction, along with Hatzfeld et Darmesteter, Morceaux choisis des écrivains du XVI ${ }^{e}$ siècle (Delagrave). Candidates must Esatisfy a conversational test.

GERMAN-1911.
Course, 1., Pass.-Composition: 'rechmann, Passages for Translation (Angus \& Robertson). Phonetics and Dictation. Lectures dealing with the authors treated. Prescribed Books: Spielhagen, Auf der Düne (Stackmann, Leipsig) ; Schwäbischer Dichterkreis (ed. Müller, Freytag, Leipzig); Grillparzer, Der Traum. ein Leben (ed. Matthias, Freytag, Leipzig); Benedix, Das Lügen (Uebungs-Bibliothel, Dresden) ; Heine, Die Harzreise (Heath).

Add. for Distinction.-Historical Grammar (Behaghel, adapted Irechmann). Prescribed Books: Goethe, Torquato Tasso (Ginn); Uhland, Ludwig der Bayer (ed. Böhme, lreytag, Leipsig); Schiller, Ballads (Heath).

Course II., Pass.-Composition: Trechmann, Passages for Translation (Angus \& Robertson). History of the Classical Period in Literature (lectures in German). Prescribed Books: Kotzebue, Deutsche Kleinstädter (Reclam, Leipsig); Lessing, Emilia Galotti (Ginn) ; Herder, Ideen zu einer Geschichite der Philosophie der Menschbeit (ed. Naumann, Freytag, Leipzig); Goethe, Faust, Part I. (ed. Turner \& Morshead, Longmans) ; schiller, Gedichte, Auswahl (ed. Bachmann, Freytag, Leipzig).

Add. for Distinction.-Lectures on the Literature of the Middle Ages. Prescribed Books: Wright's Niddle German Primer (Clarendon Press); Extracts from Das Niebelungenlied (ed. Zarnoke, Wigand, Leipsig).

Course III, Pass.-Course II., Pass, along with Wieland, Oberon (Spemann).

Add. for Honours.-Course II., Distinction, along with the remainder of the Niebelungenlied. Candidates must satisfy a. conversational test.

GERMAN-1912.
Course I., Pass.-Composition: Nicholson and Brennan, Passages for Translation. Phonetics and Dictation. Lec-
tures dealing with the authors treated. Prescribed Books: Hauff, Phantasien im Bremer Ratskeller (Meyer's Volksbücher); Shielhagen, Röschen von Hofe (Stackmann, Leipzig) ; Heinrich, Lyrische \& epische Gedichte des XIX ${ }^{\text {ten }}$ Jahrhunderts (Freytag, Leipzig) ; Grillparzer, Ottokars Glück \& Ende (Freytag); Kleist, Der zerbrochene Krug (Meyer's Volksbücher).

Add. for Distinction.-Historical Grammar (Behaghel, adapted Trechmann). Prescribed Books: Goethe, Gedankenlyrik (ed. Matthias, Freytag); Wagner, German Dactylic Poetry (Cambridge University Press) ; Eichendorff, Aus dem Leben eines Tuugenichts (Amelang, Leipzig).

Course II., Pass.-Oomposition: Nicholson and Brennan, Passages for Translation. History of the Romantic Movement in Literature (lectures in German). Prescribed Books: Watzel, Deutsche Romantik (Teubner, Leipsig) ; Extracts from Novalis, in Novalis \& Fouqué (Meyer's Rlassiver. Ausgaben); 'Tieck (Deutsche Nationalliteratur, Bd. 144, Theil 1); F. Schlegel, Fragmente und Ideen ed. Derbel (Piper \&. Co., Munich) ; Achim von Arnim, Isabella von Fgypten (Insel-Verlag, Leipzig); Hoffmann, Der Goldene Topf (Reclam).

Add. for Distinetion.-Lectures on the Literature of the Reformation and Transition Periods. Prescribed Books: Luther, Murner, \&c. (Sammlung Göschen, Nr 7) ; Hans Sachs (Sammlung Göschen, $N_{r} 24$ ); Grimmelshausen, Simplicus Simplicissimus (Sammlung Göschen, Nr 138).

Course III., Pass.-Course II., Pass, along with Hölderlin, Gedichte (any edition).

Additional for Honours.-Course II., Distinction, along with Brant, Hutten, \&c. (Sammlung Göschen, $N_{r} 36$ ), and Das Deutsche Volkslied (Sammlung Göschen, $\operatorname{Nr}_{r} 25$ ). Candidates must satisfya conversational test.

ENGLISH-1911.
Course 1., Pass. - Lectures on notable English writers. Prescribed Books: Gosse, English Literature; Chaucer, Selecıed Passages (Globe Chaucer); Shakespeare, Midsummer Night's Dream, Merchant of Venice, Twelfth Night, Tempest (Globe Shakespeare) ; English Narrative Poems (Blackie).

Add. for Distinction.-Lectures on English Phonetics; Sweet, Anglo-Saxon Primer (Clarendon Press); Skeat. Specimens of English Literature (Clarendon Press).
11. Course II., Pass.-Lectures on the History and Principles of Literary Criticism ; Lectures on the Literature of the Romantic

Revival; Lectures on Shakepeare's Comedies. Prescribed Books: Shakespeare (Globe Edition); English Narrative Poems (Blackie) ; Coleridge, Principles of Criticism (ed. Ceorge, Harrap); Wordsworth, Prefaces and Essays (ed. George, Harrap); Shelley, Frometheus Unbound (any edition); Scott, Guy Mannering (any edition); Jane Austen, Persuasion (any edition) ; Landor, Imaginary Conversations, Selections (Scott).

Add. for Distinction.- Beowulf (Ginn).
Course III., Pass.-Course II., Pass, along with Ward's: English Poets, vol. iv. (Macmillan).

Add. for Honours. - Course II.. Distinction, along with Morris\& Skeat's Specimens of English (Clarendon Press).

## ENGLISH—1912.

Course 1., Pass.-Lectures on notable English writers.. Prescribed Books: Gosse, English Literature; Chaucer, selected passages (Globe Chaucer); Shakespeare, Romeo and Juliet, Hamlet, Lear, Macbeth (Globe Shakespeare) ; English Narrative Poems (Blaclie).

Additional for Distinction.-Lectures on English Phonetics.. Prescribed Books: Cook, First Book of Old English (Ginn \& Co.) ;: Pollard, Miracle Plays (Clarendon Press).

Course IT., Pass.- Lectures on Foreign Influences on English Literature. Lectures on the Chief Writers of the Victorian period. Lectures on Shakespeare's Tragedies. Prescribed Books: Shakespeare (Globe Edition); Carlyle, Sartor Resartus; Tennyson, Holy Grail; Browning, Men and Women; M. Arnold, Select Poems, (George \& Leigh, Oxford Press) ; Ruskin, Crown of Wild Olives.

Additional for Distinction.-Andreas (Ginn \& Co., AlbionSeries) ; Elene (Ginn \& Co.).

Course III., Pass.-Course II., Pass, along with Browning, The Ring and the Book; Tennyson, Idylls of the King.

Additional for Honours.-Course II., Distinction, along with. Maclean, Old and Middle English Reader.

## 3.-MATHEMATICS.

Professor Carslaw, Assistant-Professor Newham, Assistant-Professor Moors.
FACULTY OF ARTS.
MATHEMATICS I.
Students taking Mathematics I. (Arts) must attend one of the three courses specified below. Class $A$ is for students who.
are reading for Honours in Mathematics, but part of the Honours work is also covered by Class B. For the Yearly (Pass) Examinations the work of Class Conly is required, and those who pass well in the examination for Class B will be held to have obtained "Credit" in the yearly examination.

Class A.
Monduys, Tuesdays, Wednesdays and Fridays, throughout the year, at 10 a.m., as follows:-

Lent Term.-Geometry and Geometrical Conics (Tiu., F.); Algebra ( $M$., $W$.).
Trinity Term.-Elementary Differential and Integral Calculus (MF., W.);
Analytical Geometry (Tr., F.).
Michaelmas Term.-Statics and Dyuamics (M., W.);
Trigonometry (Tru., F.).
Class B.
Tuesdays, Thursdays and Fridays throughout the year, at 10 a.m., as follows:-

Lent Term. - Flemeutary Analytical Geometry, and Elementary Differential and Integral Calculus.
Trinity Term. -Same (continued).
Michaelmas Term.-Statios and Dynamics.
In the 'l'rinity Term there is also an introductory course in Statics and Dynamics at 9 a.m. on Mondays and Wednesdays, which should be taken if possible.

Class C.
Mondays, Wednesdays and Thursdays throughout the year, at $10 \mathrm{a} . \mathrm{m}$., as follows :-

Lert Teris.-Geometry.
Trinity Tera.-Algebra.
Micharlasas Term-Trigonometry.
In Michaelmas Term there will be a course of eight lectures on Elementary Astronomy, at 10 a.m. on Tuesdays, which students of all the sections of the class are expected to attend unless prevented by other classes meeting at that hour.

## MATHEMATICS II.

Students taking Mathematics II. (Arts) must attend aither of the courses specified below. Class $A$ is for students who are reading for Honours in Mathematics, but part of the Honours work is also covered by Class B, and those who pass well in the examinations for Class 13, will be held to have
obtained "Credit" in the yearly examination. For the Yearly (Pass) Examinations the work of Class 13 or Class C only is required, but those who have taken Mathematics I (Class A or B) cannot take Mathematics II (Class C) as another course.

## Class A.

At 9 a.m. throughout the year, as follows:-
Lent Term.--Differential and Integral Calculus (ML., W., F.);
Elementary Spherical Trigonometry and Astronomy (Tu., Th.).
Trinimy Term.-Differentialand Integral Calculus (continued) (M., $W_{\text {. }}$., F.);

Analytical Statics (Tu., Th.).
Michaelmas Term.-Dynamics (M., W., $F$.):
Differential Equations (Tu., Th.).
Class B.
At 9 a.m. throughout the year, as follows:-
Lent Term.-Differential and Tutegral Calculus (M., $W_{\text {F }}, F$.).
Trinity Term.-Same (continued) (M., W., F.)
Michaelaas Term.--Statics and Dynamics (M., F., Fi.).
There is a Tutorial Class at the same hour on Tuesdays and 'Chursdays. In addition to the other subjects dealt with in the lectures, this class will read the Elements of Differential Equations and Spherical Trigonometry.

Class 0.
At 9 a.m. on Mondays, Wednesdays, and Fridayb, as follows:--

Lent and Trinity Terms.-Elementary Differential and Integral Calculus.
Miffaelmas Trim.-Elementary Staties and Dynamics.

## MATHEMATICS III.

Students taking Mathematics III. must attend one of the following courses :-

Class A.
At 11 a.m. throughout the year, as follows:-
Lent Term.-Solid Geometry ( RL., $^{\text {I }}$ IF., F.);
Higher Infinitesimal Calculus (continuted) (Tu., Th.).
Trinity Term. - Rigid Dynamics (M., W., F.);
Higher Astronomy (Tlu., 7h.).
Micharlmas Term-(i.) A course of lectures will be given on the Mathematical Theory of one of the following subjects:Electricity and Magnetism; Sound; Hydrostatios and Hydrodynamics; Heat ; Elasticity (MI., IF., F.)*
(ii.) Projective Geometry (Tic., Th.).

[^17]Class B.
The courses prescribed for Mathematics II. (Class A). This class meets at $9 \mathrm{a} . \mathrm{m}$. as above.

Pass Students need only take Class B, but Students who have attended this class in their Second Year are not permitted to take Class B as their qualifying course for their Third Year.

FACULTY OF SCIENCE.
FIRST YEAR IN SCIENCE AND ENGINEERING. mathematios I. (science and engineering).
This class meets at 10 a.m. on Tuesdays, Thursdays and Fridays throughout the year, and at 9 a.m. on Mondays and Wednesdays in Trinity Term. The course of study is the same as that of Mathematics I. (Arts), Class B. Students who desire to do so may with the permission of the Professor take Mathematics I. (Arts) Class A instead of the regular course for the First Year in Science and Eagineering. The Honours Examinations are upon the work of Class A, but those who pass well in the examination for Class B will be held to have obtained "Credit" in the yearly examination.

## SECOND YEAR IN SCIENCE AND ENGINEERING. mathematios if. (science and engineering).

This class meets at 9 a.m. throughout the year. The course of study is the same as that of Mathematics II. (Arts), Class B. Students, who desire to do so, may with the permission of the Professor take Mathematics II. (Arts) Class A instead of the regular course for the Second Year in Science and Engineering. The Honours Examinations are upon the work of Class A, but those who pass well in the examination for Class $B$ will be held to have obtained "Credit" in the yearly examination.
mathematics ili. (science).
The course of study is the same as that for Mathematics III. (Arts) Class A. To obtain a Pass it is not necessary to take all the subjects of that division.

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BOOKS RECOMMENDED FOR THE USE OF STUDENTS. Matriculation (November, 1910) Honours.
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Any of the text-books in common use for the corresponding papers of the Senior Public Examination.

Matriculation (March, 1910) Pass
Division A-Lower Mathematics.
Any of the text-books in common use for the papers in Arithmetic, Algebra, and Geometry of the Junior Public Examiuation.

Division B-Higher Mathematics.
Geometry.-Any of the text-books in common use for the Geometry paper of the Senior Public Examination. This examination will not include Schedules C and D of the regulations for the Geometry paper in the Senior Examination. Otherwise the regulations for the papers in the two examinatious are the same.
Algebra.-Any of the ordinary text-books on Algebra.
Trigonometry.-Any of the ordinary text-books on Trigonometry. Four Figure Tables to be used.

Class A-
Richardson and Ramsey's Modern Plane Geometry, or Godfrey and Siddons' Modern Geometry.
Jackson's Elementary Solid Geometry, or Godfrey and Siddons' Solid Geometry.
Caunt and Jessop's Geometrical Conics, or Hamblin Smith's Geometrical Conic Sections.
C. Smith's Conic Sections.
C. Smith's Treatise on Algebra, or Chrystal's Algebra, Carslaw's Introduction to the Calculus.
Carslaw's or Hobson's Trigonometry.
Hicks' Elementary Dynamics.

## Class B-

Carslaw's Introduction to the Calculus.
Loney's Mechanics, or Morley's Mechanics for Eugineers.
Class C-
Hall and Stevens' School Geometry.
Any ordinary text-book on Algebra.
Carslaw's Trigonometry, Part I.

## Mathematics II. (Arts).

Class A-In addition to those for the First Year--
Osgood's Differential and Integral Calculus.
Barlow \& Bryan's Elementary Astronomy.
Routh's Statics, Vol. I.
Forsyth's or Murray's Differential Equations.
Loney's Dynamics of a Particle.
And the following, though not necessary, will be referred to-
Lamb's Infinitesimal Calculus.
Gibson's Elementary Treatise on the Calculus.
'Todhunter's \& Leathem's Spherical Trigonometry.
Love's Theoretical Mechanics.
Jeans' Theoretical Mechanics.
Clase B - In addition to those for the First Year-
Osgood's Differential and Integral Calculus.
Loney's Dynamics of a Particle.
Barlow \& Bryan's Elementary Astronomy.
Class C-Same as Mathematics I. (Class B).

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Mathematics III. (Arts.)
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Class A-In addition to those for the Second Year-
C. Sinith's Solid Geometry,

Ball's Spherical Astronomy.
Lamb's Dynamical Theory of Sound.
Filon's Projective Geometry.
Love's Theoretical Mechanics, or Jeans' Theoretical Mechanics.
And the following, though not necessary, will be referred to-
Frost's Solid Geometry.
Salmon's Solid Geometry.
Goursat's Conrse in Mathematical Analysis (translated by Hedrick), Vol. I. and II.
Gray's Treatise ou Physick, Part I.
Carslaw's Fourier's Series and the Matheruatical Theory of the Conduction of Heat.
Routh's Rigid Dynamios, Vols. I. and II.
Bromwich's Infinite Series.
Gibson's Treatise on the Calculus.
Hardy's Course in Pure Mathematics.
Moulton's Celestial Mechanics.
Class B-Same as Mathematics II. (Class A).
First Year Science and Engineering.
Same as Wathematics I. (Arts), Class B.
Second Year Science and Engineering.
Same as Mathematics II. (Arts). Class B.
Third Year Science.'
Same as Mathematics III. (Arts). Class A.

## 4.-LOGIC AND MENTAL PHILOSOPHY.

Professor Anderson, Dr. H. T. Lovell.
Courses of lectures on the following subjects will be delivered during 1911.

FACULTY OF ARTS.
Philosofhy I.-This course may be taken during either the first or second year in the Faculty of Arts.
(a) Logic.--Analysis of the methods of reasoning in ordinary life, and in the various departments of knowledge. Fundamental types of explanation-Class, Law, Cause, End. The nature and limits of scientific explanation. Classification of the sciences Relation of philosophy to science, with an account of the main problems of philosophy.
(b) Psycholoay. - The nature of psychology as a positive science. The various methods of psychology and their limitations. Analysis of psychic processes, with a genetic treatment o special problems. The relation of psychology to normative
sciences such as logic and ethics. The value of psychology as a means of explanation will be illustrated by reference to practical problems of education and sociology.

Philosophy II. and III.-This course may be taken during the second or third year in the Faculty of Arts. The subjects of study will be arranged so that the same students may take this course during two successive years. The following will be the subjects of study during 1911:-
(a) Ethical and Social Philosophy.-The sociological basis of ethics. Nature and influence of custom. The family in ancient, medieval, and modern times. The formation of classes. The nature of class morality. The development of the State. The social ideal of order, freedow, justice. Analysis of the conceptions underlying different theoriés of society. Modern Socialism and the State.
(b) History of Modern Prilosophy.-Whe coúrse will be historical and critical, but will not consist of a resumé of theories, for which references will be given to text-books and original authorities. The main thinkers and systems of modern philosophy will be discussed in their historical and logical connection, with special emphasis on the relation of philosophic thought to the science and life of the various epochs.

## List of Books Recommended.

For Preparatory Study, before joining the Philosophical Classes.Baldwin's Story of the Mind; Primers on Philosophy, Logic, and Psycho$\log y$, in Murray's series.

Philosophy I.-Pass.-Welton, Logical Bases of Education (Macmillan); Mellone, Textbook of Logic (Blachwood) ; Stout, Groundwork of Psychology (Clive); James' Textbook of Psychology (Macmillmen).

Additional for Honours. - Bosanquet's Essentials of Logic (Mfacmillan); Mills' Logic (Longmans.; Stout, Manual of Psychology (Clive) ; M‘Dougall, Social Psychology (Methuen).

Philosophy II. and III.-Pass.-Mackenzie, Manual of Ethics (Clive) Rogers' Students' History of Philosophy (Macmillan); McDougall, Socia Psychology (Mcthuen) ; Spinoza, Berkeley \& Mill, in Everyman's Library. Additional for Honours.-Royce, Spirit of Modern Philosophy (Houghton, Mifflin \& Co.); Taylor, Elements of Metaphysics (Methuen); Green, Principles of Political Obligation (Longman).

> 5.-EDUCATION.
> Professor Mackie.

The course in Education may be taken as a Second or Third Year subject for the Arts Degree.

Before taking the course in Education, students are strongly recommended to take either Philosophy I, or the First Year course in Education at the 'Teachers' College.

Honours in Education and Philosophy.
Students wishing to graduate with Honours in Education may qualify by taking one course in Education and one in Philosophy.

Courserfor 1911.

1. History of Education.-'The history of educational thought will be treated in outline, and an attempt will be made to show the relation of educational theory and practice to dominant philosophical tendencies. Special attention will be given to the history of English education.
2. Theory of Education.-Definition, scope and method of a theory of education. Relation to philosophical and social sciences. Various statements of the aim of education. The school in relation to other ethical institutions. Function of the school in the democratic state.

The organisation and administration of education. Conception of an educational system. The parts of the system, and their relation to each other and to the community. Current problems in educational organisation.

The process of education. Analysis of its elements, and their relation to the end. Limits of education. Education and Eugenics. Heredity and environment as conditioning development. General nature of intellectual, æsthetic and volitional training.

Theory of the curriculum. Classification of subjects of instruction. General principles of selection. Relation of school studies to one another. Herbartian and other theories of the curriculum. Formal discipline.

Psychology of mental development. Child study-its scope and method. Results of statistical and experimental study of the child mind. The nature and stages of mental development. The motives of mental activity in relation to age. Reproductive and productive mental activity in relation to lesson types. Significance of the conception of apperception in educational theory. Growth of conceptions of self and world. Development of moral character. Classification of impulses and instinctive emotional reactions. Growth of formed habits of action, thought, will. Significance of play and imitation. Acquisition of language and of manual skill.

A more detailed study will be made of (1) The measurement of intelligence, and (2) Retardation.

Principles of general method. Intellectual, moral and æsthetic training. The form of instruction in relation to the nature of knowledge, and modes of acquisition. The Herbartian theory. Lesson types. Class management aud organisation in relation to the principles of social psychology.

Books Required.
Pass.-Bagley: Educative Process. Mucdougall: Social Psychology. Monroe: History of Education. Miller: Psychology of Thinking. Binet: Lés Idées modernes sur les enfants.
Honours, in addition to above.-Norwood and Hope: Higher Education of Boys in England. Burstall: High Schools for Girls. Burstall: Public Schools for Girls.

> 6.-HISTORY, 1911. COURSE I.

First Year Day Students, and those Second Year Day Students who have not studied History in their First Year.

Pass.-English History, 449-1558.
Books to be bought.-Green's Short History; Wakeman's Church of England; Gibbins' Industry in England; "English History from Original Sources," B.C. 54-A.D. 1154 (Blackic); "English History from Original Sources," 1216-1485, 3 vols. (Blach)
The following additional. Books will be very useful.-Freeman's English Constitution; Freemau's William I.; Mrs. Green's Henry II. ; Tout's Edward I.; Bridgett's Sir T. More.
Essays will be written in the course of the year ; and an examination will be held in December.

Honour Students will do the work described above, and will be expected to give evidence of knowledge and rbility of a bigher degree.

Honour Students will also be examined in March on The History of Europe, 800 to 1250 .

Boolis to be bonght.-Bryce's Holy Roman Empire; Tont's The Empire and the Papacy; Kingsford and Archer's Crusades.
Additional Books to be read.-Milman's Latin Christianity (Books 7 to 10).

Honour Students will also present in March an Essay on St. Francis of Assisi.

Books to be read.-Sabatier's St. Francis; Oliphant's St Francis; The Mirror of Perfection; The Legend of the Three Companions: Lives of St. Francis, by Thomas of Celano; The Little Flowers of St. Francis.

## COURSE II.

Second and Third Year Day Students, and.First, Second and Third Year Evening Students.

The History of the British Empire, and especially of England, from 1685-1845.

Books to le bought.-Morley's Walpole ; Harrison's Chatham ; Morley's Burke; Rosebery's Pitt; Gibbins' Industry in England; Carlyle's Past and Present: Burke's Thoughts on the Present Discontents, and Speeches on America; Wakeman's Fox.
Additional Books, which will be very useful.-Lecky's History of England in 18th Century; S. Walpole's History of England from 1815; Hunt's Political History of England, 1760-1801; Trevelyan's Early Life of C. J. Fox ; Trevelyan's American Revolution; Hammond's Fox; Toynbee's Industrial Revolution; Morley's Cobden.
Essays will be written in the course of the year ; and an Examination will be held in December.

Honour Students will be exammed in December on the work described above, and will be expected to give evidence of knowledge and ability in a higher degree.

Third Year Honour Students will not be required to write the essays prescribed for Pass Students. But they, will be required to do the following additional work:-
(1) An Essay on-

The Teaching of Adam Smith.
Books to be bought.-A. Smith's Wealth of Nations; Hirst's A. Smith. Books useful for reference. -Cunningham, Toynbee, Ingram.
(2) An Essay on-

The aims and methods of English Trade Unions at the present time.
Book to be bought-Webb's Industrial Democracy.
Books useful for reference. - Webb's History of Trade Unionism; SchulzeGaerernit's Social Peace.
(3) An Essay on-

Lord Durbam's Report.
Books to be bought.-Lord Durham's Report ; Bradshaw's Self-Government in Canada; Reid's Lord Durham (second-hand about 6/-).
(4) A paper in March onCanadian History, 1763-1851.
Books to be bought.-Lucas's Historical Geography of the British Colonies; Part II., written by Egerton; Bradley's The Making of Canada.

First Year Honour Students (Evening) will be required-
(1) To write the Pass essays
(2) To write the essay on Lord Durham's report.
(3) To take the paper on Canadian History.

Second Year Honour Students will do the work prescribed for Third Year Honour Students. Those Second Year Honour Students, however, who have not studied History in their First Year, may, if they choose, do the work peescribed for First Year Honour Students.
7.-DEPARTMENT OF ECONOMICS AND COMMERCE.

Messrs. R. F. Irvine, H. Dunstan Vane, H. Y. Braddon, Dr. Woolnough,
Messrs. F. A. A. Russell, F. B. Guthrie, G. M. Allard, A. M. Eedy.
T're Department of Economics and Commerce provides instruction and practical training in Economics; Accountancy; Business Methods, Organisation, and Enterprise; Technology of Commercial Products; Banking; Insurance; Commercial Law ; and other subjects of importance in the industrial life of the community.
'The course of instruction will be spread over three years, in accordance with the appended scheme, and will be entitled Economics and Commerce I., Economics and Commerce II., and Economics and Commerce III. The subject is included in the list of alternative subjects that may be taken by candidates proceeding to the degree of B.A.

Unmatriculated studeuts who take a complete course in Economics and Commerce (I., II. and III.), and perform the required class exercises, and pass the annual examinations, will be entitled to receive a Diploma in Economics and Commerce.

The fees are $£ 22 \mathrm{~s}$. per term, or $£ 11 \mathrm{~s}$. for each single course.

Lectures will be delivered during the evening, at the Law School, Selborne Chambers, Phillip Street.

## Economics and Comarerce I.

A.-Economics-Introductory: One lecture per week throughout the academic year.
B.-Accountancy-One lecture per week throughout the academic year.
C.-Business Principles and Practice-One lecture per week, 'I'rinity and Michaelmas Terms.
D.-Commercial Geography-One lecture per week, Lent Term. Books recommended for reading :-
Economics-Gide-Principles of Political Economy; McVey-Modern Industrialism; Marsball-Economics of Industry.

## Economics and Commerce II.

A - Economics-Second Course (throughout the year). Economics of Trade and Finance (Exchange, Markets Value and Price. Monopoly Price. Money. Credit. Banking. Monetary Functions of Securities. Speculation. Commercial Crises. International Trade. Foreign Exchanges. Free Trade. Protection. Preferential Trade. History of Trade Policy).
B.-Accountancy-Second Course: One lecture per week, Lent and Michaelmas Terms.
C. - Commerclal Laf-One lecture per week, Trinity Term.
D.-History and Elementary Technology of Commercial Pronucts-Lent Term.

Boors recommended for reading:-
Economics-Gide-Principles of Political Economy; Hadley-Economics; Marshall-Principles of Fconomics; McVey-Modern Industrialism; Nicholson-Principlee (Volume II:) ; Hobson-Modern Canitalism; Sykes-Banking and Currency; Withers-The Meaning of Money; Easton-Money, Exchange, and Banking; Walker-Money, Trade and Inductry; Ashley-The Tarif Prohlem; Fuchs-The Trade Policy nf Great Britain ; Bastable-Theory of International Trade; PigouProtection and Preferential Import Duties.

Economics and Commerce III.
A.-Economics-Third Course (throughout the year).
(1) Modern Theories of Distribution. The Labour Movement. Co-operation. Socialism. (2) Combinations and Monopolies-their growth and control. (3) Public Finance. Revenue and Expenditure. Taxation. Public Credit and National Debts. (4) Commercial and Industrial History in the XIXth Century.
B.-One of the following (Michaelmas Term) :-
(1) Statistical Method. (2) Insurance. (3) Banking Practice and Accounts. (4) Local Government.
C. -Accountancy-Third Course, Lent and Michaelmas Terms.
D. -Commerctal Law-Second Course, Trinity Term.

Books recommended for reading :-
Economics-Hobson-Economirs of Distribution; The Industrial System; Carver-Dastribution of Wealth; Smart-Distribution of Income: Kirkup-History of Socialism; Webb-Trade Unionism; PlehnPublic Finance: Jenks-The Trust Problem; Gibbins-Industry in. England; Wehster-General History of Commerce; Day-History of Commerce.
Students may enter for any one of the separate courses of lectures.

For Science subjects, see Faculty of Science.

## EXAMINATION FOR THE DEGREE OF M.A.

(See By-laws, Chap. XV., Sec. 24.*)
Candidates for the Degree of Master of Arts who have taken First-class Honours in Mathematics, or in any other two subjects at the B.A. Examination, may be tested by thesis only.

School of Classical Philology and Ancient History.
Candidates may offer themselves for examination in one or more of the following subjects:-

1. The History of Greece, to the death of Demosthenes. In addition to a general knowledge of the subject, special knowledge of one of the following periods will be required:-
(a) Down to 404 b.c., with Herodotus; Thucydides, and Xenophon (Hellenics I., II.).
(b) From 431 b.c. to the death of Demosthenes, with Thucydides, Xenophon (Hellenics) and Demosthenes (Phil. I., Olynth. I.-III., De Pace, Phil. II., De Chers., Phil. III., De Corona).
2. The History of Rome, to the death of Marcus Aurelius. Special knowledge of Cicero's Letters and Tacitus' Annals will be required.
3. Greek Literature, to the death of Demosthenes. In addition to a general knowledge of the whole subject, special knowledge of one of the following groups will be required:-
(a) Lyric: Fragments as in Smyth's Greek Melic Poets, or Farnell's Greek Lyric Poetry; Recent Discoveries.

[^18](b) Rhetorical: Specimens of the Attic Orators, such as those given by Jebb; together with Aschines, Against Ctesiphon; Demosthenes, On the Crown; Isocrates, Panegyricus.
Candidates taking this subject are also recommended to read Longinus, On the Sublime (Rhys Roberts): They will be required to show a general knowledge of, and to translate passages from, Greek authors other than those specified.
4. The Homeric Poems; a critical study of the structure of the lliad, based on such books as Jebb's Introduction to Homer; H. Browne's Handbook to Homeric Study; Leaf's edition of The lliad.
5. The Greek Drama. Caudidates will be expected to be familiar with the history of Greek dramatic art in all its branches, both from the literary and from the practical or purely theatrical point of view. Haigh's Attic Theatre, and Haigh's Tragic Drama of the Greeks would form the introduction to such study. Candidates would also be expected to offer as subjects of more minute literary study at least six plays of Æischylus, Sophocles, Euripides, and Aristophanes (all four authors being represented in the candidate's selection). Candidates are recommended to consult the Professor with reference to the course of study in this and other subjects.
6. Roman Literature, to the death of Tacitus. Special knowledge will be required of Virgil and Horace; and candidates will be required to show a general knowledge of, and to translate passages from, other Latin authors.
7. Greek Constitutional History. In addition to a general knowledge of the subject, to be gained from such a book as Greenidge's Handbook to Greek Const. History, special knowledge will be required of Plato, Republic, Books VIII.-IX. ; Aristotle, Politics, and Athenaion Politeia; Xenophon, Respubl. Laced. and Respubl. Ath. Reference also should be made to Freeman's History of Federal Government in Greece and Italy.
8. Comparative Philology, with special application to the Greek and Latin languages. Books especially recommended: King and Cookson's Sounds and Inffections in Greek and Latin; Monro's Homeric Grammar; Wordsworth's Specimens of Early Latin; Lindsay's The Latin Language; Giles' Manual of Comparative Philology.

Ciandidates for Honours are required tooffer not less than two of the above subjects; but Honours will not be a warded unless a sufficiently highstandard is attained in each of the subjects selected.
$\cdot$ The Greek and Latin books especially prescribed must be read in the original language. Books which have in whole or in part been included in the caudidate's course for the B.A. Degree may be offered only subject to the approval of the Professor; but other books may, subject to the approval of the Professor, be substituted for those here specified.

School of Mathematics and Natural Philosofiy.
Candidates will be examined in the following subjects:Analytical Geometry of Two and Three Dimensions. The Application of the Calculus to the Theory of Plane Curves.
Statics and Dynamics, including the simpler parts of the Theory of Attraction and Rigid Dynamics..
The Elementary Mathematical Theory of one of the subjects prescribedfor the course in Mathematical Physics of the Third Year in Arts.
Candidates for Honours may offer themselves for examination in any Mathematical subjects distinctly in advance of those prescribed for the B.A. Course, the subjects to be chosen from both the Departments of Pure and Applied Mathematics, and to be approved by the Professor of Mathematics.

The examiners will be at liberty to declare that candidates, though they may not have deserved Honours, have acquitted themselves so as to deserve the ordinary Degriee, and such candidates shall be held to have passed the examination for that degree.
School of Logic, Mental, Moral and Political Philosophy.
Candidates may offer themselves for examination in one or more of the following subjects :-

1. Logic.
2. Metaphysics.
3. Politics:
4. Psychology.
5. Education.
6. Sociology.
7. Ethics.
8. Economics.
*Candidates for Honours are required to offer not less than two of these subjects. All candidates will be required to submit themselves to examination-

* Candidates for the M.A. with Honours may now offer Education alone.
(a) On the general history and literature of the subject or subjects chosen.
(b) On a special branch of, or period in the history of, the subject or subjects chosen. The branch or period to be chosen by the candidate, subject to the approval. of the Professor.
In addition, all candidates will be required to present a thesis on some subject connected with the branch of study selected. The choice of the subject must be approved by the Professor. The thesis must give evidence of critical and constructive philosophical ability on the part of the author.

Candidates must have previously attended classes in the department of Philosophy for a period of at least two years.

No books are prescribed, and considerable freedom will be allowed in the choice of subjects, but candidates are recommended to consult the Professor when arranging their courses of study.

Candidates for the M.A. with Honours in the School of Logic, Mental, Moral and Political Philosonhy may now offex the subject of Education alone.

Pass candidates are required to select two of the undermentioned branches. Honour candidates must select four.

1. Principles of Education. 2. History of Educational Theory and Practice. 3. The present organisation and administration of Education throughout. the world. 4. The methods of teaching the various subjects of the primary and secondary schools. 5. Educational Psychology. 6. Mental Pathology and the treatment of abnormal children.

## School of Modern Literature

Candidates may offer themselves for examination in one or more of the following subjects:-

1. English Philology, English Literature before Chaucer, Special knowledge of Beowulf, the Chronicle, and Sir Gawayne arid the Grene Knight will be required.
2. English Literature from Chaucer to the present day. Special knowledge will be required of three of the following authors:-Chaucer, Shakespeare, Burke, Tennyson. .
3. German Philology. German Literature before Klopstock. Special knowledge of the Niebelungen Lied, Walter von der Vogelweide, Hans Sachs (Dichtungen, Goedeke and Tittmen).
4. German Language and Literature from Klopstock to the present day. Special knowledge will be required of Goethe's Novels and Dramas, of Schiller's Plays and Poems, and of Lessing'schief Dramas and Prose Works.
5. French Philology. French Literature till 1600. Special knowledge will be required of the Chanson de Roland, of the Romances and Pastorals (Romanzen and Pastorellen; ed. Bärtsch), and of Montaigne.
6. French Language and Literature from 1600 to the present day. Special knowledge will be required of Molière, of Voltaire's Historical Works, of SainteBeuve's Port Royal, and Hugo's Dramas.
Subject to the approval of the Professor of Modern Literature, candidates may offer other books and authors of similar nature and extent in place of those specified.

In all these subjects there may be viva voce examination in addition to the examination in writing.

Candidates will be required to present an essay on some subject connected with the period, and written in the language they have selected. The choice of the subject will be left to themselves, but must be approved by the Professor.

Candidates for Honours are required to offer. (a) not less than two of the preceding subjects, or (b) one of the six subjects mentioned, along with one of the subjects prescribed for Classics, Philosophy or History. In the latter case the approval of both Professors concerned must be obtained.

## School of History.

Candidates must have passed the examinations in History in at least two years of their course of study for the Degree of B.A., or must show evidence of laving done equivalent historical work. Candidates for Honours must have obtained Honours in History at the examination for the Degree of B.A., or must show evidence of having done equivalent historical work.

Candidates are required to undertake the study of some historical subject in the original sources of information, and to present an essay dealing with some part of this subject.

## FACULTY OF LAW.

The following Regulations have been passed by the Senate:-
I. A Class Examination shall be held at the end of each term by each member of the Teaching Staff in the subject matter of his lectures for the Term, and a report of the results of each examination shall be forwarded to the Registrar to be laid before the Faculty.
2. Every candidate for the Final Examination, or, if he takes that examination in seotions, for Section II. of that examination, shall, unless exempted by the Dean, be required to produce a certificate that he has acquitted himself satisfactorily in such practical exercises, including notes and attendances in court as may be from time to time prescribed by the Teaching Staff.
3. A candidate who fails to pass in the Final Examination, or, if he takes that examination in sections, in Section II. of that examination, shall, if the examiners are of opinion that he has shown sufficient merit, be entitled to a deferred examination in the subjects in which he has failed, such deferred examination being held at such times as the Faculty may prescribe.
Lecture and Examination Subjects for the Degree of LL.B.
Professor Peden, Messss. D. G. Ferguson, E. M. Mitchell, Dr. Waddell, Mr. F. R. Jordan.

## 8.-JURISPRUDENCE, LEGAL HISTORY, AND THE ELEMENTS

 of POLITICAL SCIENCE.This subject will include: - (1) An enquiry into the nature and relation of certain fundamental legal conceptions, together with a sketch of their historical development; (2) The outlines of English legal history; and (3) The elements of political science.

Students are recommended to read-Holland, "Elements of Jurisprudence'"; Austin, "Jurisprudence" (Student's' edition), Introduction and Part I., ch. 1, 5, 6, and 11: Maine, "Ancient Law," with Notes by Pollock; Carter, "History of English Legal Institutions"; and Sidgwick. "Elements of Politics." Reference may also be made to the following works, and especially to such parts thereof as may be indicated in the lectures:-Austin. "Jurisprudeuce" (Student's edition), Parts II. and III.; Pollor:k, "First Book of Jurisprudence" ; Maine, "Early Institutions," "Early Law and Custom," and " Village Communities' ; Jenks, "History of Politics;" Bryce, "Studies in History and Jurisprudence:"; Bentham, "Theory of Legislation" (by Dumont) ; Farrer, "Tbe State in relation to Trade": and Jevous, "The State in relation to Labour"; and Dicey, ': Relation between Law and Public Opinion in England during the 19 th Century."

## 9.-ROMAN LAW.

This subject will include :-(1) The history of the sources of Roman Law, together with an account of the administrative and judicial organisation of the Empire under Constantine, and a sketch of the subsequent history and influence of Roman Law; (2) The text of the Institutes of Justinian (omitting iii.. 1 to 12 , and iv. 6 to end) ; and (3) The general principles of Roman Liaw, so far as these are treated of in the Institutes of Justinian.

Students are recommended to read-Hunter, "Introduction to Roman Law"; and Moyle, "The Iustitutes of Justinian" and commentary. Reference may also be made to Hunter, "Roman Law in the order of a Code"; and Sohm, "The Institutes of Roman Law" (translated by J. C. Ledley).

## 10.-CONSTITUTIONAL LAW.

This subject will include :-(1) An account of the general features of the British Constitution, and especially those which are essential to a proper understanding of the iniperial factors in Australian government; (2) A more particular account of the constitution and government of the Commonwealth; and (3) An account of the censtitution and government of the State. of New South Wales.

Studeuts are recommended to read the fullowing text-books and statutes; -Dicey, "Iutroduction to the study of the Law of the Constitution"; Anson, "The Law and Custom of the Constitution," 3rd ed. (Vol. II., ch. 1, 2, 3, 4, 5, 6,8 and 10, except S. 4) ; Thomas, "Leading Cases in Constitutional-Law"; Webb. "Imperial Law" (ch. 3); Jenks, "History of the Australian Colonies," Commonwealth of Anstralia Constitution Act, 1900, together with other Acts and Instrmeuts relating to the Government of the Commonwealth; The Constitution Statute (18 and 19 Vict. c. 54) and "The Constitution Act, 1902"; together with other Acts and Instruments relating to the Governmeut of New South-Wales. Reference should also be made to the following works :-Anson, "Law and Custom of the Constitution" (Vol. I.); Ridge "Constitutional Law of England"; Quick and Garran, "Commentaries on the Commonwealth of Australia Constitution Act"; Moore, "The Constitution of the Commonwealth of Australia" (2nd edn.); Keith, "Responsible Government in the Dominions"; and to such statutes and cases as may be indicated in the lectures.

$$
11(a) .-P U B L I C \text { INTERNATIONAL LAW, }
$$

This subject will include :--(1) An account of the nature, history and sources of Public International Larw; and (2) An account of the rules generally accepted as determining the conduct of States in their normal relations, in the relation of war, and in the relation of neutrality.


#### Abstract

- Students are recommended to read :-Hall, "Treatise on Interuational Law"; Cobbett, "Leading Cases and Opinions on International Law, Part I.," Peace (3rd edn.). Reference should also be made to Westlake, "International Law, vols. i. and ii.;" and Oppenheim, "International Law ;' and to such other works and such statutes and cases as may be indicated in the lectures.


## 11 (b).-PRIVATE INTERNATIONAL LAW (CONFLICT OF LAWS).

The subject will embrace a study of the principles which determine questions of jurisdiction, and questions as to the selection of the appropriate law, in cases coming before the courts of this State that involve some "foreigu" element.

Students are recommended to read:-Dicey, "Conflict of Laws." Reference should also be made to Foote, "Private Intemational Law;" the Service and Execution of Process Act (Federal), and to such other statutes as may be indicated in the lectures.*
12.-THE LAW (in force in New South Wales) RELATING TO CONTRACTS, MERCANTILE LAW, TORTS, CRIMES AND DOMESTIC RELATIONS.
The lectures on this subject will comprise :-An account of the law in force in New South Wales with respect to (1) Contracts generally; (2) Mercantile Law (including Negotiable Instruments, Partnership, Insurance, Carriage and Mercantile Agency) ; (3) Torts, and obligations arising from civil wrongs at common law; (4) Crimes, including offences punishable summarily ; and (5) Domestic Relations and Lunacy.

Text-books and Statutes:-Anson, "Law of Contract"; Stevens, "Elemerits of Mercantile Law" Part II., together with the cases of Lickbarrow $\mathbf{v . ~ M a s o n ~ a n d ~ M i l l e r . v . ~ R a c e ~ ( w i t h ~ n o t e s ) , ~ f r o m ~ S m i t h ' s ~ " ~ L e a d i n g ~ C a s e s ~ a t ~}$ Oommon Law"; Pollock. "Law of Torts"; Kenny, "Outlines of Criminal Law''; Kenny, "Selection of Cases illustrative of Criminal Law"; Stephen, "Commentaries," Book III. Reference should also be made to statutes (see appended list) and decisions relating to these subjects, and especially to such statutes and decisions as mav be indicated in the lectures.

## 13.-THE LAW OF PROPERTY AND PRINCIPLES OF CONVEY. ANCING (as in force in New South Wales).

The lectures on this subject will comprise:-(1) An introductory course dealing with the general principles of the Law of Property, as regards the nature, creation, transfer and devolution of estates and interests that may be held in real and personal property in New South Wales; and (2) A more advanced course on the system of Conveyancing in vogue in New South Wales,

[^19]with respect both to interests in land (whether held under a Common Law Title or under the Real Property Act) and interests in personalty.

Text-books and Statutes:-Williams, "Principles of the Law of Real Property"; Williams, "Principles of the Law of Persoual Property"; Millard, "Law of Real Property in N.S.W."; Millard, "Law of Personal Property in N.S.W.": Elphinstone, "Introduction to Conveyancing"; "Conveyancing and Property Law in N.S.W." (being a new edition of "Hints on Conveyancing in N.S.W.", by J. E. Hugg. 1909); together with the following statutes (with commentaries where indicated)Conveyancing and Law of Property Act, 1898; Conveyancing and Law of Property (Supplemental) Act, 1901; Dower Abo'ition Act, 1906; Wills, Probate and Administration Act, 1898; Administration (Validating) Act, 1900 ; Administration Amending Act, 1906 ; Landlord and Tenant Act, 1899: Apportionment Act, 1905; Forfeiture of Leases Act, 1901 ; Forfeiture and Validatiou of Leases Act, 1905; Registration of Deeds Act, 1897; Real Property Act, 1900 (Canaway); Married Women's Property Act, 1901 ; Inheritance Act, 1901 ; and Limitation of Actions Act 3 and 4, Will. IV., c. 27 (adopted by 8 Will. IV. No. 3) ; Dedication by User Limitation Act, 1902; $\overline{5}$ Vict. No. 9, sections 39, 40, 41; Trust Property Act of 1862, section 36 ; Ancient Lights Declaratory Act, 1904 ; Bills of Sale Act, 1898 ; Bills of Sale (Amendment) Act, 1903; Lien on Crops and Wool and Stock Mortgages Act, 1898 ; Trade Marks Act, 1905 (Federal); Patents Act, 1903-1909 (Federal); and Copyright Act, 1905' (Federal). Reference should also be made to Jenks, "Modern Land Law"; Hogg, "Conveyancing Precedents aud Forms "; Prideanx," "Dissertations on the Law and Practice of Conveyancing," and to such other statutes (see appended list) and decisions relating to these subjecis as may be indicated in the lectures.
14.-PROCEDURE IN CIVIL AND CRIMINAL CASES (both before the Supreme Court in its Common Law Jurisdiction and also before Courts of Inferior Jurisdiction) ; together with the LAW OF EVIDENCE AND PLEADING; AND THE CARDINAL RULES OF LEGAL INTERPRETATION (as in force in New South Wales).
The lectures on this subject will comprise :-An account of (1) The system of procedure in Civil and Criminal Cases at Common Law before the Supreme Court and Courts of inferior jurisdiction; (2) The principles of the Law of Evidence; (3) The principles of Pleading; and (4) The more important rules relating to Legal Interpretation.

Text-books and Statutes : - Smith, "Action at Law"; Stephen, "Digest of the Law of Evidence"; Stephen, "The Principles of Pleading in Civil Actions"; Beal, "Cardinal Rules of Legal Interpretation"; the. Duchess of Kingstou's Case, with notes, from Smith's "Leading Cases"; together with the following statutes (with commentaries where indicated):-Evidence Act, 1898 ; Common Law Procedure Act, 1899 (Rolin and Innes); Attachment of Wages Limitation Act, 1900; Crimes Act, 1900, Parts XI., XII., XIII., XIV. (caps 1 and 4), XV. and XVI. (Hamilton and Addison); Poor

Prisoners Defence Act, $190{ }^{7}$; Supreme Cuntt Procedure Act, 1900 ; Supreme Court and Circuit Courts Act, 1900 ; District Courts Act, 1901 (Foster and Bonthorne), and District Courts Act, 1905; Jndgment Creditors Remedies Act, 1901 ; Interstate Debts Recovery Act, 1901 ; Jury Act, 1901, Parts VII., IX., X., XI., XII. and XIII.; Interpleader Act, 1901; Prohibition and Mandanus Act, 1901; Arrest on Mesne Process Act, 1902; Justices Act, 1902; Justices Aruendment Act, 1909 ; Police Offences (Amendment) Act, 190S, Part VIII.; General Legal Procedure Act, 1902; Commercial Causes Act, 1903 ; Legal Process Facilitation Act, 1904: Small Debts Recovery Act, 1899 ; Small Delts Recovery (Amending) Act, 1905; State Laws and Records Recognition Act, 1901 (Federal) ; Service and Execution of Process Acts, 1901-1905 (Federal) ; Judiciary Act, 1903-7 (Federal); High Court Procedure Act, 1903 (Federal); High Court Procedure Ameudment Act, 1903 (Federal) : and Evidence Act, 1905 (Federal). Reference should also be made to such other statutes (see appended list) and decisions relating to these subjects as may be indicated in the lectures.
15.-EQUITY AND COMPANY LAW; THE LAW RELATING TO BANKRUPTCY, PROBATE AND DIVORCE (as in force in New South Wales); TOGETHER WITH PROCEDURE IN THOSE JURISDICTIONS.
The lectures on these subjects will comprise:-(1) An acconnt of the general principles of Equity and Company Isaw, together with Equity Practice; and (2) A series of shorter courses on each of the following-(a) the Law and Practice in . Bankruptcy, ( $b$ ) the Law and Practice in Probate, and (c) the Law and Practice in Divorce.

Text-books and Statutes:-"Principles of Equity" (Snell), together with the cases of Russel v. Russel, Bassett v. Nosworthy and Penu v. Baltimore, with notes, from White and Tudor's Leading Cases in Equity, Williams, "Personal Property," Part II., ch. 4 (Bankraptcy), and ch. 6 (Companies) (a short summary of the local law on these two subjects will be found in Millard, "Personal Properts," pp. 127-166 and 192-218); Walker aud Elgood, "Executors and Administrators" ; Dixon, "Law of Divorce" (omitting parts relating to practice); together with the following statutes (with commentaries where indicated)-Equity Act, 1901 (Rich, Newham and Harvey) ; Companies Act, 1899; Companies Act Amendment Acts, 1900, 1906 aud $190{ }^{-}$(in default of a more recent commentary students are advised to refer to the notes contained in Rolin and Rich on the corresponding provisions of the Acts of 1874 and 1888, and the No Liability Mining Companies Act, 1896); Bankruptcy Act, 1898 (Salusbury): Wills Probate and Administration Act, 1898, Part II. (Kemp) ; Practice in Divorve, N.S.W., 1907 (Whitfeld); Trustee Act, 1898 ; Trustee Act Amendment Act, 1902: and Partnership Act. 1892. Reference should also be made to such other statutes (see appended list) and decisions. relating to these subjects as may be indicated in the lectures.

## APPENDED LIST OF STATUTES.

Ancient Lights Declaratory Act, 1904: Couveyaucing and Law of Property Act, 1898 ; Conveyancing and Law of Property (Supplemental) Act,

1901 ; Dower Abolition Act, 1906 ; Infauts' Custody and Settlements Act, 1899; Children's Protection Act, 1902; Landlord and Teuant Act, 1899 ; Partition Act, 1900; Registration of Deeds Act, 1897; Willis Probate and Administration Act, 189 S ; Administration (Validating) Act, 1900; Administration Amending Act, 1906: Real Property Act, 1900; Real Property and Conveyancing (Amendment) Act, 1901 ; Apportionment Act, 190̄ㅜ StampDuties Act, 1898 ; Probate Duties (Amendment) Act, 1899 ; Companies (Death Duties) Act, 1901; Stamp Duties (Amendment) Act, 1904; Stamp Duties (Deductions) Act, 1904; Bills of Sale Act, 1898; Bills of Sale (Ameudment Act), 1903; Money Lenders and Infants Loans Act. 1905; Liens on Crops and Wool and Stock Mortgages Act, 1898 ; Limitation of Actions Act, 3 and + Will. IV., c. 27 (adopted by 8 Will. IV., No. 3), and ${ }_{5}$ Vict., No. 9 , s. 39, 40 and 41 (or Acts consolidating or superseding thesame); Married Women's Property Act, 1901; Trade Marks Act, 1900 ; Trade Marks Act, 1905 (Federal) ; Patents Act, 1899; Patents Act, 1903-1909 (Federal); Copyright Act, 1879 ; Copyright Act, 1905 (Federal); Inheritance Act, 1901; Equity Act, 1901; Trustee Act, IS98; Trustee Amendment Act, 1902; Companies Act, 1899 ; Companies Act Amendment. Acts, 1900, 1906, and 1907; Partnership Act, 1892; Claims aguinst the Government and Crown Suits Act, 1897; Claims against the Government and Crown Suits Amendment Act, 1904; Employers Liability Act, 1897; Seamen's Compensatiou Act, 1909 (Federal); Workmen's Compensation Act, 1910; Factors Act, 1599 ; Compensation to Relatives Act, 1897; Bills of Exchange Act, 1909 (Federal); Negotiable Instruments Proredure Act, 1901; Forfeiture of Leases Act, 1901: Forfeiture and Validation of Leases Act, 190.; Common Carriers Act, 1902; Defamation Act, 1901; Defamation Amendment Act, ${ }^{-1909 \text {; Life, Fire and }}$ Marine Insurance Act, 1902; Life Assurance Companies Act, $190 \overline{2}$ (Federal); Marine Insurance Act, 1909 (Federal); Innkeepers Liability Act, 1902; Crimes Act, 1900; Witnesses Examination Act, 1940; Supreme Court and Circuit Courts Act, 1900; Supreme Court Procedure Act, 1900 ; Judgment Creditors Remedies Act, 1901 ; Interpretation Act, 1897; Acts Interpretation Act, 1901 (Federal); Acts Interpretation Act, 1904 (Federal) ; Bankruptcy Act, 1898 ; Matrimonial Causes Act, 1899; Contractors Debts Act, 1897 ; Coroners Act, 1898 ; Masters and Servauts Act, 1902; Deserted Wives and Children Act, 1901; Infant Protection Act, 1904 ; Neglected Children and Juvenile Offenders Act, 1905; Police Offences Act, 1901. Parts I. and II.; Police. Offences (Amendment) Act, 1908; Service and Execution of Process Acts, 1901-1905 (Federal) ; Marriage Act, 1899; Legitimation Act, 1902; Pawnbrokers Act, 1902; Games, Wagers and Betting Houses Act, 1901; Gaming and Betting Act, 1906; Gaming and Betting Ameudment Act, 1906; Usury, Bills of Lading and Written Memoranda Act, 1902 ; Sea Carriage of Goods Act, 1904 (F'ederal); Arbitration Act, 1902; Lunacy Act of 1898; Secret Commissions Act, 1905 (Federal) ; Australian Industries Preservation Acts, 1906-1907-1909 (Federal) ; Commerce (Trade Description) Act, 190' (Federal).

## ADMISSION OE BARRIS'TERS.

Certain privileges are conceded to Graduates and Third Year Students of the University in respect to the conditions necessary for admission to the Bar. As to these, candidates are advised either to refer to the Rules for the admission of Barristers (see Law Almanac), or to apply for information to the Secretary of the Barristers' Admission Board, Supreme Court.

## ADMISSION OF ATTORNEYS.

The following are extracts from the Rules of the Supreme Court for the admission of Attorneys, which refer to Examinations held at the University :-

The degree of Bachelor of Laws of the University of Sydney obtained by an Articled Clerk who has attended the law lectures appointed by the said University shall exempt him from passing the Intermediate Law Examination and sections 1, 2 and 3 of the Final Examination: Provided, however, that he shall be required to pass section 4 of the Final Examination, and to give all notices and pay all fees as required by the existing Rules in the case of an Articled Clerk proceeding tu Final. Examination.

Every person desirous of entering into Articles of Clerkship whoo shall not have taken a Degree in the University of Sydney, or in some other University recognised by it, shall, before approval of such Articles, produce to the Prothonotary a Certificate of his having passed a Matriculation Examination in the said University, or in some other University recognised by it; or a Certificate from the Registran of the University of Sydney of his having passed some equivalent examination before Professors or Examiners qppointed by the Senate thereof; or a Certificate of his haring passed in England, Scotland or Ireland the Preliminary Examination which Articled Clerks may be there required to pass, and shall lodye with the said Prothonotary a copy of such Certificate.

Preliminary Examinations for Articled Clerks are held at the University in the months of April and November, commencing on the first Monday in April, and the second Monday in November. Fee, f5 10s. 6d., to be paid to the Prothonotary of the Supreme Court.

The subjects of the Examinations will be found in detail on page 106.
EXAMINATION FOR THE DEGREE OF LL.D.
The Examination for the Degree of Doctor of Lars will include the following subjents:-

## 1.-LEGAL HISTORY.

Candidates will be examined both in general and more especially in English legal history. In addition to the text-books and books of reference prescribed for corresponding parts of the LL.B. Examination, candidates are recommended to read or refer to Pollock and Maitland, "History of English Law"; Holmes, "The Common Law"; Lee, " Historical Jurisprudence" ; and Stephen, "History of the Criminal Law of Eugland."

## II.-ROMAN LAW.

The Examination in this subject will have reference to a special subject from the Digest, to be selected from time to time, and to be studied in connection with the corresponding branch of English Law. Until further notice the special subject will be "The Roman Law of Sale," as set forth in the following Titles of the Digest : XVIII., 1, 5, 6, and XIX., 1 . These portions of the Digest should be studied in connection with Moyle's treatise, "The Contract of Sale inthe Civil Law."

## III.-ENGLISH LAW (as in force in New South Wales).

One of the following special subjects :-
(1.) The Common Law (including Mercantile Law, Criminal. Law, and the Law of Evidence and Procedure).
Candidates, in addition to the books and statutes prescribed for the corresponding portions of the LL.B. Examination, are recommended to make n special study of the leading cases, and especially of those contained in. Smith, "Leading Cases," and Tudor, "Leading Cases on Mercantile Law and Maritime Law."
(2.) Equity (including Bankruptcy, Probate, Company Law, and Procedure).
Candidates, in addition to the books and statutes prescribed for the corresponding portions of the LL.B. Examination, are recommended to make a special study of the leading cases, and especially those container? in White and Tudor, "Leading Cases in Equity."

## (3.) The Law of Property and Conveyaucing.

In addition to the books and statutes prescribed for the corresponding portion of LL.B. Examination, candidates are recommended to make a special study of the leading cases, and especially of those contained in Tudor's "Leading Cases on Real Property and Conveyancing, \&e." Candidates will also be expected to show a competent knowledge of the practice of conveyancing.

## (4.) Constitutional Law.

In addition to the books and statutes, \&c., prescribed for the corresponding portion of the LL.B. Examination, candidates are recommended to read or refer to the following works:- Quick and Garran, "Commentaries on the Commonwealth of Australian Constitution Act"; Clark, "Australian Constitutional Law"; Moore, "The Coustitution of the Commonwealth of Australia"; Todd, "Parliamentary Government of the British Colonies"; Forsyth, "Cases and Opinions in Constitutional Law " : and Ilbert, "Legislative Methods and Forms."

## IV.-INTERNational LaW (Poblic and Private?.

In addition to the books prescribed for the corresponding portion of the LL.B. Examination, candidates are recommended to read Westlake, "Private International Law"; and Dicey, "Conflict of Laws."

Notice.-Candidates are at liberty, on giving six months' prior notice, and with the approval of the Dean of the Faculty, to offer other books in lien of those recommended. Candidates are also advised that a thorough knowledge and apt treatment of a fair proportion only of the subjects touched on in any paper will be regarded as sufficient evidence of proficiency, as regards that particular branch of the Examination.

## FACULTY OF MEDICINE.

For Chemistry, Physics and Zoology see under Faculty of Science.
16.-HUMAN ANATOMY.

Professor Wilson, Mr. S. A. Smith, Mr. H. R. G. Poate, and two Junior Demonstrators.
Descriptive Anatomy.
A.-For Medical Students of First Year.

Daily during Michaelmas Term.
Introduction. Various aspects of anatomical study. Methods of study. Nomenclature and Terminology. General characteristics of bodily structure. Preliminary account of human ontogeny. Establishment of rudiments of various bodily systems and organs.

Text Book.--Either MeMurrich's Development of the Human Body, or Bryce in Vol. I. of Quain's Anatomy, llth Ed.
B.-For Medical Students of Second Year.

Daily during Lent and Trinity Terms.
Lectures and Demonstrations on Systematic Anatomy.
The lectures are illustrated by anatomical preparations, both naked-eye and microscopical, and by dissections, lantern-slides and diagrams.

Text Books.-Text Book of Anatomy, edited by D. J. Cumniugham, or Morris' Human Anatomy. edited by M.Murrich. If a special atlas of illustrations be desired, the Hand Atlas of Human Anatomy. W. Spalteholz, translated by L. F. Burker, or Toldt's Atlas, will be found most suitable.

## Regional Anatomy Demonstrations. <br> A.-For Medical Students of Third Year.

Daily during Lent and Trinity Terms.
The course includes regional demonstrations on the Cadaver, a series of lectures and demonstrations in Neurology, special demonstrations on Surface Anatomy in the living subject, and demonstrations on Macroscopic Sectional Anatomy.

## B, - For other than Medical Students.

A Junior course of demonstrations in Regional Anatomy will be held twice weekly during Trinity 'Lerm.

## Elementary Descriptive Anatomy. For other than Medical Students.

Thrice weekly during Lent and Trinity Terms. Durinir Lent Term the Anatomy of the bnnes, joints and muscles will be dealt with; whilst, in Trinity 'Term, that of the vascular
and nervous organs, and of the viscera, will form the subjects of study. The lectures will be illustrated by demonstration from preparations, lantern slides, etc.

## Spectal Courses.

## During Trinity Term.

A.-Spectal Topographical and Surface Anatomy for Students of Massage.-A course of ten lectures, supplementary to the general course of Elementary Descriptive Auatomy. Here various facts and features of importance from the point of view of training in massage will receive special consideration.

During Michaelmas Term.
B.-Dental Anatomy.-A course of ten lectures upon the Anatomy of the teeth, including their structure and development, will be given to First Year students in Dentistry.

Text Book reconmended for consultation.-Tomes' Dental Anatomy.
C.—Speclal Antistic Anatomy.-A course of ten lectures, supplementary to the general course of Elementary Descriptive Anatomy, and dealing with points of special importance frum the point of view of artistic representation, such as bodily proportion; form, in repose and in movement (including attitude and expression).

This course will only be delivered when desired by students who have already taken either one or both terms of the general course of Elementary Descriptive Anatomy.

1í (a).-Practical Avatomy or Dissechions.
The dissecting rooms are open daily, to members of the Practical Class only, during all the three terms, from 9 a.m. to .5 p.m., under the supervision of the Professor and Demonstrators. Parts for dissection will be allotted by the Senior Demonstrator. During each of the terms in which attendance on Practical A natomy is obligatory in accordance with the University By-laws, every student must be actually engaged in dissection, so far as the allotment of parts renders this at any time possible.

Not less than three hours should be devoted daily to actual work in the dissecting room, where alone a practical familiarity with the macroscopical details of human structure can be acquired.

Special tutorial classes will be organized in connection with the dissection of the various parts.

Credit for having dissected a part will be given only where diligence and attention to the work, and a fair degree of proficiency in actual dissection, have been exhibited. It is necessary for students of medicine to have dissected each "part," at least once, before admission to the Degree Examination. Prosectors for the Anatomy Classes are selected from among the best dissectors.

Text Books for Regional and for Practical Anatomy.-Cunningham's Manual of Practical Anatomy. Berry's Surface Anatomy.

Anatomical Laboratory.
The Professor will give all possible assistance to any advanced student or other competent person who may desire to pursue some special study or enter upon some original investigation in Anatomy; provided that, if not a member of the University, the applicant shall make special arrangements with the Registrar.
17.-PHYSIOLOGY-JUNIOR AND SENIOR.

Professor Anderson Stuart, Dr. H. G. Chapman, Dr, F. Howson, two Junior Demonstrators.
These classes include a description of the microscopical anatomy of the tissues and organs of the body, a special account of the Physics and Chemistry of the body, and of the functions of all its various parts.

The course is fully illustrated by experiments, diagrams, models, \&c., \&c.

> Practical Physiology.

Conducted conjointly by the Professor and his Assistants. The work of this class includes:-
I. Practical Histology.*--In which each student prepares, examines, and preserves for himself specimens of the tissues and orgaus of the body. The student is shown all the more important processes in histological work, and, where practicable, performs them himself.
II. Experimental Physiology.-In this division each student performs for himself, and obtains graphic records of, the simpler experiments dealing with the physiology of muscle and nerve, the circulation and respiration. He also obtains practical training in the

[^20]use of those physiological instruments employed in clinical work, e.g., ophthalmoscope, larynyoscope, perimeter, sphygmograph, \&c.
III. Practical Chemical Physiology.--Each student makes an examination of the principal proteins, carbohydrates and fats contained in animals and plants. He then examines chemically blood, muscle, milk, bile, saliva, and gastric and pancreatic juices, and performs experiments in artificial digestion with the three latter. After this he proceeds with the qualitative and quantitative (gravimetric and volumetric) analysis of normal and abnormal urine. Special attention is drawn to the clinical bearing of the work.
IV. Pefarmacology.-Here each student will examine the chemical characters of the principal groups of active substances in plants, will perform the tests for the chief alkaloids and drugs, and will carry out the main methods of separation for the common poisons, etc. The student will then proceed to the examination of the effect of the principal drugs on secretion, muscle, nerve, heart, respiratory apparatus, \&c., and the properties of some of the more important therapeutic agents will be investigated in detail. The different parts of the practical work will be introduced by the necessary didactic instruction, and demonstrations of experiments not readily performed by the student will be freely shown.

## Special Courses on Physiology for Arts, Science, Dental and Massage Students.

These Special Courses of Instruction will be held at times to be arranged. Demonstrations in Elementary Physrological Anatomy will be included.

The courses will be illustrated by means of dissections models, diagrams, microscopical preparations, \&c., \&c., \&c.

Text Books for Physiology.-Schäfer's Text Book of Physiology; Howell's Text Book; Halliburton's Handbook of Physiology; G. N. Stewart's Manual of Physiology ; Starling's Elements of Human Physiology ; Halliburton's Essentials of Chemical Physinlogy ; Aders Plimmer's Practical Physiological Chemistry; Brodie's Essentials of Experimental Physiology; Quain's Anatomy, or Schaifer's Essentials of Histology and Directions for Class Work in Practical Physiology; Dixon's Manual of Pharmacology.

Courses on Prysiology for Students in Veterinary Science.
A Special Course of Lectures on Introductory General Physiology for Students in Veterinary science will be held in Lent Term. In Trinity and Michaelmas they will take the course of lectures ordinarily attended by the Medical and Science Students.

A Supplementary Course of Lectures on Special Veterinary Physiology will be given in Michaelmas.

Additional instruction adapted to the requirements of Students in Veterinary Science will be given during the Courses of Practical Physiology and of Practical Chemical Physiology.

Text-booli, for Fetcrintry Physiology.-Noel Paton's Essentials of Physiology for Veterinary Studeuts.

## THE PHYSIOLOGICAL LABORATORY.

The Physiological Laboratory (including the special laboratories for Histology, Experimental Physiology, Physiological Chemistry, and the Workshop) is open daily from 10 a.m. to 5 p.m. ; Saturdays, 10 a.m. to 1 p.m.

Junior students are admitted at stated times, and receive instruction from the Demonstrators. Senior students can use the laboratory at auy time during Term, and most vacations, by arrangement with the Professor, and are encouraged in the prosecution of original investigations under his direction, and that of the Demonstrators.

Auyone, whether or not members of the University, wishing to undertake original research in the laboratory; can do so by application to, and arrangement with, the Professor.

## 18.-PATHOLOGY.

Professor Welsh, Dr. Barling, and two Junior Demonstrators.
For the study of Pathology the following courses are provided:-
I. A course of Lectures and Demonstrations (one term) in General Pathology, or the study of the geueral retiology of disease and of morbid processes in general, including-

1. Retrograde tissue changes (Atrophy, Degeneration, Necrosis). 2. Progressive tissue reactions and formative processes (Inflammation, Repair, Hypertrophy). 3. Tumour-growth (Neoplasia). 4. General circulatory derangements (Arterial and Venous Hyperæmia, Dropsy, Embolism, Thrombosis). 5:

Invasion by Animal Parasites; (a) Protozon; (b) Metazoa. 6. Infection; Intoxication; Immunity, including a systematic account of the more important Pathogenic Bacteria.
II. A course of Lectures and Demonstrations (one term) on Spectal Pathology, or a systematic study of the more important Diseases, with special reference to the organs and tissues affected, including the Blood and certain correlated tissues (Bone Marrow, Lymphoid Tissue, etc.), various Glandular .Organs, and the structures of the Lymphatic, Circulatory, Respiratory, Alimentary, Urinary, Nervous, and Osseous Systems.
III. A course of Praotical Pathology, ${ }^{*}$ including Bacteriology, Protozoolgay and Hematology (two terms). -The work of the Practical Class consists of-

1. Practical training in some elementary histological methods.
2. A systematic study under the microscope and with the naked eye of selected pathological lesions illustrative of typical morbid processes and conditions described under General and Special Pathology.
3. Laboratory instruction and demoustrations in general bacteriological technique, including methods of sterilisation, preparation of culture media, methods of isolation and of cultivation, methods of staining, separation of bacterial products, inoculation, etc.
4. The systematic examination of the more important bacteria concerned in disease, including their dis-tinctive characters under the microscope and in cultivation, their localisation in the tissues, their mode of action, etc., with speciel reference to clinical diagnosis. Some of the non-pathogenic bacteria may alsobe examined.
5. Practical instruction and demonstration in the phenomena of immunity, with special reference tothe clinical applications of hæmolysins, opsonins, agglutinins and precipitins.
6. The practical study of the more inportant forms of Protozoa, and of Metazoa; parasitic in man.
7. Practical instruction in methods of preparation, fixation, staining, and examination of blood films with special reference to clinical work.

[^21]N.B.-Microscopes for practical work in Bacteriology, Protozoology and Hæmatology require a suitable condenser, and a dust-proof nose-piece will be found a great convenience. (See regulations in reference to microscopes on page 136.)
IV. Tropical Diseases. - Special attention is devoted, both in the lecture and in the practical courses, to the pathology of the more important forms of tropical disease under the above headings. Since 1902 more than one-fourth of the entire course has been devoted to this aspect of Pathology.
V. Clinical Pathology and Post-mortem Examinations. -Students are urgently recommended to avail themselves of every opportunity that may be given in the pathological laboratories of the Royal Prince Alfred and Sydney Hospitals for the study of morbid anatomy, and the relation of clinical phenomena to morbid processes.
VI. Post-Graduate Courses.-Special post-graduate courbes will, from time to time, be announced.

Orignal Research.-Original research in any branch of Pathology and Bacteriology is encouraged so far as the equipment and accommodation in the Laboratory will permit.

Text Books.-Mtuir and Ritchie's "Manual of Bacteriology." Beatie and Diekson's "Text-books of Pathology." Allbutt and Rollcston's "System of Medicine," vol ii., part ii., on 'Tropical Diseases." Osler's "Principles and Practice of Medicine." Adumi's "Principles of Pathology."

## For Students of Dentistry.

Students of Dentistry are required to attend the following courses:-

1. General Pathology (including Bacteriology) as prescribed for students of medicine.
2. Practical Pathology, as prescribed for students of medicine, in so far as it is illustrative of General Pathology, with, in addition, a short course on the special pathology and bacteriology of the mouth and teeth.
19.-PRINCIPLES AND PRACTICE OF SURGERY.

Dr. A. MacCormick.
Introduction-Principles and Practice.
(a) Inflammation. (b) Traumatism. (c) Surgical Diseases. (d) Regional Surgery,-injuries and diseases peculiar to parts of the body.
20.-OPERATIVE SURGERY.

Dr. A. MacCormick.
In this. class the principal operations are described and their uses explained, and after ascertaining that the student has a thorough knowledge of the anatomy of the part, he performs the operations on the cadaver under the supervision of the lecturer and his assistant.

Text Books Reconmended.-Walsham's Surgery; Rose and Carless'. Manual ; Cheyne and Burchard's Manual ; Jacobson's Operations of Surgery; Thomson and Miles' Surgery ; Treves' Overations: Warinc's Manual of: Operative Surgery.
21.-CLINICAL SURGERY.

> Mr. H. V. Critchley Hinder, M.B., Ch.M.

The Lecturer will deal more particularly with the clinical aspect, the diagnosis and treatment of surgical cases which may from time to time present themselves in the wards.
22.-TUTORIAL SURGERY.

Dr. R. B. Wade.
The Surgical Tutor acts under the instructions of the Lecturers in Surgery and Clinical Surgery, to whose courses of ${ }^{\text {. }}$ instruction that of the Tutor is preparatory in its character. The times fixed for the course are suitable on the one hand to the convenience of the students and to the arrangements of thehospital on the other. At least two meetings of the class, each of at least one hour's duration, are held in each week during Term, and, if need be owing to the number of students in attendance, the class is subdivided so that the students may haveas much individual attention as possible. A class examination is held at the end of each Term, and the results are communicated to the Registrar. The course is conducted on a definite. and systematic plan as directed from time to time by the Senate, and is of an entirely practical nature. The Tutor seeks to make each student thoroughly acquainted with all the signs of Surgical Diseases and Injuries, with the methods and means of Surgical Diagnosis, and with the nature, use, and application of surgical instruments and appliances. The following is a more detailed statement of the work of the class:-

1. Case taking. 2. Knots, Bandages, Dressings. 3. Antiseptics and Sterilisation. 4. Fomentations, Poultices, \&c: 5. Sutures and Sponges. Their preparation. 6. Splints and the Treatment of Fractures. 7. Sur-gical Emergencies in General. 8. Restoration of the-

Apparently Drowned. 9. Local Anæsthesia. 10. Preparation of Patients for Operation. 'I'reatment imıediately after Operation. 11. Artificial Limbs and Mechanical Apparatus generally. :12. Instruments. 13. Surface Anatomy. 14. Outline of Radiography.
23.-PRINCIPLES AND PRACTICE OF MEDICINE.

Mr. A. E. Mirls, M.B., Ch.M.
Maintenance of the body in health-
Means by which this is secured:-
(i.) Nutrition. Food. Oxygen. Water. Oellular Nutrition. (ii.) Protection against injury. Preventive Medicine. Response of body to invasion by micro-organisms and toxic substances. (iii.) Exercise of normal function of organs of body. (iv.) Psychical factors.
Disease.-All factors leading to diseased conditions are those which interfere with one or more of the means by which the body is maintained in health.
E.g. (i.) Interference with nutrition :-(a) Interference with digestive action. (b) Interference with absorption into budy. (c) Interference with absorption into cells. (d) Interference with utilisation of food. (e) Interference with destruction of waste products. ( $f$ ) Interference with secretion of waste products. (ii.) Injury to living cells by-(a) Toxic substance. (b) Micro-organisme. (c) Mechanical injury. (d) Heat and cold. (iii.) Alteration of function- (a) Excessive function. (b) Diminished function.
Symptomatology and Diagnosis.-Therapeutics.-In disease the same mechanism is operative, although changes adapted to the altered conditions, but dependent upon the same general mechanism of the body, are observed.
'Treatment of disease in general consists in-Adaptation of nutriment to the requirements of the cell. Adaptation of nutrition to altered metabolism of the cell. Regulation of chernical and psychical processes constituting the metabolism of the cell. Making provision for destruction and elimination of products of cellular activity. Pro. . . tection of the cell from the effects of altered environment. Stimulation of the resisting powers of the cell and body
fluids. Modification of the functional activities of the cells, tissues and organs of the bndy. Influencing the psychical facturs in bodily activities.
Means adopted to help those processes of the body which lead to restoration to health, and make those processes more efficient-(1) Rest: bodily, mental. (2) Diet. (3) Removal of products, result of excessive function. (4) Use of antipyretic agents-Hydrotherapeutics. (5) Application of stimulants to organs capable of vicarious functions. (6) Change of environment. (7) Massage. Electricity. Physical Exercises. (8) Removal of nervous and mental irritants. (9) Removal of conditions by which curative agents of disease gain admission to body. (10) Specific stimuli to immunising mechanism. (i1) Isolation. (12) Drugs, including organo-therapy.
General processes of Disease-Fever. Pain. Malnutrition. Disorder and Incoordination of function. Tissue destruction.

Classification of Disease.
General Diseases-Specific Infectious Diseases. Intoxications. Diseases due to parasites. Diseases due to disturbance of nutrition and metabolism.
Diseases of Special Organs-Circulatory (heart vessels and blood). Respiratory (lungs and bronchi). Digestive (stomach and intestine, liver, pancreas). Secretory (thyroid, pituitary adrenals). Secretory (kidneys, skin). Nervous System, etc.

> 24.- CLINICAL MEDICINE.
> R. Scot-Skirving, M.B., Ch.M,
a. Bedside Instructions in the Wards of the Royal. Prince Alfred Hospital. - The methodical examination of patients, their symptoms and physical signs of disease. Discussion on the diagnosis and treatment of each case.
b. Clinical Lectures on special cases, or on special subjects nototherwisedealt with or demonstrated at the bedside.

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& \text { 25.-TUTORIAL MEDICINE. } \\
& \text { Dr. Sinclair Gillies, }
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The Medical Tutor acts as an assistant to the Lecturers on Clinical Medıcine, to whose courses of instruction the work of
the Tutor is preparatory and supplementary. The meetings of the class are held at times suitable to the convenience of the students on the one hand, and to the arrangements of the hospital on the other hand. The class meets at least twice weekly during. Term, and each meeting is of not less than one hour's duration. If need be, owing to the number of students in attendance, the class is subdivided so that each student may have as much individual attention as possible. A Class Examination is held at the end of each Term, and the results are communicated to the Registrar. The course is conducted on a definite and systematic plan, as directed from time to time by the Senate, and it is of an entirely practical nature. The Tutor seeks to make each student thoroughly acquainted with the signs of medical diseases, always comparing the abnormal with the normal, with the methods and means of medical diagnosis, and with the nature, use, and application of such instruments as are used in medical diagnosis and treatment. The Tutor also exercises a general superintendence over the work of the Clinical Clerks in the medical wards, and he gives them such assistance as they may require for properly recording the medical cases.

The outlines of the work of the class are somewhat aw follows:-

Special attention is paid to the proper way of taking the history of a medical case. Signs and symptoms, the difference, their significance.

Methods of Examination. - Inspection, palpation, percussion, auscultation, (a) the practice of these methods on the healthy, (b) the practice of the same methods on patients the subjects of disease, (c) the signs revealed by these methods in diseased conditions contrasted with the signs which obtain in health.

Digestive Systen.-Examination of mouth and pharynx; inspection, palpation, and percussion of abdomen in health and in. disease ; examination of gastric contents, chemically ; examination of material vomited, microscopically and chemically; examination of fæces.

Circulatory Systex.-The pulse; its characters; the condition of the arteries; estimation of blood pressure; taking of sphygmograms and their interpretation. Venous pulse; its significance; examination of normal hearts; examination of diseased hearts; signs of dilatation and hypertrophy; normal

Heart sounds; abnormal. heart sounds and their significance. The blood; estimation of corpuseles; estimation of hæmoglobin; the making of blood films.

Respiratory System.-Examination of normal chests by inspection, palpation, percussion and auscultation; types of breath sounds in healthy persons, and in patients subject of disease; characters of respiratory accompaniments.

Urinary System.-Palpation of kidneys; examination of urine chemically, with special reference to urea, albumen, blood, bile and sugar ; microscopical examination of urinary sediment.

Neryous System.-The mental condition of the patient; examination of the cranial nerves, with reference to their functions; examination of motor functions with regard to paralysis, incoordination, abnormal movements; examination of sensory functions as to touch, temperature, pain, and muscle sense; examination of reflex functions; electric reactions of musrles and nerves.
26.-MIDWIFERY.

Sir James Graham, M.I.
Anatomy and Physiology of the several orgaus and structures connected with Ovulation, Gestation, Parturition, \&c.

Gestation, its Signs, Symptoms, Duration and Abnormalities.
The Phenomena of Natural and Complicated Labour.
The Induction of Premature Liabour and Obstetric Operations.
The Management of the Puerperal State.
Text Books.-Whitridge Williams' Obstetrics; Tweedy \& Wrench's Practical Midwifery; Fothergill's Mannal of Midwifery; Herman's Difficult Labour.

> 27.-GYNACOLOGY.
> Mr. Joseph Foreman, M.R.C.S.

Introductory. Anatomy of the Female Pelvic Organs. Diseases of the Vagina. Diseases of the Uterus and Fallopian Tubes. Diseases of the Ovaries. Pelvic Tumours.

Books Recomarended.-Galabin's Students' Guide to Diseases of Women; McNaughton-Jones' Manual of Gynæcology (6th edition), Hart and Barbour.
28. - MEDICAL JURISPRUDENCE.

Drér $_{\text {re }}$ R. H. Todd.
Legal criminal procedure. Medical evidence. Identification in the living and dead. Death in its medico-legal relations. The examination of the dead body. The signs of death. Forms of death.-(1) Drowning, (2) Suffocation, (3) Hanging, Strangu-
latiou and Throttling, (4) Lightning and Electricity; (5) Burns and Scalds, (6) Neglect and Starvation, (7) Cold and Exposure, (8) Heat Apoplexy, (9) Mortal Wounds. Differential diagnosis of states of insensibility. Wounds in their medicolegal relations. Examination of blood and other stains. Legal relations of sexual incidents. Signs of pregnancy and delivery. Abortion. Infanticide. Lunacy in relation with the law. Toxicology.
29.-PUBLIC HEALTH.

Mr. W. G. Armstrong, B.A., M.B., Ch.M.
Public Healie.-Meteorology-Memperature, winds, hu-midity, rainfall, atmospheric pressure, climate. Air-Composition, impurities, ventilation, amount required, natural and artificial ventilation, examination of air. Soil-Ground water, ground air, organic matter in soil, classification of soils. WaterQuantity and supply, quality, impurities, purification, examination of water supplies. Food-Classification of foods, dietaries, preservation of foods, unsound food, diseases caused by food. Sanitary engineering-Dwellings, sanitary defects, disposal of refuse, wet and dry methods, sewers, sewage disposal. Disease--Infectious diseases, history of epidemics, means of prophylaxis, occupational diseases. Vital statistics. The law of public health-Notification, preventive measures, nuisances, insanitary habitations, protection of food supplies.
30.-MATERIA MEDICA AND. THERAPEUTICS. Mr. Tr. Storie Dixson, M.B., CL.M.
(1) For Medical Students.

A cuarse of lectures on Materia Medica and Therapeutics will be delivered daily to Students in their Fourth Year during. Trinity 'Term.

The subjects considered will include-
(a) The chief conditions which influence the action of drugs.
(b) The nature, mode of action, uses, chief methods of administration of the more important official and. unofficial drugs, and of their preparations.
The course will be illustrated by diagrams, macroscopical and microscopical preparations, and by such other means as maybe available.
(2) For Dental Students.

A course of 20 lectures on the Materia Medica and 'Therapeutics of the more important substances employed by Dentists and adapted to the special requirements of the latter, will be giver during Lent Term.

Text Doolis.-Materia.Medica for Dentists, Gabell and Austin, or Dental Materia Medica and Therapeutics, Hermeren Prinz.
(3) For Pharmaceutical Students.

A course of lectures on Pharmaceutical Chemistry and Pharmaceutical Botany, treating primarily of the substances officinal, and secondarily of the more important substances not officmal in the British Pharmacopœeia, will be given to Pharmaceutical students. This course will consist of 50 lectures, and will be illustrated by diagrams, macroscopical and microscopical specimens, and such other means as may prove feasible.

Text Book.-Materia Medica, Greenish; British Pharmacopœia with addendum.

For Reference.-Pharmacographia. Fluicliger and Hanbury; Extra Pharmacopoeia, Martindule and Westoott ; Pharmacopedia, White and. Humphrey; Squires' Companion, 1908.

## 31.-PSYCHOLOGICAL MEDICINE. <br> Dr. Flashman and Dr. Davidson.

This course comprises:-
I. An account of the Nature, Causes, Classification, Social and Medico-Legal Relations of Insanity.
II. An account of the various forms of Mental Disease or Disorder ; their Clinical History, Diagnosis, Prognosis and Treatment.
III. Practical demonstrations, at the Hospital for the Insane, of the various types of Mental Disease or Disorder.

> 32.-OPHTHALMOLOGY.
> Mr F. Antill Pockley, M.B., Ch.M.

Diseases and Injuries of the Conjunctiva, Cornea, Sclerotic, Iris and Ciliary Body, and Crystalline lens. Glaucoma. Refraction and Accommodation-Emmetropia, Ametropia, Hypermetropia, Myopia, Astigmatism: Asthenopia. Examination of the Eye, Ophthalmoscopy. Affections of the Vitreous Humour, of Optic Nerve, Retina, and Choroid. Affections of Sight unaccompanied by any definite intraocular signs:-Amblyopia and Amaurosis, Colour Blindness, \&c: Perimetry:-Defects in

Visual Field, Hemianopsia, \&c. Affections of the Ocular Muscles: Paralysis, Strabismus, \&c. Diseases of the Eyelids and Lachrymal Apparatus. Operations.

Boogs Recomarended.-Text Books-Handbook of Diseases of the Eye, Swanzy and Werner; Diseases of the Eye, Berry; Ophthalmic Surgery and. Medicine, (Jessop).

For Reference.-System of Diseases of the Eye, Norris and Oliter.
33.-DISEASES OF THE EAR, NOSE AND THROAT. Mr. H. Russell Nolan, M. B., Ch.M.
Ear-The clinical examination of the ear and the estimation of the hearing power. Diseases of the external ear and the external auditory caual. Acute diseases of the middle ear. Chronic suppurative disease of the middle ear. Complications and sequelæ of suppurative diseases of the middle ear. Uhronic non-suppurative diseases of the middle ear. Diseases of the internal ear. Deaf mutism.

Nose-Methods of examination. Acute and chronic rhinitis.. Neuroses of the nose. Diseases of the nasal accessory sinuses. Adenoid growths in the naso-pharynx.

Throat-Methods of examination. Acute inflammations of the larnyx. Chronic intlammations of the larynx. Chronicinfective diseases. Neoplasms and neuroses of the larynx.

> 34.-DISEASES OF THE SKIN.
> Dr. F. A. Bennet.

A short theoretical course of lectures in Dermatology, embracing all the chief diseases of the skin and their treatment, is delivered to the students once a year, whilst at the outdoor Dermatological Department clinical teaching is given throughout the whole year:

DEPARTMENT OF DENTISTRY.
(See also under Faculties of Medicine and of Science.)
35.-SURGICAL AND MECHANICAL DENTISTRY.

Messrs. R. Fairfax Reading, F. Marshall, P. A. Ash, Donald Smith, H. G. Moxham.
(a) Spectal Diseases of the Teete.
Pakt I.

1. Surgical Anatomy of the Teeth, Temporary and Permanent2. Extraction-Instruments, etc. 3. Accidents during and after extraction. 4. Extrattion under anæsthetics. 5. Pyorrhœa

Alveolaris. 6. Tumours of the Jaws. 7. Reflex Disorders of Dental Origin. 8. Injuries-Fracture of Alveolus.. Dislocation. Accidental Extraction. Infection of Wound. Fractured Teeth. 9. Replantation. Transplantation. Implantation. 10. Fracture of Jaw-Complications. Splints. 11. Cleft Palate. 12. De-formities-Restorative appliances.

Part II.

1. Condition of Teeth and Jaws at Birth: 2. Temporary Dentition and its Complications. 3. Permanent Dentition. 4. Abnormalities of Teeth. 5. Caries. 6. Diseases of the Pulp. 7. Abscess. 8. Diseases of the Pericimentum. 9. General hygiene of the Mouth. 10. Root canals, treatment and filling.
(b) Clinical Dental Surgery.
2. The Teeth-Definition, nomenclature, structure, form, surfaces, arrangement. 2. Sterilisation-Mouth, hands, instruments, \&c. 3. Examination of the Teeth-Appliances, methods, removal of deposits, separating, records, \&c. 4. Stages of Caries-Superficial, moderate, deep. 5. Exclusion of MoistureAppliances, methods. 6. Preparation of Cavities-Opening, removing decay, shaping, sterilising. 7. Classification of Cavities -(a) Simple cavities on exposed surfaces, (b) Simple appreximal cavities, (c) Compound cavities. 8. Filling Materials-Gold, tin, amalgam, cement, gutta percha. 9. Cavity Linings-Indications for, materials. 10. Filling Cavities with gold and with tin. 11. Filling Cavities with plastic materials. 12. Combinatiou fillings. 13. Matrices - Forms, uses, dangers. 14. Inlays, porcelain and gold. 15. Bleaching of discoloured teeth. 16. Care and treatment of deciduous teeth.

## Orthodontia.

Etiology. Classification of cases. Movements to be produced. Materials, appliances and methods. Simple cases and methods of correction. Complicated cases and methods of correction.
(c) Crown and Bridge Work.

1. History, definition and application. 2. Materials and instruments required. 3. Selection of cases for crown work. 4. Treatment and preparation of roots for reception of the various forms of pivot crown. 5. Construction and mounting of porcelain and facing crowns. 6. Preparation of teeth for the adjustment of hollow metal crowns. 7. The hollow metal crown. 8. Porce-
lain faced hollow metal crown. 9. Seamless crowns. 10. Principles involved in the selection of cases for bridge work. 11. Construction and fitting of the various forms of fixed bridges. 12. Application to special cases. 13. Removable bridges. Applicatiou and coustruction. 14. Material and various methods employed in setting crown and bridge work. 15. Porcelain as applied to crown and bridge work. 16. General principles. 17. The various kinds of porcelain bodies, their composition and fusing points. 18. Manipulation of the body. 19. The construction of porcelain crowns.

## (d) Mechanical Dentistry.

1. Preparation of the mouth. 2. Impressions and their treatment. 3. Models-Preparation for metal and vulchnite. 4. Moulding-Dies and counter-dies. 5. Swaging of the various forms of metal plates. 6. Attachment-Clasps, air chambers, etc. 7. Combination dentures. 8. The selection of teeth. 9 . Articulation. 10. Vulcanisable rubber-Description and application. i1. Vulcanising and finishing. 12. Treatment of various abuormalities.

Text Books Recommended.-Essig's and Kirk's American Text Books; Tomes ; Turner's Mechanical Dentistry ; Kingsley's Oral Deformities: Evans' Crown and Bridge Work; Guilford's Orthodontia; Farrar's Irregularities; Deatal Metallurgy, E. A. Smith (Churchill \& Co.); Angle's Mal, of the Teeth; Goslee's Crown and Bridge Work; Smale and Colyer, Diseases and Injuries of the Teeth; Johnson's Methods of Filling Teeth.

## Minimum Practical. Requirements. <br> FIRST YEAR.

Section cutting and printing. Drawing from specimen teeth, and modelling in plasticine. Three partial upper and three partial lower vulcanite plates without teeth. Repairs of vulcanite cases. One full upper and lower vulcanite denture (teeth removed after flasking).

SECOND YEAR.
Preparation of 20 cavities in extracted teeth, of which, 10 to be filled with non-cohesive tin, 3 with G.P., 2 with ZnO and cloves, and 5 with amalgam.
Two partial upper and lower plates in German silver, without teeth.
Eight partial practical vulcanite dentures.
Practical cases-Four full upper and lower aluminium base dentures.
'Two full upper and lower all vulcanite dentures.
These cases to have anatomical articulation.
Preparation and filling of the roots of 5 extracted molar teeth. Examination for proficiency in adjusting rubber dam and accessories on: a dummy.

THIRD YEAR.
Forty amalgam and cement fillings ( 20 to be preceded by root. treatment).
'Iwenty gold fillings; ten inlays (five porcelain, five metal).
Construction of one complete set of Angle's orthodontia appliances.
Practical orthodontia cases to be undertaken; plaster impressions. of these to be taken, casts accurately and anatomically: trimmed according to Angle, and presented to the Dental Museum.
Swaged caps for anterior and posterior teeth. Inclined plane.
Three full upper and lower gum section cases (practical).
One partial upper and partial lower nietal plate, four or more tube teeth on each plate, and at least two teeth backed and soldered on each.
Eighteen practical vulcanite dentures, ten of which must be full cases (upper and lower).
Preparation of roots for, and construction on an articulator of three hollow metal molar crowns; two incisur crowns. (one banded, one half-banded, soldered).
Two porcelain faced bicuspid crowns; one all porcelain bicuspid crown, using full-band and porcelain facing ; three Davis crowns, cast bases; four telescoping crowns (two molar, two incisor) with tube and split pin.

FOURTH YEAR.
Thirty gold fillings (fifteen to be approximal cavities in anterior teeth).
Fifty amalgam and cement fillings (twenty-five to succeed root treatment).
Two regulation cases; ten inlays (in the mouth).
'Two hollow metal crowns; three incisor crowns
One deep-bauded porcelain faced bicuspid crown
One all-porcelain banded bicuspid crown
One Davis crown, cast base.

These
to be done in the mouth.

Preparation of cavities for, and construction of, three metal inlay attachments for removable bridges.

One Gunning splint; one Kingsley splint; one Hammond splint. One cleft palate case complete, both soft velum and obturator to be made.
Examination for certificate of proficiency in extraction. . . Four removable bridges, each with two or more dummies.

1 , to be made in the mouth.
2, to be the constructed skeleton for an all-porcelain bridge.
3 and 4 , to be ordinary cases selected by the lecturer.
Addition to Books Recommended.-Operative Dentistry (Black).

## PHARMACY.

The course of instruction attended by Pharmacy students consists of -
(a) Chemistry, inorganic and organic, with practical work, seee No. 38.
(b) Materia Medica, see No. 30.
(c) Botany, see No. 48.

## FACULTY OF SCIENCE.

36.-PHYSICS.

Professor Pollock, Messrs. O. U. Vouwiller, I. G. Mackay, and one Junior Demonstrator.
lectures.
Peysics I.
An introductory course of about sixty lectures on the Elementary Principles of Mechanics, Properties of Matter, Sound, Heat and Light, and Electricity and Maguetism.

Text Book.-Crew's General Physics (Macmillan).

## Prysics II.

A course of sixty lectures on the Properties of Matter, Heat, and Electricity and Magnetism.

Prysics III.
A course of sixty lectures on Physical Optics, Acoustics, and Electricity and Magnetism.

For Honours the examination will include the subjects of Physics II.

Physical Laboratory.
The Physical Laboratory was designed by Richard Threlfall, M.A., F.R.S., Hon. Fellow of Caius College, Cambridge, then Professor of Physics in the University, and was built under his
supervision. The building was commenced in 1886, and completed early in .1888 . Considerable additional laboratory accommodation was provided in 1901 by an extension of one side of the building.

The Laboratory was founded for the encouragement of the study of Physical Science, and its object is not only to afford facilities for imparting instruction but also for aiding research.

## Practical Peysics. first year.

The course consists of quantitative experiments in the following :-

Measurement of Length. Estimation of Mass. Determination of Density. Determination of Atmospheric Pressure. Pressure of Water Vapour. Hygrometry. Thermometry. Vibratory Motion. Moment of Inertia. Elasticity of Solids. Surface Tension. Calorimetry. Determination of Musical Pitch. Measurement of Velocity of Sound in Air and Solids. Reflection and Refraction of Light. Elementary Spectroscopy. Polarisation of Light. Saccharimetry. Measurement of Resistance. Electromotive Force and Current. Electro-magnetic Induction.

All students attending the Physical Laboratory are required to keep a record of their practical work in special note-books, to be obtained from W. E. Smith, Bridge Street. These notebooks form the basis on which marks are allotted for Practical Physics at the annual examination.

Students presenting themselves for examination in Physics at the end of any Academic Year during which they have not attended the Laboratory must also present themselves for examination in Practical Physics.

Text Book.--Practical Physics, Pollock and Vonwiller.

## SECOND yEAR.

The course consists of quantitative experiments in the following : -

Measurement of. Time. Pendulums. Elasticity of Solids. Viscosity. Expausion of Solids, Liquids and Gases. Heat Conductivity. Calorimetry. Magnetic Measurement. Determination of Magnetic Elements. Magnetic Properties of Metals. Accurate Comparison of Resistances. Electrolytic Measurement of Current. Accurate Comparison of Electromotive Forces.

The Potentiometer. Electrical Thermometry. The Ballistic Galvanometer. Measurement of Capacity. Determination of Self and Mutual Induction, \&c.

Text Book.--Text Book of Practical Physics, Watson.
THIRD YEAR.
Advanced Physical Measurements.
Text Rooks.-Physical Measurements, Kohlrausch (translated by Waller and Procter, Churchill, London). Threlfall's Laboratory Arts.

## BOOKS RECOMMENDED. <br> For First Year Students.

Crew's General Physics.
For Second and Third Year Students.
General Physics.-Maxwell's Matter and Motion. Everett's C.G.S. System of Units. Worthington's Dyramics of Rotation. Poynting and Thomson's Properties of Matrer. Tait's Properties of Matter. LLord Kelvin's Article on Elasticity in the Encyclopredia Britannica. Todhunter's History of Elasticity. Thomson and Tait's Natural Philosophy. J. J. Thomson's Application of Dynamics to Physics and Chemistry. Whetham's Solution. Jevons' Principles of Science. Ostwald's Physico-Chemical Measurements.

- Heat.-Poynting and Thomson's Heat. Preston's Theory of Heat. Maxwell's Theory of Heat. Tait's Heat. Balfour Stewart's. Treatise on Heat. Ewing's Steam Engine and other Heat Engines. Clansius' Mechanical Theory of Heat. Meyer's Kinetic Theory. of Gases. Jeans' Dynamical Theory of Gases.

Light. - Wuod's Physical Optics. Schuster's Theory of : Optics. Preston's Theory of Light. Verdet's Optique. Mascart's Optique. .Drude's Optics.

Sound.--Poynting and Thomson's Sound. Barton's Sound.; Lord Rayleigh's Sound. Helmholtz's Sensations of Tone.

Electricity and Magnetism.--Maxwell's Eleetricity and Magnetism. . J. J. Thomson's Elements of the Mathematical Theory of Electricity and Magnetism. Rec nt Researches in Electricity and Maguetism, Conduction of Electricity through Gases, Electricity and Matter, and Corpuscular Theory of Matter. Jeans' Mathematical Theory of Electricity and Magnetism. Campbell's Modern Electrical Theory. 'Rntherford's Radio-activity, and Radio-active Transformations. Ewing's Magnetic. Induction in Iron and other Metals. Flemiug's Alternate Current Transformer, and Principles of Electric Wave Telegraphy. Steinmetz Alternating Current Phenomena. Whittaker, History of the Theory of the Ather.

> 37.-CHEMISTRY.

Professor Fawsitt, Assistant-Professor Schofield, Messrs. F. A. Eastaugh, E. Le G. Brereton, and five Junior Demonstrators.

## I.-INORGANIC CHEMISTRY.

A.-A course of about sixty lectures upon general Inorganic Chemistry for First Year Students, delivered in Lent and Trinity 'erms.

Text Book.-Newth's Inorganic Chemistry.
B.-A course of twenty lectures upon Advanced Inorganic and General Chemistry for Second Year students.

## II.--OBGANIC CHEMISTRY.

A.-A course of thirty lectures upon Organic Chemistry for First Year students, delivered in Michaelmas Term.

Text Book.-Cohen's Organic Chemistry.
Arts students intending to take Chemistry II. in a subse-- quent year are required to take this course.
B.-A course of twenty lectures on Organic Chemistry for Veterinary Science students and Engineering students.

Text Book.-Cohen's Organic Chemistry.
C.-A course of twenty lectures upon Advanced Organic Chemistry for Second Year students.
[Veterinary Seience.-The course in Chemistry is similar to that of the medical students for the first two terms; in the third term they attend a separate course in Organic Chemistry.]

> III.-PHYSICAL CHEMISTRY.
A.-A course of twenty lectures upon Physical Chemistry for Second Year and Third Year students.
B.-A nother course given in alternate years with IIIA.

Text Book. - Senter's Outlines of Physical Chemistry.

> IV.-CHEMISTRY II. FOR ENGINEERS.
A.-A course of twenty meetings:

Subjects.-Properties of .Metals and Alloys, Pyrometry, Water Supply, Cements, Lubricants, Explosives.
V. -THEORY OF ASSAYING.
A.-A course of twenty meetings designed for Fourth Year Mining students.
vi.-Research.

Meetings will be held throughout the year for the discussion of research work in chemical subjects. It is expected that Third Year students will attend these meptings.
viI.-PRACTICAL CHEMISTRY.
the chemical and metallurgical laboratories.
The Chemical Laboratory was built in 1889. The building is a plain rectạngular structure, about 170 feet long by 76 feet wide. There is also an Assay Laboratory, 55 by 44 feet, and a Milling and Leaching Room, 35 by 100 feet. There are also open and covered yards for out-door operations.

Special efforts have been made to give students the benefits of modern improvements and appliances, and particularly those which tend to save time; draught cupboards, filter pumps, exhaust pipes, and similar conveniences are fitted to each bench. A number of hoods and draught cupboards for combustions, sulphuretted hydrogen gas, water baths, and ovens are also provided

The Metallurgical Laboratories contain 44 fusion and muffle ${ }^{\circ}$ assay furnaces, and an experimental reverberatory furnace with a bed 6 feet by 4 feet.

The plant for the concentration and treatment of metaliferous ores includes a challenge ore feeder, set of stamps, rock crusher, Gates' rock breaker, Rogers' crushing rolls, Chilian and Hungarian mills, Carter's disintegrator ; Krupp ball mill; elevator; trommels, samplers, amalgamating plates and pans, spitzkasten; a Frue vanner, Willley concentrator, plunger jigs, settling tanks, luagnetic concentrator, etc. Also vats and necessary appliances for the extraction of gold and silver ores by chlorine, cyanide, hyposulphite, and other similar leaching processes.

## PRACTICAL COURSES.

## A. -Introductory Course for Junior Students in all Faculties.

This course consists of thirty meetings of three hours each.

1. Glass working.-Rounding the ends of tubes and rods, drawing, bending and joining tubes, blowing bulbs, mending test tubes.
2. The structure of flame; flame reactions; use of blowpipe; reduction of metals on charcoal; incrustations; flame and film tests; borax and microcosmic salt beads.
3. Use of the Spectroscope.
4. Reactions of Salts.
5. Qualitative Analysis by wet and dry processes.
6. Reactions and processes for the detection of the alkaloids, sugars, starch, glycerol, alcohol, carbolic acid and similar common substances.

Text Book.-Qualitative Analysis, Perkin.
B.-Advanced Cuurse for Pharmacy Students.

Quantitative Analysis. Testing balance and weights. Testing calibration of Burette, Pipette and Flask. Preparation of litmus solution. Preparation and use of standard acid and alkali
solutions. Use of indicators-methyl orange and phenolphthalëin. Volumetric estimation of iron. Gravimetric estimation of one or more of the following:-Iron, antimony, phosphoric acid and silver. Use of the nitrometer, etc.

Text Books. - Newth's Qualitative and Quantitative Analysis ; Fawsitt's Tables for Students of Quantitative Chemical Analysis.

> C.-Advanced Courses for B.So. Degree.

Students in their second and third years will have to work through a general course of Quantitative Analysis (including Organic Analysis), the preparation of a considerable number of organic compounds, and some physico-chemical measurements.

Text Books.-Clowes \& Coleman's Quantitative Analysis; Cohen's Practical Organic Chemistry; Fawsitt's Tables of Quantitative Chemical Analysis.

## D.-Advanced Course for B.E. Degree in Mining and Metallurgy.

A course of general Quantitative Analysis. Examination of oils, cements, furnace gases.

> E.-Assaying and Metallurgical Course.

Candidates for the B.E. Degree in Mining and Metallurgy are required to take the following course:-

Technical examination of Fuels, Fireclays, and Refractory materials.

Dry assay of Gold, Silver, Lead, Tin and Mercury Ores.
Assay of Silver (wet and dry) and Gold Bullion.
Volumetric methods for Copper, Zinc, Lead, Manganese, Iron and Nickel.

Electrolytic and Colorimetric methods for Copper. Examization of the Cornish dry process.

Complete analysis of Slags.
Complex Gold and Silver Ores.
Iron and Steel Analysis.
Analysis of Furnace Gases.
Metallography: The preparation and microscopic examination of sections of metals.

The treatment of bulk samples of ores, viz.: crushing, grinding, roasting, sampling, concentrating (including vanning), and leaching.

Note.-Students are required to preserve and label their metallurgical preparations, alloys, slags, and metallic buttons or the inspection of the Examiners at the end of the course.

Boors Recommended.-Beringer's Text Book of Assaying; or one of the following :-Guide Pratique du Chimiste, Métallurgiste et de l'Essayeur par L. Campredon (Baudry et Cie. Editeurs). F'urman's Manual of Practical Assaying. Mieroscopic Analysis of Metals, by Osmond and Stead. For reference-Arnold's Steel Work Analysis; Hempel's Gas Analysis; Rhead and Sexton's Assaying. Notes on Assaying by Lodge. The Analysis of Steel Works Materials (Brearley and Ibbotson).
F.-Course of Practical Metallurgy for Dentists.

A course of sixty hours upon Elementary Practical Metallurgy is given in Michaelmas Term.

Each student is required to make experiments on the following:-

1. Physical and Chemical properties of metals.
2. Effects of impurities upon these properties.
3. Preparation of certain alloys and amalgams, to illustrate the various changes brought about by alloying metals with each other.
4. Recovery of Gold, Platinum and Silver from scrap.
5. Purification of Gold and Silver.

Books recommended.-Dental Metallurgy, E. A. Smith (Churchill), Chemistry for Dental Students. by H. Cariton Smith (Wiley and Sons). For reference-Dental Metallurgy by Essig (S. S. White). Mixed Metals, Hiorns (McM. \& Co.)

Apparatus.-Students will require the apparatus which they use for practical chemistry, and certain small articles a list of which can be obtained in the Laboratory.

## Regulations for the Chemical and Metallurgical Laboratobies.

The Chemical and Metallurgical Laboratories are open daily (except Saturdays) during Term time.

Students engaged in special investigations will have to provide themselves with any materials they may require which are not included among the ordinary reagents, also with the common chemicals when they are employed in large quantities.

All preparations made from. materials belonging to the Laboratory become the property of the Laboratory.

No experiment of a dangerous character may be performed without the express sanction of the Professor or Assistants.

Each student is required to keep full notes of each day's work for the use of the Examiners.

The Laboratory hours are from $10 \mathrm{a} . \mathrm{m}$. to 5 p.m.
Every student not working with a class is required to enter the time of his arrival and departure in the attendance book.

Each student is required to provide himself with the apparatus necessary for the course in Practical Chemistry.

Apparatus left by a student and not removed within three months is liable to be forfeited.

The larger and more expensive pieces of apparatus may be provided, for the use of students, by the University, on the condition that all breakages have to be made good.

## GEOLOGY AND MINERALOGY.

Professor David, Dr. Woolnough, Mr. L. A. Cotton, two Junior Demonstrators.
lecture courses.
For First Year Students in Arts, Science, Mining Engineering, and Civil Engineering.
38.-Geol.ogy I.

This course of sixty lectures* is evenly divided into three parts, given respectively in Lent, Trinity and Michaelmas T'erms.

Part I. deals with History of Geology, Material Geology, including Elementary Petrology and Mineralogy, and the first principles of Geological Collecting and Field Work.

Part II. treats chiefly of Dynamical Geology, including the Composition, Movements and Work of the Atmosphere and of the Ocean; of Fvaporation and Rainfall; of Lakes, Rivers, Springs and Artesian Wells; of various Glacial Phenomena; of the Movements of the Earth's Crust; and of Earthquakes and Volcanoes.

Part III. will refer chiefly to (a) Structural Geology and the Fvolution of Earth Forms, and (b) to Elementary Stratigraphical Geology and Palæontology.

The lectures in many cases will be illustrated by means of an electric lantern and projection-microscope.

Text Books.—Physical Geography, by Professor W. M. Davis; Petrology for Students, by Harker ; Minerals in Rock Sections, Luquer.

For Reference and Further Study.-Aids in Practical Geology, hy Professor Cole; Physical Geology, by Professor A. H. Green; Meteorology, by Hann; Volcanoes, by Professor Judd; Volcanoes, by Professor Bonney; Australia. from a Physiographic and Economic point of view, by T. Griffith Taylor, B.A., B.E., B.Sc.
*A minimum of forty honrs' practical work in the Laboratory at times to be arranged is also required. This does not include the individual work of examining rock and mineral collections, preparation of thin sections for the microscope, etc.

For Second Year Students.
39.-Geology II.

For Arts, Science, and, in part, for Civil Engineering Students.
This course will consist of sixty lectures, with a minimum of sixty hours' practical work in the Laboratory. Students in Civil Engineering are required to attend only during Lent Term.

Part I. in Lent Term will be devoted chiefly to a study of Dynamic Geology and Petrology. Part II. in Trinity Term will deal chiefly with Geological Structures and Methods of Field Mapping, including a review of the chief Geological features of Australasia and Oceania. Part III. in Michaelmas Term will be devoted to the study of Stratigraphical Geology and Palroontology, with special reference to Australia.

Text Books.-(1) Structural and Field Geology, by Professor James Geikie; (2) Petrology for Students, by Harker ; (3) Minerals iu Rock Sections, by Luquer; (4) Mineralogy, Crystallography and Blowpipe Analysis, by Moses and Parsons (or, in place of (2), (3) and (4), Cole's Aids in Practical Geology, but it would be preferable for students to get (2), (3) and (4); (5) Palæontology, Woods.

For Keference and Further Study.-Elements of Geology, by Le Conte and Fairchild; The Student's Handbook of Physical Geology, by A. J. JukesBrowne; Reports of Australasian Scientific Societies and Geological Surveys.

## For Second Year Mining Engineering Students. <br> 40.-Mineraloay and Economic Geology I.

A course of sixty lectures, with practical work, will be given on Descriptive Mineralogy and Economic Geology. These will include Elements of Crystallography, Physical Properties of Minerals, Mode of Origin, Occurrence and Classification of Minerals. The following economic products will be considered :Coal, Rock Oil and Various Eydrocarbons, their Mode of Occurrence and Distribution ; Phosphatic Deposits, and other Natural Fertilizers, Bauxites and Alumstone; Rock Salt, Gypsum, Boracic, Potassic and Sodic Deposits; Mica; Asbestos; Building Stones; Clays; Limestones; Portland Cement Stones; Abrasives; Gem Stones; Fluxes. Exercises will be given in methods of estimating quantities and values of mineral deposits of ecouomic value.

Text Books.-Mineralogy, Crystallography and Blowpipe Analysis, by Moses and Parsons; Mineral Resources of New South Wales, by E. F. Pittman.

For Tbird Year Mining Engineering Students.
41.-Mineralogy and Economic Geology II.

A course of twenty lectures, with practical work, will be given on the Origin of Ore Deposits, with descriptions of typical Australasian Mining Fields.

A course of forty lectures, with practical work, will be given on the chemical relations of different rock types; processes and effects of rock weathering and soil formation; origin, composition and circulation of underground water. Physiography will also be studied in its relation to climate and plant distribution.

> For Third Year Students in Arts, Science, etc.
> $43 .-G e o l o g y ~ I I I . ~$
> A-Princlples and Problems of Geology.

This course will consist of about fifty lectures, delivered during Lent and Trinity Terms, dealing with the principles and problems of Dynamic, Tectonic and Stratigraphical Geology, as applied to the general plan of the earth, its past history, and the chief forces by which they are determined.

For Reference.-Geology of Queensland, Jack and Etheridge; Physical Geography and Geology of Victoria, R. A. F. Murray; Geography of Victoria, by Professor Gregory; Praktische Geologie, Keilhack; Suess, Face of the Earth, Vols. I., II., III., IV., translated by H. R. Sollas; Leçons de Géographie Physique, De Lapparent; Elements of Geology, Le Conte, new edition by Fairchild; Geology, Chamberlin and Salisbury, Vols. I., II. and III.

B-Paleontology.
This course will consist of sixty lectures, to be delivered during the Lent, Trinity and Michaelmas Terms. The principal classes of the Invertebrata found in the fossil state will be considered, the lectures being illustrated with numerous specimens and diagrams. Special reference will be made throughout to the Palæozoology of Australia, and incidentally to its Palæophytology.

Text Books.-Text Book of Palæontology, Zittel (translation by Eastman); Fossil Plants, by Seward.

For Reference.-Memoirs and Records of the Geological Survey of New South Wales und of the Australian Museums. References to other works will be supplied during the course.

> C.-Mineralogy and Petrology.

The course consists of about 60 lectures divided as follows:-About 20 lectures on Crystallography, in which will be discussed-Angular distribution of crystal faces, symmetry, the various systems of notation, the relations of zones, methods of projection and crystal drawing, apparatus for goniometry, details of the systems, theories of crystal structure, etc.

Text Book.-Crystallography, Lewis.
For Reference. - Crystallography, Story-Maskelyne; Physikalisehe Krystallographie, Groth.

About 20 lectures on Optical, Physical and Chemical Mineralogy, including preliminary optics, transmission of light in crystals, refractive indices, double refraction, optic axes, dispersion, optical indicatrix, relation between physical properties and crystalline form, classification of minerals, synthesis of minerals, etc.

Text Books.-Rosenbusch-Iddings, Microscopical Physiography of Rockmaking Minerals, Wiley \& Sons, or Iddings Rock Minerals, Wiley. \& Sons; Dana, E. S., Text Book of Mineralogy, Wiley \& Sons.

About 20 lectures during Michaelmas Term on Petrology. Composition, habit, origin and classification of igneous rocks; mechanics of igneous intrusion; synthesis of rocks; petrology of sedimentary rocks; metamorphism; relation of rocks to ore deposits.

Text Book.-Optical Indicatrix, by Fletcher; Text Book of Rock Analysis, by H. S. Washington: Manual of Qualitative Bluwpipe Analysis, by Endlich.

For Reference.--Harker, Natural History of Igneous Rocks; Iddings, Igneous Rocks.

For Honours additionäl lectures may be delivered, and special examinations may be set in one or more divisions of the subject.

Students must read the current Geological and Mineralogical Magazines

Books for Reference. -The Microscope, Carpenter, edited by Dallinger, 1901 ; The Microscope, Naegeli and Schwendener, translated by Crisp and Mayall; Light, Lewis Wright; Theory of Light, Preston'; Crystallographie Physique, Soret; Elemente der Gesteinslehre, Rosenbusch; Mikroskopische Physiographie der Mineralien und Gesteine, Vols. I. and II., Rosenbusch; Lehrbuch der Petrographie, Zirkel ; Quantitative Classification of Igneous Rocks, Cross, Iddings, Pirrson and Washington; British Petrography, Teall.

Students in their Third Year Geology Courses must take either $A$ and $B$ of 44 , or $A$ and $C$ of 44 . They are recommended not to attempt $A, B$ and $C$ during the same year.

## PRACTICAL COURSES.

The times set down for practical work refer only to the hours of demonstrations. In addition, students must spend a certain amount of time in individual practice and in examining the collections of rocks, minerals and fossils. For this purpose the laboratories are open daily during term.

## 44.-Geology I.

A minimum of forty hours' demonstration work in the Laboratory, devoted chiefly to Petrology, Physical Properties of Minerals and Rocks, and Preparation of Geological Maps and Sections.

Petrology. - Elementary Crystallography and Optics, Petrological Microscope, Optical Properties of chief rockforming minerals, Textures and Structures of eruptive rocks, Types of eruptive rocks. Each student prepares sections of rocks for the microscope.

- Cost of apparatus, etc. : Microscope fee $£ 1$,other apparatus 2s. Maps and Sections.-Cost of apparatus about 2 s .
Field Work. -Students must produce evidence of having spent a minimum of four days (or the equivalent) during the year in geological work in the field. Excursions will be arranged on Saturdays during term to places of geoiogical interest near Sydney.
45.-GEOLOGY II.

Lent Term. - (a) Four lectures and demonstrations on Elementary Crystallography; (b) twenty demonstrations on Microscopical Petrology, including study of the sedimentary and metamorphic rocks.

Trinity Term.-(c) Twenty demonstrations on Blowpipe Analysis and Determinative Mineralogy.

Miohaelmas Term. - (d) Twenty demonstrations on Invertebrate Palæontology.
'The cost of apparatus is approximately as follows for the different courses:-(c), $15 \mathrm{~s} . ;(b)$, a fee of $£ 1$ for use of petrological microscopes, unless students provide their own microscopes of a suitable pattern.

- Field Work.-Students must produce evidence of having spent a minimum of six days during the year in geological work in the field. If possible, a camp or camps will be arranged during one of the vacations to enable students to carry out this work under supervision.


## 46.-Economic Geology I. Mining Éngineering students' Second Year.

Lent Term.-Twenty demonstrations on crystallography, physical properties of minerals, and introductory blow-pipe andlysis.

Trinity Term.-Twenty demonstrations on blow-pipe analysis

Michaelmas Term-Twenty demonstrations on construction of geological maps and sections, with special. reference to mining work.

Field Work.-As under Course No. 45. Excursions to works, etc, will be taken as opportunity offers.
47.-Economic Geology II.

Mining Engineering Students' Third Year.
Trinity Term.-Sixty hours' demonstration in practical determinative mineralogy, including advanced blow-pipe analysis, micro-chemical tests, and microscopic examination of ore deposits and associated country rocks.

Michalmas 'Perm.-Forty hours' individual work in determination of minerals in hand specimens.

> 48.-Agricultural Geology.
> Agricultural Students' Second Year.

Lent Term -Tweuty demonstrations in determination of minerals by physical and chemical tests.

Trinity Tern.-'Twenty demonstrations iu microscopical examination of rocks, with practical reference to soil formation.

Michaelmas Term.-Twenty demoustratious in construction and reading of geological maps and sections.

Field Work.-As under Course 45.

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\begin{aligned}
& \text { 49.-Geology III. } \\
& \text { For Third Year Students in Geology. } \\
& \text { GEOLOGY III. A. }
\end{aligned}
$$

Twenty demonstrations on the Construction and Interpretation of Geological Maps and Sectious will be given during the Lent Term, and outdoor exercises in field mapping will be given during August-September vacation, and at such other times as are available.

> Paleontology III. B.

A course of demonstrations in illustration of the lectures on Palæontology will be given during the Lent, Trinity, and Michaelmas Terms. Time--Four hours per week.

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\text { Mineralogy and Petrology III. } \mathrm{C} \text {. }
$$

Students must spend at least six hours a week in practical work in the Geological laboratory, for Honours at least twelve hours a week.

Physical Mineraloar.- Preparation of quarter wave plate, . gypsum plates, quartz wedge and oriented sections and prisms of minerals. Optical and physical measurement of crystals; refractive index; double refraction ; optic orientation ; optic axial angle, dispersion, hardness, electrical and magnetic properties.

Petrology.—A systematic course on practical Petrology.
Crystarlography.-Measurement of models and crystals, with contact goniometer; measurement of crystals, with various types of one-circle and two-circle reflecting goniometer; stereographic and gnomonic projection; drawing of crystals; determination of crystal elements.

Each student must make at least one complete analysis of a rock or mineral during the year.

Field Work --Students for a pass must produce evidence of having spent a minimum of ten days during the year in geological work in the field.
ธ0. -BIOLOGY.*

Professor Haswell, Mr. S. J. Johnston, and two Junior Demonstrators. Brology 1 .

> A.-Zoology.

A course of fifty lectures, illustrated by specimens and diagrams, and supplemented by occasional demionstrations.
I. Introduction to Biology. Main divisions of the scienoe.
II. General structureand physiology of animals. Amaba. The oell: its structure and multiplication. The ovum and the sperm. Maturation and impregnation. Segmentation. Histology of animals. The various systems of organs, and their principal functions. Reproduction, asexual and sexual. Symmetry.
III. General account of the following phyla with descriptions of representative examples: Protozoa, Porifera, Coelentera, Platodes, Nemathelminthes, Echinoderma, Annulata, Arthropoda, Mollusca, Chordata.

## B.-Practical Zoology-Elementary Course.

An elementary course for Medical and Science students of the First Year.

The following animals are studied:-Paramécium, Vorticella, Obelia, Distomum, Nereis, Asterina, Helix, Palinurus, Irygonoptera, Hyla, Columba, Lepus.

* See Regulation in reference to Microscopes, page 136.


## C.-Botany.

A course of about thirty lectures.
I. General structure and physiology of plants. Unicellular and multicellular plants. The vegetable cell and its principal modifications. Systems of tissues. Histology of plants. Organs. of plants.
II. General account of the following phyla of plants with descriptions of illustrative examples: Thallophyta, Bryophyta, Pteridophyta, Spermaphyta.
III. Physiology of higher plants. . Nutrition. Growth. Sources and transformations of energy. Reproduction.

> D.-Praotical Botany.

A course of practical work on the Morphology of Plants.
The following are studied:-Protococcus, Saccharomyces, Spirogyra, Penieillium, Aspergillus or Mucor, Agaricus, Bacterium, Desmids, Diatoms, EXdogonium, Vaucheria, Hormoseiva, Marchantia or Polytrichum, Pteris, Pinus, Tilia, Zea, the flowers of various Augiosperms.

## Brology II. and III. <br> Zoology and Comparative Anatomy. Adranged Courses.

Two advanced courses, one on the Morphology and Embryology of the Invertebrata, with laboratory work*; the other on the Morphology and Embryology of the Vertebrata, with laboratory work.

Botany-Course for Second Year Students in Science and Aariculture.
A short course on the Physiology of Plants, with practical work, for Science students of the Second Year. Together with a laboratory course on Systematic Botany.

Books Recommended:
For First Year Students.
Zoology.-Thompson's "Outlines of Zoology" or Parker and Haswell's "Manual of Zoology." Reference should also be made to the larger works recommended below for the use of Second and Third Year students. For some parts of the Practical Zoology it will be useful to refer to Marshall and Hurst's "Practical Zoology" and T. J. and W. N. Parker's "Practical Zoology."

Botany.—Vines' "Elementary Botany," or Mudge's "' Botany." For reference, Strasburger's "Text-book of Botany" (3rd ed.), or Campbell's * "University Text-Book of Botany." For the Practical Botany, Bower's
"Practical Botany for Beginners."

* See Regulation in reference to Microscopes, page 136.


## For Second Year Students.

Zooloay.-Parker and Haswell's "Text-book of Zoology," Vol. I., or Sedgwick's "Text-book of Zoology," Vol. I. For reference, Korschelt and Heider's "Text-book of the Embryology of Invertebrates'"; Ray Lankester's "Treatise on Zoology"; Wilson's "The Cell in Development and Inheritance" (2nd ed.).

Botany.-Vines' "Text-book of Botany." Darwin and Acton's "Practical Physiology of Plants ". (2nd ed.).

For Third Year Students.
Parker and Haswell's Text-book, Vol. II. Marshall's Embryology. Wallace's "Darwinisn." Lloyd Morgan's "Animal Life and Intelligence." Jordan's "Evolution and Animal Life" Kellogg's "Darwinism To-day."

Biological Laboratories and Museum.
The Laboratories, together with the Departmental Museum, are open to students of Biology daily from 9 a.m. to $5 \mathrm{p} . \mathrm{m}$., excepting on Saturdays, when they are closed at 1 p.m., and Sundays and Public Holidays, when they are not opened. The practical teaching is confined to certain stated times, but students are at liberty to work in the Laboratory or the Museum at any time within the limits specified. The accommodation for research work is at present limited, but, so far as practicable, every encouragement and assistance are given to graduates and others desiring to pursue lines of original investigation on biological subjects.

> DEPARTMENT OF ENGINEERING. MECHANICAL ENGINEERING.
> INCLuDING DESCRIPTIVE GEOMETRY AND THE DESIGN of MACHINERY.
> Assistant Professor Barraclough, Mr. McKeown, and one Junior Demonstrator. 51.-DESCRIPTIVE GEOMETRY.

The course consists of forty lectures on the elements of Descriptive Geometry during Lent and Trinity Terms for all students in Engineering of the First Year, and a short course of advanced lectures in Michaelmas Term, attendance at which is voluntary except for Honour students.

During Lent and Trinity Terms students are required to complete, under the Demonstrator's supervision, a series of practical exercises and problems to illuṣtrate the work dealt with in the lectures:-

Scales. Constructions relating to straight lines, polygons, circles and circular ares, conic sections, cycloidal curves, involutes and spirals.

Orthographic projection. Representation of points, lines and planes by their projections and traces. Problems on lines and planes. The determination of the projections of simple solids, under given conditions of position. Principles of isometric projection. The interpenetration of given solids. Tangent planes. The projection of shadows. Generation and classification of surfaces. Development of surfaces. Principles of perspective projection. Spherical projections. The elements of projective geouretry.

A short course on "Graphics" is also included here for the present.

Boors Recomafended for Reference.-Descriptive Geometry, A. E. Church; Descriptive Geometry, J. Woolley; Practical Plane and Solid Geometry (Advanced), Hurrison \& Baxandall; Graphics, R. H. Smith; Vectors and Rutors, Henrici \& Iurner; Elements of Projective Geometry, Cramona; Projective Geometry and its application. Ench.
52.-DESIGN OF MACHINERY.

The course in this subject consists in lectures and drawing office practice as indicated in the following syllabus:-
lectures.
Second Year.--Detailed design of steam engine; connecting rods; pistons; piston rods; cylinders; valve gears; reversing motions; framings.

Third Year.- Continuation of engine design; pumps aud auxiliary fittings; Board of Trade and Lloyd's requirements with regard to boilers; riveting; staying; mountings; furnace fittings; the influence of methods of manufacture on design; estimates and specifications.

Fourth Year.-This class is conducted as a Seminary in conjunction with Mechanical Engineering III. (see page 209) in which problems affecting the design of machinery and prime movers are brought forward and discussed.

In addition, a short course of lectures will be given on-
Heavy machine framings; gas engine design-with reference to details; design of machine tools.

Text Boors Used.-Machine Design, Spouner; Machine Design, Grifin; Marine Boiler Management and Construction, Stromeyer; Mechanical. Engineers' Pocket Book (Kent).

Additional Booss for Reference. - Machine Design, Smith and Marks; Machine Design, Jones ; Marine Engines and Boilers, Bater and Robertson Notes on the Design of a Steam Engine (Departmental).

Draning Office Practice.
Second Year (trinity term).-The design of simple transmission machinery.

Third Year.-The design of a steam engine.
In this year the work done is largely individual in character. The students are supplied with a short specification of requirements to be met, and the design is carried out by means of preliminary sketches and lay-out, the details being worked up gradually from these. As far as possible the students' individuality and inventiveness are drawn on, and the application of first principles to the solution of the problems occurring in the design is insisted on.

Fourth Year.-Design, specifications, etc., of such work as is indicated in the lecture courses.

This work is carried out as far as possible under conditions similar to those employed in commercial establishments. Where possible those students in the First Year showing good progress are set to make detailed drawings for the Fourth Year students, and also tracings of such details as are required.

## 53.-MECHANICAL ENGINEERING.

The instruction in Mechanical Engineering is divided into three parts, of which $I$. is taken by all students of the Second Year, II. by Mechanical and Electrical Engineering students of the Third Year, and (in part) by Civil Engineering and Mining students of the Third Year, while III. is taken by Mechanical and Electrical Engineering students of the Fourth Year.

## Mechanical Engineering I.

The course consists of 60 lectures and 20 demonstrations in the Second Year :---
(a) Engineering mechanics. The application of the principles of dynamics to various engineering problems. Equilibrium of machine parts. Work. Power. The indicator card. Friction. Efficiency and mechanical advantagé of machines. Transmission and absorption dynamometers. Moments of inertia. Fly-wheel action. Reciprocating motion. Acceleration effects. Hydrostatic problems. Simple hydraulic machines.
(b) Kinematics of machines. The science of mechanism. Constrainment of plane motion. Virtual motion in mechanisms. Relative velocities in mechanisms. Diagrams of velocity and acceleration. Spur; wheel trains. Screw gears. Profiles for
wheel-teeth. Epicyclic gearing. Cam trains. Straight line motions. Inversion of mechanisms. Analysis of important mechanisms. Systems of classification. Applications to machine tools. "The art of invention."
(c) History of the development of heat motors, and the elements of thermo-dynamics. Sources of energy. Fuel. Combustion. Properties of steam. The operation of steam and gas engines. Simple valve gears. Reversed heat motors.

Books Recomaended for Referfnoe.-Applied Mechanics (Perry); Mechanics of Engineering (Church); Kinematics of Machines (Durley); Mechanism (Dunleerly); Miechanics of Machinery (Themedy); History of theSteam Engine (Thurston); Steam Engine (Ewing); Tables of the Properties. of Steam (Barraclough) ; Mechanical Engiveering (Linchum).

## Mechanical Engineering II.

100 lectures and 40 demonstrations during Lent and Trinity Terms of the Third Year :-
(a) More advanced theory of heat engines: Conditions affecting economy. The cyclical How of heat in the cylinder walls of heat engines. Detailed consideration of heat losses. Standard methods of conducting engine trials. Boilers. Economisers. Superheaters. Condensers. Cooling towers. Auxiliaries. Injectors. Refrigerating machines aud processes. Use of compressed air. Steam turbines Modern gas engines. Use of cheap gas.
(b) Theory of machines. Various machine problems. Friction of machines. Lubrication. Dynamics of the steam engine. Crauk effort diagrams. Fly-wheels. Governors. Inertia of reciprocating parts. Balancing of machines. "Vibration" troubles.
(c) Hydraulic machinery. Reciprocating pumpsand pressure engines. Impulse and reaction turbines. Centrifugal pumps. Elevators. Winding machinèry.

All students attending this. course are required to write during the year a Mechanical Engineering essay on subjects tobe selected by them in consultation with the lecturer.

Additional Books Recommended For Reference. - The Entropy Diagram and its Applications (Boulvin) ; Steam Engine (Perry); Manual of the Steam Engine (Thurstor) ; Steam Engineering (Pullen) ; Steam Engine Problem (Barraclough); Experimental Engineering (Carpenter); Balancing of Machines (Dalby) ; Hydraulics (Bovey) ; Hydraulic Motors (Bodmer).

## Meghanical Engineering III.

MECHANICAL ENGINEERING SEMINARY.
Fifty sessions, with laboratory work, in the Fourth Year. This class is conducted as a Consulting Engineering Seminary, a few only of the sessions being devoted to formal lectures. Topics for discussion and investigation are assigned to each member of the class, and these are brought forward for consideration in turn ; a review of the more important engineering journals is also maintained, and students are encouraged to keep systematic abstracts of the articles they read. The following syllabus indicates the nature of the work dealt with :-

Advanced problems in engineering mechanics. The gyroscope, and its applications. Torsional vibration of shafting. Torsion power-meters. Special problems in the design of gas engines and producers, centrifugal pumps, condensers and steam turbines. The flow of steam.

The testing of power plants. Reports on standard methods. Discussion of general problem of power production. Finance as a factor in eugineering enterprises. Cost of power. Hydraulicpower stations. Power-house design and equipment. Chimneys. Combustion and smoke prevention. Liquid fuels. Care of engines, boilers and machinery. Boiler inspection. Causes of boiler explosions.

Engineering literature. References to available sources of information.

- Expert investigations and reports. Methods and examples,

Additional Boons Recomatended for Reference.-The Steam Turbine(Stodola); Steam Turbines (Thomas); Development and Transmission of Power (Unwin); Stean Power Plants (Meyer); Central Electric Stations. (Wordingham) ; Steam Tables and Diagrams (Marks \& Davis ; Hydraulics. (Lea).

In connection with the above work, each student in Mechanical Engineering is required to present a graduation. thesis which must represent a completed piece of original work. carried out either in the Mechanical Engineөring Laboratory, or in the Drawing Office.

## MECHANICAL ENGINEERING LABORATORY.

The following syllabus indicates generally the experimental. work which students attending the foregoing courses on Mechanical Engineering I., II. and III. are required to carry out in the laboratory:-
I. The use of various forms of slide rules and calculatiug instruments. Verniers, micrometer-calipers, wire gauges and standards. The planimeter. Working-up indicator cards. Measurement of friction coefficients. Efficiency and mechanical advantage of simple machines such as screw press, pulley block tackle, differential pulley and worm-wheel crab. Determination of velocity diagrams in quick return motions. Energy of flywheel. Moments of inertia. Measurements with rope brake, Yrony brake, and fan brake. Transmission dynamometers. Calibration of pyrometers, pressure gauges and steam engine indicators. The engine indicator. Preliminary tests of steam engine. Valve setting. Tests of Pulsometer.
II. Complete engine and boiler tests. Gas and oil engine tests. Investigation of heat losses. 'Tests of lubricants. Determination of friction in line shafting, etc. Refrigeration and icemaking plant. Calorific value of fuels. Flue gas analysis. Tests of hydraulic motors.
III. In connection with the Consulting Engineering Seminary students are required to carry out definite experimental investigations either individually or in groups, and the results are from time to time brought before the class for discussion; also such opportunities as occur will be taken for conducting tests of outside power plants

Encouragement will be given to any senior students, and others with the necessary qualifications, who are desirous of making original investigations in the laboratory.

Operation of Engines and Machinery.-Although it is not part of the regular work of the University to train students in the management of Engines, Boilers, and Machinery, yet during the four years they spend at the Engineering School it is possible to gain much valuable experience in this direction if all the available opportunities are taken advantage of. As an assistance in this matter, in addition to the regular Engineering Laboratory instruction, arrangements are made during vacatigns, for such students as desire it, to take charge of the running of the Engines and Machinery in the Laboratory, but only for continuous periods of not less than a week.

## - MECHANICAL ENGINEERING LABORATORY.

The power equipment of the Laboratory includes the following :-

2 Babcock \& Wilcox Water Tube Boilers, each of 50 h.p., connected with a separately fired Superheater. One
of the boilers is fitted with a mechanical chain grate stoker. Feed-water is supplied by means of a Weir Pump connected to the necessary weighing scales and tanks. A Belliss \& Morcom compound high speed engine, direct coupled to a 30 kw . Navor \& Coulson generator: A compound jet-condensing experimental engine, manufactured by Ruston, Proctor \& Co. A Hercules Ice Plant of 2 tons capacity, consisting of steam-driven compressor, cooling rooms und ice tanks. A Westinghouse Air Compressor and Brake Gear. The exhaust steam in all cases can be led either to the atmosphere or to a Contraflo. Surface Condensing Plant (Willans \& Robinson) as desired.
A $45 \mathrm{~h} . \mathrm{p}$. National Gas Co. Suction Gas Plant, the engine being direct-coupled to a $25 \mathrm{k} . \mathrm{w}$. J. P. Hall \& Co: Generator.
A 25 h.p. Crossley Gas Engine, supplied with town gas, driving an Elwell \& Parker generator.
A 6 h.p. Victor Petrol Engine.
A Daimler Paraffin Motor.
These units are fitted with all the usual brakes, weighing. tanks, ganges, thermometers and other gear for testing: purposes.
The experimental equipment consists of a complete set of Steam and Gas Indicators, both direct and optical. Pyrometers for the measurement of high temperatures, including a Féry Pyrometer and Recorder, together with a large range of Thermometers, provided with Kew or Reichsanstalt. certificates, Thompson and Mahler-Bomb Calorimeters, Junker's. Gas and Oil Calorimeters, and Orsat Flue Gas Analysis apparatus. A large chronograph by Jules Richard, and a tachograph equipment by Dr. Horn, Leipzig.

There are several small rooms available for purposes of special investigations, and a Junior Laboratory for conducting: demonstrations in applied mechanics. The museum attached contains a very complete outfit of models for illustrating the lectures on Descriptive Geometry and the Kinematics of: Machinery.

> 54.-ELECTRICAL ENGINEERING.

Dr. Madsen, One Junior Demonstrator.
Electrical Engineering I.
Lectures during Lent and Trinity tern only. Examination at: ond of Trinity term.

Electrical instruments. Switches and fuses. Switchboards. Electric illumination. Arc and incandescent lamps. Regulations for installation and use of electricity. Design and operation of dynamos and motors. Electric light, and power wiring. Distribution systems. Cable manufacture. Laying cables. Storage batteries and their operation. Motor driving and special systems of controls. Isolated electric installations. Special applications in mining work.

Text-Books:-Standard Handbook for Electrical Engineers, McGrau Pubiishing Co.; Dynamo-Electric Machinery, Vols. I. and II., Sheldon and Mason; Alternating Currents, Franklin \&' Williamson ; Practical Testing of Dynamos and Motors, Practical Alternating Currents, F. Smith; or Experimental Electrical Engineering, Karupetoff (for students proceeding to the fourth year.)

Books of Reference.-Electric-Engineering Measuring Instruments, Parr; Modern Electric Practice, Alclean; Storage-Battery Engineering, Lyndon.

Electrical Engineering II.
Lectures during Lent, Trinity and Michaelnas term. Examination at end of Michaelmas term.

Design of electric generators for direct current. Alternating current generators, single and polyphase. Static transformers, single and polyphase. Motor generators. Rotary and motor converters. Induction motors. Single phase motors. The layout of electric power stations and sûbstations. Long distance power transmission. Electric tramways. Overhead and conduit systems. Shamear motors and controliers. The lay-out of overhead equipment and feeder systems. Electric railways. Third rail. Three phase. Single phase Electric welding. Electrolytic and furnace work. The drafting of specifications. Preparation of estimates.

Text-Books.-Alternating Currents, Franikin § Williamson. Alternating Currents, Russell; Electro-Dynamics of the Direct-Current Motor, Carus Wilson; Experimental Electrical Engineering, Karapetoff.

Books of Reference.-Dynamo Electric Machinery, Vols. I. and II., S. P. Thompson. High-Speed Dynamo Electric Machinery, Hobart and Ellis. High-Tension Power Trunsmission Reports, Vols. I. and II, MoGraw Publishing Co. Electric Railways, McGraw Publishing Co. Alternating Current Motors, MeAllister. Electricity Control, Andrews. Standard Polyphase Apparatus and Systems, Oudin. \&c. Electrical Journals and the Proceedings of the Institutes of English and American Electrical Engineers.

Students will follow a systematic course of numerical problems and examples illustrating the foregoing lectures, and instruction will be given in electrical design. All such work will be presented at the end of the course as part of the practical work.

## ELECTRICAL ENGINEERING LABORATORY.

Students in Electrical Engineering Course II. will attend a systematic series of demonstrations in laboratory work. The investigation of commercial electricmeasuring instruments, meters, incandescent and arc lamps, lightning arresters. insulators, etc. Tests of direct current, single, two, and three phase machines; single and three phase alternators, and induction motors. Separation of losses; characteristic curves ; temperature rise at various loads; voltage drop. Efficiency tests and investigation of the performance of plants for the generation and utilisation of electric energy. Testing of transformers and work with bigh tension alternating currents. Synchronising, effects of capacity and self-induction, etc. Experiments will also be carried out with the oscillograph.

Visits will be made from time to time to various electrical works of interest in and around Sydney.

As far as possible, arrangements will be made for Electrical Engineering students to spend their vacations in central stations or with firms engaged in electrical work.

Students in Electrical Engineering Course I. will be given instruction in general installation work, also in the use of the various instruments and machines in the Electrical Engine日ring Laboratory.

The Electrical Engineering Laboratory contains:-
I pair of 240 volt 60 amp . D.C. Morris-Hawkins' machines on the same bed; each machine is provided with interpole and compound windings, also with slip-rings of single, two, and three phase, and arrangements are provided for coupling the machines at various angles.
1 Siemen's $12 \mathrm{k} . \mathrm{w}$. D.O. dynamo, which can be used for driving the Morris-Hawkins set, or a $5 \mathrm{k} . \mathrm{w}$. three-phase Siemen's alternator, with exciter.

1. Siemen's $5 \mathrm{k} . \mathrm{w}$. rotary converter for single or three-phase.

1 Siemen's 5 k.w. D.C. machine.
1 Westinghouse $5 \mathrm{k} . \mathrm{w}$. Squirrel Cage induction motor.
1 Westinghouse $3 \mathrm{k} . w$. induction motor with wound rotor.
1 Heyland single phase motor.
1 Siemen's three-phase transformer, 200-2,000 volts.
3 Westinghouse single-phase transformers, 200-2.000 volts.
Several smaller voltage and current transformers.
1 Duddell Oscillograph, point to point wave tracers, and a range of ammeters, voltmeters, wattmeters, etc.

Power is supplied to the laboratory from a set 250 Tudor cells, giving a maximum current of 250 amperes. Portion of the battery is subdivided and is capable of giving 2000 amperes for ammeter and wattmeter testing, etc. The battery is charged by either the steam or gas driven set in the Mechanical Laboratory, and distributes to permanent switchboards in the Electrical Laboratory.

The Standards Laboratory contains Standard Wolff Potentiometer with Clark and Cadminn cells and low resistance, capable of carrying up to 1000 amperes; flicker and Lumner; Brodham photometer with Pentave standard; Kelvin balance; a range of galvanometers, secondary standards of current and E.M.F., etc., and a set of small storage cells capable of giving 000 volts.

## CIVIL ENGINEERING.

Including Engineering Construction and Materials and Structures.
Prof. Warren, Mr Roberts, and one Junior Demonstrator. 55.-ENGINEERING CONSTRUCTION.

The course of instruction and laboratory work in Engineering Construction applies to all Engineering Students of the Second Year, and consists of 70 lectures and 80 hours practical work in the laboratory.

Matertals and Structures I.-First Year.
Stress, Strain, Elasticity.-Tensile stress. Normal and tangential stress. Combination of stresses. Shearing stress. Fluid stress. Tensile and compressive strain. Limit of proportionality and coefficient of elasticity. Poisson's ratio. Stress-strain diagrams. Elastic resilience. Yield peint. Elongation and reduction of area in ductile materials, such as structural steel. The behaviour of brittle and ductile materials when subjected to tension, compression and shearing stresses.

Vector Quantities.—Addition and subtraction and composition and resolution of forces. Force polygon. Funicular polygon. Reciprocal figures. Simple examples of the determination of stresses in braced structures by means of graphical and analytical methods.

T'esting the Materials used in Engineering Construction.-Brief description of the methods employed in testing the more common materials used in engineering construction such as steel, timber, stone and concrete, with a view to ascertain and record their characteristic properties.

Transverse Stress.-The investigations of the equations of bending moments and shearing stresses in simple beams loaded in various ways. The moment of inertia of various cross-sections, and moments of resistance. Horizontal and vertical shearing stresses in the cross-sections of a beam.

Torsional Stress.-Coefficient of rigidity, twisting moment, and moment of torsional resistance. Torsional resilience.

Design of Beams, Girders, and Simple Structures.-Simple examples of the design of beams, girders, timber and steel viaducts, trestles, and minor structures, occurring in ordinary building construction, railway and hydraulic engineering works. Standard tests and specifications for cast iron, structural steel, timber, cement, concrete, stone, and brick. Results of modern researches on the strength, elasticity, and other properties of the materials used in engineering and building construction. The safe working stresses in structures. The impact effect of moving loads.

Preliminary considerations in connection with the location of roads, railways, canals, and pipe lines, and the preparation of the necessary plans and sections. Course of procedure in railway construction, earthworks, cuttings, embankments, tunnels, timber work, grades, curves, culverts, bridges, and minor works.

The Permanent Way.-The locomotive in regard to its boiler power, cylinder power, and adhesion, train, grade, curve and acceleration resistances, hauling capacity of locomotives, effect of brakes.

Rainfull, evaporation and percolation, and the flow of water in chanuels, pipes, culverts and streams. The location and construction of storage reservoirs, earthwork dams, tanks, wells, water-courses and conduits. The filtration of water and the construction of filter beds.

Books Recommended.-Engineering Construction in Steel and Timber, by Prof. Warrein. Published by Longmans.

Students are also required to study the notes of lectures supplied, and the current numbers of Engineering Journals.
56.-MATERIALS AND STRUCTURES.

The course of instruction in Materials and Structures extends over the Third and Fourth Years, and consists of lectures, laboratory, and drawing office work. Materials and Structures A applies to all Engineering Students in their Third Year, and consists of 40 lectures, and a minimum of 50 hours' laboratory work. The drawing office work in connection with this Course
is included under the heading Engineering Design and Drawing. Materials and Structures B consists of 30 lectures, and a minimam of 100 hours' practical work, and applies to Civil Engineering Students only, in their Fourth Year.
A.-.The calculation of the stresses in bridge trusses for fixed and moving wheel loads. Cooper's standard loading. The design of bridges of timber and steel for railways and highways. The deflection of beams and trusses, continuous beams, long and short columns. Joints and connections in riveted structures, also in eye-bar and pin structures. Reinforced concrete structures, retaining walls, masonry dams, piers, abutments, wing walls, arches, \&c.

Foundations.-Methods of construction of foundations for engineering structures.
B.-Testing of Materials used in Engineering ('onstruction.A more detailed consideration of the methods of testing materials, and the determination of their characteristic properties. The various instruments, machines and apparatus used in tests of materials. Micro-photography as applied to iron, steel and timber. The iron-carbon alloys in regard to micro-structure and characteristic properties.

Bridge Design.-The determination of the stresses in swing bridges, cantilever bridges, arched and suspension bridges, and the design of such structures.

Books Reconmended for Reference.-Engineering Construction in Steel and Timber, by Professor Warren (Lougmans); Rankine's Applied Mechanics and Civil Engineering; Unwin's Testing of Materials; Johnson's Materials of Construction; Ritter on Tron Bridges;- Lanza's Applied Mechanics; The Strains in Framed Structures, by Dubois; R. H. Smith's Graphics; Clarke's Graphic Staties; Burr's Stresses in Bridges and Roof Trusses; Claxton Fidler's Practical Treatise on Bridge Construction ; Report of the New South Wales Railway Bridges Inquiry Commission; Johnson's Theory and Practice of Modern Framed Structures; Baker's Masonry Construction; Patton's Foundations; Report of the Advisory Board for the Sydney Harbour Bridge.

## MATERIALS TESTING LABORATORY.

This laboratory contains the following appliances:-
1 Universal Wickstead Machine of 100 tons capacity for lengths up to 15 feet, with automatic electrical drive and control.
1 Greenwood and Batley Machine of 100,000 pounds capacity.
1 Pohlmeyer Machine, 50 tons capacity.

These three machines are supplied from an accumulator with motor driven pump, and are controlled with delicate hydraulic valves.
1 Amsler Compression Machine of $1,000,000$ pounds capacity for lengths to 12 feet, supplied with motor driven oil pump and pendulum load indicator and dials.
1 Torsion Testing Machine 100,000 inch pound capacity, for lengths up to 10 feet.

The above described machines are all provided with autographic recorders, one of which is also provided with a chronograph for time tests.
1 Impact testing machine drop hammer, Marten's system fitted with Amsler's autographic recorder.
1 Charpy pendulum machine, and 1 Guillery rotating machine.
Harduess apparatus, consisting of Brinell's ball and Amsler's cone pressure apparatus, also Marten's Schlerometer.
2 Alternating testing machines.
Various smaller testing machines for cement, wire, beams, a sand-blast apparatus, electric furnace, drying oven, Zeiss micro-photographic apparatus, various extensometers, including 4 sets of Marten's mirror apparatus, dials, sectors, cathetometers and other apparatus for measuring strains.

## 57.-CIVIL ENGINEERING.

The instruction in Civil Engineering $A$ and $B$ consists of a Course of 70 lectures, and the practical work included in the Course of Instruction on Engineering Design, Specifications and Drawing extending over the three terms of the Fourth Year. Mechanioal and Electrical Engineering Students are required to attend Civil Engineering A only, which consists of 30 lectures delivered in Lent Term of the Fourth Year.
A.-Roads and Railways.-The principles of railway and road location, and the design and construction of works.

Permanent way. Signals. Points and crossings. Interlocking systems.

Passenger and Goods Stations.
Locomotives. Rolling stock. Brakes. Couplings and other railway appliances.

The construction of roads and streets. Paving of carriage ways.
B. Hydraulic Engineering.-The water supply of towns, and the design and construction of the various works required in connection therewith. Flow of water in pipes and channels. Weirs, \&c.

Sanifary Engineering.-Various systems of sewerage, House drainage. Construction of Sewage Works. Sewage disposal? Destructors and desiccators.

Harbour Engineering.-Description and classification of the principal harbours. The desiga and construction of breakwaters and harbour works, docks, \&o.

Rivers and Canals.-The design and construction of the various works in connection with river improvements. Ship canals, \&c.

Trrigation. - Reservoirs for storing irrigation water. Masonry and timber dams with flood discharges and sluices. Inundation canals. Perennial canals. Headworks and weirs. Scouring effect of falling water. Water cushions. Irrigation works in Egypt and India. The various important works for storing, regulating and distribution of water. Various schemes for irrigation works in Australia.

Boors and Papers Récommended for Reference.-Humber's Water Supply; the Manchester Waterworks, by Bateman; Spon's Dictionary, Waring's Sewerageand Land Drainage; Sewage Disposal, by W. Santo Crimp, Stevenson's Harbours and Docks; Stecenson's Rivers and Canals; Vernon Harcourt's Civil Engineering; Vernon Harcourt's Harbours and Docks; Vernon Harcourt's Rivers and Canals: Vernou Harcourt's Sanitary Engineering ; Sanitary Engineering, Moore; the Proceedings of the Institution of Civil Engineers, and also of the American Society of Civil Engineers; the various reports of Sir John Coode; the various reports on the Sewerage of the principal towns of Australia; Roads and Streets, by D. K. Clark; Barry's Railway Appliances; Gribble's Preliminary Surveys and Estimates; Wilcocks' Egyptian Irrigation. Buckley's Irrigation Works in India; Irrigation Engineering, Wilson, p. Wiley and Sons. Students are expected to read the current numbers of the various Engineering Journals. Elements of Railroad Engineering, by W. G. Raymond.

## 58.-ENGINEERING DRAWING AND STRUCTURAL DESIGN.

- The course in this subject consists of a preliminary year in the Elements of Machine Design, and lectures and drawing office practice, having special reference to Structural-Engineering.


## Lectures.

First Year.-Fundamental principles; conventional methods with regard to sections and projections; nature and uses of materials for machine parts; the use of first principles in the design of details; bolts; studs; connection of parts by pins, keys, and cotters; pipes and llanges; shafts and couplings; bearings; brackets and hangers; pulleys; toothed wheels; belt driving.

Second Year. - Structural design; the application of graphical methods of solution of problems; details of connections, etc., for various classes of structures.

Third Year.-Structural design; main members and connections with regard to their grouping together in complete structures ; the preparation of specifications aud estimates, etc.

Books of Reference.-Manual of Machine Drawing and Design (Low and Bevis) ; Machine Design (Grifin); Machive Design, Construction and Drawing (Spooner) ; Mechanical Engineering (Lineham); Engineering Con.struction in Steel and Timber (IF. H. Wrarren); Theory and Practice of Modern Framed Structures (Johinson, Bryan \& Turveaure); Steel Mill Buildings (Ketchum) ; Highway Bridges (Ketcham) ; Influence Lines for Bridges and Roofs (Barr \& Falk); Design of Simple Wood Trusses in Wood and Steel (Howe) ; Principles of Reinforced Concrete Construction (Turveaure and Mawer).

## Drawing Office Practice.

First Year.-Lettering and printing; drawing of details from working drawings; sketching machine parts; preparation of tracings.

The details that are given to the students as copies are made as varied as possible, and each student is expected to take notice of and understand the drawings completed by others.

Second Year.-Lent and Trinity Terms-Detailed design of simple structures to the requirements of short specifications supplied to the students.

Third Year.-Detailed design of a structure applicable to the course taken by the student; quantities, specification, and estimate for the same.

In this year also the designing is done to the conditions which are supplied to the students, these being varied for the same class of structure so that they may clearly see the effect of such conditions on the design. Students are at this stage allowed more latitude with regard to the use of formulx and standard proportions, although the checking by means of first principles is still insisted on.

Fourth Year.-Desiga, specifications, etc., of such work as is indicated in the lecture courses.

This work is carried out as far as possible under conditions similar to those employed in commercial establishments. Where possible those students in the First Year showing good progress are set to make detailed drawings for the Fourth Year students, and tracings of such details as are required.

## 59.-SURVEYING.

Messrs. J. H. Cardew and T. F. Furber.
The course consists of lectures and field dentonstrations. Students are also required to make surveys for themselves, and to undertake the whole of the necessary computations, to prepare plans and drawings, etc., and to make and reduce astronomical observations for time, latitude, meridian, etc.

The lectures treat of the history and development of the art of land, engineering, mining, hydrographical, hydraulic, and geodetical surveying, and astronomical operations in connection therewith, and discuss important modern methods.

Course I., for all students, treats specially of the airus, scope and general theory of different classes of land and engineering surveys; it embraces the description and practical manipulation of all kinds of instruments used in survey operations, together with their adjustments.

Demonstrations will be frequently made in the field, at which students will perform actual survey work under the direction of the Lecturer. Cartography will be treated in its general and special application to the different classes of surveys indicated above.

Course II., for Civil Engineering students, treats specially of Telemetry and Tacheometry, Hypsometry, Astronomical Surveying, Hydrographical and Geodetical Surveys, Tunnel and Shaft Alignment, and the Survey of Deep Bores.

Course חI., for Mining Engineering students, treats specially of the general features of surface and underground surveys as applied to mining, the solution of typical problems met with in mining operations, the prevention and effects of subsidence in colliery workings, the survey of deep shafts and bore holes, and the special forms of cartogrephy most suitable for the delineation of mine workings of various kinds.

Books Reconmended for Referenge.-Johnson's Theory and Practice of Surreying; A Treatise on Surveying, by Middleton and Chadwick; Wilson's Topographic Surveying; Ganguillet's and Kutter's Flow of Water in Rivers and Channels; Merriman's Hydraulics; Bovey's Hydraulies; Rohinson's Marine Surveying ; Hawkins' Astronomy (Elementary); Chauvenet's Spherical and Practical Astronomy (Advanced); Doolittle's Astronomy; Clarke's Geodesy; Gore's Elements of Geodesy; Merriman's Least Squares; Wright's Adjustment of Observations; Brough's Mine Surreying; Lupton's Mine Surveying.

## GEODESY AND ASTRONOMY.

Historical development of geodetic operations. Theory of Error and the adjustment of observations by the method of least squares. Measurement of base lines. Base apparatus. Comparison of standards of length. Determination of coefficients of expansion. Thermometry. Measurement of angles. Determination of instrumental errors. Trigonometrical levelling. Computation of triangulation. Figure adjustment. Adjustment between bases. Astronomical observation of time, latitude, longitude and azimuth. Reduction of star places. Theory of the figure of the earth. Connection between astronomically and geodetically determined positions. Determination of earth dimensions from meridian arcs and from a general triangulation. Deflections of the vertical.

## 60.-ARCHITECTURE.

Mr. J. Sulman.
History of Architecture, illustrated by photographs and drawings; and Building Construction, illustrated by dingrams and drawings, and samples of materials.

History of Architecture.-The historical evolution of design in buildings from the earliest times to the present day, embracing Egyptian, Assyrian, Grecian, Roman, Romanesque, Byzantine, Saracenic, Gothic, Renaissance and Modern work.

Boors Recommended.-History of Architecture, by Fergusson (4 vols.) : A History of Architecture, by Banister Fletcher (1 vol.)

Building Construction.-Description of the nature and proper utilisation of building materials, and of the modes of construction adopted in the various building trades.

Books Recommended.-Building Construction, Rivingtons (vols. 1, 2, 3); Building Construction, Elementary Course, by Chas. F. Mitchell; Building Construction, Advanced Course, by Chas. F. Mitchell; Practical Building Construction, by J P. Allen; Elementary Practical Building Construction, Stage 1, by Frank William Booker.
61.-MINING.

Mr. F. Danvers Power.

1. Prospecting, or the search for minerals. 2. Boring, and the appliances used in connection therewith. 3. Laying out mines (shafts, winzes, raises, adits, drifts, cross-cuts). 4. Breaking ground. Hand tools, rock drills, air hand hammers, channelling machines, coal cutters, wire saws, steam shovels, dredges. Explosives and their use in blasting. Thawing.
2. Supporting excavations by timbering, masonry, concrete, and metallic supports. Pneumatic method. Freezing method. Filling. 6. Methods of extracting minerals. Quarrying, ground sluicing, hydraulic sluicing, dredging, extraction through bore holes, caving, stoping, longwali, bord and pillar, etc. 7. Haulage. Vehicles. Self-acting incline, engine plane, main and tail ropes, endless rope. Aërial ropeways. Transport by shoots, conveyers and pipes. 8. Hoisting. Windlass, whip, whim, engines, pit-head frame. Ropes, chains and attachments. Safety appliances. Buckets, skips and cages. Keps. Signalling. 9. Travelling. Steps, ladders, man engines, buckets, cages, trucks. 10. Drainage. Dams, surface and underground. Various means of lifting water. 11. Ventilation. Gases met with in mines. Natural ventilation. Assisted natural ventilation. Artificial ventilation. Measuring and testing air. 12. Illumination of mines. Candles, lamps (oil and acetylene), electric lights. 13. Accidents. Common causes of accidents. - 14. Mine management. Books to be kept. Employment of labour. Assay plans. Mine stores. Reports. 15. Mine examination. Points to be considered. Sampling mines. Valuation of mines. Financial problems. 16. Legislation affecting mining. 17. Ore dressing. General. Desiccation. Reduction. Separation; sizing, classification. Concentration. Couveyers. Special methods. Trees. Weighing. Sampling. Disposal of products.

Text Books.-Ore and Stone Mining (Dr. C. Le Neve Foster); Colliery Manager's Hand-book (C. Pamely); Ore Dressing (R. H. Richards). The following books may also be consulted:- A Practical Treatise on Hydraulic Mining in California (A. J. Bowie); Mine Timbering (J. Storms); -Mine Drainage, Pumps, etc. (H. Behr); A Text Book of Coal Mining (H. W. Hughes); T. C. Futer's The Mechanical Engineering of Collieries; Well Boring for Water Brine and Oil (C. S. Isler) ; Ore Sampling (T. Rickard and others); Mine Accounts and Mining Bookkeeping (J. G. Lawn).

> 62.-METALLURGY.
> Mr. Basil W. Turner.

A course of seventy-five lectures will be given during Lent, Trinity and Michaelmas Terms for Fourth Year students in the Department of Mining and Metallurgy. Introduction: Fireresisting materials; coal manufacture of charcoal, coke and gaseous fuels; pyrometry; general metallurgical processes and agents; types of furnaces; fluxes, slags, etc. Detailed descriptions of the methods of extracting the following metals from their ores:-Gold, silver, lead, copper, tin, platinum, antimony, zinc, nickel, cobalt, bismuth, mercury, aluminium, and iron.

Students will be expected to make full notes at the lectures, and will be referred to the literature of the subject immediately under discussion.

All students are required to attend the excursions to Metallurgical Works.

Every student is required to prepare a written description of metallurgical works visited at the excursions.

Booss Recommended.-Roberts-Austen's Introduction to the Study of Metallurgy; Grüner's Traité de Metallurgie; Percy's Metallurgy; Egleston's Metallurgy in the United States; Schnabel's Haudbook of Metallurgy, trauslated by H. Louis, M. A.; Rose's Gold; Rickards' Stamp Milling of Gold Ores ; Scheidel's Cyanide Process; Hoffmann's Lead; Hixon's Lead and Copper Smelting; Peters' Modern Copper Smelting; Lang's Matte Smelting; Howe's Iron and Steel ; Lowthian Bell's Chemical Phenomena of the Blast Furnace; Rowan and Mill's Fuel ; Sexton's Fuel and Refractory Materials; Richards' Alumiuium; Fulton's Coke; Collins' Lead; Collins' Silver; Julian Smart's Cyaniding of Gold and Silver Ores; Campbell's Manufacture - Properties of Structural Steel; and papers by various authors in the Trans. Am. Inst. Min. Engineers, Journal of the Iron and Steel Institute, Engineering and Mining Journal of New York, Trans. Inst. Min. and Met., The Mineral Industry, etc.

## DEPARTMENT OF VETERINARY SCIENCE.

Professor J. D. Stewart, B.V.Sc., M.R.C.V.S.: Sydney Dodd, D.V.Sc., F.R.C.V.S. ; H. M. Baker, V.M.D.<br>Additional Lecturers and Demonstrators to be appointed.

63.-Biology.-A course of 80 lectures and 90 hours' practical instruction, as set out in Biology I., page 203.

Text-Books. - Parker and Haswell's "Manual of Zoology," Marshall and Hurst's "Practical Zoology,' Vine's "Elementary Botany," or Mudge's "Botany."
64.-Chemistry.-Students attend for lectures and practical work in chemistry during the first year of their course. They have 80 lectures ( 60 inorganic and 20 organic) of one hour each, and 90 hours' practical work.

The lectures cover all the non-metals and metals and their compounds as are given in first year courses in the Universities of London and Edinburgh, and as are treated in an ordinary text-book like Newth's "Inorganic Chemistry."

The ground covered in organic chemistry is more considerable than usual. The bydro-carbons, alcohols, ethers, aldehydes. Acids in the fatty series are all taken up; also the urea and sugar groups; benzene, benzoic acid, nitro-benzene, aniline, phenol.

Text-Books.-Newth's "Inorganic Chemistry" Cohen's "Organic Chemistry," and Perkin's "Qualitative Analysis."

Physics. - Students attend a course of 20 lectures on Elementary Physics, including Mechanics and Heat.

Text-Book.-Balfour Stewart's "Physics."
65.- Peterinary Anatomy.-The course of instruction extends over two years, and embraces Equine Anatomy and the Comparative Anatomy of the other domesticated animals, including the ox, camel, sheep, pig, dog, cat, and fowl. Not less than 130 lectures, and 50 hours' practical instruction are given in the systematic study of the skeleton, individual bones, articulations, ligaments, vascular systems-blood and lymph, digestive system and accessory organs, respiratory system, ductless glands, reproductive organs -male and female, urinary system, nervous systems-cerebrospinal and sympathetic, organs of special sense, muscles, and of the skin and its appendages. The horse is taken as the type, and chief reference is made to the differences existent in the structure, position, and relation of the organs of the other domesticated animals. Instruction is also given in Embryology and in Topographical and Surface Anatomy. During the course each student must dissect, under the supervision of a demonstrator, the whole cadaver of the horse at least once, and attend no fewer than 20 demonstrations on the anatomy of the other domesticated animals.

Lectures and demonstrations are illustrated .by anatomical preparations, dissections, models, lantern slides and diagrams. The museum of the Department contains the articulated skeletons of the domesticated animals, as well as many valuable anatomical models, while complete sets of disarticulated bones are at all times available to the student.

Text-Books.-M'Fadyean's ' Comparative Anatomy of the Domesticated Animals," Part I. ; Chauveau's "Comparative Anatomy :" M'Fadyean's "The Anatomy of the Horse."

66 -Physiology.-Students in Veterinary Science will attend the ordinary lectures in Physiology (see page 174) in Trinity and Michaelmas Terms, but a special course of lectures in Introductory General Physiology will be given in Lent Term and a supplementary course of lectures will be given during Michaelmas Term on Special Veterinary Physiology. Additional instruction adapted to the requirements of students of Veterinary Science will be given during the courses in Practical Histology and in Practical Chemical Physiology (see page 176).

Text-Books.-Noel Paton's "Essentials of Physiology for Veterinary Students"; Shafer's :"Essentials of Histology "'; and Halliburton's "Essentials of Chemical Physiology" or Aders Plimmer's "Practical Physiological Chemistry."
67.-Veterinary Pathology and Bacteriology.-Not less than 80 lectures and 60 hours' practical instruction in the general ætiology of diseases of the domesticated animals, and the systematic study of their morbid processes and conditions; post-mortem examinatıon; naked eye appearances, preparation of sections and microscopic examination of pathological lesions; general bacteriological technique, preparation of culture media; methods of cultivation, staining and identification of pathogenic (and some non-pathogenic) bacteria, with special references to clinical diagnosis; preparation of vaccines and anti-toxins; vaccination and immunisation, sterilisation, \&c.

The advanced course includes more extended instruction in the pathology and bacteriology of topical and exotic diseases; the phenomena of immunity, with special reference to the clinical application of hæmolysins, opsonins, agglutinins and precipitins; the separation of bacterial products and other special laboratory work.

> Pharmacology.-(See page 175.)
68.-Veterinary Agricultural Botany.-Lectures, laboratory and field instruction in the classification and morphological characters of grasses, fodder plants and edible shrubs, noxious and poisonous plants and weeds, fungi affecting fodder, \&c. The general outlines of economic botany are also dealt with.
69.-Veterinary Hygiene and Dietetics.-Not less than 40 lectures and demonstrations on air, water, general sanitation of stables, cow-sheds, kennels, abattoirs, dairies, sale-yards, dips, \&c. ; disinfecting; composition and nutritive value of food-stuffs; principles of feeding; adulteration of fodder; diseases due to improper feeding, \&c.
70.-Advanced Veterinary Hygione.-An extended course in the hygiene of abattoirs, meat preserving and canning works, freezing and cold storage depôts, preservation of meat, injurious and noxious conditions, the hygienic production of milk, herd and dairy farm sanitation, harmful contaminations of milk, adulterations of milk and their chemioal detection, protection of milk during transit from cow to consumer; State and muricipal sanitary laws.
71.-Veterinary Materia Medica, Therapeutics and Phar. macy.-Not less than 40 lectures and 20 hours' practical instruction in the classification of medicines; their derivation, preparation, methods of administration or application, actions and uses; incompatibles; impurities; poisons-nature, symptoms, antidotes and tests; prescription writing and reading.
72.-Stable Management, Manipulation of Donesticated Animals, and Principles of Horse-Shoeing.-Iucludes the mauagement and control of the domesticated animals, methods of handling and restraint grooming and dressing; the use and adjustment of harness; animal husbandry; breeds, conformation, \&c.; principles of horse-shoeing, pathological shoeing, correction of vicious gaits, \&c.
73.- Veterinary Medicine.-Not less than 100 lectures are given on the Theory and Practice of Veterinary Medicine, in which the nomenclature; classification, causes, symptoms, preventive and curative treatment of diseases of domesticated animals, are systematically taught. Practical instruction is also given at the Veterinary Hospital in the methodical examination of patients, the symptoms and physical signs of disease, diagnosis and treatment.
74.- Veterinary Surgery.-Not less than 80 lectures on the Principles and Practice of Veterinary Surgery, together with 150 hours' practical instruction in operative, tutorial and clinical surgery, veterinary dentistry, and ophthalmology. Each student performs, under tuition, operations upon dead subjects, and is placed in charge, under supervision, of surgical cases occurring in the Veterinary Hospital, and daily clinics The Fifth Year Students act in rotation as Assistant Resident Surgeons.
75. -Veterinary Obstetrics.-Includes embryology, generative organs, mating, impreguation, development, gestation, symptoms and duration of pregnancy, management of pregnant animals, diseases of pregaancy, accidents and diseases following parturition, care of young animals, diseases of foung animals, \&c. Practical instruction is given in the aids to parturition and obstetrical operations.
76.-Veterinary Parasitology.-Parasites and parasitism; internal and external parasites; origin of parasites ; change of host; influence of parasite on host; general account. of Protozoan
and Metazoan parasites A systenatic account of the anatomy, development and relationships of the flatworms (Tremateda and Cestoda); the round worms (Nematoda and Acanthocephala), and the Arthropodan parasites (ticks, mites, flies, \&c.). A detailed examination of the chief genera affecting domesticated animals, with demonstrations on their naked-eye and microscopic structưre.
77.-Meat Inspection.-Lectures and practical instruction in the laboratories and at the abattoirs, on the general principles governing inspection of meat, and on the physical and chemical properties of the meat of various animals used for food, the qualities of meat, noxious and injurious meat, the differential diagnosis of the various diseases which render meat unwholesome and unfit for food purposes, parasitic diseases communicable to man and other animals, systems of meat inspection-home and foreign.

# DEPARTMENT OF AGRICULTURE: 

Prof. Watt.
First Year.
Chemistry I.-Prof. C. E. Fawsitt.
A course of about 60 lectures on Inorganic Chemistry and about 30 lectures on Organic Chemistry:

The Practical course consists of 30 exercises of three hours each, and includes the identification of the common metals and acids as well as organie substances like alkaloids, sugars, starch, alcohol, carbolic acid, etc.

## Brology I.-Prof. W. A. Haswell.

(a) Zoology.-The course consists of 50 lectures illustrated by specimens and diagrams giving a general survey of the animal kingdom and dealing with the structure and physiology of animals, the various systems of organs and their principal functions, etc.
(b) Botany.-A course of 30 lectures giving a general survey of the vegetable kingdom and dealing with the structure and physiology of plants.

In the Practical Class typical animals and plants are dissected and studied by the student both with the naked eye and with the microscope.

Geoloay I.-Prof. T. W. Edgeworth David.
A course of: 60 lectures with a minimum of 40 hours practical work in the Laboratory and a week to ten days of Field Work: The Lectures are divided into three parts, as follows:-

Pairt I. deals with the History of Geology, Material Geology, including Elementary Petrology and Mineralogy and the first principles of Geological Collecting and Field Work.

Part II. treats chiefly of Dynamical Geology, including the Composition, Movements and Work of the Atmosphere and the Ocean, of Evaporation and Rainfall, of Lakes, Rivers, Springs and Artesian Wells, of various Glacial Phenomena; of the Movements of the Earth's Crust, and of Earthquakes and Volcanoes.

Part ILI, refers chiefly to (a) Structural Geology and the Evolution of Earth Forms, and (b) Elementary Stratigraphical Geology and Palæontology.

> Physics.-Prof. J. Arthur Pollock.

A course of about 20 lectures on the Principles of Mechanics, Properties of Matter, Heat and Light.

## Second Year.

Chemistry.-A course of 20 lectures on Organic Chemistry with practical work on the preparation of typical Carbon Compounds. A course of 20 lectures on Physical Chemistry with Quantitative Practical Work.

Botany.-The course includes the practical study of the Physiology of Plants, and lectures and demonstrations on the important natural orders of Australian Flowering. Plants with Field Excursions.-

Agricultural Geology.-A course of about 40 lectures on the occurrence and distribution of Phosphatic Deposits and other Natural Fertilizers, Rock Salt, Gypsum, Potassic and Sodic Deposits, Limestones, and other deposits of Agricultural interest, together with a study of the formation of Soils and the relation of Soils to the Geological Formations

In the Practical course the identification of deposits of agricultural importance will be dealt with, and a closer study of Geological Maps and Sections will be made.

Principles of Agriculture I.-Prof. Watt.
The course will include a study of the Soil from an agricultural point of view, the meaning of Fertility, the suitability of various soils for the growth of different crops, Irrigation and Drainage, the Conservation of Soil Moisture, Methods of increasing Fertility, Green-manuring, Natural and Artificial Manures.

Economic Entomology.-Mr. W. W. Froggatt.
A course of about 40 lectures, illustrated by specimens, on the methods of identification, Life Bistory, Damage caused by and Prevention and Kemedies for the chief Insect Pests of Australia.
'Ceird Year.
Agricultural Chemistry.-Prof. Watt and Dr. Chapman.
The course will include an account of the Chemistry of Soils, Manures, Feeding Stuffs, Milk and Dairy Products, Insecticides, Fungicides, etc., as well as the Chemical Changes taking place during Animal and Vegetable growth

The Practical course will include the Quantitative Aualysis of the various classcs of substances mentioned above, as well as experiments in Soil Physîcs.

Agricultural Botany.-A course of about 40 lectures with Practical Work on the General Outlines of Economic Botany with special reference to the Identification and Life History of Agricultural Plants, Noxious and Poisonous Weeds, the Principles involved in Budding, Grafting, Pruning, Plant Breeding, etc.

Plant Pathology.-A course of about 20 lectures on Plant Diseases caused by Fungi (rusts, mildews, smut, potato blight, etc.), the Life History of the Various Organisms, Prevention and Remedies.

In the Practical course of about 20 meetings a study of the various Fungi will be made by the students, both with the naked eye and the aid of the microscope.

Veterinary "Hygiene and Dietetics.-A course of 40 lectures and demonstrations on Air, Water, general Sanitation of Stables, Cowsheds, Kennels, Dairies, Sale Yards, with an account of the principal Dips and Disinfectants; the composition and nutritive value of Foodstuffs; Principles of Feeding; Adulteration of Foodstuffs; Diseases due to improper feeding, etc.

Stable Management, Manipulation of Domesticated Animalis and Princtples of Horse Shoeing.-This course will be taught in a practical way.

Veterinaky Pathology.-A short course on the common Diseases of Stock, with description of Symptoms, Means of Infection, etc.

Fourth Year.
Principles of Agriculture II.-Pröf. Watt.
In this course an account will be given of the principal Farm Crops of Australia, their Method of Cultivation, Harvesting, etc., including estimated costs of the various operations; an account of the various Breeds of Domesticated Animals, their suitability for various purposes and for different districts, the principles of Dairying, etc.

Principles of Fruit Culture and Viticulture.-A short course on the chief fruits suitable to the varying conditions of Australian soils and climate; the principles of Vine growing for table grapes and wine-making.

Economic Science Applied to Agriculture.-A course of about 40 lectures on the general Principles of Economics with special reference to Agricultural Problems, together with the elements of Book-keeping.

Principles of Forestry.-An account of the principal Native and Exotic trees of economic importance suitable to Australian conditions. Identification of common trees; timbers, etc, , and the suitability of various timbers for economic purposes, the conservation of Forests, Nursery Work, Planting Wind-breaks, Ornamental Trees, etc.

Agricultural Evgineering.-The course will include the elements of Surveying and Measuring Land, the Principles involved in Roadmaking, Irrigation, Drainage, etc., the Motive Powers of the farm-wind, water, steaw, gas, oil, etc.

The Practical work will include the measuring and laying out of plots for experimental purposes, etc.

Veterinary Parasitology.-An account of the Internal and External Parasites of Domestic Animals, with special reference to the various Diseases and Ailments produced by worms.

Agricultural Bacteriology.-A course of about 20 lectures (with Laboratory Practice) on the Bacteria occurring in soils, milk and its products, water, etc., with an account of the changes, beneficial and otherwise, brought about by the various organisms.

## DEPARTMENT OF -MILITA,RY SCIENCE.

Colonel Foster, Assistant Professor Barraclough, Captain Brand, Major R. CSimpron, Major V. Le Gay Brereton. 78.-MILITARY SCIENCE I.

## Strategy-Ten Lectures.

Object of the establishment of a Chair of Military Science.
Desirability of knowledge of the subject for every educated man.
Importance of Military History as a study, emphasized by Napoleon and all modern great commanders.
What is to be learnt from great campaigns :-
First a political or national lesson, that for success in war previous action by governments in peace is necessary, namely:-
(a) Preparation of an efficient army by a good system of Organisation, Officering and Training, and the best assignment of Commands and Staff.
(b) The obtaining of information about the Theatre of War, the Enemy's situation, and his Strength in every sense.
(c) When war imminent, decision of the Objective, the Theatre of war, and the locality of Strategic Deployment of the forces, with due consideration of their Base, Communications, and Lines of Operations.
Secondly, Military Lessons in the Science of Strategy, or the Conduct of Operations. Its general principles and axioms.
Difficulty of their application in practice. High qualifications necessary for a successful commander.
The Art of War mainly dependent upon human nature, partly on its physical, but more especially on its moral, factors. The Science of Strategy is the technique of this. art.
Analysis of Strategic Manœuvres, with examples from. history. They essentially depend on Time and Distances.

Military History-Ten Lectures.
The Campaign of Waterloo.
Campaigns in Virginia in the Civil War in the U.S.
MILITARY SCIENCE II.
Imperial Defence-Ten Lectures.
The Empire, its gefographical, statistical and commercial aspects.
Its strategic.aspect: Trade Routes; naval bases; coaling stations; cables.
Command of the sea. Naval strategy the basis of defence of the communications of the Empire, and thus of its commerce and territories in every part of the world.
The British Navy, its strength compared with other navies. Naval Policy. Importance of unity of action, and consequently of command.
Military action also necessary (a) for defence, (b) for furtherance of national policy in every quarter of the world. Illustrations from the history of the development of the' Empire.
Possible wars in the future. The theatres of these wars in relation to Australia. Combined operations of sea and land forces. Local defence subordinate to offensive action by the whole forces of the Empire.
Organisation of the Empire for war.
The place of Australia in this organisation.
Military History--Ten Lectures.
Campaigns in Europe: Prussia v. Austria, 1866.
Germany v. France, 1870 ; Russia $\nabla$. Turkey, 1877.
milltary science ili.
Tactics-Ten Lectures.
Development of Tactics since 1740.
Most recent illustrations of Modern Tactics. South African War. Russo-Japanese War.
General Tactics of the present day.
Minor Operations of War:-Marches, Security, Information, Quarters in the field.
Staff Officers and Staff duties. Intelligence, Reconnaissance, Orders.
Telegraphs and Railways in war.
Discipline and Training.

Military Historx-Ten Lectures.
Campaigns of 1904, Russia v. Japan.
The war in the Peninsula, 1808-14.
Books Recommended for the above Threr Courbes-
Strategy.-Elements of Strategy, by Tovey (Hugh Rees), 6s; Principle of Strategy, by Captain Nash, 1905 (Kegan Paul), 3s 6d; Reflexions on the Art of War, by Sir R. Hart, V.C. (Clowes), 7s 6d; Strategy, by Captain McQuoid (Cassell), 12s. ; The Science of War, by Col. Henderson (Longmans), 14s; The Nation in Arms, by von d Gole (Hugh Rees), 6s.

Tactics.-Tactics for Beginners, De Gruyter (Gale \& Polden), 68 ; Field Service Regulations, Part I (Harrison), 1s.; The Evolution of Tactics, by Gilbert (Hugh Rees), 9s; A History of Tactics, by Johnstone (Hugh Rees), 15 s . Development of Tactics, by Maguire (Hugh Rees), 5 s.

Military History.-The Civil War in the United States, by Wood. \& Edmondes (Methuen), 10s; Stonewall Jackson, by Henderson (Lougmans); Saarbruck to Paris, by Colonel Pratt, 1904 (Swan Sonenschein) ; The RussoTurkish War, by Major Maurice, $1905^{\circ}$ (Swan Sonenschein), 6s 6d; The Waterloo Campaign (Hugh Rees), 3 s ; The Campaigns in the Peninsula (Forster Groom), 7 s ; The Campaign in Bohemia, 1866 (Swan Sonenschein); Wellington's Campaigns, by Gien. Robinson (Hugh Rees).

Imperial Defence.-Imperial Defence, by Sir George Clarke, os ; Imperial Defence, by Lieut.-Colonel May (Swan Sonenschein), 7s 6d; The Navy and the Nation, or Naval Warfare and Imperial Defence, by Sir George Clarke (Murray)

## MILITARY TOPOGRAPHY.

The course consists of ten lectures, and seven working days (of eight hours each) for practical instruction during vacation. The instruction will include all the subjects required for the execution of a military "Field Sketch," as required of officers in the Imperial Forces.

The subjects of the lectures will be as follows:-
The object of Military Maps and Field Sketches. Conventional signs.
True, and magnetic, meridian. Scales.
The representation of bill features. Contours and form-lines.
Map-reading. Copying, reducing and enlarging maps.
The general principles of Field Sketching. Triangulation, Traversing and Resection.
Instruments used in Field Sketching.
Method of executing a Field Sketch with the Plane Table or Cavalry Sketching Board.
Prismatic Compass Sketching. Field Book. Plotting.
Field Sketches without instruments. Landscape Sketching.

The practical instruction will include Field Sketching with the Plane Table, Prismatic Compass, and without instruments, and Landscape Sketching.

For the practical instruction the necessary instruments will :be mrade available by the District Commandant of N:S. Wales.

Text Book.-Manual of Map-reading and Field Sketching, 1906 (published by the General Staff, War Office, London).

## military engineering.

The Course consists of ten lectures and five whole days practical instruction in the construction of works required by troops in the field. The following outline indicates the scope of the lectures, which will be illustrated by lantern slides, diagrams and models:-

General account of the different divisions of Military Engineering.
The object of field fortification.
Various classes of projectiles in use, their trajectories and penetration.
Intrenching tools. Materials usually available in the field.
General rules for working parties. The siting of field works.
Improvement of existing cover, clearance of foreground, and defence of buildings.
Earthworks (trenches. artillery cover, and redoubts).
Obstacles.
The defence of posts and organization of large positions for defence.
Demolitions, with and without explosives.
General principles (without details) of temporary roads and bridges.
Reference Books Recommended.-Manual of Military Engineering '(1905), Field Service Regulations (1909), The Royal Engineer's' Journal.

## military administration and law.

 course of ten lectures.Administration-
The general principles of the administration of an army in peace and its development in war.
The organization of units in peace and in War.
'Commanders and Staff-Distinction between them and Regimental Officers; their duties.
Characteristics and duties of each arm.
Equipment, rations and clothing.

Supply and transport in war. Ammunition supply.
The organization of the Australian Defence Force as a whole, and its central administration.
Military Law-
Military Law-The application of military law.
Offences and punishments; military and civil offences; civil courts.
Arrest; investigation by the C.O. ; summary punishment.
Courts martial-powers and procedure.
The law of evidence.
Military law in relation to civilians; use of troops in aid of civil power.
War-Compulsory enlistment; requisitions for transport, etc.; military law on active service.
The Customs of War.
Text Books.-Manual of Military Law, War Office, 1507; The: DefenceActs; 1903-4, 2;6; Regulations for the Military Forces of the Commonwealth, 190.8, 2/-; to be obtained:from the Government Printer, Melbourne, or Rankịne and Dobbie, 64 Pitt Ṣtreet, Sydney.

## LIST OF *SCHOLARSHIPS, EXHIBITIONS, PRIZES, \&c.

All students of the University who shall during their course have received Bursaries, Exhibitions, Scholarships or Fellowships, or Exemptions from Fees, are invited by the Senate to make returns to the University when their circumstances in life shall permit, for the purpose of conferring like benefits on future students. The names of all students making such return will be published in the University Calendar.

AWARDED AT THE MATRICULATION EXAMINATIONS.
The: Sauting Exhibition-Awarded on the recommendation of the Trustees of the Sydney Grammar School to a student proceeding thence to the University. £25 for three years. (See page 272.) The last award was made in March, 1909.
The Bowman-Cameron Scholarship-Every third year, for General Proficiency. £35 for three years. (See page 261.) The last award was made in March, 1911.

The Cooper Scholarship No. II.-Awarded to a student distinguished in Classics. $£ 50$ for one year. (See page 259).
The Barker Scholarship No. II.-Awarded to a student distinguished in Mathematics. $£ 50$ for one year. (See page 258.)

The Lithaow Scholarship, No. I-Awarded to a student distinguished in Modern languages (French and German). $£ 50$ for one year. (See page 259.)
The James Aitien Scholarship-For General Proficiency. £50 for one year. This Scholarship is not given in the year in which the Bowman-Cameron Scholarship is awarded. (See page 262.)
The Freemasons Scholarship-For sons of Freemasons. Every third year. £50 for three years. (See page 261.) The last award was made in March, 1911.
The Horner Exhibition-For proficiency in Mathematics. £8 for one year. (See page 273.)

[^22]The - ${ }^{\text {Peter }}$ Nicol Rüsséll Scholarship-For Mechanical Engineering. $£ 75$ for four years.: (See page 250.)
Bursaries of the annual value of $£ 50$ to $£ 25$ each are awarded from time to time. (See page 274.)
awarded at the first year examinations.
The Cooper Scholarship No. III.-For Classics. £50 for one year. (See page 259.)
The George Allen Scholarship-For Mathematics. £40 for one year. (See page 260.)
The Lithaow Scholarship, No. II-For Philosophy. £50 for one year: (See page 259.)
The Levey Scholarship-Awarded in the Faculty of Arts or the Faculty of Science for Chemistry (theoretical and practical') and Physics (theoretical and practical). £40 for one year. (See page 258.)
The Garton Scholarship No. I.-For French and German. £45 for one year. (See page 265.)
The Belmore Scholarship.-Awarded at the First Year Examination in the Faculty of Science to a student proceeding in the Department of Agriculture. $£ 18$ for two years. (See page 269.)
'The Smith Prize--For Physics.• £4. (See page 281.).
The Slade Prizes-For Practical Chemistry and Praotical Physics. £5 each. (See page 282.)
The Collre Prize-For Botany. £4. (See page 282.),
The Strute Exhibition-For General Proficiency. Awarded at the First Year Examination in Arts to a student entering the Faculty of Medicine. $£ 50$ for five years. (See page 273.) The last award was made in March, 1907.'

The Henry Wart Bursary-For General Proficiency. Awarded at the First Year Examination in Arts to a student entering the Faculty of Medicine. $£ 40$ for five years. (See page 279.) The last award was made in March, 1911.
awarded at the sécond year examinations.
The Cooper Scholarship No: I.-For Classics. £50 for one year. (See page 259.).
The Barker 'Scholarship No. I.-For Mathematics. £ 50 for one year. "(Sèe page 257.)

The Garton Scholarship No. II.-For French and German. $£ 45$ for one year. (See page 265.)
The Norbert Qutrk Prize-For Mathematics. £j. (See page 281.)

The Deas-Thomson Physics Scholarship-Awarded in the Faculty of Arts or that of Science for Physics. $£ 50$ for one year. (See page 258.)
The Deas-Thonson Geology Scholarship-Awarded in the Faculty of Science for Geology. £50 for one year. (See page 258.)
The Carrd Scholarship-Awarded in the Faculty of Science for Chemistry. $£ 50$ for one year. . (See page 261.).
awarded at each degree examinatton.
Bronze Medals are awarded to the highest proficients in the various Degree Examinations.

## scholarships tevable by gladuates:

The Frazer Scholarship-Awarded at the Third Year Examination upon the results of examinations, \&c., in History. £70. (See page 264.)
The Willlam and Jane Grahame Mechanical Engineering Scholarship-Awarded at the Fourth Yoar Examination in the Department of Engineering for Mechanical Engineering. £40 for one year. (See page 267.)
The James Kiva of Irrawang Scholarship-A warded to a Graduate of not more than four years' standing. $£ 150$ for two years. To be awarded in March, 1912. (See page-262.)
The Woolley Scholarship-Awarded to a Graduate in Arts of not more than four years' standing. $£ 150$ for two years. To be awarded in March, 1913. (See page 264.)
The Cooper Graduate Scholarship-Awarded to a Graduate in Arts of not more than four years' standing. $£ 150$ for two years. To be awarded in March, 1912. (See page 268.)
The Barker Graduate Scholarship-Awarded to a Graduate in Arts or in Science, including Engineering, of not more than four years' standing. $£ 150$ for two years. To be awarded in March, 1913. (See page 268.)

The James Coutts Scholarship-Awarded at the Third Year Examination in the Faculty of Arts for distinction in the study of the Eaglish Language and Literature. $£ 50$ for one year. (See page 267.)
The Jonn Coutts Scholarship-Awarded for distinction in the Science course to a student graduating as Bachelor of Science with honours. £50 for one year. (See page 267.)
The Deas-Thonson Mineralogy Scholarship-Awarded to a student graduating in Arts or in Science for Mineralogy. $£ 50$ for one year. (See page 258.)
The Royal Commissioners of the Exhibition of 1851 award Scholarships to Graduates in Science of this University, upon the nomination of the Senate. £l50 for two or three years. (See page 263.)
The Macreay Fellowships-Awarded by the Linnean Society of New South Wales to graduates in Science. £400 per annum. (See page 254.)
The Rhodes Scholarship-(See page 269.)
AWARDED IN THE FACULTY OF LAW.
The Wigrant Allen Scholariship-Awarded for proficiency in the subjects of Section I. of the Intermediate LL.B. Examination. $£ 50$ for one year. (See page 260.)
The George and Matilda Harris Scholarship-Awarded for proficiency in the subjects of Section II. of the Intermediate LLLB. Examination. $£ 50$ for one year. (See page 266.)
The Pitt Cobbett Prize-Awarded for proficiency in the subject of Constitutional Law. £5. (See page ¿86:)

## AWARDED IN THE FACULTY OF MEDICINE.

The Strute Exhibition-For proficiency in the subjects of the First Year Examination in Arts, to a student entering the Faculty of Medicine. $£ 50$ for five years. (See page 273.) The last award was made in March, 1907.
The Henry Watt Bursary-For proficiency in the subjects of the First Year Examination in Arts to a student entering the Fraulty of Medicine. £40 for five years. (See page 279.) The last award was made in March, 1911.

The Renwiok Scholarship-For proficiency in the subjects of the First Year Examination in Medicine. £45 for one year. (See page 260.)
The John Harris Scholarship-For proficiency in the subjects of Anatomy and Physiology in the Third Year Examination in Medicine. $£ 40$ for one year. (See page 263.)
The Norton Manning Memorial Prize-For Psychological Medicine: £5. (See page 285.)
The Parkinson Memorial Prize-For Pathology. £5. (See page 285.)

> *PRIZE COMPOSITIONS.

Wentworth Medal for Graduates-£10. Awarded annually for an English Essay. The competition for this. Medal is confined to Bachelors of Arts of not more than three years' standing. (See page 280.)
Subject for March, 1912-"The Anti-Shakesperian Movement." (Shaw, Tolstoy, etc.).
Wentworth Medal for Undergraduates - £10. Ayarded. annually for an English Essay. (See page 280.)
Subject for March, 1912-" The Anti-Shakesperian Movement." (Shaw, Tolstoy, etc.):
Nicholson Medal-£10. Awarded annually for Latin Verse (Hexameters). The competition for this Medal is open to all Undergraduates and to Bachelors of Arts of not more than two years' standing. (See page 280.)
Subject for March, 1912-" Carthago deleta."
University Prize-£10. Awarded annually for English Verse(to be written in rhyme). The competition for this Medal is open to all Undergraduates and to Bachelors of Arts of not more than three years' standing. The composition must be at least one hundred lines in length.
Subject for March, 1912-"The British Empire."
Professor Anderson's Medal-£10. Awarded annually for an. Essay on some Philosophical subject. The cornpetition for this Medal is open to all Bachelors of Arts of not. more than two years' standing.

[^23]Subject for March, 1912-" The principle of authority in religion."
The Beaucbamp Prize-£25. Awarded for an Essay upon some subject of literary or historical interest. The competition is open to all Undergraduates and Graduates of not more than twenty-five Terms' standing from Matriculation. (See page 283.)
Subject for March, 1912-" "The closer union of the British Empire; is it desirable and practicable?"
The Frederick Lloyd Memorial Prize-£8. Awarded every second year for a Latin Essay. Open to competition to second and third year students in the Faculty of Arts.
Subject for March, 1913.-"Num satis recte judicaverit Quintilianus, M. Tullium effinxisse vim- Demosthenis copiam Platonis, jucunditatem Isocratis."

## TABLE OF FEES.



[^24]

| Lecture Fees per term-continued. . . . . s. d. |  |
| :---: | :---: |
| Lecture Fees, for individual courses, per term- |  |
| Anatomy, Dissections (including material). | 3.30 |
| ', of Teeth .. | 110 |
| ", General and Desoriptive | 3300 |
| ", Elementary Descriptrve | $3 \quad 30$ |
| ," Regional avd. Surgical | $3 \quad 30$ |
| ", Speclal Topographical \& Surfac | 110 |
| ", Special Artistic | $1 \begin{array}{lll}1 & 1 & 0\end{array}$ |
| ", Demonstrations | $2 \quad 20$ |
| Applied Mechanios. | $2 \quad 20$ |
| Architecture and Building Construction | 220 |
| Assaying (see Practical Chemistry) |  |
| Bacteriology, Spectal | 440 |
| Brology | $2 \quad 20$ |
| Biology, Practical | $\begin{array}{lll}2 & 2 & 0\end{array}$ |
| Botany | $2 \quad 20$ |
| Buildivg Construction (see Architecture) |  |
| Chemistry | 2 2:0 |
| Chemistry, Practicad* | $3 \quad 30$ |
| Civil Engineering | $2 \quad 20$ |
| Commerce and Economics | $\begin{array}{lll}2 & 2 & 0\end{array}$ |
| Dentistry, Mechanical Workshop | $2 \quad 20$ |
| , ${ }^{\text {d }}$ Meghanical . . . . | $2 \cdots 2: 0$ |
| ", Surgical . . $\therefore$ | $2 \quad 20$ |
| Desoriptive Geometry and Drawing | $1 \begin{array}{lll}1 & 0\end{array}$ |
| Economics and Commerce | $2 \quad 20$ |
| English | $2 \quad 20$ |
| French | $2 \quad 20$ |
| Geology | $2.2 \cdots 0$ |
| Geology, Practical | 2.20 |
| German | $2 \quad 20$ |
| Greek | 220 |
| Gynecology | $3 \begin{array}{lll}3 & 3 & 0\end{array}$ |
| History . . | 220 |

[^25]

[^26]

## FOUNDATIONS.

## I. <br> CHALLIS FUND..

In 1880, the late John Henry Challis, Esq., formerly of Sydney, bequeathed his residuary real and personal estate to the University, " to be applied for the benefit of that Institution in such manner as the governing body thereof shall direct." The bequest was subject to a tenure until death or re-marriage on the part of his widow, and to the payment of various annuities, and also to a period of five years' accumulation after such death or re-marriage. By the death of Mrs. Challis, in September, 1884, the University became entitled, in September, 1889, to the accumulated estate with the exception of certain portions which were retained by the Trustees as a capital sum to provide for annuities payable under the will. The last of these annuities having terminated in 1905, the whole capital of the Challis Fund, amounting to $£ 276,8568 \mathrm{~s}$. 8d., was then transferred by the Trustees to the University.

By a resolution of the Senate passed in 1885, it was determined that the Challis Fund should be applied as a permanent provision of income for educational uses.

From the income of the Fund a sum of $£ 7,500$ was applied for the payment of half the cost of the erection of a new Chemical Laboratory, and a further sum of $£ 1,200$ devoted to the erection of a marble statue of Mr. Challis, which has been placed in the Great Hall opposite to that of Mr. W. C. Wentworth.

The income arising from the Fund is now devoted to the maintenance of seven Challis Professorships in the following subjects, viz., Anatomy, Biology, Engineering, History, Law, Logic and Mental Philosophy, and Modern Literature; four Challis Lectureships in Law, and a Lectureship in Military Science.

CHALLIS PROFESSORSHIPS.
Anatomy, 1890-James T. Wilson, M.B., Ch.M. (Edin.)
Biology, 1890-William•A. Haswell, M:A., D.Sc. (Edin.)

Engineering, 1890-William H. Warren, M.Inst.C.E.
Law, 1890-1909—Pitt Cobbett, M.A., D. C.L. 1910-John Beverley Peden, B.A., LL.B.
Logic and Mental Philoṣophy, 1890-_Francis Anderson, M.A. (Glasg.)
Modern Literature, 1890-Mungo W. MacCallum, M.A. (Glasg.)
History, 1891 -G. Arnold Wood, M.A. (Oxon.)
CHALLIS LECTURESHIPS.
Equity, Probate, Bankruptcy, and Company Law, 1890-1910G. E. Rich, M.A.; 1911-F. R. Jordaw, B.A., LI B:

The Law of Status, Civil Obligations and Crimes, 1890-1907F. Leverrier, B.A., B.Sc. ; 1907 -E. M. Mitchell, B.A., LL.B.

Law of Procedure in Civil and Criminal Cases, Evidence and Pleading, 1890-1900-C. A. Coghlan, M.A., LL.D.; 1901-David Ferguson, B.A.
Law of Property, 1903-9-J. B. Peden, B.A., LL.B.
Roman Law and Equity Practice, $1910-G$. W. Waddell, M.A., LL.D.
Director of Military Science, 1906-Colonel Hubert John Foster, R.E.

## II.

THE PETER NICOL RUSSELI ENDOWMENT FOR THE DEPARTMENT OF ENGINEERING.

In 1896 the late Sir Peter Nicol Russell, of London (formerly of Sydney), presented to the University a sum of $£ 50,000$ for the endowment of the Department of Engineering. In 1904 he gave a second sum of $£ 50,000$, making $£ 100,000$ in all.

The second gift *as made as an extension of the first endowment, with an additional obligation for the establishment of efficient teaching in electrical engineering, and for the foundation of additional Scholarships.

In making the second endowment, Sir Peter Russell stipulated that the Government of New South Wales should undertake to hand to the University, within three years, a sum of $£ 25,000$ to provide an extension of the buildings of the School of Engineering or to erect new buildings. This the Government agreed to do, and a new building has now been erected from designs prepared by the Government Architect.

The Deeds of Gift provide :-

1. That the Department of Engineering at present existing in the University, together with such additions as may be made thereto, shall be called the Peter Nicol Russell School of Engineering.
2. That the University shall, out of the income to be derived from the endowments afford both practical and theoretical teaching in the following subjects, in so far as such subjects relate to the School of Engineering-viz.; Mechanical Engineering, Electrical Engineering, Surveying, Mining, Metallurgy, Architecture, and such further instruction as the Senate of the University may deem necessary to give effect to the intention of Sir Peter Russell in connection with the P. N. Russell School of Engineering.
3. That the University shall apply the income of the Fund in the maintenance of the P. N. Russell School of Engineering, but shall not charge such income with any proportion of the cost of the existing buildings, nor with the expense or any proportion thereof of service by ordinary attendants, nor with the expense or any proportion thereof of the Professorships of Mathematics, Chemistry, Physics, Geology, or the Challis Chair of Engineering.
4. That Scholarships shall be established for the encouragement of higher education in Mechanical Engineering, to be called Peter Nicol Russell Scholarships.
Other conditions of the Deeds of Gift relate to the mode of investment of the principal sum, and provide that any unused surplus of income shall be added to the principal sum and invested as if it formed a part of the original donation.

The following offices have been established from the Peter Nicol Russell foundations:-
Lecturer in Mechanical Engineering, 1897-S. Henry Barraclough, B.E. (Sydney), M.M.E. (Cornell), Assoc. M. Inst. C.E.
Lecturer in Surveying, 1890-1906-George H. Knibbs, L.S., F.R.A.S.; 1906 - J. Haydon Cardew, Assoc. M. Inst. C.E.

Lecturer in Geodesy and Astronomy, 1906-T. F. Furber.

Lecturer in Mining, 1892-1902-E. F. Pittman, A.R.S.M.; 1903-F: Danvers Power, F.G.S.
Lectiurer in.Metallurgy, 1899-Basil W. Turner, A.R.S.M.
Lecturer in Architecture, 1887-John Sulman, F.R.I.B.A.
Lecturer in Electrical Engineering, 1906-8-Ernest Kilburn Scott, A.M.Inst.C.E., M.I.E.E. 1909-John P. V. Madsen B.E., D.Sc.

Demonstrator in Engineering and Drawing, 1903-1910-Alexander J. Gibson, A.M Inst.C.E.
Assistant Lecturers and Demonstrators-Civil, 1911-H A. Roberts, B.E ; Mechanical, 1911-E. W. McKeown, B.E. Junior Demonstrators in Engineering-Electrical-A. Burn, B.Sc., B.E. ; Civil-T. Wilkins, lS.E. ; Mechanical-E. P. Norman, B.E.
Mechanical Instructor-Robert Hay.
PETER NICOL RUSSELL SCHOLARSHIPS FOR MECHANICAL ENGINEERING.
Under the gift of Sir Peter Nicor. Russell, for the Endowment of the School of Engineering at the University, three Scholarships are offered annually, for the encouragement of higher education in Mechanical Engineering, under the following conditions:-

1. Every candidate must present evidence that he has satisfied one of the three following conditions:-
(A) That he has been engaged in an approved workshop for a period of at least one year, and has, in addition, obtained certificates of having attended the following courses in the Sydney Technical College, and passed the necessary Examinations in the same:Applied Mechanics, First and Second Year Courses; Mechanical Drawing, First and Second Year Courses; Mechanical Workshops, a two years' Course; or,
(s) That he has been engaged, under approved conditions, in the study of practical Mechanical Engineering for at least: two: years, by apprenticeship or service in a mechanical workshop or drawing office, provided that one year at least shall have been spent in a workshop; or,
(o). Thiat he has been in attendance upon the day classes of the Sydney Technical College in the Department of Mechanical Engineering or the Department of Elec-
trical Engineering for a period of three yeariss, aind has obtained the College diploma in one of those departments.
2.-The Scholarships will be awarded, after competitive Examination held in the month of March, and the holders will be styled "Peter Nicol Russell Scholars."
3.-The subjects of Examination will be the following :-
(a) Applied Mechanics (200 marks).
(b) Mechanical Drawing ( 200 marks).
*(o) Algebra, including Arithmetic ( 150 marks).
*(d) Geometry, including Mensuration ( 150 marks).
*(e) Plane Trigonometry. (150 marks).

* $(f)$ Mechanics ( 150 marks).
- $g$ g) Plane and Solid Geometrical Drawing and - Perspective ( 200 marks).
Optional subjects (as in the Matriculation Examination, Division B), two may be taken-
(a) English ( 150 marks).
(b) Chemistry ( 150 marks).
(c) Physics, Part I., Properties of Matter, Sound, Heat and Light ( 150 marks).
(d) French ( 150 marks).
(e) German ( 150 marks).
(f) Latin ( 150 marks).
(g) Greek ( 150 marks).

Candidates must attain a certain standard in each of the compulsory subjects. They will be allowed to talke two, ibut not more than two of the optional subjects, and in these they must also attain the prescribed standard.

Subject to this provision, the Scholarships will be awarded to the candidates who obtain the highest aggregate number of marks in this Examination, provided that they shall have shown sufficient merit to enable them, in the opinion of the Examiners, to profit by the award of a Scholarship.
4.-The scholar will be required to commence attendance forthwith upon the University First Year Classes in the Department of Mechanical and Electrical Engineering, anid he can only continue to hold the Scholarship so long as he shall be of good conduct, and shall attend regularly the courses prescribed in the University for candidates for the Degree of Bachelor of

[^27]Engineering in the Department of Mechanical and Electrical Engineering, and shall pass the yearly Examinations with distinction in at least one subject.
5.-Each Scholarship will be of the value of $£ 75$ per aṇum, and will be tenable for not more than four years, under the conditions mentioned in the preceding paragraph. The Scholarship will be awarded in the first instance for a period of one year, and the scholar will be re-appointed from year to year for the maximum period of four years, provided that his work be considered satisfactory. The payments will be quarterly, commencing on the first of April after the student commences his University course.
6.-Those scholars who have, before entering upon their University course, qualified themselves for admission to the Department of Engineering by passing the Examination prescribed for that purpose, or who have in the Peter Nicol Russell Scholarship Examination passed in one of the four languagesLatin, Greek, French or German, and in English at the Higher or Lower Standard together with a general paper in English,* will be entitled, after completing the course, to the Degree of Bachelor of Engineering in Mechanical and Electrical Engineering.

Those who have not so qualified themselves beforehand will be entitled, after completing the course, to certificates of their attendance and examination in individual subjects, and a certificate showing that they have held the Peter Nicol Russell Scholarship, under the prescribed conditions, for a period of four years-but not to any Degree.

The candidates' names, together with an examination fee of one pound ten shillings ( $£ 110 \mathrm{~s}$.), and all the required certificates, must be in the hands of the Registrar on the day set down in the Uuiversity Calendar as the last day for receiving entries for the University Examinations in March.


[^28]
## THE PETER NICOL RUSSELL MEDAL.

Tee Peter Nicol Ressell Medal (value £20) is open to competition amongst Graduates in Science or Engineering of not less than one nor more than four years' standing at the time of award. It is intended to encourage post graduate study in Engineering. Candidates are required to prepare and submit a. thesis embodying the result of an original investigation in some Engineering subject.

The thesis must be in the hands of the Registrar not later than the first day of Lent Term.
1901-Madsen; J. P. V., B.Sc. $\mid$ 1905-Weston, P. L., B.E., B.Sc. 1903-Boyd, A., B.Sc., B.E.

## THE HUGH DIXSON COLLECTION OF MINERALS FROM BROKEN HILL.

In 1909 the sum of $£ 7,050$ was given by Hugh Dixson, Esq., of "Abergeldie," Summer Hill, to enable the University to purchase a collection of Minerals obtained from the Barrier District of New South Wales, made by Mr. Edward Aldridge.

The gift is an absolute one to the University, but it is the wish of the donor that the collection be divided into four parts.

Firstly.-A primary collection to be exhibited in the Museum of the Sydney University after having been. made as complete as possible under the supervision of the Professor of Geology, hy the addition of any specimens that may be obtained by exchange.
Secondly.--A second collection made for exhibition at the Technological Museum or the Australian Museum, or some other Sydney institution, conditionally on its. being put on view within twelve months to the satisfaction of the University authorities, and designated as part of the Sydney University Hugh Dixson Collection of Minerals from Broken Hill.
Thirdly.-A third collection is to be handed to the care of the New South Wales Government, and joined to any exhibit it may have in London or other part of Great Britain, and to be designaied as above.
Fourthly._That specimens be set apart for exchange, analysis, and cabinet purposes, after the three above collections have been made.

## III.

## LECTURESHIPS.

1-WiLlliam hilton hovell lectureship on geology and PHYSICAL GEOGRAPHY.
In 1877, certain tenements and land situated in the city of Goulburn were bequeathed by the widow of the late William Hilton Hovell, Esq., of that district, for the endowment of a Professorship or Lectureship in Geology and Physical Geography, in honour of her late husband. The present estimated value of the property is $£ 6000$.
1877.-Archibald Liversidge (Christ's College, Cambridge).
1882.-William John Stephens, M.A. (Queen's College, Oxford).
1891.-T. W. Edgeworth David, B.A., F.R.S. (New College, Oxford).

## IV. <br> FELIOWSHIPS. <br> I. -WENTWORTH TRAVELLING FELLOWSHIP.

In 1862, the sum of $£ 445$ was given by W. C. Wentworth, Esq., to be invested and allowed to accumulate until it should reach an amount which, in the opinion of the . Senate, would be sufficient for the foundation of a Travelling Fellowship, to be awarded upon certain specified conditions. The fund in December, 19.10 , was $£ 32559$ s. 1 d .

## 2.- macleay fellowships.

Founded in 1904 by a bequest of $£ 35,000$ from the Hon. Sir William Macleay to the Linnean Society of New South Wales.

The will provides for the foundation of four Fellowships, each of the annual value of $£ 400$ per annum. They are to be awarded by the Council of the Linnean Society of New South Wales to graduates in Science of the University of Sydney.
"The Fellowships are intended to encourage and advance research in Natural Science, by enabling those who wish to continue their studies at the University, or elsewhere, after having completed the regular curriculum and taken a Science Degree, to do so."

The following regulations, which have been framed by the Council of the Linnean Society of New South Wales, govern the award of the Fellowship :-

1. Applications by qualified persons desiring to hold these Fellowships must be made in writing at such times as may be prescribed by the Council.
2. Every Caudidate for a Fellowship must be a Member of the Linnear Society of; New. South Wales; and must have taken the degree of Bachelor of Science or Doctor of Science in the University of Sydney.
3. He must produce-
(a) Satisfactory evidence of his qualification for undertaking original investigation; and in his application he should indicate the course of his previous reading and study, and his general purposes with reference to future work.
(b) A satisfactory testimonial of character and conduct, and be should give the uames of two persons from whom fuller information may be sought.
4. The salary of earh Fellow will be at the rate of four hundred pounds ( $(400)$ per annum, payable in quarterly instalments.
5. In case of resiguation or other withdrawal from the Fellowship, payment will be made for the time during which the Fellowship may have been actually held.
6. Candidates for Fellowships are invited to apply for appointment in any one of the following eleven Branches:-(1) Animal and Vegetable Physiology and Pathology; (2) Anthropology; (3) Botany; (4) Comparative Anatomy and Embryology; (5) General Biology; (6) Geography; (7) Geology ; (8) Meteorology; (9) Organic Chemistry as applied to Biology ; (10) Palæontology; (11) Zoology.
7. Every Fellow on his appointment shall be required to sign a paper undertaking to observe the regulations drawn up by the Council, in accordance with the terms of Sir William Macleay's will, for his guidance during his tenure of the Fellowship.
8. No Fellow shall be permitted to occupy any salaried position of undertake any employment for payment during his Fellowship, nor shall he, without the special sanction of the Council, take fees for teaching any pupil either publicly or privately.
9. The Fellow shall be required to devote his time to research in the branch of Natural Science which he shall have specified in his letter of application for the Fellowship.
10. He shall be required to furnish a report on the progress of his investigations quarterly to the Council.
11. When he shall have completed for pablication any paper embodying the results of his researches, he shall at once submit the same to the Council.
12. He shall not publish, nor permit to be published, any paper embodying the results of his research otherwise than under the authority of the said Council.
13. He may carry on his investigations in one of the Laboratories of the University of Sydney, or elsewhere, subject to the approval
of the Counoil. In the former case, he must undertake to conform to the Regulations for Research Students drawn up by the University.
14. Every Fellow must reside in New South Wales.
15. The Society-does not undertake to furnish any Fellow with working accommodation, material, or apparatus.
16. Every Fellow shall be allowed an annual vacation, the conditions and length of which shall be determined from time to time by the Council.
17. Each Fellowship is tenable for one year only; but a Fellow will be eligible for re-appointment from year to year, provided that the Council is satisfied with his work.
18. A Fellow, if he desire to be re-appointed, shall apply in writing to the Council at least three months before the termination of his year of tenure.
19. Should any dispute arise between a Fellow and the Council of the Linnean Society of New South Wales on the subject of his Fellowship, his employment, or his tenure of office, the decision of the Council shall be final and conclusive, without appeal.
20. Any holder of a Linnean Macleay Fellowship who shall endeavour to anticipate his income from the Fellowship, otherwise than by direct application to the Council, and with its concurrence, or who shall during his enjoyment of the Fellowship commit auy act of bankruptey, shall render himself liable to immediate dismissal from his appointment as Fellow without any notice whatever.
Note.-Women who are qualified in respect of Regulations Nos. 2 and 3 are eligible as Candidates, and accordingly the foregoing Regulations may be understood as equally applicable to Female Candidates or Fellows.
1906-7-Jensen, H. I., B.Sc. $\quad$ 1908-9-Goddard, E. J., B.A., B.Sc. 1907-Petrie, J. M., D.Sc.,F.I.C. 1909-10-Cotton, L. A., B.Sc.
V.

## CURATORSHIP OF MACLEAY MUSEUM.

- In 1888, the sum of $£ 6000$ was given to the Senate by the Hon. Sir William Macleay, M.L.C., to provide for the services of a Curator for the collections in Natural History which he had presented to the University. The present Curator, nominated by Sir William Macleay, is

> 1888-G George Mảsters.
> VI.
> *SCHOLARSHIPS.

Awarded only when candidates exhibit a degree of proficiency satisfactory to the Examiners. No Undergraduate may hold

[^29]more than twe Scholarships at one time. Scholars are required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.

## 1-LEVEY SCHOLARSHIP.

Founded by Solomon Levey, Esq., by a gift of $£ 500$ (with accumulations), as an endowment for the education of orphan boys in the Sydney College. In " 1853 the fund was transferred to the University of Sydney as an endowment for a Scholarship. Up to 1878 this Scholarship was awarded for general proficiency at the Matriculation Examination.

It is now awarded at the First Year Examination for proficiency in Chemistry and Physics, both theoretical and practical, to a student in the Faculty of Arts or in the Faculty of Science. It, shall not be awarded more than once to the same student. It is tenable for one year, and is of the annual value of $£ 40$.

1902-Saunders, G. J.
1903-Weatherburn, C. E.
1904-Atkinson, J. æq.
Sharp, L. H. ${ }^{\text {æq. }}$
1905-White, C. J.
1906-Davidson, G. F. $\underset{\text { Farrap-Ridge, C. }}{\underset{\text { F }}{ }}$ \}eq.

1907-Norman, E. P.

1909-McKeru, J. G.
1910 - Peirce, S. E.
$\left.\begin{array}{c}\text { 1911-Gardner, R. A. } \\ \text { Pike, W. F. }\end{array}\right\}$ req.

BARKER SGHOLARSFIPS.
Founded in 1853 by a gift of $£ 1000$ (with accumulations) from Thomas Barker, Eisq., for the encouragement of Mathematical Science.
²-bAKKER SCHOLAPSHIP, No. I.

Awarded at the Second Year Examination for proficiency in Mathematics. £50, tenable for one year.

1902-Wellisch, E. M.
1903-Weatherburn, C. E.

190.5-Lyons, R. J.

1906-Watkins, H. L.
1907-Utz, H. S.
Cohen, Fanny, prox. acc.

1908-Campbell, A. L.
1909-Simonds, E. F.
1910-Smith. Catherine D.
1911-Meldrum, H. J.
*Peirce, S. E. $\}$ rq.

3-BARKER SCHOLARSHIP, NO. II.
Awarded at the Matriculation Examination for proficiency in Mathematics. £j0, tenable for one year.

[^30](a) 1902-Stephen, J. F.

Henderson, R. G.* Mottershead, A.
Paul, A.
Tomlinson, G. L.
1903-Lyons, R.J.
1904-Deunis, S.
Watkins, H: L. $\}^{\text {æq. }}$
190.-Utz, H. S.

1906-Campbell, A. J.

1907-Browne, W. R. Blumer, R.C. reqHolloway, R. A. $\lambda^{\text {eq- }}$
1908-Brown, W. R. Willis, H. H., prox. arc.
1909-Stafford, F. D. $\dagger$
$\left.\begin{array}{l}\text { Snow, L. L. } \dagger \\ \text { Robson, A. J. }\end{array}\right\}$ æq.
1910-Fitz-Herbert, J. A. $\dagger$
Gregs, N. M. $\dagger$ æq.
Lesslie, Mary E.
1911-Brown, Jauet F. M.

Founded in 1854 by a gift of $£ 1000$ (with accumulations) from the Honourable Sir Edward Deas-Thomson, C.B., K.C.M.G., for the encouragement of the study of Natural Science.

## 4-DEAS-THOMSON SCHOLARSHIP FOR PHYSICS.

Awarded at the Second Year Examination to a student in the Faculty of Arts or that of Science for proficiency in Physics. The scholar is required to attend the courses of instruction upon Physics during his tenure of the Scholarship. £50, tenable for one year.
1902 -Close, J. C.' 1903-Taylor, T. G. 1904 -Mason, W. H. 1905-Lusby, S. G.

\author{
$\left.\begin{array}{r}\text { 1907-Bateman, J. E. } \\ \text { Cotton, L. A.* }\end{array}\right\}$ rq. <br> 1908-Norman, E. P <br> 1909-Holloway, R. A. <br> 1911—Peirce, S. E.

}

5-THE DEAS-THOMSON GEOLOGY SCHOLARSHIP.
Awarded at the Second Year Examination in the Faculty of Science. Candidates must have attended the courses of instruction on Geology (together with Biology or Chemistry) of the Second year, and the scholar is required to attend the lectures and Laboratory practice of the Third Year in Geology and Mineralogy. £50, tenable for one year.

1902-Ward, L. K., B.A. *
Taylor, T. G.
1903-Jensen, H. I.
1904-Foxall, H. G.
1905-Atkinson, J.
1906-Hammond, W. L.

1907-Cotton, L. A.
1908-Booth, F. A.
1909-Browne, W. R.
$\left.\begin{array}{l}1910-\text { Debenham, F., B.A. } \\ \text { Smith, Catherine D. }\end{array}\right\}$ q-
1911-Watson, A. D. 6-THE DEAS-THOMSON MNERALOGY SCHOLARSHIP.
Awarded for proficiency in Mineralogy to a student on graduating in the Faculty of Arts or Science, who proposes to continue his studies in Mineralogy in a way satisfactory to the Faculty of Science. $£ 50$, tenable for one year.

1911 -Smith, Catherine U., B.Sc.

[^31]COOPER SCHOLARSHIPS.
Founded in 1857 by a gift of $£ 1000$ (with accumulations) from Sir Daniel Cooper, Bart., for the encouragement of Classical Literature.

> 7-COOPER SCHOLARSHIP, No. I.

Awarded at the Second Year Examination for proficiency in Classics. $£ 50$, tenable for one year. 1902-Barton, W. A. 1904-Henderson, R. G.

Rogers, P. H. 1905-MacCallum, M. L. 1906-Schleicher, B. M. J.

1907-Castlehow, S.<br>1908-Robinson, F. W. 1909-Allen, C. K. 1910-Byth, G. L. 1911-Not Awarded.

## 8-COOPER SCHOLARSHIP, No. II.

Awarded at the Matriculation Examination for proficiency in Classics. £50, tenable for one year.

1902-Henderson, R. G. 1903-Pörter, W. E. T.

MacCallum, M. L., prox. acc. 1904-Schleicher, B. M. J. 1905-Castlehow, Stanley 1906-Fitz Herbert, R. A.

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1907--Browne, W. R.********
                Macrossan, N
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1908-Duhig, J. V. J.
1909-Donovan, C. O. G.
1910-Fitz Herbert, J. A.
1911-Not Awarded.
9-COOPER SCHOLARSHIP, No. III.

Awarded at the First Year Examination for proficiency in Classics. $£ 50$, tenable for one year.
$\left.\begin{array}{c}\text { 1903-Henderson, R. G. } \\ \text { Rogers, P. H. }\end{array}\right\} æ q$.
1904-MacCallum, M. L.
1905-Schleicher, B. M. J.
in the subjects of the course of Philosophy I. The scholar is required to attend the course of Philosophy II. during his tenure of the Scholarship. $£ 50$, tenable for one year.
1908-Mann, J. E. F. (2nd Yr.) $\dot{\text { - }}$ (1909-Muscio, B. (2nd Year)
Blanksby, H. R. (1st Yr.) $\}$ ت尺ष $\begin{aligned} & \text { 1910-Smith, D. M. (1st Year) } \\ & \text { 1911-Cockett, C. B. (1st Year) }\end{aligned}$
12-WIGRAM aLLEN SCBOLARSHIP.
Founded by gifts of $£ 381$ in 1867 (with accumulations), and $£ 500$ in 1883, from Sir George Wigram Allen, for the encouragement of the study of Law. Awarded for general proficiency in the subjects of Part I. of the Intermediate LL.B. Examination. $£ 50$, tenable for one year.

1902-Fahey, B. F., B.A.
1903-Ferguson, J. A., B.A.
1904-Wilson, D.; B.A.
Teece, R. N., B.A. $\}$ æq:
$1905-$ Jordan, F. R., B.A. $\}$ Rq.
Real, E. T., B.A.
$\left.\begin{array}{c}1906-\text { Spence, J., B.A. } \\ \text { Thompson, E. H. }\end{array}\right\}$ æq. 1907-Markell, H. F., B.A.

1908 - Edwards, H. G.) Lamond, H. L.

$\left.\begin{array}{c}\text { 1910-Weston, C. A., B.A. } \\ \text { Mason, H. H. }\end{array}\right\}$ æq.
$\left.\begin{array}{c}\text { 1901- Blauksby, H. R., B.A. } \\ \text { Ninmo, W. M. }\end{array}\right\}$ æq.

## 13-RENWICK SCHOLARSHIP.

Founded in 187 i by a gift of $£ 1000$ from the Hon. Sir Arthur Renwick, B.A., M.D., for the encouragement of the study of Natural Science, including Comparative Anatomy. Awarded in the Faculty of Medicine for proficiency in the subjects of the First Year Examination in Medicine. £45, tenable for one year.
1902--Parkinson, T. C.
1903-Shellshear, J. L.
$\left.\begin{array}{l}\text { 1904-Archdall, M. } \\ \text { Brearley, E. A. }\end{array}\right\}$ æq.
1905-Sampson, G. A.
1906--Burfitt, Mary B. Ewing, T. \}æq. $\left.\operatorname{cog}_{\text {Edye, B. T. }}^{\text {Macintosh, M. }}\right\}$ æq. 190S-Wallace, R. A. R. 1909-Benjamin, A. 1910-May, L.
1911-Greig, N. M.

Founded in 1877 by a bequest of $£ 1000$ from the Hon. George Allen. Awarded at the First Year Examination for proficiency in Mathematics. $£ 40$, tenable for one year.

1902-Weatherburn, C. E. 1903-Mottershead, A.
1904-Lyons, R. J.
190か-Watkins, H. L.
1906-Utz, H. S.
1907-Campbell, A. L.

1908- Holloway, R. A. $\underset{\text { Simonds. E. F. }}{\underset{\text { Simq. }}{\text { Br }} \text {. }}$
1909-Brown, W. R.
1910-Robsor, A. J.
1911-Fitzherbert., J. A.

## 15-BOWMAN-CAMERON SCHOLARSHIP.

Founded in 1877, by a bequest of $£ 1100$ from Andrein Robertson Cameron, Esq., M.D. Awarded every third year for general proficiency at the Matriculation Examination. £35, tenable for three years in the Faculty of Arts.
$\left.\begin{array}{c}\text { Tuece, R. N. } \\ \text { Tra9 }\end{array}\right\}$ Brow.
Wilshire, H., prox. acc.
190:-Stephen, J. F. ${ }^{+*}$
Heuderson, R. G.

1905-Castlehow,Stanley

1911-Nield, J. R.

16-FREEMASONs' scholarseip.
Founded in 1880, by a gift of $£ 1000$ from the Freemasons of New South Wales under the Constitution of the Grand Lodge of England, for the endowment of a Scholarship in honour of the District Grand Master of the Order, John Williams, Esq. Aivarded for general proficiency at the Matriculation Examination. Competitors must be the sons of Freemasons of five years' standing of the United Grand Lodge of New South Wales. If at any time therc shall be no candidates for Matriculation eligibie to compete for the Scholarship, or if any such candidates fail to show sufficient merit, it will be open to like competition at the First Year Examination. The Scholarship may be held in any Faculty. £50, tenable for three years, provided that the scholar shall so long faithfully pursue his studies in the University, and shall pass the Annual Examinations with credit. Applications for "permission to compete for the Scholarship will be received not later than the last day for receiving entries for the Examination for Matriculation Honours and Scholarships. 1899-Teece, R. N.
1902-Stephen, J. F. $1905-\mathrm{Utz}$. H.'S.

1908-Blumer, S. J.
$\left.\begin{array}{c}\text { 1911-Godirey, G. H. } \\ \text { Grace, W. H. }\end{array}\right\}$ æq.
Grac
SHIP.

Founded in 1886 , by a gift of $£ 1000$ from George S. Caird, Esq., for the encouragement of the study of Chemistry. Awarded at the Second Year Examination in the Faculty of Science, for proficiency in Chemistry. The Scholar is required to attend the theoretical and practical courses of instruction in Chemistry during the Third Year of the Faculty of Science. If there should be no suitable candidate at the Second Year Examination, the Scholarship may be awarded at the Third Year Examination, the bolder being required to devote himself to research work in the Chemical Laboratory during his first post graduate year. $£ 50$, tenable for one year.

* Did not comply with the conditions for holding the Scholarship.
+ Holder of two other Scholarships.

1903-Jensen, H. I.<br>1904-Petrie, J. M., B.Sc. $\ddagger$ Gray, G. J., B.E.<br>1905-Priestley, H. 1906-White, C. J.

$$
\left.\begin{array}{l}
\text { 1907-Farran-Ridge, C. } \\
\text { 1908-Griffiths, E. } \\
\text { 1909-Burrows, G. J. } \\
\text { Grey, E.' C. } \\
\text { 1910-Blumer, R. C. } \\
\text { 1911-Peirce, S. E. }
\end{array}\right\} \text {. }
$$

19-AITKEN SCHOLARSHIP

- Founded in 1878 by a bequest of $£ 1000$ from James Aitken, Esq., of Grafton, for a Bursary or Scholarship. Up to 1893 it was applied as a Bursary. It is now awarded as a Scholarship for general proficiency at the Matriculation Examination in the years in which the Bowman-Cameron Scholarship is not awarded. $£ 50$, tenable for one year in any Faculty.

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1901-Diethelm, O. A. A.
1903-Porter, W. E. T.
1904-Sampson, G. A.
1906-Campbell, A. L.*}
Turner, T. A. \(\}\) æq.
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1907-Blumer, R. C:
Macrossan, N. W., prox. acc.
1909-Buchanan, A. L.
1910-Fitz Herbert, J. A.

19-JAMES KING OF IRRAWANG TRAVELLING SCHOLARSHIP.
Founded in 1888 by a bequest of $£ 4000$ from William Roberts, Esq., of Penrith, for the foundation of a Scholarship or Scholarships, in memory of the late James King, of Irrawang, near Raymond Terrace. By the terms of the will, the choice of competitors and the decision of their respective merits are vested in the Senate, acting upon the advice of the Professors of Classics, Mathematics, Chemistry, Physics and Natural History. It has been decided that the sum shall be devoted to the foundation of a Travelling Scholarship, to be called the James King of Irrawang Travelling Scholarship, and to be awarded on the following conditions:-

1. The Scholarship shall be awarded to a Graduate of not more than four years' standing, reckoned from his qualification by examination for his first Degree.
2. The holder will be required to prosecute his studies or researches to the satisfaction of the Senate, in some approved place or places during the tenure of his Scholarship.
3. The amount of the Scholarship is $£ 150$ per annum, tenable for not more than two years.

Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the Scholarship is awarded.

[^32]1900-Nicholson, G. G., B.A.
1902-Sawkins, D. T., B.A.
1904-Allen, L. H., B.A.
1906-Weatherburn, ©: E., B.A.

1908-Parkinson, T.C., M.B., Ch.M.
1909-Chapman, B. B., B.A.
1910-Allen, C. K., B.A.

Founded in 1887 by a gift of $£ 1000$ from John Harris, Esq., then Mayor of Sydney: Awarded for proficiency in Anatomy and Physiology at the Third Year Examination in Medicine. £40, tenable for one year.
1902-Buchanan, G. A.
1903-Quaife, C.*
1903-Quaife, W. T.
O'Reilly, Susamnah H. $\}$ æq. 1904-Parkinson, T. C. 1905-Poate, H. R. G.

21-COUNCIL OF EDUCATION SCHOLARSHIP.
Founded in 1889 by a gift of $£ 300$ from the Trustees of the subscribers to a Memorial of the late Council of Education for the foundation of a Scholarship to be called the Council of Education Scholarship. Competition for the Scholarship is to be confined to the sons of teachers or officers in the Department of Public Instruction. It is provided by the deed of gift that before any award is made the fund shall be allowed to accumulate until it shall reach such a sum as will provide a Scholarship of not less amount than those already established in the University. It is to be awarded at the Matriculation Examination for general proficiency, but only when the candidates show such proficiency as in the opinion of the Examiners will entitle them to the award of a Scholarship, and is to be tenable for three years. The fund in December, 1910, amounted to $£ 72116 \mathrm{~s}$. 1d.
$24-$ SCIENCE SCHOLARSHIPS OF THE ROYAL COMMISSIONERS FOR
THE EXHIBITION OF 1851.
Given by the Royal Commissioners of the Exhibition of 1851, to be awarded to a student of three years' standing for the prosecution of study and research in some branch of Science with a view of developing the manufactures and industries of his country. $£ 150$, tenable for two years.

| 1901-Harker, George, B.Sc. | 1909-Swain, H. J., B.Sc. |
| :--- | :--- |
| 1903 -Boyd, A., B.Sc., B.E. | 1910 -Davidson, G.F., B.E. |
| 1905-Laby, T. H. | 1911-Benson, W. N., B.Sc. |

1905-Laby, T. H.
1911 -Benson, W. N., B.Sc.

23́-FRAZER SCHOLARSHIP.
Founded in 1890 by a bequest of $£ 2000$ from the Hon. John Frazer, M.L.C. $£ 70$.

1. The Scholarship is awarded upon the result of the Third Year Examination in History, combined with such further examination or other test as the Professor of History may from time to time determine.
2. Those students only are eligible who have just completed their Third Year, and who at the time of the election are qualified for the B.A. Degree.
3. One half of the Scholarship money will be paid to the successful candidate at the time of election. The second half will be paid to him (i.) on his passing an examination qualifying for the Degree of M.A., with Honours in History, within two years of the date of his election, or (ii.) on his having within the same period pursued for at least one year, to the satisfaction of the Senate, some other course of historical study or research.

The Scholarship will be awarded in March to the stident who shows most proficiency in the papers and essays set in connection with the Examination for Honours in the Third Year.

1902-Teece, R. N.
Mackness, Constance, prox.acc.
i903-Cole, P. R.
Kemp, R. C. King, prox. acc. 1904-Cramp, K. R. 1905-Paterson, J.

Rogers, P. H., prox. ace.

1906-Whitney, G. C. 1908-Chapman, B. B.
Lyich, J. æq.
1909.- Mann, J. E. F.

1910-Biddulph, L. H.
1911-Brace, J. F.

24-WOOLLEY SCHOLARSHIP.
The late Edwin Dalton, Esq., of Sydney, by his will in 1875, bequeathed his residuary estate, subject to a life interest on the part of his widow, and an annuity of $£ 75$, to the University to found " a Scholarship or Scholarships in commemoration of the late Dr. Woolley, its first Principal and Professor," desiring that the Scholarship or Scholarships so to be founded should "have reference to that branch of teaching or philosophy which the late Dr. Woolley chiefly inculcated." By the death of his widow in 1893 the University became entitled to the residuary estate, amounting to about $£ 8000$, subject to the annuity of $£ 75$.

The following are the regulatious which have been adopted by the Senate for the award of the Scholarship :-

1. The Scholarship shall be awarded to a Graduate in Arts of less than four years'. standing at the time of the award, reckoning from his qualification by examination for the B.A. Degree.
2. The Scholarship will be awarded by the Senate after report from the Professors of Greek, Latin, Modern Literature, Philosophy"and History, who shall recommend to the Senate that: candidate who in their opinion shows the greatest promise of success in further study of any one or more subjects falling under the heads of Language, Literature, History and Philosophy; provided that they consider such candidate to be of sufficient merit.
3. The holder will be required to prosecute his studies or researches to the satisfaction of the Senate at some approved place or places during the tenure of his Scholarship.
4. The amount of the Scholarship is $£ 150$ per annum, teriable for not more than two years.
5. An award of this Scholarship shall generally be made in alternate years with an award of the James King of Irrawang Travelling Scholarship.

Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the Scholarship is a warded.

| 19 | 1407-Lovell, H. Tasman, B |
| :---: | :---: |
| 1903-Merrington, E. N., M.A. | 1909-Archdall, H. K., B. A. |
| 1905-Cole, P. R., B.A. | 1911-Muscio, A., B.A. |

GARTON SCHOLARSHIPS.
Founded in 1898 , by a bequest of $£ 2050$ from the late Thomas Garton, Esq., of Clapham, London, for the establishment of Scholarships for French and German and for Ancient History, or other subjects at the discretion of the Senate. Under the powers granted in the will, the Senate has determined to apply the fund to the foundation of two Scholarships for French and German.
25-GARTON SCHOLARSHIP, No. İ.

Awarded at the First Year Examination in the Faculty of Arts, for proficiency in French and German. £45, tenable for one year.

1902-Armstrong, Clare A. C. 1906--Marks, Gladys
1907-Campbell, A. L.
Calow, P. F., prox. acc.

1908-Hooton, J. R.
1909-Bulteau, A. W.J.
1910-Watson, Constance E.
1911-Moir, Catherine M.

26-GARTON SCHOLARSHIP, No. II.
Awarded at the Second Year Examination in the Faculty of Arts, for proficiency in French and German. £45, tenable for one year.
1902-Sproule, Margaret
1904-Armstrong, Clare A. C.
1905-McIntosh, A. M.
1907-Marks, Gladys H.
$\left.\begin{array}{r}\text { 1908-Campbell, A. L. } \\ \text { Shortland, Edi th }\end{array}\right\}$ æq.
1909-Hooton, J. R.
1910-Bulteau, A. W. J.
1911-Watson, Constance E.

27-GEORGE AND MATILDA HARRTS SCHOLARSHIP.
Founded in 1900, by a gift of $£ 1700$ from Mrs. Matilda Duff Harris, of Ultimo House, in memory of her late husband, George Harris, Esq., to be called the George and Matilda Harris Scholarship, and to be awarded in the Faculty of Law, for the encouragement of the study of Law, under such rules and regulations as the Senate of the University may make from time to time for this purpose. Under this power it has been determined that the Scholarship shall be awarded by the Senate in each year upon the results of Part II. of the Intermediate LL.B. Examination. $£ 50$; tenable for one year. 1902-Wilson, G. H., B.A. 1903-Kemp, R. C. King 1904-Rowland, N. de H., B.A. 1905-Rowland, N. de H., B.A.

Teece, R. N., M.A., prox. ace. $\underset{\text { Reni, E. T., B.A. }}{1906 \text { Jordan, }}\}$ 1907-Thompson, E. H.
> $\left.\begin{array}{l}\text { 1908-Collins, C. M., B.A. } \\ \text { Markell, H. F., B.A. }\end{array}\right\}$ æq.

1909-Lawrence, R. L., B.A. \}æq.
Edwards, H. G., B.A. $æ$ æ.
1910 - Eldershaw, P. S., B.A.
1911-Mason, H. H. Utz, H. S., B.A. $\}$ prox. Weston, C. A., B.A. $\}_{\text {acc. }}$ 2K-QUEEN VICTORIA SCHOLARSHIP.
In 1905 the sum of $£ 540$ was presented to the University by subscribers to a memorial of the late Queen Victoria for the foundation of a Scholarship.

The fund was formed by contributions from the general community, largely from the school children.

The conditions of award are as follows:-

1. That it be awarded. to the best girl matriculant of the year, and be tenable for three years under the conditions usually existing for Scholarships.
2. That the Scholar shall satisfy the Chancellor, privately, that she requires the money, otherwise it shall be handed over to the Chancellor to be used for a bursary for girls, the original winner retaining the title of Queen Victoria Scholar.

The Scholarship is of the value of $£ 20$, and is tenable for three years.
$\left.\begin{array}{l|l}\text { 1905-Maclean, Lillian A. } \\ \text { Smith, Clara R. }\end{array}\right\}$ æq: $\quad$ 1908-Connell, Marian A.
THE COUTTS SCHOLARSEIPS.
Founded in 1905 by a gift of $£ 2700$ from Mrs. Janèt Coutts, widow of the late Rev. James Coutts. The deed of gift provides for the establishment of two Scholarships, to be called respectively the James Coutts Scholarship and the John Coutts Scholarship, in memory of the donor's deceased sons, who were graduates of the University of Sydney.

29 -THe James coutts scholarsher.
Awarded at the Third Year Examination in the Faculty of Arts for distinction in the study of the English Language and Literature. $£ 50$ for one year.
1906-MacCallum, M. L.** 1908-Miles, B. J. V.
Bellhouse, Constance A.
1907-Scroder, Aphra F. ) æq.
1909-Robinson, F. W.

- 1910-Allen, C. K.

1911-Bruce, J. F.
$30-$ THE JOHN COUTTS SCHOLARSHIP.
Awarded on the recommendation of the Faculty of Science for distinction in the Science course to a student graduating as Bachelor of Science with Honours, who proposes to continue his studies in a way satisfactory to the Faculty. $£ 50$ for one year.

| 1907-Flynn, T. T. | 1910-Burrows, G J. |
| :--- | :--- |
| 1908-Cotton, L. A. | 1911-Smith, Catherine D. |

1909-Cohen, Fanny
31-THE WILLIAM AND JANE GRAHAME MECHANICAL ENGINIERING SCHOLARSHIP.
Founded in 1905 by a gift of $£ 1000$ from Mrs. Jane Grahame of "Strathearn," Waverley, widow of the late Hon. William Grahame. Awarded until 1908 at the Second Year Examination for proficiency in Mechanical Engineering. Awarded at the Fourth Year Examination to a student obtaining Honours in the ${ }^{\prime}$ examination, who proposes to continue his studies in Mechanical Engineering in a way satisfactory to the Faculty. £40 for one year.
$\left.\begin{array}{c}\text { 1906-Barnell, J. G. } \\ \text { May, H. W. }\end{array}\right\}$ æq.
$\left.\begin{array}{l}1907-\text { Carter, E. M. } \\ \text { Davidson, G. F. }\end{array}\right\}$ æq.
1908-Lloyd, A. S. $\}$ rq.

1909-Davidson, G. F.
1910-McKeown, E. W.
1911-Hebblewhite, W. A.
Norman, E. P., prox. acc.

32-THE BARKER GRADUATE SCHOLARSEIP.
Founded in 1907 from accumulations from the Barker Scholarship Foundation, and awarded to a graduate under the following conditions:-

1. The scholarship shall be awarded to a graduate in Arts or in Science, including Engineering, of less than four years' standing at the time of the award, reckoning from his qualification by examination for his first degree.
2. The scholarship shall be qwarded by the Senate after report by the Deans of the Faculties of Arts and Science and the Professors of Mathematics and Physics, who shall recommend the candidate showing the greatest promise of success in further study in Mathematics-Pure and Applied.
3. The holder will be required to prosecute his studies or researches in some approved place or places during the tenure of his scholarship.
4. The amount of the scholarship is $£ 150$ per annum, tenable for not more than two years. Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the scholarship is a warded. 1907 -Wellisch, E. M., M A. 1908-Lyons, R. J., B.A.

1909-Lusby, S. J., M.A.
1911-Cohen, Fanny, B.A., B.Sc.

## 33-THE COOPER GRADUATE SCHOLARSHIP.

Founded in 1907 from accumulations from the Cooper Scholarship Foundation, and awarded to a graduate under the following conditions:-

1. The scholarship shall be a warded to a graduate in Arts of less than four years' standing at the time of the award, reckoning from his qualification by examination for the B.A. degree.
2. The scholarship shall be awarded by the Senate after report from the Dean of the Faculty of Arts and the Professors of Latin and Greek, who shall recommend the candidate showing the greatest promise of success in further study of classical Hiterature.
3. The holder will be required to prosecute his studies or researches to the satisfaction of the Senate in some approved place or places during the tenure of his scholarship.
4. The amount of the scholarship is $£ 150$ per annum tenable for two years. Candidates' applications should be in the hands of the Registrar at least three weeks before the first day of Lent Term of the year in which the scholarship is awarded. 1909-Robinson, F. W. 1910-Kaeppel, C. H:

> 31-BELMORE SCHOLARSHIP.

Founded in 1870 by a gift of $£ 300$ from the Right Honourable the Earl of Belmore to provide a medal for Agricultural Chemistry and Geology. Upon the establishment of a Chair of Agriculture in 1910, it was decided to award the income of the Fund as a Scholarship.

Awarded at the First Year Examination- in the Faculty of Science for proficiency in Chemistry and Geology. The scholar is required to contiuue his studies with a view to graduating in Agricultural Science. £18 per annum, tenable for two years. 1911-Stephens, H.

## 35-COOPER SCHOLARSHLP IN VETERINARY SCIENCE,

A scholarship of $£ 25$ per annum, tenable for twö years, offered by Messrs. William Cooper and Nephews, to be awarded in the Department of Veterinary Science.

THF RHODES SCHOLARSHIP3.
regulations approved by the trustees for the election of scilolars IN NEW SOUTH WALES, 1905.

Committec of Sclection - The Committee of Selection shall conisist of :-

1. His Excellency the Governor of New South Wales (in his private capacity), Chairman.
2. The Crief Justice of New South Wales.
3. The University of Sydney, acting on the recommendation of the Professorial Board.
Note. - It has been decided (1905) that Clanse 3 shall be understood as follows :-
(a) That the University shall be represented by the Chancellor, the Vice-Chancellor, and the Chairman of the Professorial Buard, who with the Governor and Chief Justice shall constitute the Committee of Selection, with equal powers.
(b) That the Professorial Board shall submit to this Committee the names of all the candidates whom they consider reasonably suitable for selection, and that from the names thus submitted the selection shall be made.

## Eligibility of Candidates-

1. Candidates shall be British subjects, and unmarried. They must: have passed their nineteenth birthday, but not bave passed their twenty-fifth birthday, ou October lat of the year in which they are elected.
2. Candidates shall be undergraduates or graduates of the Universityof Syduey.
3. Candidates shall have resided in New South Wales for an aggregateperiod of four years during the five years immediately preceding. the date of election.
4. Only candidates who have passed an equivalent to the Oxford Responsions Examination, or those who are exempted from Responsions by the Colonial Universities STtatute, are eligible: for election.
In any doubtful cases of eligibility the decision of the Committee of Selection shall be final.

## Method of Selection- .

1. In accordance with the wish of Mr. Rhodes, the Trustees desire that"in the selection of a student to a Scholarship regard shall be had to (i.) his literary and scholastic attainments; (ii.) his fondness for and success in manly outdoor sports, such as cricket, football and the like; (iii.) his qualities of manhond, truth, courage, devotion to duty, sympathy for and protection of the weak, kindli-ness, uuselfishness, fellowship; and (iv.) his exhibition, during school-days, of moral force of character, and of instincts to lead. and take an interest in his school-mates." Mr. Rhodes suggested. that (ii.) and (iii.) should be decided in any school or college by the votes of fellow-students, and (iv.) by the Head of the school or college.
Where circumstances render it impracticable to carry out the letter of these suggestions the Trustees hope that every effort will be made to give effect to their spirit, but desire it to be understood that thefiual decision must rest with the Committee of Selection.
2. To aid the Committee in making a choice, each candidate is required. to furnish to the Chairman of the Committee of Selection :-
(a) A certificate showing that he is within the eligible limits. of age.
(b) A certificate from the Professorial Board of the Uuiversity of Sydney that he is exempt from or has passed the Responsions examination of the University of Oxford or its equivalent, aud that he is considered a suitable candidate for the consideration of the Committee of Selection.
(c) A full statement of his school and college career, includinghis educational qualifications, his record in athletics, and such testimonials from his masters at school and his. professors at college in reference to the qualities indicated. by Mr. Rhodes as seem best adapted to guide the judgment: of the Committee of Selection.
3. Should it seem advisable, the Committee of Selection is free to apply to the candidates, or any selected number of them, such further intellectual or other tests as it may consider necessary for purposes of comparison. No candidate shall be finally selected without a personal interview.
4. The Chairman of the Committee of Selection will at once notify to the Trustees the name of the elected scholar, and will forward to Mr. Wylie, the representative of the Trustees at Oxford, all the credentials and testimonials on which the selection was made. The elected scholar will then be furnished by the Chairman of the Committee of Selection with a memorandum prepared by the Representative of the Trustees at Oxford of the steps necessary to have his name enrolled at oue of the Colleges at the University.
5. The Scholarship will be paid in four quarterly instalments, the first on beginning resideuce at Oxford, and thereafter terminally on the certificate of the College that the work and conduct of a student have been satisfactory. Without such certificate the Scholarship lapses. A Scholarship which lapses either from the failure of a student to secure his College certificate, from resignation, from marriage, or from any other cause, will not be filled up till the year in which it would naturally expire. This provision is made in order not to interfere with the rota of succeeding scholars.

1904-W. A. Barton, B.A.
1905-P. H. Rogers, B.A.
1906-M. L. MacCallum, B.A. 1907-G. V. Portus, B.A.

1908-Waddy, R. G., M.B. 1909-Bullock, H., M.B. 1910-Hooton, J. R., B.A. 1911-Ward, L. K., M.B.

VII.

## MILITARY AND CIVIL APPOINTMENTS.

## MILITARY COMMISSIONS FOR UNIVERSITY CANDIDATES.

The University of Sydney is one of the "Approved Universities" designated by the Army Council of the United Kingdom to nominate candidates for Commissions in the British Army.

The candidate must reside for three academic years, and qualify for a degree in any faculty but the Medical. If he passes with First-class Honours, he will be entitled to one year's seniority.

He may obtain a Commission in the Infantry or Cavalry, in the Army Service Corps, and in the Royal Artillery, by qualifying in certain branches of mathematics.

He must pass through the military curriculum during his University course, and be attached to permanent forces for six weeks in each of two consecutive years, and must pass a quali-
fying examination set by the War Office in Military subjects, in which the Military curriculum will instruct him.

He must pass a Medical examination, of which the chief features are:-Height at least 5 feet 2 inches at 18 , with $34 \frac{1}{2}$ inches chest. Good eyesight, hearing, and speech. Sound physical formation.

OPEN COMPE'ITION EXAMINATIONS FOR THE CIVIL SERPICE OF INDIA, Clerkships (class I.) IN the home civil service and Eastern cadetshirs.
These are held in Liondon in the month of August each year. Every candidate is required to show that he had attained the age of twenty-two, and had not attained the age of twenty-four on the first day of August of the year in which the examination is held.

The full regulations will be found in the N.S.W. Government Gazette, a copy of which may be seen in the Registrar's. office.

## VIII. <br> EXHIBITIONS. <br> 1-SALTING EXHIBITION.

Founded in 1858 by a gift. of $£ 500$ (with accumulations) from Severin Kanute Salting, Esq., to be applied for the promotion of sound learning. Awarded on the recommendation of the Trustees of the Sydney Grammar School to a student proceeding thence to the University. $£ 25$, tenable for three years in the Faculty of Arts.
1900-Barton, W. A.. $\mid$ 1906-Kaeppel, C. H. 1903-MacCallum, M. L. 1909-Pitt, W. M.

## 2-J. B. WATI' EXHIBITIONS.

Founded in 1876 by a gift of $£ 1000$ from the Honourable John Brown Watt, and two subsequent gifts of $£ 1000$ each in 1888 and 1889. The Exhibitions are bestowed on the bursary principle (see p. 274), being not tenable in the Professional Schools, and are awarded to boys or youths who have been for at least three years in private colleges or schools.. They are tenable for three years, and entitle the holders to $£ 30$ for the first year, $£ 40$ for the second, and $£ 50$ for the third year. The candidates must bave passed with special credit either the

Junior or Senior Public Examination. The Exhibition is intended to enable the holder to obtain a course of higher education, either at the University or elsewhere, subject to the direction of the Senate. The complete conditions of award will be found in the Manual of Public Examinations.

## 3-STRUTH EXEIBITION.

Founded in 1883 by a gift of $£ 1000$ from. John Struth, Esq., for the foundation of an Exhibition to assist students of intellectual promise, but whose means are not otherwise sufficient for the purpose, in obtaining a Degree in the Faculty of Medicine. The Exhibition is awarded to a student who has completed the First Year of the Arts course upon the following conditions:-

1. The Deans of the Faculty of Arts and the Faculty of Medicine shall receive a satisfactory assurance that the means of the applicant are insuffivient to enable him to proceed with the Medical course without some such pecuniary assistance:
2. Applications for permission to compete for the Exbibition, accompanied by the necessary certificates, must be sent to the Registrar at least fourteen days before the first day of the Annual Examinations.
3. The Exbibition shall be awarded to that candidate, of those who are allowed to compete, who shall show the greatest proficiency in the First Year Examination of the Arts course, and whose attainments and promise are such as to justify the award.
4. The holder, who shall at once proceed with his studies in the Faculty of Medicine, shall receive the sum of $£ 50$ per annum for five years; provided that he shall only continue to hold it on the condition that he is diligent and of good conduct, and that be passes creditably all the Examinations of his course. In the event of illness of the holder causing prolongation of his course of medical study, the case will be subject to the special consideration of the Senate. The Exhibition is open to students of either sex. The last award was made in March, 1907.
5. The holder of this Exbibition is not exempt from the payment of any fees.
4-HORNER EXHIbITION.

Founded in 1889 by a bequest of $£ 200$ from Francis Horner, Esq., M.A. Awarded for proficiency in Mathematics at the Matriculation Examination. It cannot be held with two
other Scholarships in the University. In case of equality in order of merit in competition for the Exhibition, preference shall be given to a student matriculating direct from the King's School, Parramatta, or in the absence of a student from that School, to a candidate from Newington College, Stanmore. £8, tenable for one year.

IX.

## BURSARIES.

The Bursaries at the disposal of the University have all been created (on the initiation of the late Dr. Badham, when Professor of Classics) by private foundations at a cost of $£ 1000$ each, together with a margin in some cases to ensure prescribed annual awards amounting to $£ 50$; and they are helped, on the part of the Senate, by an accompanying exemption from all lecture fees.

They were created for the purpose of placing the advantages of education in this University within the reach of students, who, whilst giving sufficient promise of benefit, would otherwise be excluded through the want of financial means. In order to secure privacy as regards the financial circumstances of the candidates and their friends, the nominations are directed to be made by the Chancellor alone.

Some of the founders indicate a preference for students from the country, but the majority are silent on this subject. Some state that the bursaries are "to enable the recipient to reside in one of the Afiliated Colleges, or in some other place approved of by the authorities of the University from which he may attend the prescribed courses of lectures;" but in the greater number there is no corresponding expression.

[^33]In some cases the founders contemplated full bursaries of $£ 50$ a year, as for students from the country, though without prohibiting divisions of the amount; but more generally they either expressly allow of awards of $£ 25$ a year, or other less sums than $£ 50$, or leave the matter open. And of late years the absence of new foundations has created a necessity for extending: the usefulness of the bursaries by frequent divisions into halves; and the Senate has granted the same exemptions from fees as in. the case of full bursaries.

No bursary is subject to any distinction of creed or of position, except that in one case a preference is expressed, but not imposed, for a student belonging to the donor's own Church, and in another the nomination is confined to sons of a minister of religion, but without distinction of Church; in both of which cases. the founder bestowed a seoond bursary without any restriction.

All the bursaries, except five, which were given by Mr. Thomas Walker, in July, 1881, were founded before women were admitted to the University, and they were ostensibly for inen only. But Mr. Walker's bursaries were for both sexes, and his instructions required that women should participate. The practice has since been to observe no distinction of sex.

The bursaries are tenable in the Faculty of Arts or that of Science, and not in the professional schools of Law, Medicine, Engineering or Dentistry.

The conditions on which the bursaries are conferred are:-

1. That the Chancellor shall have received satisfactory assurance that the candidate's own means, and those of his parents, guardians, "or other friends" (as expressed in some of the foundations), are insufficient to enable him to bear the cost of attending the University without the assistance of a bursary.
2. That the candidate is qualified by education and capacity to benefit by the University course, with. which view some of the earlier foundations required that the candidate should be examined by the Professor of Classics and (in some cases "or") the Professor of Mathomatics and certified by them, or one of them, to be intellectually fit. But as the University bursaries are now ordinarily granted after
the Matriculation Examination, or an equivalent at the Public Examinations, this stipulation has dropped out of use.
3. That the bursar, if not already matriculated, shall matriculate at the commencement of the next Academic year after his appointment, and shall come into his attendance on lectures as the Senate may direct; and that he shall be diligent, and of good conduct; and that he shall pass creditably at the Annual Examinations during his tenure of the bursary.
4. Subject to the above conditions, the bursary is held for three years, except when granted to Undergraduates who have already gone through part of the three years' course, and have then become unable to finish their course without help, in which case the tenure is confined to the residue of the ordinary three years' course.

1-maubice atexander hursary.
In 1874, the sum of $£ 1000$ was given by Mrs. Maurice Alexander for the endowment of a bursary in memory of her late husband. The annual value is $£ 40$.

> 2-JOHN FWAN ERAZER BURSARY.

In 1876 , debentures for $£ 1250$, at 4 per cent., were given by the Honourable John Frazer, M.L.C., for the endowment of a bursary, of the annual value of $£ 50$, to be called after the name of his deceased son, John Ewan Frazer.

3-ERNEST Manson frazelt bursary.
In 1876 , debentures for $£ 1250$, at 4 per cent., were given by the Honourable John Frazer, M.L.C., for the endowment of a bursary, of the annual value of $£ 50$, to be called after the name of his deceased son, Ernest Manson Frazer.

4-Willlam Charles wentworti bursary, No. I.
In 1876 , the sum of $£ 1000$ was given by Fitz-William Wentworth, Esq., for the foundation of a bursary, of the annual value of $£ 50$, to be called after the name of his deceased father, William Cbarles Wentworth, Esq.

## 5-WILLIAM CHarles wentworth bursary, No. II.

In 1876, the further sum of $£ 1000$ was given by FitzWilliam Wentworth, Esq., for the foundation of a second
bursary, of the annual value of $£ 50$, to be called after the name of his deceased father, William Charles Wentworth, Esq. ; but the founder directed that this sum should accumulate until it should reach $£ 1500$, that a second bursary should then be established, and that the surplus should accumulate until the sum of $£ 1500$ should again be reached, when a similar result is to follow. This foundation reached the sum of $£ 1500$ in 1886, and a second bursary was established accordingly.

## 6-WILLIAM CHARLES WENTWORTH BURSARY, No. III.

This fund was established in 1886 by the setting apart of the sum of $£ 500$ from the last-named foundation, to accumulate for the establishment of a third bursary in accordance with the directions of the founder. It amounted in December, 1910, to £1368 6s. 6d.
7-BURDEKIN BURSARY.

In 1876, the sum of $£ 1000$ was given by Mrs. Burdekin for the foundation of a bursary, to be called the Burdekin Bursary. The annual value is $£ 40$.

## 8-HUNTER-BAILLIE BURSARX, No. I.

In 1876, a sum of $£ 1000$ was given by Mrs. HunterBaillie for the foundation of a bursary, to be called the HunterBaillie Bursary. The annual value is $£ 50$.
9-HUNTER-BAILLLIE BURSARY, No. II.

In 1877, a sum of $£ 1000$ was given by Mrs. Hunter-Baillie for the foundation of a bursary for the sons of ministers of religion. In the deed of gift the Senate is declared to be the sole judge of who are to be considered ministers of religion. The annual value is $£ 50$.

10-WALKER BURSARIES.
In 1881 , the sum of $£ 5000$ was given by Thomas Walker, Esq., of Yaralla, Concord, for the foundation of bursaries. The gift was especially connected with the late resolution of the Senate, to grant to women equal participation with men in all University privileges, and it was desired by the founder that a portion of the bursaries-up to one half, as circumstances might dictate-should be made applicable to students of the female sex. Four bursaries, of the value of $£ 50$ per annum, are now awarded.

11-JESSIE E. DUNCAN BURSARY.
In 1901 the sum of $£ 1000$ was bequeathed to the University by Mrs. Jessie E. Duncan, widow of the late Dr. Duncan, R.N., for the foundation of a bursary in the Faculty of Arts, in accordance with such regulations as the Senate may determine. £35per annum.

12-THE LEVEY AND ALEXANDER ENDOWALENT.
In 1879, a sum of $£ 1000$ was given by Mrs. MauriceAlexander for the purpose of establishing an endowment in the University, in memory of her late parents, Isaac and Dinah Levey. It is intended for young men who shall have gone through the regular University course, and shall have passed the Statutory Examination for the Degree of Bachelor of Arts in theUniversity of Sydney, and graduated with credit to themselves, and who shall then be desirous of entering a liberal profession, but be without sufficient pecuniary means to bear the cost of the: necessary preparation and superior instruction.

It is directed that no regard whatever shall be had to the religious creed or denomination of any candidate, provided that. bis personal character and repute shall be good, and that in determining any such award the only considerations shall be such as have reference to the character and to the abilities and learning of the candidate, as proved by University Examinations, and to his financial position.

The award is to be made to a Graduate who shall have recently taken his B.A. Degree; but the preference shall be given to one who had graduated in Honours.

The professions which are held specially in view are those of Medicine and Surgery, and of Law in either branch, and thoseof Architects, Surveyors and Engineers; but full discretion is given to the University Senate to include any other secular profession which shall be deemed by them to be of a learned or liberal character.

It is intended that the Graduate selected under this endowment shall enjoy the income for three years either by one payment of not exceeding one hundred and fifty pounds (when sufficient accumulations are available) for fees or premiums on articles of pupilage; or by half-yearly payments of twenty-five.
pounds for three years; or partly in each way, as may be deemed by the Senate best for carrying out the objects in view. The last award was made in March, 1909.

13-HENRY WAIT BURSARY.
Founded in 1900, by a bequest of $£ 1000$ from the late Henry Wait, Esq., of Redfern, "for the encouragement of the study of Medicine." The testator provides that the "Senate or Govern:ing Body of the said University of Sydney shall be the proper person to appoint and determine the conditions and provisions of the said bursary, and to pay to the successful candidate for the same yearly, the amount to be fixed by them therefor." The bursary is awarded to a student who has completed the First Year of the Arts course upon the following conditions:-

1. The Deans of the Faculties of Arts and Medicine shall receive a satisfactory assurance that the means of the applicant are insufficient to enable him to proceed with the Medical course without some such pecuniary assistance.
2. Applications for permission to compete for the Exhibition, accompanied by the necessary certificates, must be sent to the Registrar at least fourteen days before the first day of the Annual Examinations.
3. The bursary shall be awarded to that candidate of those who are allowed to compete who shall show the greatest proficiency in the First Year Examination of the Arts course, provided he shall be deemed to have shown sufficient merit:
4. The holder, who shall at once proceed with his studies in the Faculty of Medicine, shall receive the sum of £40 per annum for five years; provided that he shall only continue to hold the bursary on the condition that he is diligent and of good conduct, and that he passes creditably all the Examinations of his course. In the event of illness of the holder causing prolongation of his course of Medical study, the case will be subject to the special consideration of the Senate. The bursary is open to students of either. sex. The last award was made in March, 1911.
5. The holder of this bursary is not exempt from the payment of any fees.

## X.

## PRIZES.

1-W ENTLWORTH ALEDAL.
Founded in 1854, by a gift of $£ 200$ from W. C. Wentworth, Esq., the interest to be applied for an Annual Prize for the best English Essay.

In 1889 the fund had accumulated sufficiently to provide for two Prizes of the value of $£ 10$ each, and a Prize is now given for competition amongst Undergraduates, and a second Prize for competition amongst Bachelors of Arts of not more than three years' standing.

Graduateg' Medal.


1900-Gough, N. J. 190示-MacCallum, M. L. 1906 -MacCallum, M. L.

1909-Allen, C. K.
1910-Allen, C. K.
1911-Not Awarded.
2-NICHOLSON MEDA:.
Founded in 1867 by a gift of $£ 2 \dot{2} 00$ from Sir Charles Nicholson, Bart., D.C.L., to provide an annual Prize for Latin Verse. The competition for this medal is open to all Undergraduates and Graduates of not more than two years' standing. Value, £10. 1902-Allen, L. H. 1904-Allen, L. H.

1911-Chisholm, A. R.

## 3-FAIREAX PRIZES.

Founded in 1872, by a gift of $£ 500$ from John Fairfax, Esq. Awarded to the greatest proficients among the female candidates at the Senior and Junior Public Examinations. In the case of Seniors the candidates must not be over twenty-five years of age, and of Juniors seventeen years. Value, $£ 14$ and $£ 6$ respectively.

| Semior Prize. |  |
| :---: | :---: |
| 1901-Skillman, Jessie | 1907-Connell, Marion A. |
| 1902-Bourne, Florence I. | 1903-Gasteen, Elsie F. |
| Watson, Maria E. | Watson, Constance E., prox. |
| 1903-Jones, Grace E. |  |
| 1904-MacLean, Lillian Alexia | 1909-Anderson, Agnes K. |
| 190.-Shortland, Edith | 1910 - Bevington, Agnes P . |
| 1906-Ballantine, Mabel A. | Baird; Henriette E., prox.ace. |

1907-Connell, Marion A.
1903-Gasteen, Elsie F.
Watson, Constance E., prox. acc.
1909-Anderson, Agnes K.
1910 - Bevington, Agnes P.
Baird; Henriette E., prox. ace.


Founded in 1874, by a gift of $£ 200$ from the subscribers of a memorial of the Reverend John West, Editor of the Sydney Morning Herald. Awarded to the greatest proficient in the Senior Public Examination. Value, £8.

1901 -Stephen, J. F.

Henderson, R. G. $\}$ æq.
Thelander, C. A., prox. acc. 1902-Porter, W. E. T. 1903 -Sampson; G. A. 1904-Castlehow, Stanley 1905-Robinson, F. W.

Campbell, A. L. Walker, A. S. Walker, E.B. $\quad$ pro. $c c$.

> 5-SMI'H PRIZE.

Founded in 1854, maintained until the year 1885 by annual gifts, and subsequently by a bequest of $£ 100$ from the Honourable Professor Smith, M.D., C.M.G. Awarded to the best Undergraduate of the First Year in Experimental Physics. Value, £4. 1901-Weatherburn, C. E. 190-Mason, W. H. 1903-Lusby, S. G. $\left.\begin{array}{l}\text { 1904-Sampson, G. A. } \\ \text { Watkins, } \\ \text { H. L. }\end{array}\right\}$ æq. $\left.\begin{array}{l}\text { 1905-Cotton, L. A. } \\ \text { Sewell, L. G. }\end{array}\right\}$ æq.

1906-Bluner, R. C. Macrossan, N. W. ? prox:ace.
Cohen, C. H.
1907 -- $\underset{\text { Byth, G. L. }}{\text { Byhig, J. }}\}$ æq.
1908-Bnchanan, A. L.
1909-FitzHerbert, J. A.
1910-Nie!d, J. R.

6-norbert quirk prize.
Founded in 1886, by a gift of $£ 144$ from the subscribers to a memorial of the Rev. John Norbert Quirk, LL.D., late principal of Lyndhurst College. Awarded for pronfciency in Mathematics at the Second Year Examination. Value, £5.

1902-Wellisch, E. M.
1903-Weatherburn, C. E.
$190 t-$ Tomlinson. G. L. $\}$ Skillman, Jessie $\} æ q$.
190.5-Lyons, R. J.

1906-Watkins, H. L.

1907-Utz, H. S.
Cohen, Fanny, prox. ase.
1908-Campbell, A. L.
1909-Simond - , E. F.
1911-Meldrum, H. J.
$\left.\begin{array}{l}\text { Peirce, S. E. } \\ \text { Robson, A. J. }\end{array}\right\}$ æq.

7-SLADE PRLZES.
Founded in 1886, by a gift of $£ 250$ from G. P. Slade, Esq.r for the encouragement of Science. Two prizes are awarded for proficiency in Practical Chemistry and Practical Physics respectively. Value, £5 each.

Practical Chemistry.

1901-SSaunders, G. J.
1902-Foxall, H. G.
1903-Priestley, H.
$\left.\begin{array}{c}1904-\text { Carter, H. G: } \\ \text { May, H. W: }\end{array}\right\}$ seq.
1905-Farran-Ridge, C.
Practical Physics.

1906-Griffiths, E.
1907-Grey, C. E.
1908-Foxall, J. S.
1909-Peirce, S. E.
1910-Johns, G. E.

1901 -Brown, G. F. Campbell
1902—Shellshear, J. L.
$\left.\begin{array}{l}\text { 1903-Atkinson, J. } \\ \text { Jones, S. W. }\end{array}\right\}$ æq.
1904--Hammond, W. L. $\}$ white, C.J.
$\left.\begin{array}{l}\text { 1905-Cotton, L. A. } \\ \text { Davidson, G. F. }\end{array}\right\}$ æq.-
1906 - Watkins, H. L. Bateman, J.'E. $\}$ æq.
1907-Ranclaud, A. B. B.
1908-Norman, E. P.
1910-Not Awarded.

8-GRAHAME PRIZE MEDAL.
Founded in 1891, by a bequest of $£ 100$ from William Grahame, Esiq., of Waverley. Awarded to such candidate ass shall display the greatest general proficiency at the Senior Public Examination. Value, $£ 3$ 10s.
1901 - $\left.\begin{array}{l}\text { Stephen, J. F. } \\ \\ \text { Henderson, R. G. } \\ \text { Thelander, C. A., prox. acc. } \\ 1902 \text {-Porter, W. E. T. } \\ 1903 \text {-Sampson, G. A. } \\ 1904 \text {-Castlehow, Stanley } \\ 1905-\text { Robinson, F. W. } \\ \text { Campbell, A. L. } \\ \text { Walker, A. S. } \\ \text { Walker, E. B. }\end{array}\right\}$ req.

1906-Blumer, R. C.
$\left.\begin{array}{l}\text { Macrossan, N. } \cdot \mathbf{W} . \\ \text { Cohen, C. H. }\end{array}\right\}$ prox. acc..
1907 - $\underset{\text { Byhig, J. V. J. L. }}{\text { Byth }}\}$ æq.
1908-Buchanan, A. L. 1909-Fitz Herbert, J. A.
1910-Nield, J. R.

9-COLLIE PRIZE.
Founded in 1892, by a bequest of $£ 100$ from the Rev. Robert Collie, F.L.S., of Newtown. Awarded to a student of any Faculty at the First Year Examination in Botany. Value, £4.

1901-McCulloch, H. T. C.
1902-MacInnes, A., B.A.
1903-Dawes, Madeleine M. 1904-Ferguson, E. W. 1905-Hamilton-Browne, Eliz. I. 1906-Cohen, Fanny

1907-Parkinson, Kathleen A.
1908-Buchanan, Agnes E.
Willis, H. H.
1909-Wylie, C. J.
1910 -Badham, C.

## 10-BEAUCHAMP PRIZE.

Founded in 1901, by a gift of $£ 625$ from His Excellency the Right Hon. William Lygon, Earl Beauchamp, K.C.M.G., Governor of New South Wales. It is awarded for the best essay on some literary or historical subject, and is of the value of .£25. The subject shall be determined either upon the recommendation of the donor or of the Professors of Classics, Modern Literature, History, Philosophy and Law. The competition is open to all Undergraduates and Graduates of not more than twenty-five Terms'standing from Matriculation. (See page 241.)
1902-Teece, R. Clive, M.A. $\mid$ 1907-Green, H. M., B.A., LL.B. 1904-Green, H. M., B.A. 1908-Maxwell, W., B.A.
1905-Maxwell, W., B.A. 1906-Green, H. M., B.A. 19i1-Allen, C. K., B.A.

## 11-KAMBALA PRIZE.*

Founded in 1904 by a gift of $£ 250$ from the members of the Kambala Girls' Union. The prize is awarded at matricula-- tion to a pupil of a private school for girls in New South Wales for general proficiency, to assist in defraying the cost of the purchase of books and other expenses incidental to attendance at the University.

The prize is to be awarded annually to a matriculated student who, through pecuniary circumstances, is, in the opinion of the Chancellor, deemed such as to render her a suitable recipient of such a prize.

Should the principal be increased in the future to a sufficient amount, the prize may be converted into a scholarship to be awarded under similar conditions.

The term "private school" has been defined by the donors as including those schools the pupils of which are not entitled to compete for State University Bursaries.

| 1905-Cohen, Fanny |  |
| :--- | :--- |
| 1906-Lane, Laura E. | 1908-Prescott, Kathleen M. |

12.     - FREDERICK LLOYD MEMORIAL PRIZE.

Founded in 1906 by a gift of $£ 110$ from the subscribers to a memorial of the late Frederick Lloyd, B.A., Assistant Lecturer in Classics for twelve years in the University of Sydney. It is awarded every second year for a Latin Essay on a specified subject, and is open to competition to second and third year students in the Faculty of Arts. £8. The next award will be made in March, 1911.
1907-Castlehow, S. | 1911-Chisholm, A. R. 1909-Porter, W. E. T.

1 , A. R.

[^34]13-NATHAN PRLZES FOR AUSTRALIAN HISTORY AND GEOGRAPHY. (Junió Grade.)
Founded by Venour Nathan, Esq., in 1906, under the following conditions:-

1: Four prizes, of the value of $£ 7,\{6, £ 4$ and $£ 3$ respectively, will be awarded as the result of an examination in Australian History and Geography, to be held concurrently with the Junior Public Examination in June.
2. They will be open to competition amongst efficient members of a cadet or volunteer corps who are not over 18 years of age on the first day of examination, and who have either passed the Junior Public Examination or who pass the Junior Public Examination at the time of competition for the prizes.
3. The text-books recommended are A. W. Jose's "Short History of Australasia," together with suitable books on Australian Geographr, such as E. C. Andrew's "Geography of Now South Wales," Professor Gregory's "Geography of Victoria," etc.
4. Candidates who wish to compete must make application in writing to the Registrar not later than Friday, the 12 th May; 1911. Each application must be accompanied by a certificate from the candidate's teacher or other responsible person that the candidate is an efficient member of a cadet or volunteer corps. The successful candidates will be required to produce certificates of birth.
5. The prizes will be awarded only when in the opinion of the examiners the competitors show sufficient merit.

$$
\begin{aligned}
& \text { 1907-Goetz, B. L. } \\
& \begin{array}{l}
\text { 1909-Mauldon, F. R. E. }
\end{array} \begin{array}{c}
\text { 1910-Loomes, A. R. } \\
\text { O'Keffe, E. }
\end{array} \\
& \text { 14-Nathan prizes for Imperial history and geoaraphy. } \\
& \text { (Senior Grade.) }
\end{aligned}
$$

Prizes of $£ 20$ and $£ 10$ for Imperial History and Geography, founded in 1906 by Venour Nathan, Esq., will be awarded under the following conditions:-

1. The prizes will be open to competition amongst efficient members of the Sydney University Scouts.
2. An examination for the prizes will be held annually at the beginning of Lent Term, and candidates will be required to present an essay on a specified subject in conjunction with their examination.
3. The prizes will be awarded only when, in the opinion of examiners, the competitors show sufficient merit.

Text-books recommended: Freeman on Federation, "The Federalist" (Fisher Unwin), Professor Meiklejohn's "The British Empire," and Mahan's "Sea Power."

1907-Edwards, H. G , B.A. (First Prize).
Davidson, G. F. (Second Prize).
Subject of essay for 1912-"The Oversea Dominions and the Navy at the present time. A discussion of the extent of the dependence of their welfare on the predominance of the Navy, and the directions colonial effort should take in recognition of the importance of the Navy to their interests."

15-THE norton manning memorial prize.
Founded in 19007 by the gift of $£ 125$ from the subscribers of the Dr. F. Norton Manning Memorial Fund. Awarded, as an annual prize of books, in Psychological Medicine. Value £5.

16-TEE Chamber of commerce prize.
The Sydney Chamber of Commerce offers a prize of $£ 55 \mathrm{~s}$. in Economics and Commerce to the student who, after the Third Year Examination, is adjudged to have done the best work in the three years' course.
1909-Ewing, W. C. | 1910-Docker, F. J.

## 17-THE PITT COBBETI PRIZE.

Founded in 1910 by a gift of $£ 175$ from subscribers to a fund for the foundation of a prize in honour of Professor Pitt Cobbett, M.A., D.C L., Professor of Law from 1890 to 1909, and now Emeritus Professor. Awarded annually for Constitutional Law. Value £5.

$$
\begin{aligned}
& \text { 1911-Blankeby, H. R., B.A. } \\
& \text { 18-PARKINSON MEMORLAL PRIZE. }
\end{aligned}
$$

Founded in 1910 by a gift of $£ 225$ from subscribers to a memorial of the late Thomas Carlyle Parkinson, M.B., Ch.M., who died at the Lister Institute from plague-pueumonia while engaged in research upon bubonic plague. The prize is a warded annually for proficiency in Pathology on the result of the Fourth Year Lixamination in Patholngy to a student who has completed

1910-Tivey, E. A.

## ORIENT ROYAL MAIL LINE.

The Orient Royal Mail Line of Steamers, through its Managing Virector, Sir Kenneth S. Anderson, has offered to the University three free first-class return passages in favour of graduates of the University who desire to proceed to Europe for the purpose of continuing their studies. The disposition of this privilege the Managers leave entirely in the discretion of the Senate, but they express the hope that, as the object of the offer is to multiply the opportunities for education by travel, the privilege will preferentially be conferred on graduates who, though wishful to go to Europe, are debarred from doing so by reason of the expense involved rather than on the holders of any particular University distinction (as such), or of graduates who are able to dispense with such assistance, and would go in any case.

The passages will be available during the months of May to September, both inclusive, to Europe; and during the months of March to July, both inclusive, outwards from Europe. The currency of the return ticket is for a period of three years from the date of leaving till the date of return to Australia.
1909-Archdall, H. K., B. A.
Lusby, S. J., M.A.
Swain, H. J., B.Sc.

1910-Allen, C. K., B.A.
Chapman, B. B., M.A.
Davidson, G. F.; B.E.

1911 -Beuson, W. N., B.Sc.
Bulteau, A. W. J., B.A. Muscio, B., B.A.

## UNIVERSITY PRIZES.

I.-M:A. EXAMINATION.

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Master of Arts in the several schools, if of sufficient merit.

$$
\begin{gathered}
\text { LOGIC, MENTAL, MORAL AND POLITICAL PHILOSOPHY. } \\
\text { 1899-Garran, R. R. } \\
\text { 1903-Merrington, E. N. } \\
\text { modern History. } \\
\text { 1901-Teece, R. C. } \\
\text { MatHematics. } \\
\text { 1906--Weatherburn, C. E. } \\
\text { Wellisch, E. M. } \\
\text { II.-B.A. EXAMINATION. }
\end{gathered}
$$

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Bachelor of Arts in . the several schools, if of sufficient merit.

CLASSICS.
1901-Todd, F. A.
1903-Barton, W. A.
1904-Allen, L. H.
1906-MacCallum, M. L.
1907-Schleicher, B. M. J.
MATHEMATICS.
1903-Wellisch, E. M.
1904-Weatherburn, C. E.
1905-Lyons, R. J.

1908-Castlehow, S.
1909-Robinson, F. W.
Porter, W. E. T., pro.x. acc.
1910-Allen, C. K.
1911-Byth, G. L.
1907-Watkins, H. L.
1909-Campbell, A. L.
1910-Simonds, E. F.

LOGIC AND MENTAL PHILOSOPHY.
$\left.\begin{array}{c}\text { 1901-Bowmaker, Jessie } \\ \text { Fry, F. Mildred }\end{array}\right\}$ æq.
1902-Ferguson, J. A.
1903-Cole, P. R.
1904-Watts, P. R.
$\left.\begin{array}{c}\text { 1905-Northcott, C. H. } \\ : \text { Paterson, J. }\end{array}\right\}$ æq.
FRENCH AND GERMAN.
1909-Campbell, A. L. 1911 - Bulteau, A. W. J. 1910-Hooton, J. R.

## III.-LL.B. EXAMINATION.

1906-Lovell, H. T. 1908-Archdall, H. K. 1909-Mann, J E. F, 1910-Muscio, B. 1911-Bruce, J. F.

A Medal is awarded to the student who exhibits the greatest proficiency at the LL.B. Examination, if of sufficient merit.

1900-Mitchell, E. M.
1903-Teece, R. Clive 1906-Rowland, N. de H.

1907-Real, E. T.
1909-Townshend, S. E.

TV.-M.D. EXAMINATION.

A Medal is awarded to the candidate who exhibits the greatest proficiency at the M.D. Examination, if of sufficient merit. 1903-Sandes, Francis Percival (Surgery)

> V.——M.B. EXAMINATION.

A Medal is awarded to the student who exhibits the greatest proficiency at the M.B.- Examination, if of sufficient merit.

1900-Burfitt, W. F. 1901-Macintosh, $\boldsymbol{\Lambda}$. H. 1906-Parkiuson, T. C.

1908-Brearley, E. A.
1910-Priestley, H.
1911-Edye, В. Т.
vi.-D.Sc. Examination:

A Medal is awarded to the most distinguished candidate at the D.Sc. Examination, if of sufficient merit.

1908-Jensen, Harold Ingemann.
VII.-B.Sc. EXAMINATIOA.

A Medal is awarded to the student who exhibits the greatest proficiency at the B.Sc. Examination, if of sufficient merit.

```
1902-Vonwiller, O. U.(Mathematics
        and Physics)
1907-Flynn, T. T. (Biology)
    White, C. J. (Chemistry)
1908-Bateman, J. E. (Mathematics)
1909-Griffiths. E. (Chemistry)
    Cohen, Fanny (Geology and
        Mineralogy)
            VIII.-M.E, EXAMINATION.
```

A Medal is awarded to the most distinguished candidate in the Honour Examination for the Degree of Master of Engineering, if of sufficient merit.

1896-Bradfield, J. J. C.
ix.-b.e. Examination.

A Medal is awarded to the student who exhibits the greatest proficiency at the B.E. Examination, if of sufficient merit.

```
1901-+Boyd, W. S. . 
1902-*Boyd, A.
1904-+Weston, F. L.
1907-†Atkinson, J.
    +Norman, J. L.
    +Tivey, J. P. . }rq.
```

[^35]x.-ENGLISH VERSE.

A Medal of the value of $£ 10$ is given by the University for the best composition in English Verse. The competition for this Medal is open to all Undergraduates and Bachelors of Arts of not more than two years' standing.

1902-Austin, A. H.
1903-Green, H. M., B.A.
1904-Green, H. M., B.A. 1905-Allen, L. H., B.A.

1908-Allen, C. K.
1909-Allen, C. K.
1910-Allen, C. K.
1911-Lion, Rosine, B.A.

## XI.-UNIVERSITY PRIZE FOR PHYSIOGRAPHY.

A University Prize of the value of $£ 5$ is awarded to the student of the First Year who passes the best Class Examination in Geology, if of sufficient merit. Before 1907 it was given for Physiography.

1901-Goddard, E. J.
Cramp, K. R., prox.acc. 1902-Flashman, H. W. 1903-Hammond, W. L.

Bridge, J. M., prox. acc. 1904-Taylor, Dorothy R. 1905-Brodziak, Birdie K.

$$
\left.\begin{array}{l}
\text { 1906-Cotton, C. M. } \\
\text { Hatfield, W. F. J. }
\end{array}\right\} \text { req. }
$$

XII.-UNIVERSITY PRIZES AT PUBLIC EXAMINATIONS.

Prizes of $£ 20$ and $£ 10$ were appropriated annually by the Senate until the year 1894 for the greatest proficients amongst the male candidates at the Senior and Junior Public Examinations. A Prize of $£ 5$ is now offered for competition amongst the greatest proficients in the Junior Examination, the Prize for Seniors being withdrawn. The limit of age for Juniors is seventeen years. Junior Prizer.
 1906-Ritchie, H. A.

1907-FitzHerbert, J. A.
$\left.\begin{array}{l}\text { Barbour, E. P. } \\ \text { Pulling. C. W. . . }\end{array}\right\}$ prox. acc.
1908-Nield, J. R.
Charlton, M. A., prox. aec.
1909-Simpson. C. H. G.
$\left.\begin{array}{l}\text { Nommensen, J. W. } \\ \text { Jones, A. H. }\end{array}\right\}$ æq.
Kay, R. I., prox. acc.
1910-Robson, L. C.
Dare, L., prox. acc.

## *PRIVATE ANNUAL PRIZES.

English.-Prizes of $£ 2$ 10s. each, given by Professor MacCallum: for English Essays in the First and Second Years, and of $£ 10$ for proficiency in English in the Third Year. This last. was superseded in 1906 by the James Coutts Scholarship. From 1906 the Second Year Prize is given for English.
1901-Watts, P. R.
1902-Paterson, J.
1903-MacCallum, M. L.
1904-Taylor, Dorothy R.
1905-Marks, Gladys

1901-Watts, P. R.
1902-Paterson, J.
1903-MacCalluin, M. L.
1905-Marks, Gladys

1901-Allen, L. H.
1902-Watts, P. R.
1903-Henderson, R. G.
1904-MacCallum, M. L.
1905-Schroder, Aphra F.
1906-Brodziak, Birdie K.
Young, H. R. (Essays)

First Year.

1906-Robinson. F. W.
Weston, C. A., prox. acc.
1907-Allen, C. K.
1908-Solomon, K. M. H, 1910-Hall, H. D.

## Second Year.

1907-Robinson, F.W.
1908-Allen, C. K.
1909-Bruce, J. F.
Solomon, K. M. H. \}æq.
1910-Not Awarded.

Third Year.
1901-Aınstrong, Helen D. H. 1902-Waterhouse, E. G.

Cole, P. R., prox. acc.
1903-Allen, L. H.
1905-MacCallum, M. L.
1910-Solomon, K. M. H.
Biology.-Prizes of £2 2s., given by Professor Haswell for proficiency in Zoology.

1901-Palmer, C. R.
1902-Weatherburn, C. E.
1903-Archdall, M.
1904-Ferguson, E. W.
1905-Burfitt, Mary B.
1906-Fox, Edith E.

1907-Kesteven, H. L. (3rd Year)
Burkitt, A. N. St. G. H. (1st Year)
1908 - Burkitt, A. N. St. G. H. (2nd Year)
Van Epen, T. W. (Ist Year)
1909-Wylie, C. J. (1st Year)
1910-Badham, C.

[^36]Biology.-Prizes of $£ 1$ 1s., given by Professor Haswell, for excellence in Laboratory notes,

1901-Binney, Constance C.
$\left.\begin{array}{l}\text { Gibson, D. D. } \\ \text { Graham, D. H. }\end{array}\right\}$ æq.
1902-Bradley, C. H. B.
Poate, H. R. G. æq.
White, W. J.
$\left.\begin{array}{c}1903 \text {-Archdall, M. } \\ \text { Ewing, T. }\end{array}\right\}$ æq.
4904-Child, Sophia R.
Grigor, W. E. $\}$ æq. Paruell, Ethel C.

1904-Tebbutt, A. H., prox. acc.
$1905-M a c i n t o s h, ~ C . ~ L . ~ S . ~$
Tait, G. æq.
1906-Humphries, H. G.
1907-Chapple, A. T.
1908 -Fielding, Una Van Epen, T. W.
1909-Thomas, F. S.
$\left.\begin{array}{c}\text { 1910-Stewart, Dorothea L. } \\ \text { Nye, L. J. J. }\end{array}\right\}$ æq.

Geology.-Prizes of $£ 4$ and $£ 5$ each, given by Professor David, for proficiency in Geology respectively in the Second and Third Years.
4901-Green, L. C. $\dagger$ 1902-Jensen, H. I. 1903-Foxall, H. G. 1904-Atkinson, J. 1905-White, C. J.
1906-Cotton, L. A.
1901-Verge, J., B.A.
1902--Taylor, T. G.
1903-Jensen, H. I.
1904-Foxall, H. G.
1905-Atkinson, J.
1906-Hammond, W. L.

Second Year.
1907-Booth, F. A.
1908-Browne, W. R.
1909 - Debewham, F. $\quad$ Smith, Catherine D. $\}$ æq.
1910-Watson, A. D.
Third Year.
1906-Benson, W. N., prox. acc.
1907-Cotton, L. A.
1908-Cohen, Fanny
$\left.\begin{array}{r}1909 \text { - Browne, W. R. } \\ \text { Walkon, A. B. }\end{array}\right\}$ q.
1910-Smith, Catherine D.

Practical Petrology.-Prize of $£ 1$, given by Professor David, for proficiency in preparing Microscopic Slides of Minerals.

1901-Green, L. C. $\dagger$ 1903-Nardin, C. C.
1904-Perry, E. A. $\dagger$
190:-Kesteven, H. L. 1906-McBryde, J.

1907-Booth, F. A.
1908-Johnson, J. S.
1909-Fischer, E.
1910-Lahey, R. W.

Fieldwork in Geologx.--Prize of $£ 2$, given by Dr. W. G. Woolnough.
1907 -Browne, W. R. $\mid$ 1909-Hatfield, W. F.
1908-Anderson, W. T.
1910 -Wenholz, H.
Philosophy.-A Gold Medal, of the value of $£ 10$, given by Professor Anderson, M.A., for the best essay on a Philosophical subject; competition to be open to all Bachelors of Arts of not more than two years' standing.

1902-Merrington, E. N., B.A. 1904-Austin, A. H., B.A. 1905-Powell, J. G. W., B.A. 1906-Watts, P. R., B.A.

1907-Lovell, H. Tasman, B.A. 1908-Archdall, H. K., B.A. 1909-Barlex, H. N. C., B.A. 1910-Muscio, B., B.A.

Logic and Mental Philosophy.--Prizes of $£ 5$ each, given by Professor Anderson.

First Year. 1909-Bruce, J. F.

Second Year.

1901-Ferguson, J. A.
1902-Cule, P. R.
1903-Watts, P. R.
1904- Northcott, C. H. $)$ req.
Paterson, J.
1905-Lovell, H. T.
1906-Stewart, W. P.
1907-Archdall, H. K.

1901-Bowmaker, Jessie
Fry, F. Mildred $\}$ æq.
1902-Ferguson, J. A.
1903-Cole, P. R.
1904-Watts, P. R.

1908-Manu, J. E. F. (2nd Year).
$\underset{\substack{\text { Blanksby, H. R. (lst } \\ \text { Year). }}}{\text { (eq. }}$ 1910-Thomas, G. R.

Smith, D. M., prox. acc.

Third Year.
$\left.\begin{array}{c}\text { 1905-Northcott, C. H. } \\ \text { Paterson, J. }\end{array}\right\}$ æq.
1906--Lovell, H. T.
1908-Archdall, H. K. 1909-Mann, J. E. F. 1910-Bruce, J. F.

Loalc.-Prize of £2 2s., given by Professor Anderson, for proficiency in Logic amongst Medical Students.
$\left.\begin{array}{r}\text { 1905-Ferguson, E. W. } \\ \text { Parkinson, H. H. }\end{array}\right\}$ æq.
1906-Hamilton-Browne, Eliz. I.

1907-Walker, A. S. 1909-Collins, A. J.

History.-Prize of $£ 5$, given by Professor Wood, for proficiency in History.

1901-Teece, R. N.
1902-Cole, P. R.
Kemp, R. C. King
$\left.\begin{array}{l}\text { 1903-Cramp, K. R. } \\ \text { Maxwell, W. }\end{array}\right\}$ æq.
$\left.\begin{array}{l}\text { 1904-Paterson, J. } \\ \text { Rogers, P. H. }\end{array}\right\} æ$.
$\left.\begin{array}{c}\text { 1907-Chapman, B. B. } \\ \text { Whyte, H. W. }\end{array}\right\}$ æq. 1908-Mann, J. E. F.

History-Prizes of $£ 210$ s. each, given by Professor. Wood for proficiency in History.

## First Year.

1910-Currey, C. H.
1911-Not Awarded.
Second Year.
1010-McCredie, Gladys
1911-Currey, C. H.

Political Science.-Prize of $£ 5$, given by Professor Pitt Cobbett, for proficiency in the Elements of Political Science.

1901-Browne, J. A.
1902-Pitt, A. G. M.
1903-Hodge, S. T.
1904-Beckenham, J. G.
1905-Teece, R. N.
1906-Watts, P. R
Wheeler, A. R. ${ }^{\text {l }}$ æq.

1907-Spence, J., B. A.
$\left.\begin{array}{c}\text { 1908-Laird, H., H, B.A. } \\ \text { McKean, L. J., B.A. }\end{array}\right\} æ q^{-}$
1909-Lamond, H. L.
$\left.\begin{array}{c}1910-\text { Bland, F. A... B.A. } \\ \text { Stewart, W. K. }\end{array}\right\}$ eq.

Paleontology (Practical).—Prize of £2, given by Mr. W. S. Dun, for the best original essay on the Palæontology of the district examined during the annual Geological excursion.
1906-Free, Mary G.
1908-Deer, Margaret
1909-Booth, F. A.
Descriptive Geometry.-Prize of £2 2s., given by Assistant Professor S. H. Barraclough, for proficiency in Descriptive Geometry.
1906—Ada, W. L. $\mid$ 1908-Hebblewhite, W. R. 1907-Lloyd, A. S. 1910-Mackinnon, J. Y.
Engineering Essay.-Prize of £3 3s., given by AssistantProfessor
Barraclough, for an essay ou an Engineering subject.

1906-Flachuan, H. W.
1907-tSwain, H. J.
Thompson, H. L. $\}$ æq.
1908-Waterhouse, L. V.
$\left.\begin{array}{l}\text { 1908-Fry, H. W. } \\ \text { Llogd, A.S. }\end{array}\right\}$ prox. acc.
1910-Holloway, R. A.
Deunis, C., prox. acc.

Astronomy.-Prize of $£ 2$ 2s., given by Professor Carslaw. 1909-Gasteen, Elsie F.
Veterinary Science.-Prize of £10, given by E. R. White, Esq. 1910—Stewart, J. R.
Assaying.-Prize of $£ 22 \mathrm{~s}$., given by Mr. F. A. Eastaugh. l910-Anderson, W. T.

## HONOURS AT THE DEGREE EXAMINATION.

FACULTY OF ARTS.
M.A. EXAMINATION.

GREEK AND LATIN LITERATURE.
1876-Beatty, J. J. M. $\mid 1903-$ Class III.-Yarnold, A. H. .
1897-Class II.-Pratt, F. V.
1904-Class II.-Jensen, Klio.
1902-Class II.-McLaren, A. D. 1909-Class I.-Watson, Maria E.
1911-Class I.-Schleicher, B. M. J.
mathematics.
1865-Murray, C. E. R.
1876-Rennie, E. H.
1877-Butler, E. J.
1900-Class II.-Sawkins, D. T. 1908-Class II.-Lusby, S. G. logic and mental philosophy, etc.

1887-Legge, J. G.
1890-Woodthorpe, R. A.
1894—Cocks, N.J.
Brennan, C. J.
1894-Shaw, H. G.
1896-Class I.-Smairl, J. H.
Class II.-Millard, G. W.
1899-Class I.-Garran, R. R.
Class II.-Taylor, Eliz. I.
$\left.\begin{array}{r}\text { 1906-Class I.-Weatherburn, } \\ \text { C. E. } \\ \text { Wellisch,E.M. }\end{array}\right\} \dot{\text { © }}$

1903-Class I.--Merrington, E. N. Lasker. S. 1908-Class I.-Edwards, J. 1909-Class II.-Deane, W. 1910-Class I.-Roberts, T. T. (Education) Class II.-Barlex, H. N. C. (Education)
english literature and political philosophy. 1894-Russell, F. A. A.

FRENCH AND GERMAN LItERATURE.
1901-Class IL.—Roseby, T. E. | 1904—Class I.-Wilsbire, H.
Latin and modern french literature. 1895-Class II.-Bowmaker, Ruth.

LATIN AND OLD FRENCH LITERATURE.
1903-Class I.-Paxton, Betha. 1904-Class II.-Uther, Mary H.

PHILOSO1'HY AND FRENCH LITERATURE. 1896-Claśs II.-Stonham, J.

ENGLISH LITERATURE AND MODERN HISTORY. 1897-Class II.-Doust, Edith L.

FRENCH PHilology, language and literature. 1908-Class I.-Sharpe, G. F.

MODERN HISTOKY.


## *B.A. EXAMINATION.

LATIN.
1902.

Class I.-Fraser-Hill, Charlotte E. Teece, R. N.
Class II.-Ferguson, J. A.
Sandford, Blanche V.
Class III.-Crisford, Hilda N. M.
Larcombe, E. R.
1903.

Class I.-Barton, W. A.
Jensen, Klio 1904.

Class I.-Allen, L. H.
Class II.--Levick, A. M. $\underset{\text { Jordan, F. R. }}{\text { J. }}\}$ æq.
Bonney, R. S. 1905.

Class I.--Henderson, R. G.
Class II.-Rogers, P. H.
Graham, Frances 1906.

Class I.-MacCallum, M. L.
Class II.-Clark, Marjorie D. Watson, Maria E.
1907.

Class I.—Schleicher, B. M. J.
Class II.-McKeowin, F. M.
Jones, Grace E.
1908.

Class I.-Castlehow S.
Class II.-Wyndham, ElinoriM.
McGill, A. D.
Archdall, H. K.
1909.

Class I,-Porter, W. E. T.
Robiason, F. W.
Perry, Irene F.
Class II.-Norris, Mabel
1910.

Class I.-Allen, C. K.
Blumer, R. C.
Kaeppel, C. H.
Class II.-Lumsdaize, K. B. F.
Nowlan, J. G.

[^37]hatin-continued.
1911.

Class I.-Byth, G. L.
Class II.-None.
Class III.-Gretton, Ethel M.
Solomon, K. M. H.
Blight, S. E.
Maclardy, D. S.
GREEK.
1902.

Class I.-Teece, R. N.
Class III.-Larcombe, E. R.
1903.

Class I.-Barton, W. A.
Jensen, Klio
Class II.-Stewart, J. R.
Class III.-Brentnall, Nina T.
1904.

Class I.-Allen, L. H.
Bonney, R. S.
Class II.-Campbell, A. P.
1905.

Glass I. - Paterson, J. $\left.\begin{array}{rl} \\ & \text { Rogers, P. H. }\end{array}\right\}$ æq.
Henderson, R. G.
1906.

Class I.-MacCallum, M. L.
Watson, Maria E.
1907.

Class I.-Schleicher, B. M. J.
Class III.-Jones, Grace E.
1908.

Class I.-Castlehow, S. Archdall, H. K. McGill, A. D.
1909.

Class I.-Roblnson, F. W.
Porter, W. E. T.
Class II.-Mann, J. E. F. Class III.-Norris, Mabel
1910.

Class I.-Kaeppel, C. H.
Allen, C. K.
1911.

Class I.-Byth, G. L.
Class II.-Blight, S. E.
Solomon, K. M. H.
FRENCH.
1902.

Class I.-Mackness, Constance
Wilshire, H .
Fraser-Hill, Charlotte E. Armstrong, Helen D. H.
Class III.--Reid, Violet M.
1903.

Ciass I.-Sproule, Margaret
Waterhouse, E. G.
Sharpe, G. F.
Docker, Gladys M. B.
Wardrop, Maggie R.
1904.

Class I.—Jordan, F. R.
Murray-Prior, Doroth. K MacCallum, Isabella R.
Class II.-Spence, J.
Carey, Daisy
1905.

Class I.-Armstrong, Clare A. C.
Class II.-Grahara, Frances $\underset{\text { Latreille, Meta G.E. }}{ }\} \underset{\dot{*}}{-1}$
Class III.-Austin, Fanny M.
Haigh, V.
1906.

Class I.-McIntosh, A. M.
Lovell, H. T.
Class II.-Bourke, J. O. A.
Class III.-McLean, A. L.
Coleman, E. A. 1907.

Class I.-Paxton, Grace
Class II.--Brierley, Nina B. $\}$ Davies, E.S.
Fry, Eva J.
Chandler, H .
Class III.-Tarrant, T. A.
french-contirued.
1908.

Class I.-Wyndham, Elinor M. .
Class II.-Malcolm, Olive
Mitchell, Clarice Barlex, H. N.
Class III.-Jopling, Mildred H.
Stokes, Marion E.
Crave, C. C .
Short, $\mathbf{F}$.
1909.

Class I.-Campbell, A. L.
Perry, Irene F.
Shortland, Edith
Duncan, Ánnie B.
Calow, P. F.
$\begin{array}{cc} & 1902 . \\ \text { Class } & \begin{array}{c}\text { I.- Wilshire, H. } \\ \text { Armstrong, Helen D. H. }\end{array}\end{array}$
$\begin{array}{cc} & 1902 . \\ \text { Class } & \begin{array}{c}\text { I.- Wilshire, H. } \\ \text { Armstrong, Helen D. H. }\end{array}\end{array}$
$\begin{array}{cc} & 1902 . \\ \text { Class } & \begin{array}{c}\text { I.- Wilshire, H. } \\ \text { Armstrong, Helen D. H. }\end{array}\end{array}$
1903.

Class I.-Spronle, Margaret
Waterhouse, E. G.
1905.

Class I.-Armstrong, Clare A. C.
1906.

Class I.-McIntosh, A. M.

## ENGLISH.

- 

1902. 

Olass I.-Armstrong, Helen D. H.
Phillips, F. G.
Mackness, Constance
Crisford, Hilda N. M.
Class II.-Holt, Edith J. K.
Wheeler, H. C. F.
Fullerton, Lottie
Kemp, Laura M. King 1903.

Class I.-Waterhouse, E. G.
Cole, P. R.
1903.

Class II.-Hope, P.
german.

Class III.-Brown, Millicent A. M. Maćphee, Isabel
1910.

Class I.-Hooton, J. R.
Class II.-Parkinson, KathTeen. A.
Class III.-Francis, Irene I.
Fielding, Una $L$.
1911.

Class $\underset{\text { I.-Bulteau, A. W. J. }}{\substack{\text { Chisholm, A. R. }}}\}$ eq.
Class II.-Widmer, F. E.
Class III-LLilley, Kathleen M.
1909.

Class I.-Campbell, A. L. Duncan, Annie B. Shortland, Edith
Class II.-Calow, P. F.
Class III.—Ransay, Muriel B.
1910.

Class I.-Hooton, J. R.
Class II.-Nowlan, J. G.
Parkinson, Kathleen A.
1911.

Class I.-Bulteau, A. W. J.

Class I.-Allen, L. H.
$\left.\begin{array}{l}\text { Skillen, Elizabeth } \\ \text { Watts, P. R. }\end{array}\right\}$ neq. 1905.

Class II.-Northeott, C. H.
Coombes, A. J. 1906.

Class I.-MacCalhum, M. L.
Bellhouse, Constance A. 1907.

Class $\left.\begin{array}{c}\text { I.—Scroder, Aphra F. } \\ \text { Mackaness, G. }\end{array}\right\}$ æq.
Class II.-Clouston, Lavinia $\left.\begin{array}{r}\text { Young, Hilda M. }\end{array}\right\}$ req.

HNOLIBH-contintted.
1908.

Class I.-Miles, B. J. V. $\left.\begin{array}{l}\text { Cusbert, A. W. } \\ \text { Roseby, Clara }\end{array}\right\}$ æq. Watts, Ethel L.
Class III.-Jopling, Mildred H.
Malcolm, Olive
1909.

Class I.-Robinson, F. W.
Ramsay, Muriel B.
Taylor, Margaret H.
Class III.-Taylor, R. C.
1910.

Class I.-Allen, C. K. Muscio, B. Armstrong, Millicent S.
1911.

Class I.-Bruce, J. F.
Solomon, K. M. H.
Class II.-Burns, Dorothy
Gretton, Ethel M.
Stewart, Dorothea L.
Class III.-Connell, Marion A.
Watson, Evelyn A.
McCredie, Jessie

HISTORY.

1902
Class I. -Teece, R. N.
Mackness, Constanco
Fullerton, Lottie
Class II.-Reid, Violet M.
1903.

Class I.-Cole, P. R.
Kemp, R. C. King 1904.

Class I.-Cramp, K. R.
Class II.-Maxwell, W. 1905.

Class I.-Paterson, J.
Rogers, P. H.
Northcott; C. H.
1906.

Class I.-Whitney, G. C.
Class II.-Leeson, Ida E.
Class III.-Bourne, Florence I.
1907.

Class II.-McKeown, F. M.
Class III.-Dunlop, Mabel L. 'T.
1908.

Class I -Lynch, J.
Chapman, B. B. $\}^{\text {æq. }}$
Malcolm, Olive
Whyte, H. W.
Class II.-Roseby, Clara
Class III.-Webb, J. E.
1909.

Class I.-Mann, J. E. F.
Class II.-Ferrier, Elizabeth I.
1910.

HONOURS.
Class I.-Biddulph, L. H.
1911.

Class I.-Bruce, J. F.
Cousins, A.
Fletcher, C. E. B.
McCredie, Gladys E.
Lennard, $W$.
Lennard, W.
Class II.-Mulholland, W. J.
1902.

Class I.-Hawken, R: W. H.
Smịth, W.
Class II.-Tivey, J. P.
1903.

Class I.-Wellisch, E. M. Sharpe, G. F.


[^38]Logic and mental philosophy -continted
1908.

Class I.—Archdall, H. K.
Lynch, J.
Chapman, B. B.
Class II.-Armstrong, A. M. Whyte, H. W. $\underset{\text { Short, F. }}{\text { Burlex, M. }}\}$ æq.
Class III. - De Putron, Violet
Ross, J. A.
Gourlay, Mary E. F.
1909.

Class I.-Mann, J. E. F.
Class II.-Calow, P. F. Eldershaw, P. S.
Class III.-Dart, G.
Hayes, J. W.
Walker, E. B.
GEOLOGY AND PALEONTOLOGY.
1899.

Class II.-Lee, T. N.
1900.

Class ' I.-Wilton, E. N.
1902.

Class II.-Alexander, Maud M.
1905.

Class II.-Barry, D. R.
Burfitt, Mary B.
Wade, R. T.
PHYSICS.
1902.

Class II.-Tivey, J. P.
botany.
1907.

Class IL.-White, C. J.

Class I.-Lusby, S. G.
CEEMISTRY. ‘1907.
Class I.-White, C. J.
1911.

Class II.-Chisholm, A. R.
Class III.-Bultean, A. W.J.

## FACULTY OF LAW.

ILL.B. Examination.

| 1903. | 1907. |
| :---: | :---: |
| Class I.-Teece, R, C. | Class I.-Real, E. T. |
| Class II.-Robson, R. N. | Class II.-Jordan, F. R. |
| Arnold, A. G. de ${ }^{-1}$ L. | Fisher, A. D. W. |
| Rogers, W. A. H. | Manning, H. E. |
| Stephen, H. M. | Watts, P. R. |
| 1904. | 1909 |
| Class II.-Browne, J. A. | Class I.-Townshend, S. E. |
| Wilson, G. H. | Class II.--Thompson, E. H. |
| Yickery, E. F. | Hughes, J. |
|  | Haigh, V. |
| 1905. | 1910. |
| Class II.-Ferguson. J. A. | Class II-Minter, C. |
| Kemp, R. C. King | Collins, C. M. |
| Green, H. M. | Lowe, M H. |
| 1906. | 1911. |
| Class I.-Rowland, N. de H. | Class II.-Hooke, R. W. |
| Class II.-Wilson, D. | Laurence, R. D. |
| Teece, R. N. | Edwards, H. G. |

## FACULTY OF MEDICINE.

M.D. EXAMINATION.

1895.-Smith, G. E. (Anatomy).
1903.-Class I.-Sandes, F. P. (Surgery).

Blackburn, C. B. (Medicine).
1904-Class II.-Hall, E. C. (Materia Medica and Therapeutics). 1907-Class II. - Hipsley, P. L. (Surgery).
M.B. EXAMINATION.
1902.

Class II.-Page, E. C. G.
Wallace, D.
Muscio, A.
1903.

Class II.-Dansey, St. J. W.
Hipsley, P. L.
Smith, S. A.
$\left.\begin{array}{l}\text { Mason, T. W. } \\ \text { Davis, J. S. }\end{array}\right\}$ æq.
Woolnough, R. E.
Plomley, M. J.
Suckling, F. M.
1904.

Class II.-Buchanan, G. A.
Browne, C. S.
Connolly, T. P.
Sharp, G. G.
Mawson, W.
D'Arcy, Constance E. 1905.

Class II.-Simpson, F. G. M.
Smith, P. E. W.
McKelvey, J. L.
O'Reilly, Susannah H. 1906.

Class I.—Parkinson, T. C.
Class II.-McCulloch, H. T. C. $\left.\begin{array}{c}\text { Quaife, W.T. }\end{array}\right\} \underset{\neq \dot{\&}}{\dot{\text { M }}}$
Palmer, C. R.
Harris, S. H.
1907.

Class II.-Poate, H. G. R.
Deakin: J. E. F.
Shellshear, J. L. Diethelm, O. A. A. MacInnes, A., B.A.
1908.

Class I.-Brearley, E. A.
Rogers, F. C.
Class II.- Brooks, G. A.
Archdall, M.
Matthews, H. D.
Tomlinson, G. L.
Weedon, C. J.
1909.

Class I.-Smith, K.
Golledge, K. A.
Class II.-Waddy, R. G.
Parkinson, H. H.
Ferguson, E. W.
Bullock, $\mathbf{H}$.
Fahy, J. F.
1910.

Class I.-Priestley, H.
Ewing, T. T.
Dalyell, Elsie J.
Marsh, H. T.
Burfitt, Mary B.
$\left.\begin{array}{c}\text { Bamilton-Browne, } \\ \text { Elizabeth I. }\end{array}\right\} \underset{\mathscr{E}}{\dot{\mathscr{C}}}$
Elizabeth I.

1911.

Class I.--Edye, B. T.
McIntosh, A. M.
Walker, A.S.?
Ward, H. K. $\}$ æq.
Harrison, B. M. J.
$\left.\begin{array}{c}\text { Class II.-Barrow, J. M. } \\ \text { Sear, H. R. }\end{array}\right\}$ æq.
Davis, N. J.

## FACULTY OF SCIENCE.

B.Sc. EXAMINATION. CHEMISTRY.
1909.

Class I.-Griffiths, E. 1910.

Class I.-Buirrows, G. J.
Grey, E. C.
Class II.-Walkom, A. B.
1901.

Class I.-Petrie, J. M.
Class II.-Heden, E. C. B. 1907.

Class I.-White, C. J. 190 S.
Class I.-Farran-Ridge, C GEOLOGY AND PALEONTOLOGY.
1902.

Class I.- Verge, J.
†Green, L. C.
1903.

Class I.-Taylor, T. G.
Class II.— $\dagger$ Stone, W. G.
1904.

Class I.-Jénsen, H. I.
1905.

Class I.-*Foxall, H. G.
1906.

Class ${ }^{-}$I. - Atkinson, J.
Class II.-Dwyer, 'C. C. Goddard; E. J.

Class I.-Booth, F. A.
1907.

Class I.-Free, Mary G.
$\left.\begin{array}{l}\text { Hammond, W. L. } \\ \text { McKinnon, E. }\end{array}\right\}$ æq. 1408.
$\left.\begin{array}{rr}\text { Class } \quad \text { I.- Deer, Margaret } \\ & \text { Sherring, Beatrice }\end{array}\right\} \dot{\mathscr{\&}}$
Class II.- Cotton, L. A. $\left.\begin{array}{rl}\text { Breakwell. E. }\end{array}\right\}$ æq 1909.

Cohen, Fanny
Kesteven, H. L.
Class II.-Hunter, J. G. 1910.

Class I.-Mackinnon, M.
Jacobs, Grace E.
Class II.-Watkins, Dorothy M. MINERALOGY.
1893.

Class II -Forde, J. 1894.

Class I.-Watt, J. A.
GEOLOGY AND MINERALOGY.
1902. .| . 1908.

Class I.- $\dagger$ Larcombe, C. O. G.
*Verge, J. 1905.

Class $\left.\begin{array}{c}\text { I. }- \\ \\ \\ \\ \\ \text { Mawson, } \\ \text { Gray. G. J. }\end{array}\right\}$ ®q. 1906.

Class I.-*Atkinson, J. 1907.

Class I.-Benson, W. N. Hammond, W, L.
1903.

Class II.-Jensen, H. I.

Class I.-Cotton, L. A. 1909.

Class I.-Cohen, Fanny
Class II.-Lloyd, A. C. 1910.

Class I.- $\left.\begin{array}{r}\text { Browne, W. R } \\ \text { Walkom, A. B. }\end{array}\right\}$ mq.
Burrows, G.J.

- 1911. 

Class I.-Smith, Catherine D.

[^39]1902.

Class I.-Vouwiller, O. U. 1903.

Class I.-Close, J. C. . 1904.

Class II.-Taylor, T. G. 1905.

Class I.-Mason, W. H. 1906.

Class I.-Ewing, T.
Class III.-Sharp, L. H.
1902.

Class II.-Johnston, S. J. 1906.

Class II.-Goddard, E. J.
Dwyer, T. C. 1907.

Class I.-Flynn, T. T.
Class II.-Mackinnon. E.
Johnston, T. H. 1908.

Class II.-Kesteven, H. L. Breakwell, E.

PHYSICS.
1908.

Class II.-Bateman, J. E.
Ranclaud, A. B. B
1909.

Class 1I.-Norman, E. P.
Herbert D. P.
1910.

Class II.-Holloway, R. A.
Class III.-Ross, A. C.

## BIOLOGY.

Class I.-George, S.
Class IL.-Kesteven. H. L. Hunter, J. G.
1910.

Class 1.-Burkitt, A. St. G N. H.
Class II.-Morison, Marion W.
1911.

Class II.-Little, Elaine M.
MATHEMATICS.
1902.

Class I.-Vonwiller, O. U.
1903.

Class II.-Close, J. C.
1905.

Class I.-Weatherburn, C. E.
1908.

Class I.—Bateman, J. E.
1909.

Class I.-Cohen, Fanny

1910.

Class $\left.\begin{array}{r}\text { I.-Browne, W. R. } \\ \\ \\ \text { Holloway, R. A. }\end{array}\right\}$ æ.
1911.

Class I.-Smith, Catherine D.

## M.E. EXAMINATION.

CIVIL Englneering.
1894.

Class I.-Dare, H. H.
1896.

Class I.-Bradfield, J. J. C.

## B.E. EXAMINATION: civil engineering.

1900. 

Class II.-Hawken, R. W. 1901.

Class I.-Madsen, J. P. V. Myers, H. W. 1902.

Class I.-Boyd, A.
Class II.-Corlette, J. M. C.
Departhent of Mining and Metallurgy.
1905.

Class II.-Martyn, A. M. Smail, J. A. M.

1908
Class II.-Morrison A.
mining.
1902.

Class II.-Freeman, C. C. $\dagger$ Suissmilch, C. A. Cameron, C. B Whitfeld, H. E. Heden, E. C. B. Williams, L: B.
$\dagger$ Green, L. C.
Thomas, D.
Mawson, D.
Gould, H. J. 190?
Class II.-Ward, L. K.
Giblin, N. E. $\}$ æq.
Peterson, A. J. Gray, G. J. Corlette, J. M. C.

## Class II Patter

B. G.
1905.

Class II.-Stephen, J. F. Webb, S. D.
1906.

Class II.-Bridge, J. M.
1907.

Class I.-Atkinson, J.
Class II.—+McIntyre, W. K
metallurgy.
1902.

Class II.-Heden, E. C. B. Freeman, C. C. Gould, H. J. $\dagger$ Morson, W. J. 1903.

Class I.-Ward, I. K.
Class II.-Peterson, A. J.
$\dagger$ Brereton, E. Le G.
Gray, G. J.
Corlette, J. M. C.
+Süssmilch, C. A. 1904.

Class I.-Shellshear, W. Saunders, G. J.
Class II.-Patterson, B. G. Hill, J. H. F. Barr, J.
1905.

Class II.-Burgess, J. H.
Taylor, T. G. Stephen, J. F.
$\dagger$ Perry, E. A.
1906.

Class I.--Bridge, J. M.
Class II.-Whiteman, W. D. Foxall, H. G.
1907.

Class I.-Atkinson, J.
Class II.- + McIntyre, W. K.

> ASSAYING AND ORE TREATMENT.
1903.

Class I.-†Brereton, E. Le G. +Stoddart, R.
Cless II.-Giblin. N. E. $\}$ Ward, L. K. $\}$ eq. Verge, J.
1904.

Class II.—Saunders, G. J. Barr, J.
1905.

Class I.—Stephen, J. F.
Class II.-Burgess, J. H. 1906.

Class I.-Bridge, J. M. Foxall, H. G. 1907.

Class I.-Atkinson, J. McIntyre. W. K.
Class IC.-Walker, J. S. D.
mining and metálilurgy.
1909.

Class I.-Sewell, L. G.
Class II.-McBryde, J.
Department of Mechanical and Electrioal Engineering. ELECTRICAL ENGINEERING.
1903.
*Boyd, A.
1904.

Class I.-Weston, P. L.
Class II.一十Hall, R. V.
1906.

Class I.— $\dagger$ Marriott, E. W.
Class II.-Cowlishaw, R.G. Bellemey, S. J.
1907.

Class I.-Prescott, W. A. Tivey, J. P.
Class II.-Clayton, F. H. Flashman, H. W. Norman, J. L.

ENGINEERING DESIGN AND DRAWING.
(Mining and Metallurgy.)
1906.

Class II.-Foxall, H. G.
Bridge, J. M.
1907.

Class I.-Atkinson, J.
(Mechanical and Electrical.)
1906.

Class I.— + Marriott, E. W.
1907.

Class . I.-Norman, J. L.

MECHANIOAL ENGINEERING.
1907.
$\left.\begin{array}{cc}\text { Class } & \begin{array}{c}\text { I.—Norman, J. L. } \\ \text { Tivey, J. P. }\end{array} \\ \hline\end{array}\right\}$ æq. $\quad$ Class II.-Prescott, W. A. Flashman, H. W.

- Not passing through the regular course.


## MECHANICAL AND EIECTRICAT ENGINEERING.

1905. 

Class I.—†Morris, L. C. Class II.-Woodicock, L. R. 1908.

Class I.-May, H. W.
Power, R.
$\underset{\text { Carter, H. G. }}{\text { Burnell, J. G. }}\}$ æq.
Sharp, L. H.
*Swain, H.J.
Thompson, H. L.
Class IL.-Jones, S. W.
1909.

Class I.-Davidsou, G. F.
Class II.-Ada, W. L.
Carleton, G. B.
Carter, E. M.
1910.

Class II.-Lloyd, A. S. Smith, R. ©
Class III.-McKeown, E. W..
1911.

Class I.-Burn, A.
Sachs, W. J.
Norman, E. P.
Class II. - Knight, O. Le M.
Beeston, S. L.
Class III.--Hebblewhite, W. R..
Herbert, D. P.

# MATRICULATION EXAMINATION. 

HONOURS.
NOVEMBER, 1910 .

Cooper Scholarship No. II. for Classics-Not awarded.
Barker Scholarship and Horner Exhibition for Mathematics-
Janet F. M. Brown.
Lithgow Scholarship for French and German-W. F. Crawford.
Bowman Cameron Scholarship for General Proficiency-J. R. Nield.
Treemasons' Soholarship for General Proficiency-
$\left.\begin{array}{l}\text { G. H. Godfrey } \\ \text { W. H. Grace }\end{array}\right\}$ æq.
ENGLISH.
Class I.
$\left.\begin{array}{l}\text { Mellor, R. W. H. } \\ \text { Coppleson, V.M. }\end{array}\right\}$ æq.
$\left.\begin{array}{l}\text { Burns, P. H. C. } \\ \text { Nield, J. R. }\end{array}\right\} æ$.
Baird, Henriette E.
Ferguson, J. G.
Parry, Evelyn M. \} æq.
Voss, P. E.
Wallace, C. D.
Sims, A. R.
Henry, H. A.

## Class II.

$\left.\begin{array}{l}\text { Barker, Gladys W. } \\ \text { Minty, C. C. }\end{array}\right\} \dot{\$}$
McDonald, C. G.
Mason, Elizabeth
Wilkinson, Norma L.
Sheldon, Mary
Flook, W. K. W. \}æq.
Hellstrom, C. O.
Symonds, H .
$\left.\begin{array}{l}\text { Crawford, W. F. } \\ \text { Booth, E. H. }\end{array}\right\}$ æq.

Class III.
Glass, B. S.
Bevington, AgnesP.
Baldick, G. L.
Street, L. W.
Wells, T. C. M.
Solling, F. P. M.
Bromley, Myrtle S.
Heath, L. B.
Bradfield, Mary M. $\}$ 范
Grace, W. H.
$\left.\begin{array}{l}\text { Finlayson, M. R. } \\ \text { Foggon, C. A. }\end{array}\right\}$ æq.
McGowan, Dorothy M. Wilkins, Dorothy I.
Smith, C. G. Smith, C. G.
Godfrey, G. H.
$\left.\begin{array}{|l}\text { Biden, N. E. } \\ \text { Stanger, N. A. }\end{array}\right\}$ æq.
Stewart, N. B.
Howard, A. J. S.

GREEK.
Class I.
Baird, Henriette E.

Class II.
$\left.\begin{array}{l}\text { Nield, J. R. } \\ \text { Powe, A. B. }\end{array}\right\}$ æq.
Heath, L. B.
$\left.\begin{array}{c}\text { Wilkinson, Norma } \\ \text { L. }\end{array}\right\} \dot{\approx}$
Mellor, R. W. H.

Class III.
Childe, G.
Minty, C. C.
Foggon, C. A. æq. Bevington, Agnes
P.
Henry, H. A.
Pulling, C. W. L.
latin.
Class I.
Nield, J. R.
Childe, G.
Henry, H. A.
Class II.
Pulling, C. W. L.
Powe, A. B. $\quad \underset{8}{8}$
Heath, L. B.
Mellor, R. W. H. $\} \dot{\text { ¢ }}$
Baird, Henriette E.
Kelly, A. W.
$\left.\begin{array}{l}\text { McDDonald, C. G. } \\ \text { Stanger, N. A. }\end{array}\right\}$ æq. Foggon, C. A.

Class III.
Baldick, G. L.
Minty, C. C.
$\left.\begin{array}{l}\text { Smith, C. G. } \\ \text { Street, L. W. }\end{array}\right\} æ$.
Barker, Gladys W.
Bevington, Agnes ;
Sutton, N. G. $\}$ æq.
Hellstrom, C. 0.
Grace, W. H.
$\left.\begin{array}{l}\text { Innes, H. S. R. } \\ \text { Symonds, H. }\end{array}\right\}$ æq.
McBride, H. W. C.
Wilkinson, Norma L.

FRENCH.
Class I.
Crawford, W. F.
Bradfiold, Mary M.
Roper, Mary T.
Ferguson, J. G.
Class II.
Hellstrom, C. 0.
Wallace, C. D.
Smith, C. G.
Nield, J. R.
Foggon, C. A.
Symonds, H .
$\left.\begin{array}{l}\text { Childe, G. } \\ \text { Evans, } \\ \text { H. G. }\end{array}\right\}$ æq. Clark, Annie M. Powe, A. B.
Middleton, Yvonne A. O.
Grace, W. H.
MoDonald, C. G.
Whitfeld, L. 0.
Raysmith, Doris R.
Burns, Rosina
Class III.
Baldick, G. L.
Minty, C. C.
Bertram, Kathleen
M. 曻
Mason, Elizabeth
$\left.\begin{array}{l}\text { Kelly, A. W. } \\ \text { Mellor, R. W. H. }\end{array}\right\} æ$ q.
MacBride, H. W. C.
Urquhart, Miriam M.

Barker, Gladys W.
Stanger, N. A. Wells, T. M.
Sutton, N. G.
Street, L. W.
Kennedy, E. W.
german.
Class I.
Crawford, W. F.
Roper, Mary T.
Class II.
McDonald, C. G.
Bevington, Agnes P.
Clark, Annie M.
Baird, Henriette E.
$\left.\begin{array}{l}\text { Dart, R. A. } \\ \text { Meger, W.J. }\end{array}\right\}$ æq.
Class III.
Evans, H. G.
Innes, H. S. R.
Edmond, $\mathrm{N}: \mathrm{S}$.
mathematics.
Class I.
Brown, Janet F. M.
Ferguson, J. G.
Biden, N.E.
Nield, J. R.
Wallace, C. D.
Brett, H. V.
Murray, D. M.
Bevington, Agnes $P$.
Thorne, H. H.

- Baldick, G. L.

Cunningham, W. A
Mellor, R. W. H.
Barker, Gladys W.
Sims, A. R.
Ciass II.
Porter, Laura E. I.
Symonds, H .
McKay, F. C. B.
Meldrum, T. A.
Powe, A. B.
Pulling, C. W. L.
Raysmith, Doris R.
Flook, W. K. W.
Murray, C. W.
Godfrey, G. H.
Coppleson, V. M.
Burns, P. H. C.
Class III.
Cornwall, H. M.
Jenkins, C. C.
Ryan, K. J.
Harden, G. B.
Whitfeld, L. 0 .
Wells, T. C. M.
Eliott, G. N.
Wilkinson, J. C.
Murray, G. A.
Innes, H. S. R.
Baird, Henriette E.
Stafford, W. C.
Grugeon, S. G.
Kelly, A. W.
Voss, P. E.

The following candidates passed in two or more subjects at the Higher Standard, in accordance with the requirements of the by-laws for admission to one or more of the several Faculties or Departments:-
Adams, J. B.-Latin, English.
Aurousseau, M.-Latin, English, French.
Barlow, R. C.-Latin, French.
Beale, H. L.-Latin, English, French.
Beckett, L. S.-Latin, English, French, Physics (Part I.).
Bell, E. H. D.-Latin, English, German, French.
Burns, Rosina-Latin, French.
Bushelle, J. E. W.-Latin, Physiology.
Butler, S. W.-Latin, English.
Cade, May T.-Latin, Mathematics.
Christie, C. G. C.-Latin, French.
Daly, Minnie-Latin, English.
Donovan, B. W. A.-Latin, English, French.
Douglas, S.-Latin, English, Greek.
Dryer, A. T. B.-Latin, Englisb, French.
Edwards, G. M.-Latin, Mathematics, Chemistry (Inorganic).
Fisher, W. G. D.-Latin, Mathematics, Chemistry (Inorganic).
Fox, N. M. D.-Mathematics, Mechanics.
Furnival, Cicely-Latin, English.
Grosse, B. M.-Latin, English, French.
Harkness, B. C.-Latin, Chemistry (Inorganic).
Harney, J. A.-Latin, English, French.
Harrison, J. L.-Latin, Mathematics, French.
Henderson, S. H.-Latin, English, French.
Hillcote, W. G. V.-Latin, English.
Holliday, C. D.-Latin, Mathematics, French.
Hunt, İsabella M.-Latin, Botany.
Hutchinson, L. C.-Latin, English, Mathematics.
James, N. L.-Latin, English.
Jefferis, R. E.-Latin, English, French.
Jonas, R. J.-Latin, Mathematics, Mechanics.
Keohan, Eileen N. G.-Latin, English.
King, S. W.-Latin, French.
Litchfield, F. R.-Latin, Mathematics, Mechanics.
Litchfield, J. F.-Latin, Chemistry (Inorganic).
Loxton, E. H.-Latin, Mathematics, Chemistry (Inorganic).
Mack, B. H.-Latin, Englisb, French.
Macneil, A. R.-Latin, Mathematics, Chemistry (Inorganic).
Mann, O. A.-Latin, English, Mathematics.
Mauldon, F. R. E.-Latin, French.
Middleton, Yvonne A. O.-Latin, English, French.
Moreau, S. J. H.-Latin, English, Geology.
Murphy, A. P.-Latin, English, French.
O'Neill, V. F.-Latin, English, French, History.
Owens, W.-Latin, English.
Parker, K. S.-Latin, English, Greek.

Reye, J. A.-Latin, Mathematics, French, Mechanics, Chemistry (Inorganic).
Richardson, A. E.-Latin, Mathematics, Chemistry (Inorganic).
Roper, Mary T.-Latin, French, German.
Sheldon, Mary-Latin, English.
Sinclair, R. M.-Latin, English, French.
Sinclair, W. R.-Latin, English, Mathematics, Mechanics, French.
Smith, Jessie C.-Latin, English.
Solling, F. P. M.-Latin, English, French, Chemistry (Inorganic).
Talbot, Edith-Latin, English, French, Botany.
Watt, R. G.-Latin, English.
Whitelaw, Ella J.-Latin, French.
Wilkinson, J. C.-Latin, Mathematics, Mechanics.
Woolnough, S. J.-Latin, English, Greek.
The following passed the additional paper in English and Geography for Engineering candidates :

Biden, N. E.
Booth, E. H.
Brett, H. B.
Cornwall, H. M.
Firkin, C. L.
Grugeon; S. G.

Harden, G. B.
Hellstrom, C. O.
Kelly, A. W.
Mellor, R. W. H.
Morrison, W.
Murray, C. W.

Noble, R. A. Ryan, K. J. Sinclair, W. R. Thorne, H. H.
Wallace, C. D.

MARCH, 1910.
PASS.
In the list that follows:-
(a) Signifies that the candidate is qualified for matriculation in the Faculty of Arts.
(b) Sigaifles that the candidate is qualifled for matriculation in the Faculties of Medicine and Science, but not the Department of Engineering.
(c) Signiffes that the candidate is qualified for matriculation in the Faculties of Arts Law, Medicine, and Science, but not the Department of Engineering.
(d) Signifles that the candidate is qualified for matriculation in the Facultiec of : Arts, Law, Medicine, and Science, and in the Department of Engineering.
(e) Signifies that the candidate is qualified for matriculation in the Faculties of Medicine and Science, and the Department of Engineering.
(f) Signifies that the candidate is qualified for matriculation in the Faculty of Science and the Department of Engineering.
(g) Signifies that the candidate is qualified for matriculation in the Faculty of Science:
( $h$ ) Signifies that the candidate is qualified for matriculation in the Department of Veterinary Science.
(i) Signifies that the candidate is qualifed for matriculation in the Faculties of Arts and Science.
a Asprey, T. D. W.
$i$ Barkley, O. A.
c Barriskill, J. R.
c Barton, F. M.
c Bateman, C. D.
$a$ Baynes, R. H. B.
\& Beale, H. L.

| c Beaven, Laura | a Bogle, J. |
| :---: | :---: |
| c Beith, B. McN. | c Bradfield, E. V. |
| a Bell, R. M. | d Bradley, C. C. |
| a Berman, A. C. | c Brady, J. F. |
| c Beveridge, T. W. | a Bray, Irene M. |
| a Blackwell, C. de la T. | c Bromley, Myrtle S. |
| a Blomfield, B. B. | a Browne, W. J. R. |


| W. | $a$ Harrison, F. D. | c Muir, F. W. |
| :---: | :---: | :---: |
| Burnett-Bruce, H. G. | $a$ Hawke, A. J. | c Mullins, J. T. |
| c Butler, S. W. | c Henderson, S. H. | $e$ Murray, C. W. |
| c Cameron, G. H. | c Hewitt, Catherine M. | e Murray, D. M. |
| Cameron, W. W. | $a$ Hillcoat, W. G. V. | $h$ Naughton, F. W. B. |
| Campling, C. R. | d Horne, T. C. | $d$ Noble, R. A. |
| Carrothers, Pearl | $a$ Horniman, L. V. | $a$ O'Rourke, Kathleen |
| a Cassidy, J. J. | c Hudson, A. R. |  |
| c Cayzer, A. | a Hudson, J. J. | a Owen-Harris, Jean M. |
| a Champion, G. S. | $h$ Irvine, L. R. H. | $a$ Owens, W. |
| c Clark, A. E. | $f$ Irving, R. C. C. | $a$ Partridge, K. F. |
| $a$ Cocks, H. S. | c Jefferis, R. E. | Payne, |
| Cook, W. H. | $a$ Johnson, L. A. | rdria |
| Crane, C. G. | c Jonas, R. J. | a Proudfoot, Stella |
| Crouch, E. C. | © Jones, F. H. | c Quinn, R. F. |
| Cuninghame, W. A. F. | a Kent, G. M. | c Scholes, L. R. |
| Currey, Mabel | c King, S. W. M. | a Sheldon, Mary |
| Daniel, P. L. | c Kirkland, H. E. | c Simmonds, C. C. |
| d Degotardi, J. B. | d Litchfield, F. R. | c Small, D. S. |
| De Putron, Irene M. | $a$ Lloyd, Dorothea | $e$ Smith, C. B. |
| $a$ Donnellan, G. | c McAllister, T. L. K. | a Smith, Jessie C. |
| Donovan, B. W. A. | a McCloy, S. M. | c Smith, J. W. |
| Douglas, S. | c MacDougall, G. J. C. | c Storie Dixon, Athol A |
| $h$ Drummond, L. | $d$ McGrath, M. J. | c Summers, P. L. |
| Dryer, A. T. B. | c McKelvey, S. J. | c Templeton, C. G. |
| Duckworth, R. K. | c McKenzie, A. D. | a Tranter, F. W. J. |
| $a$ Duff, W. | a MacKenzie, D. W. M. | $h$ Turner, J. S. |
| a Dunn, W. D. | c McLeod, J. E. | b Uren, C. |
| a Edmonds, A. H. | c McMahon, Lilian | $d$ Vogan, H. J. |
| c Fay, H. J. | $c \cdot$ McQuiggin, H. G. | $a$ Wade, C. G. |
| a Flynn , M. R. | c Mann, J. W. | c Watt, L. F. |
| $a$ Fox, O.S. | $a$ Manton, Irene M. | $a$ Watt, R. G. |
| $a$ Furnival, Cicely | c Matheson, C. N. | $d$ Wilkinson, J. C. |
| $a$ Gallagher, J. V. | c Middleton, Yvonne | c Williams, G. J. |
| c Grosse, B. M. | 0. | Vindeyer, Marian F |
| $c$ Hadley, Esme L. | a Mitchell, A. D. | c Woolnough, S. J. |
| $f$ Hain, L. T. | c Moreau, S. J. H. | c Young, W. R. |
| $a$ Hamilton, Ellice E. P. | a Moulsdale, Lucy. M. | $h$ Young-Wai, S. |
| $a$ Harkness, Bertie C. |  |  |

# FACULTY OF ARTS. <br> <br> FIRST YEAR EXAMINATION. 

 <br> <br> FIRST YEAR EXAMINATION.}

December, 1910. and March, 1811.
Cooper Scholarship No. III. for Classics-J. A. Fitzherbert. George Allen Scholarship for Mathematics-J. A. Fitzherbert. Garton Scholarship No. I. for French and German-Catherine M. Moir. Lithgow Scholarship for Logic and Mental Phlosophy-C. B. Cockett.
Professor MacCallum's Prize for English-H. D. Hall. honours.

LATIN 1.
High Distlaction.
Fitzherbert, J. A. Beale, J. G. M.

Distinetion.
Kidston, R. R.
Boyce, R. C. M.

## Credit.

Conolly, Emily S.

## GREEK I.

High Distinction.
Fitzherbert, J. A.
Distinction.
Frederiksen, Selina B. M.
Credit.
Gasteen, Elsie F. (2nd Year)

HISTORY I. Distinction. Ferguson, Margaret W.

## FRENCH I.

High Distinction. Moir, Catherine M. Armstrong, Mary E. Beale, J. G. M.

Distinction.
Kidston, R. R. Boyce, R. C. M.

MATHEMATICS I. High Distinetion. Fitzherbert, J. A. Colville, A. B. $\} æ q$. Cotton, F. S. $\}$ æq. Frecker, E. W. Frederiksen, Selina B. M.

Lesslie, Mary E. Pike, W. E. (Eng.) Distinction.
Mackinnon, J. Y. (Eng.) Credit. Bootle, Bertha C.

ENGLISH I.
High Distinction.
Hall, H. D.
Frecker, E. W. Distinction.
Beale, J. G. M.
Blanchard, J. R.
Cotton, F. S. Credit.
Cockett, C. B. Jenkins, Gwendolin Herd, Mary A. Lesslie, Mary E.
Samson, C. M. Paradise, Ilma M.

## PHILOSOPHY I.

High Distinction.
Cockett, C. B.
Frecker, E. W.
Distinction.
Hall, H. D.
Samson, C. M. Credlt.
Cotton, F. S.
PHILOSOPHY II.
Distinction.
*Murphy, G. F.
GERMAN I.
High Distinction.
Moir, Catherine M. Armstrong, Mary E. Boyce, R. C. M.

## CHEMISTRY 1.

 Distinction.Cotton, F. S.
Credit.
Gardner, R. A.
Mulvey, R. D. (2nd Year)
Lesslie, Mary E.
Perkins, G. W. H.

[^40]| Evening Students. <br> High Distinction. | Credit. <br> Tonkin, W. H. (2nd Year) |  |
| :---: | :---: | :---: |
| Haddock, D. A. (3rd Year) | Kelly, F. P. | GEOLOGY 1. |
| Johns, G. E. (2nd Year) | Back, J. (3rd Year). Keys, S. G. | PHYSICS I. |
| Distinction. | Luke, A. V. | PHYSICS |
| Clyne, T. J. (2nd Year) | Wiseman, W. | See Faculty of Science. |
| Cousins, A. (3rd Year) | Thomas, G. R. (2nd |  |
| McNiven, W. S. (2nd | Year) |  |

## The following have completed the First Year Examination :-

Abbott, J. P.
Armstrong, Mary E.
Barr, Dorothy M.
Barrington, Mary
*Bates, J. H.
Beale, J. G. M.
BlackIock, Lydia
Blanchard, J. R.
Boyce, R. C. M.
Boyer, R. J. F.
Bootle, Bertha C.
Burns, Jane F.
*†Cameron, Elizabeth
Campbell, Annie E. I.
Cavell, Elsie M.
*Clark-Duff, W. G.
Clark, H. 'P.
Cockett, C. B.
Colville, A. B.
Cotton, F. S.
Conolly, Emily S.
Dew, Mildred R.
Edwards, Annie L.
Erhard, Elsa
Fergusson, Margaret W.
Fitzherbert, J. A.
Flannery, T: L.
Frecker, E. W.

Frederiksen, Selina B. M.
Gardner, R. A.
*Graham, I. L.
Green, R. F. H.
Hall, H. D.
*Hardwick, C. A.
Herd, Mary A.
Herbert, Constance I.
*Harrison, C. H.
Hubble, Georgina T.
Hughes, $\mathbf{R}$. W.
$\dagger$ Jarvie, T. W.
Jenkins, Gwendolin Jones, J. H.
Jones, R. J. E. V.
Keller, L. F.
*Kolly, T. P.
*Keys, S. G.
Kidston, R. R.
*Killip, J. H.
Lance, A. L.
Lesslie, Mary E.
Lewers, Rachael D.
Lipscomb, Winifred H.
*Lusby, J. M.
Lyons, Kathleen G.
*McAlpine, G. W.

MeDonald, K. D. McKenzie, Margaret H.
McNamara, Marion
Maher, H. O.
Moir, Catherine M.
*Montgomerie, F. N.
*Morling, G. H.
*Murray, J. E.
Neale, Marie A.
Orr, Mabel N.
Paradise, Dma M.
Perkins, G. W. H.
Ritchie, H. A.
Samson, C. M.
*Selle, W. A.
Sherwin, Margaret A.
Shield, R. V.
Simpson, B. G. C.
*Spaull, G. T.
Stephen, A. C.
Swan, Amy M.
Taylor, Gladys E.
Wallace, Mary
Walsh, Ivy M.
Waterhouse, Doris E.
*Waugh, J.
Wingrove, Alice M .

Order of Merit in Individual Subjects.
LATIN I.
Pass. December, 1910.

Ritchie, H. A.
McKenzie, Margaret $H$.
Frederiksen, Selina B.
M.
$\left.\begin{array}{l}\text { Hughes, R. W. } \\ \text { Colville, A. B. }\end{array}\right\}$ æq. Colvilie, A. B.
Lesslie, Mary E.
Jones, R. J. E. V.

McNamara, Marion Simpson, B. G. C. Jones, J. H. Boyer, R. J. F.

[^41]Latin-continued.

Lyons, Kathleen G: $\mid \dot{\text { © }}$ Murray, J. E.
Wingrove, Alice M. $/ 8$ .Armstrong, Mary E. Dew, Mildred R. Herd, Mary A.
*Ball, F.
Barrington, Mary
*Bates, J. H.
Blacklock, Lydia
Burns. Jane F.
Butterworth, Nineveh R. Maher, H. O.
Hodge, R. S.
Hubble, Georgina T. *Kelly, F. P:
*Christopherson, H. Abbott, J. P. Taylor, Gladys E. *Bartrop, W. E. G. Fergusson, Margaret $\mathbf{W}$.

Pass, March, 1911. (Alphabetical).
*Clark-Duff, W. G. $\quad$ Rabett, N. B. L.

Lipscomb, Winifred H. Sherwin, Margaret A. Sbield, R. V. *Spaull, G. T.
Stephen, A. C. Walsh, Ivy M.

GREEK I.
Pass, December, 1910.
Ritchie, H. A.
Lyons, Kathleen G.
McKenzie, Margaret H. |Conolly, Emily S.
Hughes, R. W.
Pass, March, 1911 (Alphabetical).
Bates, J. H.
i McDonald, K. D. . . |
PHILOSOPHY I.
Pass, December, 1910 (Alphabetical).
Blanchard, J. R.
Cavell, Elsie M.
.Clark, H. P.
Flannery, F. L.
Green, R. F. H. Jones, J. H.
Lewers, Rachel D.
Pass, March, 1911 (Alphabetical).
Racklyeft, R. C.
1 Swan, Amy M.
PHILOSOPHY II. AND III.
Pass, December, 1910 (Alphabetical).
*Harrison, C. H.
$\mid$ *Keller, L. F. $\left.\right|^{*}+$ Walpole, G. A.
*Hindmarsh, P.
*Killip, J. H.

Millar, N. S. Pugh, Constance M. *Waugh, J.

MATHEMATICS I.
Pass, December, 1910 (Alphabetical).

Armstrong, Mary E. *Atkins, W. Barr, Dorothy M. *Ball, F.
*Bartrop, W. E. G.
*Bates, J. H.
Beaver, E.
*Blanchard, A. G. Boyer, R. J. F. Burns, Jane F.
$\dagger^{*}$ Cameron, Elizabeth Campbell, Annie E. I. Cavell, Elsie M. Clark, H. P. Cockett, C. B. *Clark-Duff, W. G. Dew, Mildred R. *Drew, Alice B. C. Edwards, Annie L. Erhard, Elsa.
*Everingham, A. L. Flannery, F. L. Gardner, R. A. Green, R. F. H. Hall, H. D.
*Hannay, K.
*Hardwick, C. A. *Harrison, C. H. Herbert, Constance 1. $\dagger^{*}$ Hobden, A. R.

Hodge, R. S.
Hubble, Georgina T.
Hughes, R. W.
Jones, J. H.
Jones, R. J. E. V.
*Kelly, F. P.
*Killip, J. H.
Lance, A. L.
*Lecky, C. S.
*Lecky, J.
Lewers, Rachael D.
Lipscomb, Winifred $\mathbf{H}$.
*Lusby, J. M.

Mathematles I.-continued.
McDonald, K. D. *McCrory, J.
MicKenzie, Margaret H. McNamara, Marion
Maher, H. O.
Millar, N. S.
Moir, Catherine M.
*Morling, G. H.
*Murray, J. E.
$\dagger^{*}$ Newton, W.
Orr, Mabel N.
Paradise, Ilma M.
Perkins, G. W. H.

Pugh, Constance M.
$\dagger^{*}$ Renouf, T. G.
$\dagger^{*}$ Reilly, W. J.
Ritchie, H. A.
Simpson, B. G. C.
Sherwin, Margaret A.
*Spaull, G. T.
Stephen, A. C.
Swan, Amy M.
Taylor, Gladys E.
*Waugh, J.
Wingrove, Alice M.

Pass, March, 1811 (Alphabetical).

Blacklock, Lydia Butterworth, NinevehR Jenkins, Gwendolin
*Keller, L. F.
*McAlpine, G. W. Neale, Marie A.

Racklyeft, R. C. Walsh, Ivy M.

ENGLISH 1.
Pass, December, 1910.
Moir, Catherine M.
Waterhouse, Doris E.
Lyons, Kathleen G.
Colville, A. B.
Kidston, R. R.
Boyer, R. J. F.
McKenzie, Margaret H.
Perkias, G. W. H.
Barr, Dorothy M. Erhard, Elsa ; æq.
Jones, R. J. E. V.
$\underset{\text { *Lecky, J. }}{\text { Shield }}$. $\}$ æq.
Blacklock, Lydia
McNamara, Marion
$\left(\begin{array}{l}\text { Kelly, F.P. } \\ \text { Gombert, Rence } \\ \text { (2nd Year) } \\ \text { Waugh, J. } \\ \text { Abbott, J. P. } \\ \text { Killip, Elsie M. } \\ \text { Fergusson, Margaret W. } \\ \text { Dew, Mildred R. } \\ \left.\begin{array}{l}\text { Herbert, Constance I. } \\ \text { Wingrove, Alice M. } \\ \text { Clark, H. P. } \\ \text { *Lusby, J. M. } \\ \text { *Harrison, C. H. } \\ \text { *Selle, W. A. } \\ \text { Bootle, Bertha C. } \\ \text { *Killip, J. H. }\end{array}\right\} \text { æq. } \\ \end{array}\right.$

Wallace, Mary
Barrington, Mary Walsh, Ivy M. Jones, J. H. *Keller, L. F. $\}$ æq. *Christopherson, H. Conolly, Emily S. Lipscomb, W. H. Sherwin, Margaret A. Orr, Mabel N. *Dickson, T. M. Taylor, Gladys E. Stephen, A. C. Lewers, Rachael D. Hubble, Georgina T. Simpson, B. G. C. $\dagger$ *Harkness, B. C.

Pass, March, 1811 (Alphabetical).

Burns, Jane F. $\dagger^{*}$ Cameron, Elizabeth Cavell, Elsie M.
Gardner, R. A.
*Graham, I. L.

Lance, A. L.
*McAlpine, G. W, *McCrory, J.
McDonald, K. D.
Maher, H. 0 .
$\dagger^{*}$ Murphy, G. F.
Pugh, Constance M.
*Spaull, G. T.
Swan, Amy M.
$\dagger^{*}$ Wilson, G. M.

FRENCH 1.
Pass, December, 1910.

| McNamara, Marion |
| :---: |
| Campbell, Annie) |
| E. I. $\}$ æq. |
| Murray, J. E. |

Erhard, Elsa
Dew, Mildred R.
Edwards, Annie L. Wallace, Mary

Flannery, F. L. Waterhouse, Doris E. Herd, Mary A.

Pass, March, 1911 (Alphabetical).
Barr, Dorothy M.
*Hannay, K.
Herbert, Constance I.
Hughes, R. W.
Jenkins, Gwendolin *Keys, S. G. Orr, Mabel N. Paradise, Ilma M.

Perkins, G. W. H.

* $\dagger$ Reilly, W. J.
* $\ddagger$ Wilson, G. M.

GERMAN I.
Pass, December, 1910.
Erhard, Elsa | Edwards, Annie L. | Waterhouse, Doris E. Pass, March, 1811 (Alphabetical).
Campbell, Annie E. I. I Lance, A. L.

## HISTORY I.

Pass, December, 1910.
Abbott, J. P.

Barrington, Mary
Blanchard, J. R.
Neale, Marie A.
Ross, H. E. C.
Pass, March, 1811. | Keller, L. F.

HISTORY II.
evening students.
Pass, December, 1910.
†Wilson, G. M.
McCrory, J.
*Jarvie, T. W.
Hardwick, C. A.
Selle, W. A.
*Killip, J. H.
Pass, March, 1911.
| Lusby, J. M.
I Montgomerie, F. N.
CHEMISTRY 1.
Pass, December, 1910 (Alphabetical).
*Ball, F.
*Baxendale, J. (3rd Yr.)
*Bentley, E. (3rd Yr.).
*Berman, F. T. (3rd Yr.)
${ }^{*}$ Crapp, P. F.
*Drew, Alice B. C.
*Gallagher, F. J. E. (2nd Yr.)
*Harrison, C. H.
*Hindmarsh. P.

*     + Hobden, A. R.
*Jerrems, R. (3rd Yr.)
*Leaver, H. (2nd Yr.)
Lonsdale, L. M. (2nd Yr.)
*Lusby, J.
*McKenzie, A. D.
*McNiven, R. J. (2nd Yr.)
${ }^{*}$ Neville, J. (2nd Yr.)
*+Renouf, T. G.
*Sheppard, W. J. (2nd Yr.)
*Spaulli, G. T.
* Walpole, G. A. *Waugh, J.

Pass, March, 1911 (Alphabetical). Swan, Amy M.

| Pass | evening students. <br> December, 1910 (Alphabeti |  |
| :---: | :---: | :---: |
| Beale, J. G. M. | Clark, H. P. | McTiernan, E. A. F. |
| Beaver, E. | Dew, Mildred R. | (2nd Year) |
| Blacklock, Lydia | Fergusson, Margaret W. | Samson, C. M. |
| Bootle, Bertha C. | Hall, H. D. | Stacy, B. V. (3rd Year) |
| Bulteau, A. W. J. (3rd Year) | Hubble, Georgina T. Kidston, R. R. | Stephenson, J. H. (2nd Year) |
| Burns, Jane F. | Maher, H. O. | Wingrove, Alice M. |
| Pass, March, 1911 (Alphabetical.) |  |  |
| $\dagger$ Cameron, Elizabeth | Montgomerie, F. N. | Woodward, H. M. (2nd |
| Everingham, A. L. | Morling, G. H. | Year) |
| $\dagger$ Jarvie, T. W. | Short, Edith E. |  |
| GEOLOGY I. |  |  |
| Pass, December, 1910 (Alphabetical). |  |  |
| Barr, Dorothy M. | Edwards, Annie L. | McDonald, K. D. |
| Blanchard, J. R. | Herbert, Constance I. | Neale, Marie A. |
| Bootle, Bertha C. | Herd, Mary A. | Paradise, Imma M. |
| Boyce, R. C. M. | Hodge, R. S. | Schleicher, Ruth C. |
| Campbell, Annie E. I. | Jenkins, Gwendolin | Simpson, B. G. C. |
| Cavell, Elsie M. | Jones, R. J. E. V. | Taylor, Gladys E. |
| Conolly, Emily S. | Lewers, Rachael D. | Wallace, Mary |
| De Low, Daphne D. | Lipscomb, Winifred H. Lyons, Kathleen G. | Waterhouse, Doris E. Wise, Dorothy (2nd Yr.) |
| Pass, March, 1911 (Alphabetical). |  |  |
| Barrington, Mary | $\left\lvert\, \begin{gathered} \text { Racklyeft, R. C. } \\ \text { Richardson, S. R. W. } \\ \text { (2nd Year) } \end{gathered}\right.$ | Sherwin, Margaret A. |
| Lacey, E. F. |  | Stephen, A. C. |
| Orr, Mabel N . |  | Walsh, Ivy M. |
| PHYSICS I . |  |  |
| Pass, December, 1910. |  |  |
| Lance, A. L. | I Ritchie, H. A. | I Samson, C. M. |
| Pass, March, 1911 (Alphabetical). |  |  |
| Green, R. F. H. | ( Shield, R. V. | 1 |

# FACULTY OF ARTS. <br> SECOND YEAR EXAMINATION. 

Decomber, 1910. and March, 1911.
Cooper Scholarship No. 1 fö Classics-Not awarded.
Garton Scholarship No. II. for French and German-Constance E. Watson.
Barker Scholarship No. I. and Norbert Quirk Prize for Mathe-matics-
*H. J. Meldrum, B.Sc.
S. E. Peirce (Sci.) æq.
A. J. Robson (Sci.)

Professor Anderson's Prize for Philosophy II:-*G. R. Thomas. D. M. Smith (prox.acc.).

Professor Wood's Prize for History-C. H. Currey.

Latin II.
High Distinetion.
Chisholm, A. R. (3rd Year)

Credit.
$\left.\begin{array}{l}\text { Gasteen Elsie F., } \\ \text { Pitt, W. McI. }\end{array}\right\}$
Meares, Nellie D.
Oakey, Dorothy M.

GREEK II. Credit.
Meares, Nellie D.
Pitt, W. McI.

ENGLISH II.
Distinction.
Currey, C. H.
Wise, Dorothy
Docker, Constance I. B.
Wilson, Jane E. M. L.
Credit.
Packham, Cecily F.

GERMAN II.
High Distinetion.
Watson, Constance E.
Credit.
Grieve, Dora

Mathematics il.
High Distinetion.
*Meldrum, H. J.
B.Sc.

Peirce, S. E.
(Sci.)
Robson, A. J.
(Sci.)
Distinetion.
Bourne, C. A.
$\left.\begin{array}{l}\text { (Eng.) } \\ \text { ns, G. E. }\end{array}\right\} æ$.
*Johns, G. E.
*Tonkin, W. H.
credit.
$\left.\begin{array}{l}\text { Joseph, Marie F. } \\ \text { *Potter, F. }\end{array}\right\}$ æq. Stephenson, J. H.

FRENCH II.
High Distinetion.
Watson, Constance E. Credit.
Gombert, Renée
Grieve, Dora

PHILOSOPHY II. AND.
III.

High Distinction.
*Thomas, G. R.
Smith, D. M.

> Distinetion.

Miller-Hermes, Rache-
R.
*Ranson, Marion
${ }^{*}$ Cameron, R. G.

## PHILOSOPHY I.

Distinction.
Burgmann, E. H. Bardon, R .

* Evening Student.

| HISTORY II. High Distiaction. | Credtt. <br> Meek, R. W. | Credit. <br> Austin, Elsie M. |
| :---: | :---: | :---: |
| Currey, C. H. | avening students. | *Gallagher, F. J. E. |
| Eldridge, F. B. | NENINO STUDEN. |  |
| Crago, Violet E. | Harris, H. L. | CHEMISTRY I. |
| Distinction. | Distinction. | See under First Year |
| Docker, Constance I. B. | Greaves, J. W. | Arts. |
| Gray, W. J. | Andrew, Gertrude |  |
| $\begin{aligned} & \text { Richardson, S. R: } \\ & \mathrm{W} . \end{aligned}$ |  | GEOLOGY I. |
| Houison, | High Distinction. | See under First Year Science. |
| Houison, Laura O. | Smith, D. M. |  |
| HISTORY I. Distinction. | Distinction. <br> *Breakwell, E., B.Sc. | CHEMISTRY II. |
| Gombert, Renée | *Lennard, W. | *Johns, G. E. |
| The follo wing | ve passed the Second Year | Examination |
| *Andrew, Gertrude | *Gormley, Ella M. | Oakey, Dorothy M. |
| Austin, Elsie M. | Grieve, Dora | Packham, Cecily F. |
| Barber, Minnie | *Greaves, J. W. | Pauss, Olga M. |
| Bardon, R. | Gray, W. J. | Petrie, H. W. |
| Beresford, M. J. de La | *Harris, H. I. | Pitt, W. McI. |
| P. | Hollingdale, E. T. | *Ranson, Marion |
| Bergin, Evangeline A. | Houison, Laura 0. | Richardson, S. R. W. |
| *Bourke, C. A. R. | Joseph, Marie F. | Robinson, Oovey J. |
| Burgmann, E. H. | *Layh, Lilian | Rofe, W. J. F. |
| *Cameron, R. G. | Lewis, Martha J. | *Sheehy, T. |
| Cahalan, E. B. | Lonsdale, L. M. | *Sheppard, W. J. |
| *Clough, H. L. | Lodder, Ida | Slade, C. S. |
| *Clyne, T. J. | Macdonald, Flora A. | Smith, D. M. |
| Currey, C. H. | *McKenzie, J. G. | Smith, W. H. |
| Crago, Violet E. | *McNiven, W. S. | Stephenson, J. H. |
| De Low, Nellie D. | *McNiven, R. J. | *Thomas, G. R. |
| Docker, Constance I. B. | McTiernan, E. A. F. | *Tonkin, W. H. |
| Donaldson, C. B. | Machin, J. | von Hagen, C. J. |
| Dunstan, Dorothy F. | Meares, Nellie C. D. | Watson, Constance E. |
| Eldridge, F. B. | Meek, R. W. | Williams, D. |
| *Fischer, E. F. | Miller-Hermes, Rachel | Wilson, Jane E. M. L. |
| Gale, Kathleen W. | R. | White, Constance E. |
| *Gallagher, F. J. E. | Mulvey, R. D. | Wise, Dorothy |
| Gasteen, Elsie F. | *Munro, W. | *Willcocks, H. P. |
| Gombert, Renée | *Neville, J. |  |
|  | of Merit in Individual Su | cts |
|  | Latin II. |  |
|  | Pass, December, 1810. |  |
| Williams, D. | 1*Andrew, Gertrude | \| McTiernan, E. A. F. |

Slade, C. S.
Cahalan, E. B.
Petrie, H. W.
Smith, W. H. $\}^{\text {®q. }}$
Burgnann, E. H.
Bergin, Evangeline A.

Grieve, Dora
Mulvey. R. D.

Miller-Hermes, Rachel R.

Gray, W. J.
Dunstan, Dorothy F.
Desmond, A. T.

Beresford, M. J. de La P Austin, Elsie M.
Wise, Dorothy
Rofe, W. J. F. Meek, R. W.

## LATIN I.

Robinson, Ovey J.
Packham, Cecily F. $\quad$ Gale, Kathleen W.
Latin il.
Pass, March, 1911 (Alphabetical.)

| Barber, Minnie | Lewis, Martha J. | Machin, J. |
| :--- | :--- | :--- |
| De Low, Nellie D. | Macdonald, Flora A. | Pauss, Olga M. |
| Docker, Constance I. B. | *McKenzie, J. G. | *Sheehy, T. |
| Hollingdale, Eustace T. |  |  |

LATIN I .
Pass, March, 1911.
Houison, Laura 0.
GREEK II.
Pass, December, 1910.
Lonsdale, L. M. I Burgmann, E. H.
ENGLISH II.
Pass, December, 1910.

| *Thomas, G. R. | *Layh, Lilian | Hill, Eleanora D. |
| :---: | :---: | :---: |
| Wa.tson, Constance E. | Arnold, G. P. | Cahalan, E. B. |
| Smith, D. M. | Houison, Laura O. | Joseph, Marie P. |
| Crago, Violet E. $x$. | *McNiven, W. S. | Eldridge, F. B. |
| Williams, D. $\quad$ ® ${ }^{\text {c }}$. | Pitt, W. McI. | *Cantello, G. A. |
| Slade, C. S. | De Low, Nellie D. | White, Constance E. |
| *Harris, H. L. | *Clyne, T. J. | Meek, R. W. |
| *McNiven, R. J. | *Ranson, Marion | *Neville, J. |
| * Andrew, Gertrude 1 ¢் | Austin, Elsie M. | *Greaves, J. W. |
| Dunstan, Dorothy F. $\%$ | Lodder, Ida | Robinson, Ovey J. |
| Bardon, R. | *Munro, W. | *Tonkin, W. H. |
|  | ENGLISH I . |  |
|  | Gombert, Renée |  |
|  | ENGLISH II. |  |
| P | ass, March, 1911 (Alphabet |  |
| *Clough, H. I. | Hollingdaje, E. T. | *Potter, Fred |
| Cusack, Margaret | Macdonald, Flora A. | Rofe, W. J. F. |
| *Fischer, E. F. | Oakey, Dorothy M. | *Sheehy, Theophilus |
| Gale, Kathleen W. | Pauss, Olga M. | Von Hagen, C. J. |

* Evening Student.

ENGLISH 1.
Pass, March, 1911 (Alphabetical).
*McKenzie, J. G. $\quad 1 \quad$ Richardson, S. R. W.

## FRENCH II.

Pass, December, 1910.

| Stephenson, J. H. | $*$ Harris, H. L. |
| :--- | :--- |
| Petrie, H. W. | $*$ Gallagher, F. J. E. |

FRENCIE 5.
Crago, Violet E.

## FRENCH II.

Pass, March, 1911 (Alphabetical).

## Donaldson, C. B.

Lewis, Martha J.
Packham, Cecily F.

Gale, Kathleen W.
Oakey, Dorothy M.
Wilsen, Jane.E. M. L.
FRENCH I.
Pass March, 1911.
Eldridge, F. B.
GERMAN II.
Pass, December, 1910.
Machin, J.
Pass, March, 1911.
Arnold, ©. P.

GERMAN I.
Pass, March, 1911.
Barber, Minnie
MATHEMATICS II.
Pass, December, 1910.
Gasteen, Elsie F.
PHILOSOPIIY II. AND III.
Pass, December, 1910 (Alphabetical).

Reresford, M. J. de la P. ${ }^{*}$ Hardwick, C. A.
*Chalmers, S. G.
*Clough, H. L.
Currey, C. H.
Gray, W. P.
*Greaves, J. W.
*Laws, J. H.
*Layh, Lilian
*McNiven. W.
*Moore, Olive

Mulvey, R. D. *Neville, J. Richardson, S. R. W.
Smith, W. H.
*Will ocks, H. P.

Pass, March, 1911 (Alphabetical).
*Fischer, E. F. $\quad \mid \quad$ Machin, Jonathan

Phillosophy I.
Pass, December, 1910 (Alphabetical).

| Dunstan, Dorothy F. <br> Lodder, lda <br> Meares, Nellie D. | Page, C. G. Petrie, H. W. Slade, C. S. | Thompson, V. W. Williams, D. Wilson, Jane E. M. L. |
| :---: | :---: | :---: |
| PHILOSOPHY I. |  |  |
| Pass, March, 1911 (Alphabetical). |  |  |
| Donaldson, C. B. | I Rofe, W. J. F. | I Von Hagen, C. J. |
| HISTORY II. |  |  |
|  | Pass, December, 1910. |  |
| *Andrew, Gertrude <br> *Fischer, E. F. | *Greaves. J. W. <br> *Harris, H. L. | *Layh, Lilian |
| Order of Merit. |  |  |
| *Munto, W. | Macdonald, Flora A. | *Gormley, Ella M. |
| *Sheppard, W. J. æ¢. | *Kendall, L. G. | *Cantello, G. A. æq. |
| *Laws, J. H. | White, Constance E. | *Sheehy, T. |
| $\left.\begin{array}{l}\text { *Clough, H. L. } \\ \text { *Cusack, Margaret }\end{array}\right\} \dot{\text { © }}$ | Smith, W. H. |  |

HISTORY 1.

| Bergin, Evangeline A. | Robinson, Oovey J. |
| :--- | :--- |
| $\left.\begin{array}{l}\text { Lewis, Martha J. } \\ \text { Bardon, R. }\end{array}\right\}$ rq. | Cummings, V. G. |

EDUCATION.
Pass, December, 1910 (Alphabetical).

| Bergin, Evangeline A. | ${ }^{*}$ Kendall, L. G. | *Meldrum, H. J. |
| :---: | :---: | :---: |
| *Clyne, 2-J. | *McKenzic, J. G. | *Munro, W. |
|  | s, March, 1911 ( |  |

Cummings, V. G. I Lewis, Martha J. |Lonsdale, L. M.
GEOLOGY I.
(See First Year Arts.)
GEOLOGY II.
Pass, December, 1910.
White, Constance l. $\quad$ Joseph, Marie F.
BIOLOGY I.
Pass, March, 1911 (Alphabetical).
Barber, Minnie I Hill, Eleanora D.
ROMAN LAW, CONSTITUTIONAL IAW.
(See under Faculty of Lave.)

[^42]
## FACULTY OF ARTS.

## THIRD YEAR EXAMINATION.

December, 1910, and March, 1911.
Universiti Medal for Classics-G. L. Byth.
University Medal for Mathematics-Not awarded.
Universiti Medal for Logic and Mental Philosophy-J. F. Bruce.
University Medal for French and German-A. W. J. Bulteau.
James Coutts Scholafiship for English-J. F. Bruce.
Frazer Scholatship for History-J. F. Bruce.
Professor Anderson's Prize for Logic and Mental Philosofhy-
J. F. Bruce.

Professor MacCillom's Speclal Pri\%e for English-K. M. H. Solomon. honour lists.

| LATLN. |  |  |
| :--- | :---: | :---: |
| Honours. |  |  |
| Class I. |  |  |
| G. L. | Honours. | MATHEMATICS. |
| Class I. | Honours. |  |
| Class I. |  |  |
| Byth, G. L. | Smith. Catherine D. |  |

Class III.
Gretton, Ethel M.
Solomon, K. M. H.
Blight, S. E.
Maclardy, D. St. C.
ENGLISH.
Class 1.
Bruce, J. F.
Solomon, K. N. H.
Class II.
Burns, Dorothy
Gretton, Ethel M.
$\left.\begin{array}{c}\text { Stewart, Dorothea } \\ \text { L. }\end{array}\right\} æ q$.
Class III.
Connell, Marion A.
Watson, Evelyn A.
*McCredie, Jessie

GREEK.
Honours.
Class I.

Class II.
Blight, S. E.
Solomon. K. M. H.

FRENCH.
Honours.
Class I.
$\left.\begin{array}{l}\text { Bulteau, A. W. J. } \\ \text { Chisholm, A. R. }\end{array}\right\} \dot{\bar{\delta}}$
Class II.
*Widmer, F. E.
Class III.
Lilley, Kathleen M.
gERMAN.
Honours.
Class I.
Bulteau, A. W. J.

## Honours.

Class I.
(Sci.).
Class 11
Brown, W. R.

## PHILOSOPHY.

## Honours.

Class 1.
Bruce, J. F.
*Shortland, L. J.
Burns, Dorothy
Class II.
*Fletcher, C. E. B.
*Mulholland, W. J.
*Berman, F. T.
Class III
Jerrems, R.
education.
Honours.
Class II.
Chisholm, A. R.
Class III.
Bulteau, A. W. J.
HISTORY.
Honours.
Class I.
Bruce, J. F.
*Cousins, A.
*Fletcher, C. E. B.
*Lennard, W.
McCredie, Gladys E.

Class II.
*Mulholland, W. J.

PHILOSOPHY II. AND TII.
High Distinction.
Bruce, J. F.
*Shortland, L. J.
Burns, Dorothy

Distinetion.
*Fietcher, C. E. B.
*Mulholland, W. J.

Credit.
Bulteau, A. W. J.
*Berman, F. T.
*Fletcher, Alice M.
Post Graduate. PHILOSOPHY"I. Distinction.
Duncan, Annie B., B.A.
HISTORY II.
Distinction.
*McCredje, Jessie Credit.
Philp, Doris M.

The following have completed the Third Year Examination : -
*Allen, W. V.
*Back, J.
*Baxendale, J.
Beith, Janet A. R.
*Bentley, E. G.
*Berman, F. T.
Blight, S. E
*Bowden, R. J.
*Brady, V. J. J.
*Breakwell, E., B.Sc.
Brown, M. C.
Brown, W. R.
Bruce, J. F.
*Buckley, Cora R.
Bulteau, A. W. J.
Burns, Dorothy
Byth, G. L.
Chisholm, A. R.
*Clemens, W. F.
Connell, Marion A.
*Cousins, A.
*Dyce, A. H.
*Fletcher, Alice M.
*Fletcher, C. E. B.
*Gallagher, J. L.
*Gibson, J.
*Giltinan, R.
Gretton, Ethel M.
*Haddock, D. A.
Hill, Ethel L.
Hughes, R. F.
*Jerrems, R.
*Lennard, W.
*Leroy, A. E.
Lilley, Kathleen M.
Lillingston, Jessie M.G.
Lloyd, A. S.
Lucas, C. R.
McAdam. F. V.
McCredie, Gladys E.
*McCredie, Jessie
*McIlwraith, J.
*Mcllwraith, W. D.
McKern, A.S.
Maclardy, D. St. C.
*Maguire, M. J.
Maiden, Acacia D.
*Mallett, T. R.
Markwell, Gladys E.
*Mulholland, W. J.

* Oakes, A. W.

Patison. Irene M.
Philp, Doris M.
*Porter, G.
*Priestley, Louic
Purnell, Lily C.
Rich, C. E.
Roberts, Mabel B.
Roxburgh, N. W.
Saunders, Pearl M.
Schleicher, Dorothy C. M.

Sharp, P. J.
*Shortland, L. J.
Simpson, E. T.
Simpson, R. I.
Sinclair, C. W.
Solomon, K. M. H.
Stacy, B. V.
Steel, J. B. V.
Stewart, Dorothea $L$.
Street, K. W.
*Tait, E. W.
*Teasdale, F. V.
Watson, Evelyn A
*Widmer, F. E.

LATIN III.
Pass, December, 1910.
i Street, K. W.
|*Oakes, A. W.

Lloyd, A. S.
McAdam, F. V. Rich, C. E.

Latin III.-continued.
$\left\{\begin{array}{l|l}\text { Hughes, R. F. } \\ \text { Steel, J. B. D. } \\ \text { Stewart, Dorothy L. } \\ \text { *Porter, G. }\end{array}\right\}$ æeq. $\left.\quad \begin{array}{l}\text { *Gallagher, J. L. } \\ \text { Patison, Irene M. } \\ \text { Brown, M. C. } \\ \text { Lucas, C. R. }\end{array}\right\}$ æq.
Latin II.
Chisholm, A. R.
LATIN ITI.
Pass, March, 1911 (Alphabetica).

Clemens, W. F.
Maiden, Acacia D.
Purnell, Lily C.
Saunders, Pearl M.
Watson, Evelyn A.

## Latin II.

Roberts, Mabel B.
GREEK III.
Pass, December, 1910.
Steel, J. B. V.
ENGLISH III.
Pass, December, 1910.
*Haddock, D. A.
McCredie, Gladys E.
Sinclair, C. W.
*Priestley, Louie
*Fletcher, C. E. B.
*Lennard, W.
Lloyd, A.S.
*Back, J.
Patison, Irene M.
*Widmer, F. E.
*Dyce, A. H.
*Maguire, M. J.
*Haddock, D. A. I Lucas, C. R. |*Widmer, F. E.

Hadley, Enid L.
*Leroy, A. E.
$\left.\begin{array}{l}\text { Schleicher, Dorothy } \\ \text { C.M. }\end{array}\right\} \stackrel{=}{=}$
Sh
Smyth, Sybil R. J
*Bentley, E. G. * æq.
*Brady, V. J. J.
*Berman, F. T.
*Buckley, Cora R. æq. McKern, A.S.

* Mallett, T. R.
* Porter, G. , æq.
*Fletcher, Alice M.
Maiden, Acacia D.

Carter, Beatrice F. Blight, S. E.
*Cousins, A.
Lilley, Kathleen M.
Purnell, Lily C. $(\dot{\bar{\Phi}}$ Purnell, Lily C.
*Allen, W. V.
*Mulholland, W. J.
*
*
Sharp, P. J.
Philp, Doris M.
Roberts, Mabel B.
*Gibson, J.
Saunders, May A.
Simpson, E. T.
*McIlwraith, J.
*Baxendale, J.

ENGLISH II.

ENGLISH IIT.
Pass, March, 1911 (Alphabetical).
Lillington, Jessie M. G. Mackay, Helen E.
*Mcllwraith, W. D. $\quad{ }^{*}$ Teasdale, F. V.
Brown, M. C.
Beith, Janet A. R. Hill, Ethel L.

[^43]ENGLISH II.
*McDarra, G.

*Shortland, L. J.
Patison, Irene M.
I Roxburgh, N. W. Saunders, Pearl M.
FRENCH III.
Pass, December, 1910.
Burns, Dorothy $\quad$ *Gibson, J.
*Dyce, A. H.
Street, K. W.
frenctir 1 I .
*Gallagher, J. L.
FRENCH III.
Pass, March, 1911 (Alphabetical).
Markwell, Gladys E. Roberts, Mabel B. Rich, C. E.

Watson, Evelyn A.

Hill, Ethel L.
*Jerrems, R. McAdam, T. V.

FRENCH II.
*Fletcher, Alice M.
GERMAN III.
Pass, December, 1910.
Schleicher, Dorothy C. M.

MATHEMATICS ILI.
Pass, December, 1910 (Alphabetical).

| Connell, Marion A. | Markwell, Gladys E. | $*$ Teasdale, F. V. |
| :--- | :--- | :--- |
| *Gibson, J. |  |  |

LOGIC AND MENTAL PHILOSOPHY II. AND III.
Pass, December, 1910 (Alphabetical).
*Back, J.
*Baxendale, J.
*Bentley, E. G.
*Bowden, R. J.
*Brady, V. J. Brown, M. C.
Brown, W. R.
*Buckley, Cora R. Byth, G. L.
Chisholm, A. R.
Beith, Janet A. R.
${ }^{\text {* Clemens, W. F. }}$
*Gallagher, J. L.
*Giltinan, R.
Hill, Ethel L.
*Jerrems, R.
*Johnson, J. S.
McCredie, Gladys E.
*McCredie, Jessie
McKern, A. S.
*Maguire, M. J.
Pass, March, 1911 (Alphabetlcal).
| Lillingston, Jessie M. G. I *MeJlwraith, W. D.

## PHILOSOPHY I.

Rourke, Lillie A., B.A. $\quad$ *Tait, E. W.

* Evening Student.

FLUCATION.
Pass, December, 1810 (Alphabetical).
*Dyce, A. H.

* Giltinan, R.
*Haddock, D. A.
${ }^{*}$ Meldrum, H. J., B.Sc.
*Mcllwraith, J.
*Priestley, Louie *Widmer, F. E.

Graduates.
Pass (Alphabelical).
Bussmann, F., B.A.
Evans, Sara, B.A.

Roberts, W., B,A. Rourke, Lillie, B.A.
Smith, Eleanor, B.A.

Small, Ethel E., M.A. Watts, Ethel L., B. A. Woodlands, Mabel, B.A.

Pass. March; 1911 (Alphabetical).
*Allen, W. V.
*Leroy, A. E.
*Owen, T. A. $\quad$ Saunders, Pearl M. ${ }^{2}$
HISTURY II.
Pass, December (Order of Merit), 1910.
*Breakwell, E., B.Sc.
Connell, Marion A.
*Maguire, M. J.
*Allea, W. V.
Rich, C. E..
Hughes, R. F.
*Clemens, W. F.
*Priestley, Louie

McKern, A. S. Carter, Beatrice F.
*Leroy, A. E. ? *Tait, E. W. *Oakes, A. W.
*Buckley, Cora R. *Giltinan, R. $\}$ ※eq. ${ }^{*}$ Mc Ilwraith, J.

HISTORY I.
Pass, December, 1810.
Bowden, R.

## BIOLOGF I.

Pass, December, 1910 (Alphabetical).
Hughes, R. F. I Stewart, Dorothea L.
Pass, March, 1911.
Maiden. Acacia D.
GEOLOGY III.
Pass, December, 1910 (Alphabetical).
Hadley, Enid L. | Philp, Doris M. ISaunders, May A.
Pass March, 1911 (Alphabetical).
Mackay, Helen E. $\quad$ Purnell, Lily C.
LAW SUB.JECTS.
(See under Faculty of Law,)

[^44]
## FACULTY OF ARTS.

M.A. EXAMINATION.

SCHOOL OF CLASSICAL PHILOLOGY AND ANCIENT HISTORY
greek and latin literature.
Honours.
Class I.-Schleicher, B. M. J.
LATIN LITERATURE.
Pass.
Daries, Edith M.
SCEOOL OF MODERN LITERATUKE.
FNGLISH.
Honours.
Class I.-Mackaness, G.
Pass (Alphabetical).
Lewis. Enid de Sare
| Lion, Rosine PRENCF.

Pass.
Mote, L. C.
SCHOOL OF MODERN HISTORY.
Honours.
Class I.-Morley, Muriel V.
Class II. (alphabetical).
Flower, Emily M.
| Meek, H. K.
SCHOOL OF LOGIC, MORAL, MENTAL AND POLITICAL PHILOSOPHY
EDUCATION.
Class I.-Middleton, R. J.
Pass.
Dart, G.
ETHICS.
Pass.
Schrader, C. P.
Thesis-Aristotle's Ethical, Political and Educational Ideals and
Modern Standards.

## DEPARTMENT OF MILITARY SCIENCE.



Lloyd, A. S. $\mid$ Moore, D. Long, S. A. Parker, B. F.

Todd, A. Willis, H. H

## military torography.

## High Distinction.

Tilney, L. E. Gipps, H. D. L.

| Hardie, J. L. Lloyd, H. W.

## Distinction.

Roberts, G. A.

## Credit.

Shannon, M. R.
Carter, R. B.
Sampson, V.
Whinfield, J. R. S.
Sachs, W. J.

## Pass.

Cohen, H. F. Smith, W. J. Jacobs, M.
Dignam, A. R.
Asheroft, R. G. B. Crighton, W. J.

Bushell, E.
Todd, A. C. R.
King, R. G.
Howell-Price, D. C.
Chester, J. L.
Patterson, G. H.
Bourne, C. A. Charlton, J. R. Rayson, H. Hamilton, J. Somerville, G. C.
military engineering.
Distinction.
Frecker, E. W.
Chester, J. L.
Edmonds, J. N.
1 Jess, C. H.
Credit.
|Lloyd, H. W.
I Long, S. A.
Smith, M. P.

## Pass.

Bushell, E. H.
Hardie, J. L.
Howell-Price, D. C. W.

Pike, W. E. Pye, C.

Todd, A. C. R. Wayland, S. C.

# DEPARTMENT OF ECONOMICS AND COMMERCE. 

## ECONOMICS AND COMMERCE I.

$\left.\begin{array}{r}\text { Mr. H. Y. Braddon's Prize for Business Methods-J. G. Lee } \\ \text { T. N. Rickard }\end{array}\right\} œ$ @.

Rickard, T. N.
Salmon, N. L. Lancaster, J. E.

Cox, P. P. Marx, R. A. Williams, F. A.

Pass, December, 1910.
Distinction.
Jones, F. W.
Cavell, Linda M Wheaton, F. F.

## Credit.

Bartlett, H. J. Sheehy, E. J.

Pass.
Brierley, A. N. Kennedy, H.

Pass.

| Jones, F. W. | George, R. F. <br> Cavell, Linda M. <br> Wheaton, F. F. |
| :--- | :--- |
| Lee, J. G. |  |

$\mid$ Casson, A. J. T. $\quad$ Anderson, S. T
Passed in Accountancy.
Townshend, S. E.
ECONOMICS AND COMMERCE II.
Pass, December, 1910. Distinetion.
Waites, T.
Craigie, W.
Merrett, J.
Doyle, W. S. H.

Murphy, J.
Scrutton, R. le N. Goodman, G. C.

Day, W. O. C.
Harbutt, R. E.
Credit.
Haigh, V.
Golledge, H. W
Clifford, C. W. P
I Dawson, R. C.
Pass.
Cox, W. B.
Henderson, A. G. Stillman, W. H.
|Webb, A. M.

Passed in Economics. Eldridge, J. C.

Passed in Accountancy. Townshend, S. E.

ECONOMICS AND COMMERCE III.
Ghamber of Commerce Prize-F. J. Docker.
Mr. R. F. Irvine's Prize for Economics III,-F. J. Dorker.
Pass, December, 1910.
Distinction.
Docker, F. J.
Gredit.
Beardmore, F. J. Swain, Edith M. M., B.A. McDonald, H. L.
Herlihy, E. J.
IHicks, G. C.

## Pass.

Hancock. E. C.
| Eade, H. A.

Pass, March, 1911.
Leifermann, C. H.

## POST-GRADUATE SCHOLARSELPS AND PRIZE COMPOSITIONS.

Science Research Scholarship given by the Royal Commissioners of the Exhibition of 1851-W. N. Benson, B.Sc.

Barker Graduate Scholarship for Mathematics-Tanny Cohen, B.A., B.Sc.

Woolley Scholarship for Classics and Philosophy-B. Muscio. B.A. University Medal for Einglish Verse-Rosine Lion, B.A. Wentworth Prize for Graduate's English Essay-C. K. Allen, B.A. Beauchamp Prize for an Evglish Essay-C. K. Allen, B.A. Professor Anderson's Medal for a Philosophical EssayB. Muscio, B.A.

Nicholson Medal for Latin Verse-A. R. Chisholm.
Frederick Lloyd Memorial Prize for a Latin Essay-A. R. Chisholm.

# FACULTY OF LAW. <br> INTERMEDIATE LL.B. EXAMINATION. March, 1911. 

Wigram Allen Scholarship for the Subjects of Section I.$\left.\begin{array}{l}\text { Nimmo, W. M., B.A. } \\ \text { Blanksby, H. R., B.A. }\end{array}\right\}$ æq.
Pitt Cobbett Prize for Constitutional Law.-Blanksby, H. R., B.A.
George and Matilda Harris Scholarship for the Subjects of Section II.-
H. H. Mason.

$$
\left.\begin{array}{l}
\text { H. S. Utz, B.A. } \\
\text { C. A. Weston, B.A. }
\end{array}\right\} \begin{array}{r}
\text { prox.a } \\
\text { æq. }
\end{array}
$$

Section I.
(ROMAN LAW AND CONSTITUTIONAL LAW).
Pass (Order of Merit).
Nimmo, W. M., B. A.
$\left.\begin{array}{c}\text { Blanksby, H. R. } \\ \text { B.A. }\end{array}\right\}$ æq.
Biddulph, L. H. Collier, C. T.

Stacy, B. V.
Howard, G. C.
McLelland, H. W.
Ranson, J. R., B.A.
Chedgey, H. V.

Simpson, R. I., B.A. Simpson, E. T.
Ferguson, B. H. Terrey, L. C. Roxburgh, N. W.

CONSTITUTIONAL LAW.
Pass.
Lloyd, A. S. | Lucas, C. R. |MoTiernan, E. A. ROMAN LAW. Pass.

Beresford, M. J. de la P.
Cahalan, E. B.
Hollingdale, E. T.

Sheppard, W. J. Bourke, C. A. R.

Section II.
(PUBLIC INTERNATIONAL LAW, JURISPRUDENCE, AND ELEMENTS OF POLITICAL SCIENCE).

Pass (Order of Merit).


## FACULTY OF MEDICINE.

## FIRST DEGREE EXAMINATION.

Renwick Scholarship for General Proficiency in the Subjects of , the Examination-N. M. Gregg.

Pass, December, 1910 (Alphabetical).
Allen, C. W. C.
Anderson, J. T.
Aspinall, A. E.
Barbour, E. P.
Buss, R. C. S.
Burton, R. N.
Byrne, K.
Carruthers, B. M.
Coghlan, C. C.
Curtis-Elliott, F. C.
Dark, E. P.
Davidson, A. M.
Dean, A. W.
Digby, J. L.
Donovan, C. O. G.
Douglass, C. N.
Fenwick, W.

Bamber, L.
Blashki, E. P.
Brown, K. S. M.
Browne, D. J.
Davis, D. A. A.
Edwards, W. A.
Gardiner, S. S.
Hill, G. F.
Hunter, L. J.

Gregg, N. M.
Grey, E. C., B.Sc.
Grey, F. T., B.A.
Harris, C. M.
Haynes, R. J.
Henderson, J. K.
Huxtable, C. R. R.
Jones, J. T.
Langan, A. N.
Morgan, l.
Murphy, P. J.
North, H. M.
Nye, L. J. J.
O'Regan, S. V.
O'Reilly, Olive K. Page, W. R.

Parkinson, P. S.
Rae, R. K.
Railton, S. A.
Ridler, H. A.
Roberts, A. T.
Sandbrook, E. A.
Silberthau, R. J.
Shand, J. C.
Stewart, J.
Tanko, C.
Tooth, H. L.
Thomas, A. C.
Voss, Dorothy M..
Wall, H. A. C.
Winn, R. C.
Zions, N.

Pass, March, 1911 (Alphabetical).

Laing, J. K. C.
Lowe, G. B.
McCaffrey, E. M.
MacCulloch, J. R.
Morris, P. A.
Murray, A. W. G.
Nisbet, A. T. H.
Nott, L. W.

Randall, W. H. N.
Raymond, A. W.
Richards, R. W.
Rivett, Amy C.
Sandford, Elma L..
Saunders, J. L.
Trindall, R. B.
Wade, B. G.

CLASS LISTS.

## CHEMISTRY I.

Distinction.
Parkinson, P. S.
Gregg, N. M.
Morgan, I.

Nye, L. J. J.
Winn, R. C.
North, H. M.
( O'Reilly, Olive K..
Ridler, H. A.
Thomas, A. C.

Credit.
Coghlan, C. C. Burton, R. N.
Donovan, C. O. G.
Fenwick, W. Jones, J. T. O'Regan, S. V.

Voss, Dorothy M. Davidson, A. M. Page, W. R. Silberthau, R. J. Wall, H. A. C. Railton, S. A.

Digby, J. L. Anderson, J. T. Buss, R. C. S.
Dean, A. W.
Gre̊y, F. T., B.A,
Tanko, C.

BIOLOGY I. AND PHYSICS I.<br>(See under Faculty of Science.)

## SECOND YEAR EXAMINATION Lent Term, 1910.

APPLIED LOGIC.
Pass (Alphabetical).

Adams, C. G.
Alcorn, A.
Alcorn, R. M.
Alexander, N. M. A.
Anderson, C.
Balls, R.
Blomfield, C. R.
Brown, W. S.
Buchanan, A. L.
Byrne, G. C. (3rd Year)
Carter, R. B.
Chapman, C. L.
Clipsham, S. B.
Clowes, A. S.
Cohen, C. K.
Davenport, P. A. C.
Davis, T. R. E.
Denham, H. K.
Donald, W. H.
Duhig, J. V.
Duncan, G. M.
Elworthy, R. E.
Evans, W.
Exton, Harriette M.
Farrar, J. W.
Flower, W.
Fox, O. P.
Graham, S. M.
Greaves, F. W. B.
Grieve, K. H.

Grieve, P. N.
Hawthorne, W. S.
Hay, G. M.
Henry, C.
Hudson, R. H.
Hunter, J. G., B.Sc.
Jamieson. J. I. M.
Jekyll, A. C. A.
Jensen, F. J.
Jones, Maude S.
Kelly, A. F.
Kesteven, H. L., B.Sc.
Kirkwood, N. E. B.
Lane, R. C.
Lilley, C. M.
Lovejoy, R. A.
McCarthy, F. J.
Macdonald, W. J.
McMaster, R. M.
Malcolm, J.
Manery, W. J.
May, L.
Meehan, A. V.
Mellor, E. J.
Meyers, E. S.
Millett, W. L.
Mitchell, P. W.
Murphy, A. J.
Nixon, R. J.
O'Riordan, S.

Packer, N. E. Parkinson, C. K... Pary, E. K.
Pattinson, W. F..
Pinhey, E. T.
Pockley, B. C. A.
Potts, T. K.
Power, J. J.
Quessy, A. L.
Rayson, H.
Rosenthal, C. P..
Royle, N. D.
Smith, D. I. R.
Snow, L. L.
Stafford, A. L.
Stafford, S. R.
Sutton, M. G.
Taylor, R. J.
Thomas, F. S.
Thomas, H. E.
Thomson, R. M.
Todd, A. C. R.
Tozer, C. J. ,
Welch, H. L. St. V..
Wesley, C. H.
Whiting, C. W.
Wiley, C. J.
Wilson, B. G.
Yeates, W. F: S. .
Young-Wai, J..

## SECOND DEGREE EXAMLNATION. <br> August, 1910.

ANATOMY AND PHYSIOLOGY.
John Harris Scholárshif for Anatomy and Physiology-
A. St. G. N. H. Burbitt.

High Distinction.
Burkitt, A. St. G. N. H.
Distinction.

Brunnich, K. F. C.
$\left.\begin{array}{l}\text { Fisher, E. M. } \\ \text { Graham, R. V. }\end{array}\right\}$ æq.


Collins, A. J. Benjamin, A. McLelland, H. S. $\}^{\text {æq. }}$
> $\left.\left\lvert\, \begin{array}{c}\text { Gallagher, M.J. } \\ \text { O'Reilly, M. F. }\end{array}\right.\right\} æ q$.

Pass (Alphabetical).
Hair, J. M.
Hardie, J.
Harris, H. R. J. Hawthorne, H. L. Jackson, C. P. Lloyd, C. H.
McGregor, R. S. Manning, G. E. Molesworth, C. S. Norrie, H. F. J.

North, R. B. Plant, H. F. H. Rattray, R. H. Renwick, G. A. Scott, J. H. V. Single, C. V. Stanton, A. M. Van Epen, T. W. Walsh, H. S. Willcocks, G. C.

Wassell, C. E. Bateman, J. E., B.Sc.

Pass, March, 1911 (Alphabetical).
Ardill, Katie Fetherston, L., B. A. Holloway, E. S. Kelly, P. J.
Bray, G. W.
Byrne, G. C.
Church, J. V.
Coleman, A. H.
David, W. E.
Dunlop, A. T.
Fallon, C. J.
Finlay, D. F.
Fitzherbert, R. A.
Gibson, N. M.
Green, R. A. R.

Kennedy, B. C. Kirkland, W. D. Lilley, E. M. Pigott, L. M.

Ross, C. C.
Simmons, W. F.
Slattery, M. J.
Webb, J. E.

THIRD DEGREE EXAMINATION.
August, 1910.
PATHOLOGY, SURGICAL ANATOMY AND OPERATIVE SURGERY.
Parkinson Memorial Prize for Pathology-E. A. Tivey.
High Distinction.

Tivey, E. A.
Smith, M. P.


Maguire, F. A. Distinction.

Metcalfe, J. B.
Morris, E. S.

## Credit.

Frizell, T. J.
Hughes, L. H.
Tansey J. T. P. $\}$ æq.
Shearman, C. H.
Scot Skirving, A. W.
$\left.\begin{array}{l}\text { Inglis, W. K. } \\ \text { James, J. A. }\end{array}\right\}$ æq. Mason, G. W.
Kay, W. E.
Pass (Alphabetical).
Aspinall, A. M.
Blaxland, F.
Beazley, R. N.
Boulton, N. P.
Bowman, R. McD.
Chapman, A. J. P.
Clatworthy, C. H.
Dawson, A. L.
Dawson, J.
Donaldson, J. E.

Fletcher, W. M. A.
Furber, T. M.
Glissan, D. J.
Hailoran, G. R., B.Sc.
Herlihy, J. D. R.
Hittmann, F. C. B.
Hodgkinson, H. R.
Macdonald, Enid C.
McDonnell, R.
McKenzie, J. B. F.

Thompson, F. C. Northcott, C. H. $\left.\begin{array}{l}\text { Gibson, A. J. } \\ \text { Vickery, K. F. }\end{array}\right\}$ æq.

Macqueen, R. A. A. Mollison, A. J. Murphy, J. J. Pascoe, Elise V. Payne, P. H. Pye, C. R. A. Sabiel, F. H. Wallace, R. A. R. Watson, F. H.

Pass, December, 1910 (Alphabetical).
Brettingham-Moore, E. Findley, C. A.
Burke-Gaffiney, A. E.
Burke-Gaffney, F. C.
Curtis, P. M.

Fowler, C. W.
Griffiths, N.
Kenny, J.

McDonald, W. A. McKee, S. Walker, C. C. P.

## FINAL DEGREE EXAMINATION.

December, 1910.
University Medal-B. T. Edye.
Honours at Graduation.

Class 1.
Edye, B. T.
McIntosh, A. M., B.A.
Walker, A. S.
Ward, H. K. $\}$ æq.
Harrison, B. M. J.

Class 11.
Barrow, l. M., B.A.
Sear, H. R. Davis, N. J.

SUBJECTS OF THE FINAL DEGREE EXAMINATION. Distinction.
Edye, B. T.
Credit.
$\left.\begin{array}{l}\text { Walker, A. S. } \\ \text { Ward, H. K. }\end{array}\right\}$ æq.
Holmes a Court, A: W.

Harrison, B. J. M.

Clayton, H. J.
Davis, N. J.
Barrow, I. M., B.A.
$\left.\begin{array}{l}\text { Martin, W. W. } \\ \text { Wooster, F. C. }\end{array}\right\}$ æq.
Thomson, E. G.

Berge, C. G .
Clipsham, W. B.
Fitzgerald, M.
Fox, Edith E.
Humphries, H. G.
Jones, S. E.
Lindeman, G. B.
Blumer, G. A. Foy, L. H., B.E. - Haynes, A. R.

Pass (Alphabetical).
Macartney, G. W. McLean, A. L., B.A. McLelland, R. E. Markwell, N. W. Norrie, G.
Nowland, H. H. Parker, T. E.

Pockley, F. G. A. Robertson, N. K. Sear, H. R. Shellshear, W. G. Tait, L. G. Turner, T. A. Weedon, S. H. Pass, June, 1910 (Alphabetical). GPaul, C. N. | Powell, J. W. G., B.A. | Verge, C. A. |
| :--- | :--- |

## EXAMINATION FOR TILE DEGREE OF M.D.

Pass, Mareh, 1911
Griffiths, F. G., B.A., M.B. (Medicine).
Thesis: "Studies in pulmonary tuberculosis, its dissemination, specific diagnosis and treatment, and some points in its pathology.'

## DEPARTMENT OF DENTISTRY.

## FIRST YEAR EXAMLNATION.

Pass, December, 1910.
Butler-Wood, Irene V.

SECOND YEAR EXAMINATION.

## Pass.

Magee, Eva K. Clifford, W. P. Douglass, G.

Goodall, A. A.
Kendall, R. C. Lane, R. P.
Class Lists in Individual Subjects.
August, 1810.
ANATOMY AND DENTAL ANATOMY.
High Distinction.
Lane, R. P.
Distinction.
Wallace, E. S. Credit.
Douglass, G.
Scott, C. F.
Clifford, W. P.
†Moxham, D.
Scott, C. F.'
Wallace, E. S. †Moxham, D. $\}$ req. Kendall, R. C.

THIRD YEAR EXAMINATION.
March, 1911.
Pass (Alphabetical).
Callaghan, A. A. Christiansen, F. E.

McMaster, W.

FOURTH YEAR EXAMINATION.

Pass, December, 1910 (Alphabetical).
Boulton, K. R.
I Bush, R. B.
Douglass, A.
Class Lists in Individual Subjeets.
PATHOLOGY.
August, 1910.
Credit.
Bush, R. B.

## PHARMACY STUDENTS.

## CHEMISTRY I.

Pass, December, 1910
Distinction.
Blackall, H. N. Edwards, N.

Murray, H. R.
Dwyer, G.
Credit.
O'Connor, J, J. Barclay, F. E.

Crain, J. R.
Elliott, E. G. Jones, W. E. McGirr, J. Malone, L.
; Bradford, E. H.
Pass (Alphabetical).
Matheson, R. A. Matthews, J. D. Parkes, F. W. Pidcock, T. E.
Pye, E. J. D.

Ingamells, L.

Sabiel, B. N. Ross, G. R. Smith, L. W. Uren, A. Urquhart, G. L.

Pass, March, 1911.
Cains, R. H. 1 Powell, R.
CHEMISTRY INTRODUCTORY (ONLY).
Pass, May, 1910 (Alphabetical).
Cowell, N. G. G.

Boyne, A. W.
Donald, W. T. Gireen, T. E.

I Hearne, F.
I Uren, A.
December, 1910.
Vincent, E. G:
March, 1911.
Stevenson, S .
Chemistry, metals (only).
Pass, August, 1910 (Alphabetical).
I Cowell, N. G. I Hearne, F.
Pass, December, 1910 (Alphabetical).
McHugh, C. J. Ward, O. D.
Vincent, E. G.
March, 1911.
Harvey, S. W. McL.
organic cilemistry (only).
Pass, December, 1910 (Alphabetical).
Cowell, N. G. G. Harvey, S. W. M.

Holmes, J. G.
Phillips, J. V.
Miller, H. R.
Rose, H. C.
Pass, March, 1911 (Alphabetical).
Boyne, A. McI. - I Burnet, H. R. IVincent, E. G.
chemistry, practical (only).
Pass, 1910 (Alphabetical)
Cowell, N. G. G.
Miller, H. R.
BOTANY.
September, 1910.
Credit.

Reye, Alma
Murray, H. R.
Edwards, N .
Truscott, P .
Bradford, E. H.
Blackall, H. N. Ingamells, L .

Fletcher, M. P. Boyne, A. M.

Martin, R. C.
Matheson, R. A.

Blackall, H. N.
Urquart, G. L.
Tanner, L. A.
Attwater, C. M.
Barclay, F. E.
Bradford, E. H.
Burnett, H. R.
Cambourne, P.
Bailey, P. J.
Cowell, N. G. G.
Dwyer, G.
Fowler, H. J.
| O'Connor, J. J. Pass (Order of Merit).
West, F. V.
Phillips, J.
Malone, L.
Sinclair, H. A.
Pidcock, T. E.
| Sabiel, B. N.
Lilley, Kathleen M.
Fowler, H. J.
Mathews, J. D.
Urquhart, G: L.
Bailey, P. J.

December, 1910.
Credit.
Stevens, G. C. W.
Pass (Order of Merit).
Cowell, N. G. G. Kilburn, J. C. Hanton, W. J.

March, 1911.
Pass (Alphabetical).
|Spencer, J. B. $\quad$ |Winning, W. M.
materia medica.
December, 1910.
High Distinction.
Clarke, M. S.
Distinction.
McClean, J.
credit.
| Edwards, N.
Fletcher, M. P.
Ingamells, L. Truscott, $\mathbf{P}$.
Pass (Alphabetical).
Murray, H. R.
O'Connor, J. J.
Pidcock, T. E.
Parkes, T. W.

Reye, Alma
Sabiel, B. N.
Sinclair, H. A.
Spencer, J. B.

Pass, Marcn, 1911 (Alphabetical).
McGirr, J. T.
Matheson, R. A.
Matthews, J. D.
Oxenbam, D.B.

Small, N. P. Stevens, G. C. W.
Uren, A.

## FACULTY OF SCIENCE.

## FIRST YEAR EXAMINATION.

December, 1910, and March, 1911.
Levey Scholarshif for Chemistry and Physics- $\dagger$ A. Pain (ineligible) $\left.\begin{array}{c}\text { Awarded to-R. A. Gardner (Arts) } \\ \text { W. E. Pike (Eng.) }\end{array}\right\}$ w.
Smith Prize for Physics-Not awarded.
Slade Prize for Practical Chemistry-G. E. Johns (Arts).
University Prize for Geology- $\dagger$ A. Pain (ineligible)--Prize not awarded.
Professor Haswell's Prize for Zoology.-C. Badham.
The Collie Prize for Botany-C. Badham.
Dr. Woolnough's Prize for Eifld Notes in Geology- $\dagger$ A. Ilowman (ineligible)-Awarded to H. Wenholz (Agric. Sci.).
Professor Dayid's Prize for Microscope Slides-R. W. Lahey (Eng.),
Professor Haswell's Prize for Laboratory Notebook$\dagger$ Annie J. Spencer (ineligible).
twarded to-Dorothea L. Stewart (Arts) $\}$ L. J. J. Nye (Med.)
The following have completed the First Year Examination :Alphabetical.

Badham, C.
Dunkley, A. M.
Froggatt, J. L. $\dagger$ Hood, S. J.
$\dagger$ Pain, A. $\dagger$ Pillans, W. $\dagger$ Plowman, A. Rice, C. T.

Smith, Esther L. Tearne, Donna M. Wardlaw, H. S. H.

Class Lists in Individual Subjects.
CFEEMISTRY I.
High Distinction.
$\dagger$ Harding, H. G. A. $\mid \dagger$ Pain, A. Distinction.
Dunkley, A. M. | Wardlaw, H. S. H. | $\mid$ Pillans, W. Credit.
Badham, C.
Froggatt, J. L.
Pass, December, 1910 (Alphabetical).
$\dagger$ Bocking, Zillah
Lennox, F. W.
$\dagger$ Plowman, A. Rice, C. T.
$\dagger$ Moore, H. J.

Simonds, E. F., B. A.
Smith, Esther L.
$\mid$ †Hood, S. J.
$\qquad$

Pass, March, 1911.
Pattinson, May $\quad$ Tearne, Donna M.
BIOLOGY I.
High Distinction.
Badham, C.
Distinction.
Gregg, N. M. (Med.) I O'Regan, S. V. (Med.) I Stephens, H. (Agric. Sc.)
Credit.
North, H. M. (Med.) $\mid$ Buss, R. C. S.
Parkinson. P. S. (Med.)
Huxtable, C. R. R. (Med.)
Page, W. R. (Med.)
$\left.\begin{array}{c}\text { Page, } \\ \text { (Med.) } \\ \text { Stewart, J. R. } \\ \text { (Vet. Sci.) }\end{array}\right\} æ q$. (Med.)
Coghlan, C. C.
(Med.)
Wall: H. A. C.
(Med.)
Wardlaw, H. S.
H.

Thomas, A. C. (Med.) A. $\{$ æq. Morgan, I (Med.) Burton, R. N. (Med)
Grey, E. C., B.Sc. >æq. (Med.)
Railton, S. A. |
Pass (Alphabetical).
$\dagger$ Pain, A.
Froggatt, J. L.
Pass, March, 1911.
| Pattinson, May
| Tearne, Donna M.
PHYSICS 1.
Distinction.
Gardner, R. A. (Arts)
$\underset{\text { (Eng.) }}{\text { Pike, W. E. }} \quad\{$ æq.
Colville, A. B. (Arts)
Fitzherbert, J. A. (Arts)
O'Regan, S. V. (Med.)
Frecker, E. W. (Arts)
Morgan, I. (Med.)
Credit.
'Thomas, A. C. (Med.) $\dagger \dagger$ Pain, A.
Wardlaw, H. S. H.
Dunkley, A. M.
Badham, C.
$\dagger$ Hood, S. J.
Froggat.t, J. L.
$\dagger$ Pain, A.

Parkinson, P. S (Med.)
Blumer, C. H. (Eng.)
Silberthau, R. J. (Med.)
$\dagger$ Plowman, A.
Smith, Esther L.
i Tearne, Donna M.

GEOLOGY I.
Distinction.

| $\dagger$ Pain, A. |  | Dunkley, A. M. Pauss, Olga M. (Arts) |
| :---: | :---: | :---: |

$\dagger$ Not passing through the regular course.

Credit.


Pass, December, 1910 (Alphabetical).
Badham, C.
Froggatt, J. L.
$1 \begin{aligned} & \text { Gallop, Lena F. W. }\end{aligned} \left\lvert\, \begin{aligned} & \text { Simonds, E. F. } \\ & \dagger \text { Pillans, William }\end{aligned} \quad\right.$
MATHEMATICS I.
(For Honours List see under Faculty of Arts.)
Pass, December, 1910 (Alphabetical).
Dunkley, A. M.
$\dagger$ Hood, S. J.
$\mid \dagger$ Plowman, A. $\quad \mid$ Smith, Esther L.
MATHEMATICS I.
Pass, March, 1911.
Rice, C. T.
mathematics in.
Pass.
$\dagger$ Moore, H. J.
$1 \dagger$ Pillans, W.

## SECOND YĖAR EXAMINATION.

Caird Scholarship for Chemistry-S. E. Peirce.
Deas-Thomison Soholarship for Geology-A. D. Watson.
Professor David's Prize for Geology-A. D. Watson.
Deas-Thonson Scholarship for Pbysics-S. E. Peirce.
The following have completed the Second Year Examination:-
Briggs, E. A.
Davis, S. J. G.
Lewis, Adelaide E.
$\left\lvert\, \begin{aligned} & \text { Peirce, S. E. } \\ & \text { Perry, Mary C. } \\ & \text { Robson, A. J. }\end{aligned}\right.$
| Southee, E. A.
Taylor, H. B.
Watson, A. D.
Class Lists in Individual Subjects.
GEOLOGY II.
High Distinction.
Watson, A. D.
Davis, S. J. G.

## Distinction.

Briggs, E. A.

## Pass.

Perry, Mary C.
Pass, March, 1911.
Lewis, Adelaide E.
BIOLOGY II. Credit.
Watson, A. D. | Little, Elaine M.
Pass (Alphabetical).

| Briggs, E. A. <br> Lewis, Adelaide E. | Perry, Mary C. | Southee, E. A. |
| :--- | :--- | :--- |

CHEMISTRY II.
High Distinction.
$\dagger$ Harding, H. G. A. $\quad$ Peirce, S. E.
Distinction.
Robson, A. J.
Credit.
Taylor, H. B.
| Briggs, E. A.

## Pass.

Davis, S. J. G. |Shand, J. C. $\mid$ Watson, A. J. Lewis, Adelaide E.

## ISouthee, E. A.

Pass, March, 1911
Perry, Mary C.
Mathematics If.
(For Honours see under F'aculty of Arts.)
Pass (Alphabeti :al).
Davis, S. J. G.
Pass, March, 1911.
Taylor, H. B.
PHYSICS II.
High Distinetion.
Peirce, S. E.
Distinction.
Robson, A. J.
Pass, March, 1911.
Taylor, H. B.

## PHYSIOLOGY I.

## Pass.

Simonds, E. F., B.A.

THIRD YEAR EXAMINATION.
John Coutts Scholarshif-Catherine D. Smith.
Deas-Thomson Mineralogy Scholarship-Catherine D. Smith. Professor Datid's Prize and University Medal for GeologyCatherine D. Smith.
Professor Haswell's Prize for Biology II.-H. H. Willis.
The following have completed the Third Year Examination :Blumer, R. C. Flint, A. C.

Simonds, E. F., B.A. Debenham, F., B.A, Little, Elaine M. $\quad$ Smith, Catherine D.

## Class Lists in Individual Subjects.

biology.

## Honours.

Class I. . 1 Class II.
Willis, H. H.
Little, Elaine M.
geology iir.
GEOLOGY AND MiNeralogy.
Honours at Graduation.
Class 1.
Smith, Catherine D.
BIOLOGY III.
Credit.
Little, Elaine M.
MOLOGY II.
High Distinction.
Willis, H. H.
Pass (Alphabetical).

Flint, A. C.
|
$\ddagger$ Maclellan, Annette B.A.

CHEMISTRY III.
Pass (Alphabetical).
Blumer, R. C.
GEOLOGY IIJ.
Pass.
Debenham, F., B.A.
MATHEMATICS III.
(For Honours List sec under Faculty of Arts.)
\#Irregular Student.
Debenham. F., B.A.

1
Flint, A. C.

## D.SC. EXAMINATION.

## DEPARTMENT OF BIOLOGY.

Pass, March, 1911 (Alphabetical).
Johnston, T. H., B.Sc.-Thesis: "Studies on Australian Cestoda." Kesteven, H: L., B.Sc.-Thesis: "The Constitution of the Gustropod Protoconch, its value as a Taxonomic feature, and the significance of some of its forms."

# DEPARTMENT OF VETERINARY SCIENCE. 

## FIRST YEAR EXAMINATION.

White Prize for General Proficiency in the Subjects of the Examination-J. R. Stewart.

## The following have completed the First Year Examination :-

 Pass, December, 1910.Davis, V. E. H.
Finlay, G. F.
Hindmarsh, W. L.

Patten, R. A. Stewart, J. R.

Veech, B. C.
Walters, C.J. M.
Pass, March, 1911.
Cunningham, A.T. James, E.S.
Class Lists in Individual Subjects.
JUNIOR ANATOMY.
High Distinction.
Walters, C. J. M.
Stewart, J. R. , req.

Credit.
Davis, V. E. H.

BIOLOGY 1.
Credit.
Stewart,J. R.

Chemistry I.
Credit.
Stewart, J. R.

## DEPARTMENT OF AGRICULTURAL SCIENCE.

## FIRS'I YEAR EXAMINATION.

Belmorn Scholarship for Proficiency in Chemistry I. and Geology .H. Stephens.

The following have completed the First Year Examination :-
Pass, December, 1810 (Alphabetical).
Southee,!E. A. !Stephens, H. I Wenholz, H.
Pass, March, 1911.
Heinrich, J. O.
Class Lists in Individual Subjects.
biology I.
Distinction.
Stephens, H.

CeEEMISTRY I.
Distinction.
Stephens, H.

GEOLOGY I.
(See under F'aculty of Sciesice.)

## DEPARTMENT OF ENGINEERING.

Peter Nicol Russell Scholarships for Entranceto the Derartment of Mechanical and Electrical Engineering-<br>Stafford, F. D.<br>Thorne, H. H. $\rangle^{\text {eq. }}$<br>Tandy, P. E.

## FIRST YEAR EXAMINATION.

Assistant Professor Barraclofgh's Prize for Descriptive Geometry -Mackinnon, J. Y.

```
    The following have completed the First Year Examination:-
``` Pass, December, 1910 (Alphabetical).

Blumer, C. H. Dowling, B. S.

Mackinnon, J. Y. Massie, R. J. A. Pass, March, 1911 (Alphabetical).
\(\dagger\) Edwards, A. R.
Gibbes, F. W.
Gibson, W. H. H. Hamilton, J.

Hooper, G. H. \(\quad\) McMahon, J. T. Норе, B. C. Sames, H F. Lahey, R. W.

Tidswell, F. A.
Whitfeld, G. A.

HONOUR LISTS.
ENGINEERING DESIGN.
High Distinetion.
Dowling, B. S.
1 Edwards, A. R.
Pike, W. E. Distinction.
Lahey, R. W.
। Hope, B. C.
Credit.
Blumer, C. H.
CHEMISTRY I.
Credit.
Pike, W. E.
i
Potts, W. E.
GEOLOGY I. AND PHYSICS I.
(For Distinction Jists see under Faculty of Science.)
\(\ddagger\) Not passing thre, agh the regular Course.

DESCRIPTIVE GEOMETRY.
High Distinction.
Mackinnon, J. Y.
Distinction.
Edwards, A. R.
GEOL()GY I.
Pass, December, 1910 (Alphabetical).
Blumer, C. H. Lahey, R. W.
\(\left.\right|^{\text {Massie, R. J. A. }}\)
Webb, K. E.
Pass, March, 1911 (Alphabetical).
Hall, G. E. | McMahon, J. T. | Pelly, J. H.
ENGFNEERING: DESIGN.
Pass, Mareh, 1911.
\(\ddagger\) Winters, R. J.

\section*{SECOND YEAR EXAMLNATION. \\ December, 1910, and March, 1911.}

The following have completed the Second Year Examination :DEPARTMENT OF CIVIL ENGINEERING.

Pass, December, 1910. Bourne, C. A.
Pass, March, 1911 (Alphabetical).
Calvert, F. J.
De Burgh, T. H. M.
Fry, H. G.
| Lancaster, E. E.

DEPARTMENT OF MINING AND METALLURGY.
Pass, December, 1910 (Alphabetical).
\begin{tabular}{l|l|l} 
Camplell, A. L.. B.A. & Hinder, R. B. & Nielsen, M. M. \\
Cran, C. R.
\end{tabular}
Pass, March, 1911.
Deane, C.
dEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.
Pass, December, 1910 (Alphabetical).
Maxwell, M. | Roper, W. H.
Pass, March, 1911.
\(\dagger\) Hebblewhite, F. S.
\(\ddagger\) Not passing through the regular Course.

\section*{354} DEPARTMENT OF ENGINEERING.

HONOUR LISTS.
engineering design.
High Distination.
Campbell, A. L., B.A.
Distinction.
Fry, H. G.
। Maxwell, M.
mechanical engineering i.
Distinction.
Bourne, C. A.
1 Campbell, A. L., B.A
Credit.
Maxwell, M.
engineering construction i.
High Distinction.
Campbell, A. L., B.A.
Distinction.
Bourne, C. A.
ENGINEERING CONSTRUCTION II.
High Distinction.
Campbell, A. L., B.A.
Credit.
Bourne. C. A.
PHYSICS II.
Distinction.
Maxwell, M.
Credit.
Bourne, C. A.
1 Roper, W. H.
ENGINEERING CHEMISTRY.
Distinction.
Bourne, C. A. Corbett, L.
\(\left|\begin{array}{l}\text { Maxwell, M. } \\ \text { Campbell, A. L., B.A. }\end{array}\right|^{\text {Calvert, F. J. }}\)
Credit.
\(\left.\begin{array}{l}\text { Hinder, R. B. } \\ \text { Fry, H. G. }\end{array}\right\} æ\) q. \(\quad\left|\begin{array}{l}\text { Smith, R. C. } \\ \text { Hebblewhite, G. S. }\end{array} \quad\right| \begin{aligned} & \text { Roper, W. H. }\end{aligned}\)
GEOLOGY I.
(See under Faculty of Science.)

\section*{THIRD YEAR EXAMINATION.} December, 1910, and March, 1911.

Assistant Professor Barraclough's Prize for a Mechanical Engineering Essay-R. A. Holloway; C. Dennis, (prox. acc.)

The following have completed the Third Year Examination :DEPARTMENT OF CIVIL ENGINEERING.

December, 1910.
Vincent, W. F.
March, 1911.
Mallarky, S.
DEPARTMENT OF MINING AND METALLURGY. December, 1910 (Alphabetical).
Adamson, R. W. Best, G. H. T.
\(\mid\) Desgrand, V. A. G. \(\mid\) Lloyd, A. C., B.Sc.
DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.
December, 1910 (Alphabetical).
Bridge, C. W.
Dennis, C.
England, J.

Holloway, R. A.
Reynolds, L. J.
Rorke, H. A.
Taylor, E. P.

\section*{HONOUR LISTS.}

\section*{SURVEYiNg i.} Credit.
Lloyd, A. C., B.Sc.
Pass.
\(\ddagger\) Winters, R. J.
MINERALOGY.
Distinction.
Foxall, J. S.
Credit.
Desgrand, V. A. G.
GEOLOGY II. A. ECONOMIC.
High Distinction.
Foxall, J. S.
Distinetion.
Lloyd, A. C., B.Sc.
Credit.
Adamson, R. W.
\(\ddagger\) Not passing through the regular Course.

\title{
mechanical engineering if. \\ Distinction.
}


HONOUR LISTS.
Mr. F. A. Eastaugh's Prize for Assaying-W. T. Anderson.
Honours at Graduation.
Class 11.
W. T. Anderson

MINING.
High Distinction.
Anderson, W. T.
Distinetion.
Hanton, T. G.
Engineering design. Distinetion.
Anderson, W. T.
ASSAYING.
High Distinction.
Anderson, W.T.
Distinction.
Hanton, T. G.
METALLURGY.
Credit.
Anderson, W. T. I Smith, H. H. I Hanton, T. G.
* Not passing through regular Comre.

DEPARTMENT OF MECHANICAL AND ELECTRICAL ENGINEERING.
The following have completed the Fourth Year Examination.
March, 1911 (Alphabeitical).
Beeston, S. L
Burn, A.
Doyle, A. B.
Forster, A. D. J.
Hebblewhite, W. R. \(\mid\) Norman, E. P.
Herbert, D. P.
Houston, R.
Knigbt, O. Le M.
June, 1910 (Alphabetical).
Fry, H. W.
\(1 \quad\) Ireland, O. A.
honour lists.
University Medal in Mechanical and Electrical EngineeringBurn, A.
W. J. Sachs (prox. acc.)

William and Jane Grabame Scholarship for Mechanical Engineering
W. R. Hebblewhite
E. P. Norman (prox. acc.)

Honours at Graduation.
Class I.
Burn, A.
Sachs, W. J.
Norman, E. P. Wilkins, \(\mathbf{T}\).

Class II.
Knight, O. L. Beeston, S. L.

Class III.
Hebblewhite, W. R. Herbert, D. P.

ELECTRICAL ENGINEERING II.
High Distinction.
Burn, A.
Herbert, D. P.
Norman, E. P.
I Sachs, W. J. | Wilkins, T. Credit.
I Houston, R. | Doyle, A. B.
engineering design.
High Distinction.
Sachs, W. J. I Burn, A. I Beeston, S. L. Distinction.
Norman, E. P. | Wilkins, T.
MECHANICAL ENGINEERING III.
High Distinction.
Hebblewhite, W. R.
Norman, E. P. ?
Sachs, W. J. ; æq
Distinetion.
Burn, A.
Wilkins, T.
Forster, A. D.
Beeston, S. L.
Creit.
Houston, R.
Doyle. A. B.
Herbert, D. P.
Knight. O. L.

\section*{UNIVERSITY OFFICERS, ETC.}

VISITOR.
The Governor of New South Wales for the time being is ex officio Visitor to the University.
*1850.-His Excellency Sir Charles Augustus Fitz Roy, K.C.B., K.H.
1855.-His Excellency Sir Thomas William Denison, K.C.B.
1861.-His Excellency the Right Hon. Sir John Young, Bart., K.C.B., G.C.M.G.
1868. - His Excellency the Right Hon. the Earl of Belmore, M.A.
1872.-His Excellency Sir Hercules George Robert Robinson G.C.M.G.
1879.-His Excellency the Right Hon. Lord Augustus W. Loftus, G.C.B., M.A.
1886.-His Excellency the Right Hon. Charles Robert Baron Carrington, P.C., G.C.M.G.
1891.-His Excellency the Right Hon. Victor Albert George Child Villiers, Earl of Jersey, G.C.M.G.
1893.-His Excellency the Right Hon. Sir Robert William Duff, P.C., G.C.M.G.
1895.-His Excellency the Right Hon. Henry Robert, Viscount Hampden.
1899.-His Excellency the Right Hon. William Lygon, Earl Beauchamp, K.C.M.G.
1902-His Excellency Vice-Adiniral Sir Harry Holdsworth Rawson, G.C.B.
1909-His Excellency the Right Hon. Frederick John Napier, Baron Chelmsford, K.C.M.G., M.A. chancellor.
The Chancellor is elected by the Fellows of the Senate out of their own body, for such period as the Senate may from time to time appoint. The period is at present limited by By-law to three years, but the retiring Chancellor is declared to be eligible for re-election.
1851.-Edward Hamilton, M.A.
1852.-Sir Charles Nicholson, Bart., M.D., D.C.L., LL.D.
1864.-The Hon. Francis Lewis Shaw Merewether, B.A.

\footnotetext{
* The dates prefixed to the names of Office Holders refer to their first appointment or entrance upon oftice.
}
1865.-The Hon. Sir Edward Deas-Thomson, C.B., K.C.M.G. 1878.-The Hon. Sir W. M. Manaing, Kt., K.C.M.G., LL.D. 1895.-The Hon. Sir Wm. Chas. Windeyer, Kt., M.A., LL.D. 1896.-The Hon. Sir Henry Normand MacLaurin, Kt., M.A., M.D., LL.D.

\author{
VICE-CHANCELLOR.
}

The Vice-Chancellor is annually elected by the Fellows of the Senate out of their own body.
1851.-Sir Charles Nicholson, Bart., M.D., D.C.L., LL.D.
1854.-'lhe Hon. F. L. S. Merewether, B.A.
1862.-The Hon. Edward Deas-Thomson, C.B.
1865.-The Hon. J. F. Plunkett, B.A.
1869.-The Rev. Canon Allwood, B.A.
1883.-The Hon. Mr. Justice Windeyer, M.A., LL.D.
1887.-TheHon. Hy. Normand MacLaurin, M.A.,M.D.,LL.D.
1889.-The Hon. Arthur Renwiek, B.A., M.D.
1891.-Henry Chamberlaine Russell, C.M.G., B.A., F.R.S.
*'The Hon. Arthur Renwick, B.A., M.D.
1892.-The Hon. Arthur Renwick, B.A., M.D.
\(\dagger\) His Honour Judge Backhouse, M.A.
1893.--His Honour Judge Backhouse, M.A.
1895.-The Hon. Hy. Normand MacLaurin,M.A.,M.D.,LL.D.
1896.-His Honour Judge Backhouse, M.A.
1900.-The Hon. Sir Arthur Renwick, Kt., B.A., M.D.
1902.-'The Hon. Mr. Justice A. H. Simpson, M.A.
1904.-Sir Philip Sydney Jones, Kt., M.D.
1906.-The Hon. Sir Arthur Renwick, Kt., B.A., M.D.
1908.--The Hon. Sir William Portus Cullen, Kt., M.A.,LL.D.

Chief Justice of New South Wales.
1911.-His Honour Judge Backhouse, M.A.

THE SENATE.
The original Senate was appointed by Proclamation on the 24 th of December, 1850, under the Act of Incorporation, and consisted of the following :-

The Rev. William Binnington Boyce
Edward Broadhurst, Esq.
John Bayley Darvall, Esq.
Stuart Alexander Donaldson, Esq.

The Right Rev. Charles Henry Davis Alfred Denison, Esq.
Edward Hamilton, Esq. James Macarthur, Esq.

\footnotetext{
* Mr. Russell having retired during his year of oftice, the Hon. Dr. Renwick was elected in his place for the remainder of the year.
†The Hon. Dr. Renwick having retired during his yeir of office, Judge Backhouse was elected in his place for the remainder of the year.
}

\author{
Francis Lewis Shaw Merewether, Esq. The Rev. William Purves Charles Nicholson, Esq. Bartholomew O'Brien, Esq. \\ His Honour Roger Therry, Esq. \\ The Hon. Edward Deas-Thomson, EsqThe Hon. John Hubert Plunkett, Esq. William Charles Wentworth, Esq.
}

Under the original Incorporation Act, the election to vacant Fellowships was vested in the Senate until there should be one hundred Graduates holding the Degree of M.A., LL.D., or M.D. By an Act passed in 1861, the election to vacancies was vested in Fellows of the Senate, Professors and other Public Teachers of the University, Examiners, Principals of Incorporated Colleges within the University, Superior Officers declared to be such by By-law, and Graduates who should have taken any or either of the Degrees of M.A., LL.D., or M.D. By an Act passed in 1881, the privilege of voting at such elections was extended to Bachelors of Arts of three years' standing, and by the University Extension Act of 1884 the privilege was further extended to all Bachelors of three years' standing. In addition to the sixteen Fellows, it was provided by the Act of 1861 that there should not be fewer than three, nor more than six, ex officio Members of the Senate being Professors of the University in such branches of learning as the Seuate might by any By-law select. The provisions of the above mentioned Acts are incorporated in the University and University Colleges Act of 1900.
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                    EX-MEMLBERS OF THE SENAITE.
    1850-1854-Hamilton, Edward, M.A.
1850-1855-Davis, the Right Rev. C. H., D.D.
1850-1856-Broadhurst, the Hon. Edward, B.A.
1850-1859-Boyce, the Rev. W. B.
1850-1859-Therry, His Honour Sir Roger
1850-1860-Macarthur, the Hon. James
1850-1860-Dewison, Alfred, B.A.
1850-1861-Donaldson, the Hon. Sir Stuart A.
1857-1861-Cooper, Sir Daniel, Bart., G.C.M.G.
1853-1865-Douglass, Henry Grattan, M.D.
1861-1866-Woolley, the Rev. J., D.C.L. (Principal) (ex officio)
1850-1868-Darvall, Sir John Bayley, M.A.
1850-1869-O'Brien, Bartholomew, M.D.
1850-1869-Plunkett, the Hon. Johu Hubert, B.A.
1850-1870-Purves, Rev. W., M.A.
1850-1872-Wentworth, the Hon. William Charles
1868-1872-Nathan, Charles, M.D.
1869-1873-Stenhouse, N. D., M.A.
1868-1874-Arnold, the Hon. William M.
1850-1875-Merewether, the Hon. F. L. S., B.A.
1856-1877-Polding, the Most Rev. Archbishop, D.D.
1859-1878--Allen, the Hon. George

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1873-1878-Dalley, the Right Hon. William Bede, P.C.
1858-1878-Martin, the Hon. Sir James, Chief Justice
1861-1879-Pell, Professor Morris Birkbeck, B.A. (ex officio)
1860-1879-Deas-Thomson, the Hon. Sir E., C.B., K.C.M.G.
1860-1880-Macarthur, the Hon. Sir William
1872-1882-Forster, the Hon. William
1850-1883-Nicholson, Sir Charles, Bart,, M.D., D.C.L., LL.D.
1867-1884-Badham, Professor Charles, D.D. (ex officio)
1861-1885-Smith, the Hon. Professor, C.M.G., M.D., L.L.D. (ex officio)
1877-1885-Allen, the Hon. Sir George Wigram, K.C.M.G.
1885-1886-Martin, the Hon. Sir James,, Chief Justice
1855-1886-Allwood, Rev. Canon Robert, B.A.
1879-1887-Darley, the Hon. Sir F. M., B.A., Chief Justice
1878-1887-Stephen, the Rt. Hon Sir Alfred, C.B., G.C.M.G., C.J., P.C.
1887-1888-Knox, George, M.A.
1872-1888-Rolleston, Christopher, C.M.G.
1880-1889-Barton, the Hon. Edmund, M.A.
1886-1889-Barry, the Most Rev. Alfred, D.D., LL.D.
1884-1890-Stephens, Professor W. J., M.A. (ex efficio)
1883-1891-Jennings, the Hon. Sir Patrick A., K.C.M.G., LL.D.
1875-1891-Macleay, the Hon. Sir William, Kt.
1870-1892-Hay, the Hon. Sir John, K.C.M.G., M.A.
1877-1892-Gurney, Professor Theodore T., M.A. (ex officio)
1891-1892-0'Connor, the Hon. Richard Edward, M.A.
1859-1894-Faucett, the Hon. Peter, B.A.
1885-1894-Scott, Professor Walter, M.A. (exc officio)
1861-1895-Mamming, the Hon. Sir Wm.Montagu, Et., K.C.M.G., LL.D.
1892-1896-Manning, the Hon. Mr. Justice Charles J., M.A.
1894-1896-Gurney, Professor Theodore T., M.A. (ex officio)
1866-1897-Windeyer, the Hon. Sir William Charles, Kt., M.A., LL.D.
1896-1898-Scott, Professor Walter, M.A. (ex offficio)
1879-1904-Liversidge, Professor Archibald, M.A., LL.D., F.R.S.
1879-1904-Oliver, His Honour Alexapder, M.A.
1875-1907-Russell, Henry Chamberlaine, C.M.G., B.A., F.R.S.
1904-1907-David, Professor T. W. Edgeworth (cx officio)
1877-1908-Renwick, the Hon. Sir Arthur. Kt., B.A., M.D.
1890-1909-Cobbett, Professor Pitt. M.A., D.C.L.
18S8-1910-Stephen, Cecil Bedford, M.A., K.C.

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PRESEN'I SENATE.
1895-Anderson, Henry Charles Lennox, M.A.
1887-Backhouse, His Honour Judge Alfred Paxton, M.A., Vice-Chancellor.
1892-Barton, the Right Hon. Sir Edmund, G.C.M.G., M.A., LI.D., D.C.L., P.C.

1888-Butler, Professor Thomas, B.A.
1896-Cullen, the Hon. Sir William Portus, Kt., M.A., LL.D., Chief Justice of New South Wales.

1904-Griffith, the Right Hon. Sir Samuel Walker, G.C.M.G., M.A., P.C., Chief Justice of the High Court of Australia.
1887-Jones, Sir Philip Sydney, Kt., M.D.
1894-Knox, Edward William.
1907-Leverrier, Frank, B.A., B.Sc., K.C.
1898-MacCallum, Professor Mungo W., M.A., LL.D., Dean of the Faculty of Arts (ex afficio).
1883-MacLaurin, the Hon. Sir Henry Normand, Kt., M.A., M.D., LL.D. (St. And. and Edin.), Chancellor.
1893-O'Connor, the Hon. Mr. Justice Richard Edward, M.A.
1910-Peden, Professor John Beverley, B.A., LL.B., Dean of the Faculty of Law (ex officio).
1910-Piddington, Albert Bathurst, B.A.
1909-Purser, Cecil, B.A., M.B., Ch.M.
1889-Rogers, His Honour Judge Francis E., M.A., LL.B.
1897-Simpson, The Hon. Mr. Justice Archibald Henry, M.A.
1883-Stuart, Professor T. P. Anderson, M.D., LL.D., Dean of the Faculty of Medicine (ex officio)
1889—'Teece, Richard, F.I.A., F.F.A.
1908-Warren, Willian Henry, M.Inst. C.E., Dean of the Faculty of Science (ex officio).

Professorial Boakd.-The Chancellor, the Vice-Chanकellor, Professors Wilson (Chairman)*, Anderson, Butler, Carslaw, David, Fawsitt, Haswell, MacCallum, Mackie, Peden, Pollock, Stewart, Stuart, Warren, Watt, Welsh, Wood, Woodhouse, Mr. H. E. Barff.

Faculty of Arts.- The Chancellor, the Vice-Chancellor, Professors MacCallum (Dean) \(\dagger\), Anderson, Butler, Carslaw. Mackie, Wood, Woodhouse, Assistant-Professors E. R. Holme, E. M. Moors, A. Newham, Mr. H. E. Barff, Mr. C. J. Brennan. Mr. G. G. Nicholson. Dr. F. A. Todd.

Faculty of Law. - The Chancellor, the Vice-Chancellor, Professor Peden (Dean)t, Mr. H. E. Barff, the Right Hon. Sir Edmund Barton, the Hon. Sir William Cullen, Mr. D. G. Ferguson, the Right Hon. Sir Samuel Griffith, Mr. F. R. Jordan, Mr. F. Leverrier, Mr. E. M. Mitchell, the Hon. Mr. Justice R. E. O'Connor, Mr. A. B. Piddington, Judge Rogers, Mr. Justice A. H. Simpson, Dr. G. W. Waddell.

\footnotetext{
* To 31st December, 1813. \(\quad\) TTo 80th September, 1912.
}

Facuity of Medicine.-The Chancellor, the Vice-Chancellor, Professor Stuart (Dean)t, Sir Philip Jones, M.D., Dr. Cecil Purser, Professors Fuwsitt, Haswell, Pollock. Welsh, Wilson, Dr. W. G. Armstrong, Dr F. A. Bennet, Dr. A. Davidson, Dr. T. Storie Dixsou, Dr. Froude Flashman, Ir. J. Foreman, Sir James Graham, Dr. H. Critchley Hinder, Dr. A. McCormick, Dr. C. P. B. Clubbe, Dr. A. E. Mills, Dr. H Russell Nolan, Dr. F. A. Yockley, Dr. Scot Skirving, Dr. R. H. 'Lodd, Mr. H. E. Barff.

Faculty of Science--'The Chancellor, the Vice-Chancellor, Professor Warren (Dean \(\dagger\) ) Professors Carslaw, David, Fawsitt, Haswell, Pollock, J. D.' Stewart, Stuart, Watt, AssistantProfessor S. H. Barraclough, Drs. S. Dodd, J. P. V. Madsen, Messirs. H. E. Barff, J. H. Cardem, F. Danvers Power.

Board of Studies in Pure Sorence.- The Chancellor, the Vice-Chancellor, Professor Warren (Dean), Professors Carslaw, David, Fawsitt. Haswell, Pollock, Stuart, Assistant-Professors Moors, Newham, Schofield, Mr. E. Le Gay Brereton, Dr. H. G. Chapmau, Mr. L. A. Cotton, Dr. F. Howson, Messrs. S. J. Johnston, I. G. Mackay, O. U. Vonwiller, Dr. W. G. Woolnough.

Board of Studies in Engineering.-The Chancellor, the Vice-Chancellor, Professor Warren (Dean), Professors Carslaw, David, F'awsitt, Pollock, Assistant-Professor Barraclough, Dr. J. P. V. Madsen, Messrs. J. H. Cardew, W. S. Dun, F. A. Eastaugh, 'T. F. Furber, E. W. McKeown, F. Danvers Power, H. A. Roberts, J. Sulman, B. W. 'lurner.

Board of Stledes in Veterinary Sctencr.-The Chancellor, the Vice-Chancellor, Professor Stewart (Chairman), Professor Warren (Dean), Professors Fawsitt, Haswell, Pollock, Anderson Stuart, Welsh, Dr. S. Dodd.

Board of Studies in Agriculture.-The Chancellor, the Vice-Chancellor, Professor Watt (Chairman), Professor Warren (Dean), Professors David, Fawsitt, Haswell, Pollock, Mr. W. Froggatt.

Board of Dental Studies.-The Chancellor, the ViceChancellor, Professor Stuart (Deau of the Faculty of Medicine), Professors Pollock, Fawsitt, Wilson, Sir Philip Sydney Jones, M.D., Professor Welsh, Dr. A. MacCormick, Dr. T. S. Disson, Dr. Cecil Purser, Dr. R. F. Reading, Dr. P. A. Ash, Mr. Donald Smith, Dr. F. Marshall, Dr. H. G. Moxham.

Board of Military Studes.-The Cbancellor, the ViceChancellor, the Director of Military Science (Colonel H. J. Foster), Professors David, MacCallum, Warren, Wilson, Brigadier-General Bridges, Assistant-Professor Barraclough, Major J. F. Flashman, Major R. C. Simpson.

Board for Conducting the Public Examinations.-The Chancellor, the Vice-Chancellor, the Professors and AssistantProfessors, and the Registrar.

Library Committre.-The Chancellor, the Vice-Chancellor, the Professors and the Librarian.

\author{
EX-EROFESSORS.
}

Classics and Logic.-1852-1866-Woolley, the Rev. John, D.C.L. 1867-1883-Badham, Rev. Charles, D.D.
Geology and Mineralogy.-1870-1872-Thomson, Alexander M., D.Sc.
Mathematios and Natural Philosophy.-1852-1877-Pell, Murris B., B.A..
1877-1902.-Gurney, Theodore T., M.A..(Professor emeritus).
Chemistry and Experimental Physics.-1852-1885-Smith, the Hon. John, M.D., LL.D., C.M.G.
Natural History.-1882-1890-Stephens, Wm. John, M.A.
Physics.-1886-1898--Threlfall, Richard, M.A.
Greek.-1885-1900—Scott, Waiter, M.A. (Professur emerittr.)
Chemistry.-1874-1907-Liversidge, Archibald, M.A., LL.D., F.R.S. (Professor emeritus).
Law.-1890-1909_Cobbett, Pitt, M.A., D.C.L. (Professor emeritus).
TEACHING STAFF.
Agriculture-1910-Robert Dickie Watt, M.A., B.Sc.
Anatony-Challis Professor-1890-*James T. Wilson, M.B., Ch.M. (Edin.), F.R.S.
Demonstrator-1905-S. A. Smith, M.B., Ch.M. Demon-strator-1910-H. R. G. Poate, M.B., Ch.M.
Junior Demonstrators-1911-B. Coen, M.B., L. G. Tait, M.B.

Honorary Demonstrators for 1910-Edgar M. Stephen, M.B., Ch.M.; E. H. Binney, M.B., Ch.M.; M. Veech, M.B., Ch.M. ; H. M. Moran, M.B., Ch.M.
Honorary Demonstrator in Neurology-J. F. Flashman, B.A., B.Sc., M.D., Ch.M.

\footnotetext{
*M.B., Ch.M., Honouns 1888; late Demonstrator of Anatomy, University of Edinburgh.
}

Arohitectune-P. N. Russell Lecturer-1887-(b) Joha Sulman, F.R.I.B.A.

BroLogy-Challis Professor-1890-William A. Haswell, M.A., D.Sc. (Edin.), F.R.S.

Assistant-Lecturer and Demonstrator-i 907 -S. J. Johnston, B.A., B.Sc. Junior Demonstrators-1908—Sydney George, B.Sc. 1910-Charles Badhạm.
Chemistry - Professur-1909- \(\dagger\) Charles E. Fawsitt, D.Sc. (Edin.), Ph.D. (Leipsic).
Assistant-Professor-1908-*Vanes A. Schofield, A.R.S.M., F.I.C.; Assistant-Lecturer and Demonstrator-1908E. le Gay Brereton; Junior Demonstrators-1907G. Wright; Organic-1910-E. Griffiths, B.Sc.; 1910G. J. Burrows, B.Sc ; 1906-J. W. Hogarth; 1910A. C. 'T. Kellick.

Assistant Lecturer and Demonstrator in Chemistry, Assaying and Metallurgy-1907-F. A. Eastaugh, A.R.S.M.
Clinical Medicine-Lecturer-1889-(g) R. Scot-Skirving, M.B., Ch.M. (Edin.)

Clinical Surgery--Lecturer-1899-(d) H. V. Critchley Hinder, M.B., Ch.M.

Dentistry-Mechanical Dentistry, including Crown and Bridge Work-1901-Vacant; 1910-(b) F. Marshall, D.D.S.; Clinical Dentistry, including Orthodontia-1911-(c) H. G. Moxham, B.D.S. (Syd.), D.D.S. (Phil.); Surgical Dentistry, including Deformities-1901-( \(g\) ) R. Fairfax Reading, M.R.C.S., L.R.C.P., L.D.S. (Eng.), 1907-(g) P. A. Ash, D.D.S., (g) Donald Smith.
Diseases of the Ear, Nose and Throat-1907-(f) H. Russell. Nolan, M.B., Ch.M.

Diseases of the Skin-1907-(f)F. A. Bennet, M.D.

\footnotetext{
* Demonstrator, 1802 to 1908.
+ Tate Lecturer in Chemistry, Glasgow University, and Demonstrator in Chemistry in the University of Edinburgh,
(b) To December 31st, 1916.
(c) To December 31st, 1917. ( \(f\) ) To December 31st, 1913.
(d) To December 31st, 1911.
(g) To December 31st, 1914.
}

Economics and Commerce-Lecturers-Economics, 1907-R. F. Irvine, M.A.; Accountancy, 1907-H. Dunstan Vane, F.C.P.A.; Business Methods, \&c., 1907-H. Y. Braddon; Commercial Geography, 1908-W. G. Woolnough, D.Sc.; Commercial Law, 1908-F. A. A. Russell, M.A. ; History and Technology of Commercial Products, 1908-F. B. Guthrie, F.I.C., F.C.S. Local Government, 1909-J. Garlick.
Eddcation-Professor-1910—§Alexander Mackie, M.A.
Electrical Engineering-P. N. Russell Lecturer-1909-(a) John Percival V. Madsen, B.Sc., B.E. (Syd.), D.Sc. (Adelaide). Junior Demonstrator-1911-Alan Burn, B.Sc. (Adelaide), B.E. (Syd.).

Engineering-Challis Professor-1884-_William H. Warren, Wh.Sc., M. Inst. C.E., Dean of the Faculty of Science.
P. N. Russell Assistant Lecturer and Demonstrator in Civil Engineering- 191 I-H. A. Roberts, B.E. Junior Demonstrator-1911-T. Wilkins, B.E.
Equity, Probate, Bankruptcy and Company Laf-Chailis Lecturer-1911-F. R. Jordan, B.A., LL.B.
Geodesy and Astronomy-1906-ie) 'Г. F. Furber.
Geology and Physical Geography-Professor and William Hilton Hovell Lecturer-1891- \(\dagger\) T. W. Edgeworth David, C.M.G., B.A., D.Sc., F.R.S. (New College, Oxford).
Assistant Lecturer in Mineralogy and Petrology and Demonstrator in Geology-1905-W. G. Woolnough, D.Sc. Assistant Lecturer and Demonstrator in Geology-1911-L. A. Cotton, B.A., B.Sc. Junior Demonstra-. tors-1909-Fanny Cohen, B.A., B.Sc. 1910-A. B. Walkom, B.Sc.
Greek-Professor-1901-William John Woodhouse, M.A. (Queen's College, Oxford).
Gynæcology-1897-(g)Joseph Foreman, M.R.O.S.

\footnotetext{
*Member of the American Society of Civil Engineers; Whitworth Scholar; Society of Arts Technological Scholar.
\(\dagger\) Late Scholar of New College, Oxford, and late Member of the Geological Surves: of New South Wales.
\& Late Hamilton Fellow, University of Edinburgh.
(i) To December 31st, 1915.
(g) To December 31st, 1914.
(e) To December 31st, 1912.
}

Fistory-Challis Professor-1891-G. Arnold Wood, M.A. (Balliol College, Oxford).
Latin-Professor-1891-Thomas Butler, B.A. (Sydney).
Assistant-Lecturer-1903—Frederick Augustus Todd, B.A: (Sydney), Ph.D. (Jena).
Law-Challis Professor-1910-John Beverley Peden, B.A., LL.B., Dean of the Faculty of Law.
Law of Procedure, Efidence and Pleading-Challis Lecturer1901 - ( \(f\) ) David G. Ferguson, B.A. Acting Lecturer for \(1911-\mathrm{H} . \mathrm{R}\). Curlewis, B.A., LL.B.
Law of Status, Civil Obligatrons and Chimes-Challis Lecturer -1907-(f) E. M. Mitchell, B.A.; LL.B.
Loaic ant Mental Philosophy - Challis Professor - 1890 * Francis Anderson, M:A. (Glasgow). Reader-1910H. T. Lovell, M.A., Ph.D.

Materta Medica and Tiferapeutics - Lecturer-1883-(g) Thomas S. Dixson, M.B., Ch.M. (Edin.).
Mathenatics, Pure and Applied--Professor-1903-†Horatio Scott Carslaw, M.A. (Cambridge), D.Sc., (Glasgow), a Sc.D. (Cambridge), F.R.S.E.
Assistant Professors-1909-TA. Newham, M.A. (St. John's College, Cambridgé). 1909-§E. M. Moors, M.A., F.I.A. Acting Assistant Lecturer for Lent TermA. L. Campbell, B.A.

Mechantcal Engineering.-P. N. Russell Assistant Professor-1908-(c) \(\ddagger\) S. Henry Barraclough, B.E. (Syd.), M.M.E. (Cornell), Assoc. M. Inst. C.E., M.I. Mech. E. Assistant Lecturer and Demonstrator-1911-E. W. McKeown, B.E. Junior Demonstrator-E. P. Norman, B.E.

\footnotetext{
* Late Clarke Philosophical Fellow, University of Glasgow.
+ Fellow of Emmanuel College, Cambridge, and formerly Lecturer in Nathematics. University of Glasgow.
\(\ddagger\) Late Science Research Scholar of the Royal Commissioners of the Exhibition of 1851. Lecturer. 1897-1908.

T Assistant Lecturer, 1886-1908.
3 Assistant Tecturer. 1887-1808.
( \(f\) ) To December 3ist, 1913.
(c) To December 31st, 1917.
}

Memical Jurisprudence-Lecturer-1910-(b) R. H. Todd, B.A., M.D., Ch.B.

Medical. 'Iutor-1910—Sinclair Gillies, M.A., M.D. (Lond.).
Metallungy-P.N. RussellLecturer-1899-(b)BasilW.'Turner, A.R.S.M.

Midwifery-Lecturer-1897-(g)Sir James Graham, Kt:, M.D., Ch.M. (Edin.)
Military Solence - Challis Director-1907-Colonel Hubert. John Foster, R.E.
Lecturer in Military Topography-1908-Captain C. H. Brand.

Lecturer in Military Engineering-1907-Assistant Professor S. Heary Barraclough, B.E. (Syd.), M.M.E. (Cornell), Assoc. M. Inst. C.E., M.I. Mech. E.

Lecturer in Military Law-1908—Major V. le Gay Brereton.
Lecturer in Military Administration-1909-Major R. C. Simpson.
Mining-P. N. Russell Lecturer-1903-(b)F. Danvers Power, F.G.S.

Modern Literature-Challis Professor-1887-*Mungo W. MacCallum, M.A.,LL.D. (Glasgow), Dean of the Faculty of Arts.

English—1908-Assistant Professor - \(\ddagger\) Ernest R. Holme, M.A. Assistant Lecturers-French and German-1903 -George Gibb Nicholson, B.A. (Syd.), B.C.L. (Oxon.). 1908-Christopher J. Brennan, M.A.
Ophthalmology-Lecturer-1889-(g) \(\dagger\) F. Antill Pockley, M.B., Ch.M. (Edin.)
Paleontology-Lecturer-1902-(b) William S. Dun.

\footnotetext{
* Late Professor of English Literature in University College, Aberystwyth, Wales; late Luke Fellow, University of Glasgow.
+M.B., Ch.M., First Class Honours, University Medal; Scholar and Prizeman, Edin., 1884.
(b) To December 31st, 1916.
( \(g\) ) To December 31st, 1914.
\(\ddagger\) Assistant Lecturer, 1894-1908.
}

Pathology-Professor-1902—David Arthur Welsh, M.A., B.Sc.; M.D., M.R.C.P (Edin.)

Demonstrators-1910-J. E. V. Barling, M.B., Ch.M.
Junior Demonstrators-1911-Elsie J. Dalyell, M B., Ch.M. E. W. Ferguson, M.B., Ch.M.

Physics-Professor-1899—J. Arthur Pollock, D.Sc. (Sydney).
Assistant Lecturers and Demonstrators-1903-O. U. Vonwiller, B.Sc. 1910-l. G. Mackay, B.A. Junior Demonstrator-1910-A. B. B. Ranclaud, B.Sc., B.E.
Physiology-Professor-1883- \(\ddagger\) T. P. Anderson Stuart, M.D., Ch.M., LL.D. (Edin.), Dean of the Faculty of Medicine.
Assistant-Lecturers and Demonstrators-1903-H. G. Chapman, M.D., B.S.; 1911-F. Howson, M.A., M.R.C.S.. Junior Demonstrator-1909-E. C. Grey, B.Sc.
Princtrles and Practice of Medicine-Lecturer-1901-(b). Arthur E. Mills. M.B., Ch.M.
Principles and Practice of Surgery-Cecturer-1890(g) Alexander MacCormick, M.D. (Edin.), Hon. F.R.C.S.(Lond. and Edin.). Acting Lecturer for 1911-C. P. B. Clubbe, J.R.C.P., M.R.O.S.

Psychological Medicine-Lecturers-1908-(g)J. Froude Flash... man, B.A., M.D., Ch.M., B.Sc.-1908-(g) Andrew Davidson, M.D.
Public Health-1904-(c) William G. Armstrong, B.A., M.B., Ch.M.
Roman Law and Equity Practice-1910-G. W. Waddell,.. M.A., LL.D.

Surgical Tutor-1908-R. B. Wade, M.D., Ch.M. (Syd.)
Surveying-P. N. Russell Lecturer-1906-(e) J. Haydon Cardew, Assoc. M. Inst. C.E., L.S.
Veterinary Science-Professor-1909-James Douglas Stewart, \(^{\text {- }}\) M.R.C.V.S., B.V.Sc. (Syd.)

\footnotetext{
\(\ddagger\) M.B., Ch.M., First Class Honours, Ettles Scholar, 1880; M.D., Thesis Gold Medal 1882, Edin.; late Assistant to Professor of Physiologs, Edinburgh.
(b) To December 3ist, 1916.
(c) To December 31st. 1917.
(e) To December 3ist, 1912.
(g) To December 31st, 1914.
\$ M.B. First Class Honours Medicine, University Scholnrship and Gold Medai.
}

Feterinary Anatomy - Lecturer - 1911 - Sydriey Dodd, F.R.C.V.S., D.V.S. (Melb.). Demonstrator-1911H. V. Baker, V.M.D.

Feterinary Pathology and Bacteriology-Lecturer-i912Syduey Dodd, F.R.C.V.S., D.V.S. (Melb.)
Tutor to the Women Students-1900-Isabel Margaret Fidler, B.A. honorary lecturers.
Histony of Mediche-T. Fiaschi, M.D.
Thatethics of Medical Practice-Sir Philip Sydney Jones, M.D. ourators of museums.
Museum of Normal and Morbid Anatomy-Professor D. A. Welsh, M.A., B.Sc., M.D. (Honorary).
Macleay Museum of Natural History-George Masters.
Nicholson Museum of Egyptiay, Grebr, Roman and Medieval Antiqutties - Professor W. J. Woodhouse, M.A. (Honorary).

> Examiners for 1911-12.

EXAMINERS IN ARTS.
The Professors. | The Lecturers.
examiners in laf.
The Professor.
The Lecturers. F. R. Jordan, B.A., LI. B.
G. W. Waddell, M.A.,

LL.D.
C. W. Harriott, B.A.
examiners in medicine.
The Professors.
The Lecturers.
Fourness Barrington, F.R.C.S. (Eng.), M.B., Ch.M. (Edin.)
Thomas Fiaschi, M.D. (Pisa).
J. Macdonald Gill, M.D., L.R.C.P., M.R.C.S.
E. J. Jenkins, B.A., M.D. (Oxon.)

Sir Philip Sydney Jones, Kt., M.D. (Lond.)

Stanhope H. MacCulloch, M.B., Ch.M. (Edin.)
Charles MacLaurin, M.B., Ch.M. (Edin.)
The Hon. Sir H. N. MacLaurin, M.A., M.D. (Edin.), LL.D.
Arthur A. Palmer, M.B., Ch.M.
G. E. Rennie, B.A. (Syd.), M.D. (Lond.)

Professor E. C. Stirling, M.A., M.D. (Cantab.), C.M.G., F.R.S.

EXAMINERS JN DENTISTRY.
The Professors.
The Lecturers.
L. A. Carter, D.D.S. (Phil.)
examiners in science.

The Professors.
Professor A. J. Gibson.

The Lecturers. J. J. C. Bradfield, M.E.

ADMINISTRATIVE STAFF.
Registrar and Librarian, 1882-H. E. Barff, M.A.
Chief Clerk and Accountant, 1887-Robert A. Dallen.
Clerk of Examinations, 1909 -S. E. Townshend, B.A., LL.B.
Assistant Áccolntant, 1887-William S. Mayer.
Clerks, 1905-George L. Garnsey. 1902-Charles W. Peacock. 1908-H. A. Wilson.
Assistant Librarian, 1902-John Le Gay Brereton, B.A.
Junior Assistant Librarlan-1900-Kenneth Binns. Library Assistants-1910-J. A. Tunnicliffe; 1911-B. V. Steel ;: C. D. W. Wray (Law Library).

University Solictror, 1907-Robert Smith, M.A.
Audiror, 1899-David Fell, C.A.A.
Esquire Bedell, 1897-John Mitchell Purves, M.A.
Secretary of the Universtry Extension Board-1906-Assistant Professor E. R. H.olme, M.A.

Yeoman Bedeli--S. Craddock.
Overseer of the University Park and Grounds-Albert. Green.

\title{
MEMBERS OF THE UNIVERSITY.
}

\section*{MEMBERS OF CONVOCATION.}
H.M. the King, LL.D. \(\delta\)

Abbott, George H., B.A., 1887, M.B., Ch. M.

Abbott, Henry Palmer, B.A., 1393
Abbott, Thos. K., B.A., 1888
Abigail, Eliza L., B.A., 1893 (Mrs. Bates)
Abigail, Ernest Robert, B.A., 1896, LL.B.
Abrams, Reginald Orton, B.A., 1908
Adams, Francis Charles, M.B., 1904
Afflec:k, Ada C., M.B., Ch.M. (Mrs. Fiardmanj
Aiken, Percy Norman, M.B., 1903
Alexander, Hilda Mary, B.A., 1908
Alexander, Maud Marion, B.A., 1902
Allan, Edith Jeannie, B.A., 1895 (Mrs. Costello)
Allen, Arthur Wigram, B.A., \(1833 \oint\)
Allen, George Boyce, B.A., 1877
Allea, Hugh George, M.B., Ch.M.
Allen, Leslie Holdsworth, B.A.. 1904
Allen, Reginald C., B.A., 1879
Ambr.see, Theodore, M.B., Ch.M.
Amess, William, B.A., 1883
Amos, Jeanie Cairns, B.A., 1890 (Mrs. Anderson)
Amos, Nellie Margaret, B.A., 1902
Amphlett, Edward Albin, B.E., 1889
Amphlett, Henry Martin, B.E., 1897
Anderson, Arthur, M.B., Ch.M.
Anderson, Catherime, M.A.
Anderson, Francis, M.A. \& \({ }^{\text {I }}\)
Anderson, Henry C. L., M.A. \(\dagger\)
Anderson, Hugh Miller, B.A., M.B., Ch.M.
Anderson, Mand Edith, B.A., 1896 (Mrs. Ashton)
Anderson, Robert, B.A., 1906
Anderson, Virginia, B.A., 1904
Anderson. William A. S., B.A., 189\%

Andrews, Ernest Clayton, B.A., 1894
Andrews, William, M.B., \(1887 \$\)
Anstey, George Webb, B.A., 1893
d'Apice. Antoine Wm. M., B.A. 1899, LL.B.
d'Apice, John Edmund Francis, B.Sc., 1900

Archdall, Henry Karow, B.A., 1908
Archdall, Mervyn, M.B., 1908
Armitage, Charles Horsfall, B.A., 190\%
Armstrong, Alexander Milner, B.A., 1908
Armstrong, Clare Annie Constance, B.A.. 1905

Armstrong, Harriet Ethel Mury, B.Sc., 1907

Armstrong, Helen Drphne Harvey, B A., 1902
Armstrong, Ina Beatrice Harveg, B.A., 1901 (Mrs. Watson)

Armstrong, Isabella, B.A., 1895
Armstrong, Johin Nicholas Fraser, B.E., 1904

Armstrong, Laurens F. M., B.A., 1884, LL.B.
Armstrong, Margaret Jane, B.A., 1897
Armstrong, Tancred de Carteret, B.A., 1891

Armstrong, William G., B.A., M.B., Ch. M. \(\overline{11}\)
Arnold, Aldous Campbell, M.B., Ch.M.
Arnold, Austin Guerry deL., LL.B., 1903
Arnold, Edwin Charles, B.A., 1896
Arnutt, Robert Fleming, B.E., 1895
Artlett, Ettie. B. A., 1888 (Mrs. Starkey)
Artlett. William Langridge, B.A., 1902

Ash, Fortescue Leo, B.A., 1508
Ash, Percy A.. D.D.S. 9
Askham, Albert Charles, B.A., 1905
Aspinall, Arthur Ashworth, B.A., 1889
Aspinall, Archibald Joln?, M.B.. Ch.M.
Aspinall, Jessie Strahorn, M.B., Ch.M.
Atkins, William L., B.A., 1893
Atkinson, John. B.E., 1907
Auld, John Hay Goodlet, B.A., 1897
Austin, Alfred Herbert, B.A., 1903
Austii, Fanuy May, B.A., 1905
Ayres, Charles, B.A., 1882
Backhouse. Alfred Paxton, M.A. \(\dagger\)
Batham, Charlessi
Badman, Giadys Eunice, B.A., 1907
Bailey, Margaret Anne, B.A., 1900
Baker. H. M. 9
Ball, Lionel Clive, B.E., 1900
Bancroft, Peter, M.B., Ch.M.
Burber, Richard, M.A.
Barbour, George Pitty, M.A.
Baret, Henri Victor Darid, B.A., 1903, M.B
Barff, Henry E., M.A.
Barker, Henry Auriol, B.A., 1881\$
Barker, Regivald Frederick, B.E., 1900
Barker, Thonas Chas., B.A., 1886
Barlee, Frederick R., M.A.
Barlex. Harrie Nomman Clayton, M.A.

Barling, James Eric Vernon, M.B., Ch.M. \({ }^{\text {T }}\)
Barnes, Edmund H., M.B., Ch.M.
Barnes, Margaret Estelle, B.D.S., 1906
Bames, Pearl Ella, M.A.
Bamet, Donald Mr:Kay, B.A., 1890
Barr, James, B.E., 1904
Barraclough, Francis Egerton, M.A., LL.B.
Barraclough, Samnel H., B.E., Ls929I
Barret, James, M.D.
Barrington, Fourness, F.R.C.S., M.B. Ch.M. +

Barron, George Moncrieff, M.B., Ch.M.

Barrow, Isaac Manly, B.A., 1905, M.B.

Barry, Duncan Robertson, B.A., 1905
Barry, Hugh de Barri, B.A., 1898
Barton, Alan Darvall, M.B., Ch.M.
Barton, Right Hon. Sir Edmund, M.A. \(\dagger\)

Barton, John a'Berkett Darvall, B.A., M.B., Ch.M.

Barton, Joauna, B.A., 1893
Barton, Wilfred Alex., B.A., 1903
Batemau, John Edwin, B.Sc., 1908
Bathyate, Donald Gordon, B.A., 1903, LL.B.
Bavin, Gertrude Lillian, B.A., 1898 (Mrs. Parker)
Bavin, Thos. Rainsford, B.A., 1894, LL.B.
Baylis, Harold M., B.A., 1883
Beardmore, Ada, B.A., 1896 (Mrs. Beveridge)
Beardsmore, Emily Mand, B.A., 1894 (Mrs. Brewster)
Beardsmore, Robert Hemy, B.A., 1595
Beatty. Harold Ramsay, M. B., Ch.M.
Beaumont, Aunie Holloway, B.A., 1598 (Mrs. Cooper)
Beaver, William Richard, B.E., 1899
Beckeuham, John George, B. A., 1904, LTAB.
Beeyling, Danim, B.A., 1885
Beehar, Samuel Alfred, B.A., 1886
Belgrave, T. B., M.D.
Bell, George, M.B., Ch.M.
Bell, Harry C. Rikard, M.B., Ch.M.
Bellhouse, Constance Annie, B.A., 1906
Bellemey. Sydney J.. B.E., 1906
Benjafield, Vivian. M.B., Ch.M.
Bennet, Francis Alexauder, M.D.j \({ }^{\top}\)
Benuett, Agnes Elizabeth L., B.Sc., 189.

Bennett, Sidwell, B.A., 190 S
Bemnett, Vyvyan Christopher, B.E., 1904
Bemnetts, Harold Graves, M.B., Ch.M.
Bensou, W. N., B Sc., 1908
Berge. Charles Gustav, M.B., Ch.M.

Berne, Percy Witton, B.A., 1883
Berry, David Houstou, B. A., 1908
Bertie, Charlotte Mand, B.A., IS96
Biffin, Harriett E., M.B.. Ch.M.
Bimey, Constance Clarice, M.B., 1906
Binney, Ed. Harold, M.B., Ch.M.
Binns, William Johnstone, M.A., M. B.

Birch, William John, B.E., 1891
Black, Reginald A. W., B.A., 1896, B.E.

Blackburn, Charles B., M.D., Ch.M.
Blacket, Arthur R., B.A., 1872
Blacket, Cuthbert, B.A., 1891
Blair, Johr, M.D.
Blanksby. Leslie Holmes, B. A. 1908
Blatchford, Torrington, B.A., 1894
Blaxland. Henry Charles, B.A., 1897
Blaney. Henry Patrick, M.B., 1903
Bligh, Erasmus A. R., M.B., Ch.M.
Bloomfield, Elsie I'Anson, B.A. 1897 (Mrs. Horder)
Bloomfield, William John, B.A., 1396, LL. B .
Blue, Archibald Irwin, M.B., Ch.M.
Blume, Bertha Elizabeth, B.Sc., 1908
Blumer, Charles, M.A.
Blumer, George Albert, M.B., Ch.M
Blurner, George Alfred, M.A.
Board, Peter, M.A.
Bode, Arnold G. H., B.A., 1888
Boelke, Paul, M.B., Ch.M.
Böhrsmann, Gustav Hall, M.B.,Ch.M.
Bührsmann, Rudolph H.,M.B.,Ch.M.
Bolton, Barbara Marion, B.A., 1902 (Mrs. Selfe)
Bonamy, Nellie Mildred Blanche, B.A., 1899

Bond, Harold F.. B.D.S., 1906
Bond, Lionel Wilfred, M.B., Ch.M.
Bouney, Repinald Schofield, B.A., 1904, LL. B.
Booth, Ireue Mildred, B.A., 1907
Booth, Mary, B.A., 1890
Bottrell, Edwin Horace, M.B., Ch.M.
Bourke, Joseph Ormond Aloysius, B. A., 1906

Bourne, Eleanor Elizabeth, M.B., Ch.M.
Bourne, Florence Ida, B.A., 1906

Bowden, John Ebenezer, M.A. Bowker, Cedric Victor, M.B., 1898
Bowmaker, Jessie, B. A., 1901 (Mrs. Turner:)
Bowmaker, Ruth, M.A.(Mrs. Britton)
Bowmaker, Theophilus Robert. B.A., 1896
Bowman, Alister S., B.A., 1878
Bowman, Andrew, M.A.
Bownan, Archer, B.E., 1889
Bowman, Arthur. B.A., 1880
Bowman, Edward, M.A.
Bowman, Emest M., B.A., 1880
Bowman, Myril Macdougall, M, A.
Boxall, Nelson Leopold, B.A., 1896
Boyce, Francis Stewart, B.A., 1893, LIL.B.
Boyd, Arthur, B.Sc, 1901, B.E.
Boyd, Rohert James, M.E.
Boyd, William Sprott, B.E., 1901
Boydell, Willianı Guy Broughton, B E., 1905
Brade, Gerald Francis, M.B., 1899
Bradfield, John Tob Crew, M.E. \(\ddagger\)
Bradley. Clement Henry Burton, M.B., Ch.M.

Bradley, John Houghton, B.D.S., 1906
Breakwell, Ernest, B.Sc., 1908, B.A.
Brearley, Ed win Andrew, B. A., 1904, M.B., Ch.M.

Brearley, Joseph Henry Draper, B.Sc., 1894, B.E.

Breckenridge, Charles C. P., LLB., 1906
Brennan, Christopher F., M.A. \({ }^{\text {II }}\)
Brennan, Ftancis P., M.A.
Brennan, Sarah O., M.A., B.Sc.
Brennand, Henry John W., B.A., M.D., Ch.M.

Brentnall, Nina Tillotson, B.A., 1903
Brereton, Ernest le Gay \({ }^{\text {I }}\)
Brereton, John Le Gay, B.A., 1894
Bridge, John ML., B.E., 1906
Brierley, Frank Sheppard, M.B., Ch.M.
Brierley, Nina Benson, B. A., 1907
Britten, Herbert E., B.A., 1888
Britton, Theodosia Ada, B.A., 1891 (Mrs. Wallace)

Broudbent, Percy Lewis, M.B., Ch.M.
Broderick, Cecil Thomas Hawkes, B. A., 1896, LL.B.

Brodie, Isabella Esther, B.A., 1895 (Mrs. Newton)
Brodziak, Birdie Kate, B.A., 1908
Broinowski, Gracius Herbert, M.B., 1897
Broinowski, Leopold T., B.A., 1897
Brook, Henry James Sidney, B.A., 1896
Brookes, George Arthur, M.B., 1908
Brooks, Harold Arthnr, B.E., \(190{ }^{5}\)
Broome, Edward, B.A., 1897
Broughton, Frank William Walford, B. D.S , 1908

Brown, Alfred, B.A., 1866
Brown, George Edward, M.A.,LL.B
Brown, George Frederick Campbell, B.E., 1907

Brown, James, B.A., \(190{ }^{-}\)
Brown, Mary E., B.A., 1885
Brown, Sophia, B. A., 1894
Brown, William Vernon, B.A., 1894
Browne, Claude Seccombe, M.B., Ch.M.
Browne, Elsie Forrest, M.B., Ch.M.
Browne, Juseph Alexander, LL.B., 1904.

Browne, Willian C., B.A., 1864
Browne, William Rowan, B.Sc., 19114
Browning, Robeit Humphrey, B.A., 1908
Brownlie, Elizabeth Alice Dalziel, B.A., 1901

Brownlie, Eveline Agnes, B.A., 1902
Bruce, Amie, B.A., 1901
Bruce, Grace Mitchell, B.A., 1901
Bruce, Mary H., B.A., 1887 (Mrs. Walker)
Bruce, Mary Jane, B.A., 1896
Buchanan, Charles Arthur, B.A.,1859
Buchanan, Charles Pakenham, B.A., 1900
Buchanan, George Arthur, M.B., Ch.M.
Buchanan. Joseph David, M.B., Ch.M.
Buckland, Thomas, B.A., 1878

Bucknell, D'Arcy F., M.A.
Bucknell, Louis Jeffrey, B.E., 1891
Bullock, Howard, M.B., Ch.M.
Bundock. Charles W., B.A., 1878
Bunting, Edith Annie, B.A., 1896
Burfitt, Mary Boyd, B.A., B.Sc., M.B., Ch.M.

Burfitt, Walter F., B.A., B.Sc., M.B., Ch.M.

Burge, Stephen Bruce, M.B., 1900
Burgess, Johu Heury, B.E., 1905
Burkitt, Edmund Henry, M.B., 1896
Buru, Alan, B.E., 19119
Burne, Alfred Dangar, B.D.S., 1908
Burnell, Frederick Spencer, B.A., 1908
Burnell, John Gurner, B.E., 1908
Burrows, George Joseph, B.Sc. \({ }^{\text {II }}\)
Busby, Hugh, M.B., Ch.M.
Bushnell, Pollie, B.A., 1896
Butler, Francis J., B.A., 1882
Butler, Patrick James, B.A., 1900
Butler, Spencer Joseph St. Clair, B.A., 1893, LL.B.

Butler, Stinley Wm. Beauchamp, B.A., 1900

Butler, Thomas, B.A.. \(1876 \pi+\)
Byrne, Lily Comyn, B.A., 1896
Byrne, James Kevin, B.A., 1894
Byrne, William Edmund, B.A., 1892
Cadden, Leslie George Barton, B.A', 1899
Caddy, James Pascoe, B E., 1903
Cahill, Annie Lucille, B.A., 1894
Cahill, Arthur Charles, M.B., Ch.M.
Cahill, John Hampton. M.B., 1903
Cakebread, William Jowers, B.A., 1894
Callaghan, Stanislaus Kustka, B.A., 1905
Cameron, Archibald Peter, B.A., 1894
Cameron, Colin Bowman, B.E., 1902
Cameron, Donald Allan, M.B., Ch.M.
Cameron. Willian Thomas, B.A., 1904
Campbell, Allan, B.A., 1874
Campbell, Alexauder Petrie, B.A., 1904
\(\dagger\) Fellow of the Benate.

Campbell, Charles Robert, B.A., 1893
Campbell, Edward, M.A
Campbell, Florence Eva, B.A., 1907
Campbell, George P., B. A., \(188{ }^{5}\)
Campbell, Gerald R., M.A.
Campbell, John Stuart, B.A., M.B., Ch.M.
Campbell, Joseph, M.A.
Canaway, Arthur P., B.A., 1894§
Candlish, Robert Smith, B.A., 1904, M.B., Сь.M

Cantrell. Sydney Wilham, B.A , 1907
Cape, Alfred John, M.A.
Capper, Lisle Hyne, B.D.S., 1907
Cardew.J. Haydon, Assoc.M.I.C.E. \(\frac{\pi}{}\)
Carey, Daisy, B.A., 1904
Cargill, John Sydney, B.A., 1889
Cargill, William Duthie, M.B., Ch.M.
Carlile-Thomas, Ella, B.A., 1900 (Mrs. Budden)
Carlile-Thomas, Julia, M.B., Ch.M. (Mrs. Fox)
Carlisle, W. W., B.A., 1878
Carlos, Joseph, B.A., 1893 §
Caro, Hilda, B.A., 1896
Caro, Philip. B.E., 1904
Carroll. William John Smythe, B.A., 1904
Carruthers, Ada Mary, B.A., 1904
Carruthers, Sir Joseph H., M.A.
Carslaw. Horatio Scott, M.A., D.Sc. \({ }^{\boldsymbol{T}}\)
Carter, Herbert Gordon, B.E., 1908
Carter, L. A., D.D.S. \({ }_{+}^{+}\)
Carvosso, Albert B., B.A., 1884
Casey, Michael Alphonsus, B.A., 1896
Castleman, Arthur, M.A.
Castlehow. Stanley, B.A., 190
Castling, James Robert, B.A., 1896
Challands, Fred., M.B., Ch.M.
Chalmers, Stephen Drummond, M.A.
Chambers, George Alexander, M.A.
Chandler, Harry, M.A.
Chapman. Alfred Ernest, B.A., 1893, LL.B.
Chapman, Benjamin Burgoyne, M.A.
Chapman, Henry G., M.D., B.S. \({ }^{1}\)
Chapman, Herbert Owen, M.B., Ch.M.
Chelmsford, His Excellency Lord, M.A.

Chenhall, William Thomas, M.B., 1897§
Chisholm. Edwin Claude, M.B., Ch.M.
Chisholm, Wn., B.A., 1S75, M.D.§
Chrismas, Charles Herbert, B.A., 1906
Chubb, Montague Charles Lyttelton, B. A., 1896

Clark, Francis George, B.A., 1900, LL.B.
Clark. Marjorie Dufaur, B.A., 1906
Clarke. Francis W., B.A., 1S84
Clarke, Gother Robert C., M.B., Ch.M.
Clarke, Philip Sulvester. M.B., Ch.M.
Clayton, Cyril Henry Joseph, B.E., 1903
Clayton, Frank Herbert, B.E., 1907
Clayton. Hector Joseph Richard, B.A.. 1907 , LL.B.

Clegg, William Carnegie, B.A., 1899. LL.B.

Cleland, John Burton, M.D.., Ch.M.
Clifford, James Perey, M.B., 1906
Clift, Guy Chalmers, B.E.
Clipsham, Gertrude Mary, B.A.. 1899
Clines, Peter Jos., B.A., 1896, LL.B.
Close. John Campbell, B.Sc.. 1903
Closs, Wm. John Leech, B.A., 1890
Clouston, Lavinia. B.A., 1907
Clouston, Thomas Bennett, M.B., 1905
Clubb, Wallace, B.A.. 1896
Cobbett. Pitt, M.A., D.C.L.II
Cocks. Nicholas John, M.A.
Coen, Bernard Joseph, M.B., 19089
Coen, Fraucis. B.A., 1906, LL.B.
Coen, Joseph. M.B., 1905
Coffey, Francis Louis Verhulst, B.A., 1894, LL.B.

Coghlan, Charles A., M.A., LL.D.
Coghlan, Iza Frances Josephine, M.B., Ch.M.

Cohen. Alroy Maitland, B.A., 1903, LL.B.
Cohen, Arthur Francis, B.E., 1904
Cohen, Fanny. B.A., B.Sc. \({ }^{\text {II }}\)
Cohen, John J., M.A.
Coldham, John C., B.E., 1906

Cole, Arthur George, B.A., 1907
Cole, Louisa, B.A., 1898
Cole, Percival Richard, M.A.
Coleman, Ernest Albert, B.A., 1906
Collier, Frederick William Dean, B.A. 1904, M.B.

Collings, Edith, B.A., 1904
Collins. Clifford Malua, B.A., 1906, LL B.
Colvin, Arthur Edmund, M.B., Ch.M.
Colyer, Moreton John Godden, B.E. 1896
Combes, Edgar Williain Anthony, M.B., Ch.M.

Combes, Jane Frances, B.A., 1895
Compton, Albert Zarenne, B.A., 1904
Conlon, William Aloysius, B.A., M.B., Ch.M.

Counellan, John, B.A., 1892
Connolly, John, M.A.
Comolly, Thomas Patrick, M.B., Ch.M.
Connor, Thomas John, B.A., 1895
Couroy, Lionel Bigoe Henzell, M.B., 1903
-Cook, Sydney Leicester, B.A., 1898
Cook, Walter Edmund, M.E. \(\$\)
Cooke, Clarence Hudsou, B.A., 1892
Cooley, Percy Glover, M.B., Ch.M.
Coombes, Archie James, B.A., 1905
Cooper, Sir Pope Alexander, M.A.
Cope, Hubert Roger, M.B., 1898
-Copland, Frank Fawcett, B.A., 1894
Corbett, Wm. F., B.A., 1883
Corbin, Albert George, B.Sc., M.B., Ch.M.
Cordingley, Grace Marion, M.A.
'Corfe, Austruther John, M. B., Ch.M.
Corfe, Duncan Bertram, B.E., 1903
'Corlette, Cyril E., M.D., Ch.M.
-Corlette, James Montagu Christian, B.E., 1903

Cornack, Alex. John, M.A.
Cosh, James, B.A.. \(1 \$ 91\)
-Cosh, John Inglis Clark, M.B., Ch.M.
Cotton, George Reginald Cope, M.B., 1908

Cotton, Leo Arthur, B.Sc., 1908\%
Coutts, Margaret, B. A., 1903

Cowan, David, B.A., 1894
Cowie, Herbert, B.A., 1907
Cowlishaw, Leslie, M.B., Ch.M.
Cowlishaw, Koy G.. B.E.. 1906
Cowlishaw, Wm. Patten, M.A.
Cowlishaw, Winifred, B.A., 1903
Cox, Frederick Henry, M.B., 1895
Cox, Harold, B.A., 1889
Coyle, William Thomas, B.A.. 1891
Cozens, George Charle:, B.D.S., 1907
Craig, A. Donald, B.A., I893, B.E.
Craig, Charles, B.A, 1892, LL.B.
Craig, Francis Brown, M.B., 1907
Craig, Robert Gordon, M.B., Ch.M.
Cramp, Karl Reginald, M.A.
Crane, Charles, B.A., 188 ?
Crane, Clive Charies, B. A., 1908
Crane, John T., B.Sc., 1887
Cranswick, George H., B.A., 1904
Crawford, Stella Maud C., B.A., 1896 (Mrs. Edwards)
Crawford, Thomas Simpson, M.A.
Crawley, Aubrey Joseph Clarence, M.B., Ch.M.

Creagh, Albert J., B.A., 1889
Creagh, William John, B.A., 1892, LL.B.
Cribb, Estelle Muriel Bridson, M.A.
Cribb, John Geo., M.A.
Cripps, Esther Fischer, B.A., 1891
Crisford, Hilda Nelse Moore, B.A., 1902
Crocker, Herbert D., M.A.
Croft, Edith, B.A., 1908
Cropper, Cecil Howe. B.E., 1906
Crouch, Frederick R., B.D.S.. 1906
Crowley, Archibald, B.A., 1901
Cruise, Emily A., B.A., 1897
Cullen, Wm. P., M.A., LL.D. \(\dagger\)
Cullimane, John Aloysius, B.A., 189.7, LL.B.
Culpin, Eirnest, M B., 1905
Culpin, Daisy Eller, B.A., 1907
Cumming, Jennie, B.A., 1896 (Mrs. Kinnear)
Curlewis, Harold Burnham, B.A., 1897
Curlewis, Herbert Raine, B.A., 1890, LL.B.

Curnow, William Leslie, B.A., 1890
Curren, Ethel, B. A., 1905
Curry. John Nicholas, B. A., 1908
Curtis, Williiam C. M.A.
Curtis, William John, M.A., LL.B.
Cusbert, Allan Willian, M.A.
Daley, Frank H., B.A., 1889
Dallen, Robert Ambrose*
Dalmas, Lizzie, B.A., 1895
Dalton, Gerald T. A., M.A.
Daly, May Edith, B.A., 1895 (Mrs. Mc.Donald)

Dalyell, Elsie Jean, M.B., Ch.M.т
Dansey, St. John Warburton, M.B., Ch.M.
D'Arcy-Irvine, Malcolm Mervyn, B.A., 1889

D'Arcy, Constance Elizabeth, M.B., Ch.M.
D'Arcy, George Symott, B.A., 1895
D'Arcy, John Synnott, B.A., 1890
Dare, Henry H., M.E.
Dargin, Sydney, D.A., 1871
Dart, George, M.A.
Dart, Riverine Norman, B.E., 1904
Dash, Ebenezer, B.A., 1894
David, Margaret Edgeworth, B.A., 1907
David, T. W. Edgeworth, B.A., F.R.S. 9

Davidson, Andrew, M.D. \({ }^{\text {IT }}\)
Davidson, Colin George Watt, B.A., 1899, LL.B.
Davidson, Leslie G., M.B., Ch.M.
Davies, Arthur Bernard, B.A., 1894, LL.B.
Davies, Edith Warlow, M.A.
Davies, Ernest Stanley, B.A., 1907
Davies, Harry Warlow, B.E., 1903
Davies, Isobel. B.A., 1906
Daries, Mary Edith. M.A.
Davies, Reginald L., M.B., Ch.M.
Davies, Wyndham John E., B.A., 1893, LL.B.
Davis, Agnes Marianne Harrison, B.A., 1896, B.Sc. (Mrs. S. E. Cook)
Davis, Henry, B.A., 1590
Dạvis, James Shedden, M.D., Ch.M.

Davison, Sam. Beaumont, B.A., 1896
Dawes, Madeline Mabel, B.A., 1905
Dawson, Arthur F., M.A.
Dawson, Jumes, M.A.;
Day, Edward James, M.B., Ch.M.
Day, Leo Spptimus, B.A., 1899
Deakin, John Edward Ferdinand, M.B. Ch.M.

Deane, Henry, M.A.§
Deane, Henry James, B.E., 1897
Deane, Wallace, M.A.
Deane, Williann Smith, M.A.
Debenlam, Arthür John, B.E., 1903 -
Debenham, Frank, B.A., 1906
Debenham, Jessie, B.A., 1906
De Lissa, Ethel Naida, B.A., 1898 (Mrs. Bensusan).
De Lissa, Horace, B.A., 1896
Deck, George Henry Baring, M.B., Ch.M.
Deck, John Northcote, M.B., Ch.M.
Deck, Norman Catheart. B.D.S., 1907
Deer, Margaret, B.Se., 1908
Delohery, Cornelius, M.A.
Delohery, Ernest Cecil, B.E., 1903
Delohery, Henry Charles, M.B. 1899'
Denham, Howard Kynaston, B.A., 1903, LL.B.
Dennis, James, M.A.
Densley, Lucy Noma, B.A. 1908
De Putron, Violet Lucy, B.A., 1908:
Dettmann, Herbert Stanley, B.A., 1897
Dey, Charlotte Johnston, B.A., 1898. (Mrs. Stuckey)
Dey, Robert, M.B., Ch.M.
Dick, James Adam, B.A., 1886
Dick, Robert, M.B., Ch.M.
Dick, William Thomas, B.A., 1890
Dickinson, Edward Moseley; B.A., 1899
Dickinson, Evelyn Elizabeth, M.B., 1908, Ch.M.
Diethelm, Oscar Albert Anton, M.B., 1907
Dight, Arthur Hilton, B.E., 1905
Dight, Wilfred Billing:ley, M.B., Ch.M.
Dimond, Margaret Cecilia, B.A., 1893 Dixon, Graham Patrick, M.B., Ch.M.

Dixon, James Thomson, B.E., 189a
Dixon, Herbert Hutchinson, B.A., 1894
Dixson, Thomas S., M.B., Ch.M. \({ }^{\text {II }}\)
Doak, Frank Wiseman, B.A., 1891
Duak, Walter James, B.E., 1895
Docker, Alfred Brougham, B.E., 1903
Docker, Ernest B., M.A.
Docker, Gladys Mary Brougham, B.A., 1903

Docker, Wilfred Brougham, B.A., 1905
Dodd, Sydney, M.R.C.V.S., D.VS. (Melb.) \({ }^{\text {T }}\)
Doig, Alexander Jolm, B.A., 1895
Dolan, Alfred P. B., B.D.S., 1906
Doukin, William Dalkeith, B.E., 1907
Dunovan, Harrie Caresfort Eajmond, M.B., 1906

Douovan, John J., M.A., LL.D.
Douglas, Robert Johnstone, B.A., 1905
Douglass, Albert Horace, B.A., 1908
Doust, Edith Lucy, M.A. (Mrs. Wolstenholme)
Dowe, Philip William, B.A., 1893
Dowling, Frank Vincent, B.A., 1898
Doyle, John, B.A., 1891ई
Doyle, William Oscar, M.B., 1906
Drummond, Shafto L., B.A., 1893
Dudley, Joseph T., B.A., 1885
Duesbury, Pearl, B A., 1908
Duff, Victor Clark, B.A., 1904
Dumoio, Nona, B.A., 1598
Dun, William Sutherland \({ }^{-1}\)
Dunnicliff, Mary Clifton, B.A., 1898
Dunlop, Johu W.., B.A., 1895
Dunlop, Leslie William, M.B., Ch.M.
Duulop, Mabel Laura T., M.A.
Dunlop, Norman John, B.A., B.Se., M.B., Ch.M.

Dunne, Charles Daniel, B.A., 1873
Dunstan, Ephraim, M.A.
Durack, Joseph Jerry E., B.A., 1899
Durack, William Joseph, M.B., Ch.M.
Eames, Jane, B.A., 1895

Eastaugh, F. A., A.R.S.M. \({ }^{\top}\)
Ebsworth, Samuel Wilfrid, B.A., 1905, LL.B.
Edmunds, John Michael, B.A., 1892
Edmunds, May, B.A., 1897 (Mrs. J. A. Klein)

Edmunds, Walter, M.A., LL.B.
Edwards, David Sutherland, B.A., 1894, LL.B.
Edwards, Dorothea, B.A., 1908
Edwards, Edward Evan, B.A., 1898
Edwards, Edward Samuel, M.A.
Edwards, Henry George, B.A., 1908, LL.B.
Edwards, James George, M.B., Ch.M.
Edwards, J. Ross, M.A.
Edwards, John, M.A.
Edwards, Rowland Campbell, B.Sc., 1908
Eichler, William Otto Heldmuth, M.B., Ch.M.

Elder, Francis R., B.A., 1877
Eldridge, Ada Maitland, M.A. (Mrs. McIlrath)
Elkin, Jonathan Bevan, B.A., 1895
Elliott, Millicent V., B.A., 1895
Ellis, Ethel, B.A., 1894 (Mrs. W. V. Brownj

Ellis, Mary, M.A., (Mrs. George)
Ellis, Lawrence Edward, M.B., Ch.M.
Elphinstone, Elsie Mary, B.A., 1899
Elphinstone, James, B.A., 1881
Elphinstone, James Cooke, B.A., 1896, LL.B.
Elwell, Laurence Bedford, M.B., Ch.M.
Elworthy, Wm.Heruy, M.B., Ch.M.
Emanuel, Nathaniel, B.A., 1867
England, Theo., B.A., 1885
England, Thomas H., B.A., 1885
English, Robert Joseph, M.B., Ch.M.
Enright, Walter John, B.A., 1893
Erans, Ada E., B.A., 1895, LL.B.
Evans, Sara, B.A., 1904.
Erans-Jones, David Pentland, B.A., 1898, LL.B.
Ewing, Thomas, B.Sc., B.A., M.B., Ch.M.

Fahey, Bartley Francis, B.A., 1901, LL.B.
Fairfax, Edwd. Wilfred, M.B., Ch.M.
Fairfax, James Oswald, M.A.§
Faithfull, George Ernest, M.A.
Faithfuli, William Percy. M.A.
Fallon, Cyril Joseph, B.A., 1405
Farrell, Robert M., M.B., Ch.M.
Farran-Ridge, Clive, B.Sc., 1908
Fawsitt, Charles Edward. D.Sc., Ph.D. 7
Feez, Arthur H., B.A., 1880
Fell, Catherine Isabella, B.A., 1900 (Mrs. F. Wood)
Fell, David*
Ferguson, David G., B.A., 18864
Ferguson, Eustace William, M.B.. Ch.M.
Ferguson, John Alexander, B.A., 1902, LL.B.
Fetherston, Leslie, B A., 1908
Fiaschi, Thomas, M.D. +
Fidler, Carleton B., B.A., 1888
Fidler, Ethelwyn, B.A., 1907
Fidler, Isabel Margaret, B.A., 18984
Finckh. Alfred Edmund, M.B., 1905
Finn, William George, B.A., 1895
Finney, Charlotte, B.A., 1895 (Mrs. Hodye)
Finney, Joseph, B.A., 1894
Finselbach, Friedrich W.A., M.B., 1906
Fisher, Arthur Domelly W., B.A., 1904. LL.B.

Fisher, Donnelly, M.A.
Fitz, Norman, B.E., 1888
Fitzgerald, Edmund, B.A., 1866
Fitzgerald, John Thomas, B. A., 1890
Fitzhardinge, Grantley Hyde, M.A.
Fitzhardinge, Julie Grantley, M.A.
Fitzhardinge, Maude Yeomans, M.A.
Fitzpatrick, Bernard Joseph, B.A., 1897
Fitzpatrick, Edward Bede Lucien, M.B. Ch.M.

Fitzpatrick, Mabel, B A., 1908
Fitzpatrick, Thomas John Augustine, B.A., 1893

Flannery, George Ernest, B.A., 1892, LL.B.

Flashman, Charles Ernest, M.B., 1903
Flashman, Horace West, B.E., 1907
Flashman, James Froude, B.A., B.Sc., M.D., Ch.M. \({ }^{(1)}\)

Flavelle, Lucy Isabel, B.A., 1896
Flecker, Oscar Sydney, M.B.. Ch.M.
Flecker. Hugo, M.B., Ch.M.
Fleming, Howard G. T., B.A., 1894
Fletcher, Archibald William, B.A., 1886, B.Sc.
Fletcher, Charles R., B.A., 1881
Fletcher, Frank E., M.A.
Fletcher, Joseph J., M.A.
Fletcher, Katherine Eliz., B.A., 1895 (Mrs G. Paine)
Fletcher, Michael Scott, M.A.,
Flint, Charles A., M.A.
Flower, Emily Monica, M.A.
Flynn, Johu E., M.A.
Flynn, Joseph Alban, M.A.
Flynn, Theodore Thomson, B.Sc., 1907
Flynn, William J., B.A., 1884
Forde, James, B.A., 1891, B.Sc.
Fordyce, Henry St. C., M.B., Ch.M.
Foreman, Hy. Jas. Clifton, B.A., 1896
Foreman, Joseph, M.R.C.S. \(\ddagger\)
Forster, Charles E., B.A., 1876
Forster, Redmond Clarence Hall, M.B., Ch.M.

Forsyth, Walter George, B.A., 1898, LL.B.
Fosbery, Eustace E., M.A.
Foster, Colonel Hubert J., R.E. \(\pi\)
Fox, Arthur Wesley, M.B., 1908
Fox, Harold S., B.A., 1885
Fox, Millicent. B.A.. 1905
Fox, Hedley Ebenezer, M.B., Ch.M.
Foxall, Henry G., B.E., 1906
Foy, Leslie Harold, B.E., 1903, M.B.,. Ch.M.
Fraser, George, B.A., 190̈̈
Fraser, Robert W., B.A., 1885
Francis, Henry Ralph, M.A.
Fraser, Donald, M B., Ch. M.
Fraser-Hill, Charlotte Elizabeth,. B.A., 1902

Free, Mary Grace, B. Sc., 1907

Freeman, Ambrose William, B.A., IS96, B.E.
French, Bernard Russell, B.A., 1907, LL.B.
Freshney, Reg., M.B., Ch.M.
Frew, Alison Eavis Harding, B.E., 1908
Froggatt, W. W T
Fry, Edith Mary. B.A., 1904
Fry, Eva Jane, B. A., 1907
Fry, Florence Mildred, M.A.
Fuller, George W., M.A.
Fullerton, Alexander Y., B.A., 1885
Fullerton, Lottie, M.A. (Mrs. Austin)
Furber, Robert Iggulden, M.B., Ch.M.
Furber, Thomas F. \({ }^{\text {IT}}\)
Futter, Victor S., B.A., 1906
Gale, Charles A., B.A., 1906
Galt, James, B.A., 1899
Garde, Henry Lee, M.B., Ch.M.
Garde, Henry Thomas, B.E., 1903
Garland, James Robert, M.A.
Garland, John, M.A.§
Garnsey, Arthur Henry, M.A.
Garnsey, Edward R., B.A., 1885
Garrick, Joseph Hector, M. A.
Garran, Robert R., M.A.
Garry, John Jos. Patrick, B.E.. 1905
Gattenhof, William Vincent, B.D.S., 1908
Geddes, Samuel, B.A., 1885
George, John, M.A.
George. Sydney. B.Sc. ब
Gerber, Edward W. T., B.A., 1892, LL.B.
Gibbes, Alfred George, M.A.
Giblin, Norman Ernest, B.E., 1903
Giblin, William Eric, M.B., 1908
Gibson, Alexander J. +
Gibson, Charles George, B.E., 1900
Gibson, Duncan David, M.B., Ch.M.
Gilchrist, James Joseph, M.B., Ch.M.
Giles. John Porter Harris. M. A.
Gill, Alfred Chalmers, M.A., LL.B.
Gill, J. Macdonald, M.D. \({ }_{+}\)
Gillam, Dora Alice, M.A.
Gillespie, Arthur Paul, M.B., 1907
Gillies, James, B. A., 1889
Gillies, Sinclair, M.D. §

Goddard, Ernest J., R.A., D.Sc.
Goddard.Thomas Flerbert, B. A. 1904
Godsall, Robert Spencer, M.B., Ch.M.
Goergs, Karl R. W., M.B., Ch.M.
Goldsmid, Albert, M.B., 1895
Golledge, Kenneth Alfred, M.B.. Ch.M.
Gombert, France, B.A., 1908
Gordon, Emily Isabel, M.A.
Gordon, George Acheson, B.A., 189\%
Gorman, John R., B.A., 1866
Gorriuge, Lloyd Septimus, B.E., 190!
Gould, Hubert John, B.E., 1902
Gourlay, Mary Elizabeth Florence, M.A.

Gowing, Ellis N., M.A.
Graham, David Hanuam, M.B., Ch.M.
Graham, Emily Rebecca. B.A., 1903
Graham, Frances, B. A., 1905
Graham, Sir James, M.B., 1886 §̧ \({ }^{\boldsymbol{T}}\)
Graham, Mabel Je:sie, M.B., Ch.M. (Mrs. Baillie)
Grant, Wllliam, M.B.§
Grant, William James, B.A., 1903
Grassick, Charles C., B.A., 1897
Gray, Arthur St. J., M.A.§
Gray, George James, B.E.,1903,B.Sc.
Green, Arthur V., LL.D.
Green, Henry Mackenzie, B.A., 1902, LL.B.
Green, Terence Albert, M.B., 1893
Greenham, Eleanor Constance, M.B., Ch.M.
Greenlees, Gavin, B.A., 1895
Greenway, Alfred R., B.A., 1870
Gregson, Edward Jesse, B. A., 1903
Gregson, William Hilder, B.A., 1898 B. E.

Greville, Minnie, B.A.. 1907
Grey, William Charles, M.B., Ch.M.
Grieve, Robert Henry, B.A., 1900
Griffith, Alfred John, M.A.
Griffith, James Shaw, B.A., 189:5
Griffith, Rt. Hon. Sir Samuel W., M.A. \(\dagger\)

Griffiths, Edward, B.Sc. 9
Griffiths, Frederick Guy, B.A., 1898, M.D.

Griffiths, John Neville, M.B., 190j

Grigor, William Emest, M.B.,Ch.M. Grogan, Albert Thos. Heury, B.A., 1897
Grosse, Edward Heury, B.D.S., 1907 Grut, Charles Frederick de Jersey, B.E., 1901

Gullett, Lucy Edith, M.B., Ch.M.
Gurney, Theodore T., M.A. \({ }^{\text {GI }}\)
Hadley, Alfred Edward, B.A., 1893 Hadley, Charles William, B.A., 1899
Haigh, Victor, B.A., 1905, LL.B.
Halcombe, Charles Digby, M.B., 1902
Hall, Alfred Ernest, B.A., 1893
Hall, Austin Viue, B.A., 190 S
Hall, Dorothy Vine, B.A., 1906
Hall, Edwin Cuthbert, M.D., Ch.M.
Hall, Ernest Kingsbury, B.E., 1903
Hall, Florence Sidney, B.A., 1907
Hall, William Hessell, M.A.
Hall, George R. P., B.Sc., M.B., Ch.N.
Halliday, George C., B.A., 1884
Halliday, John Chas. W., M.B., Ch.M.
Hallman, Edward F., B.Sc., 1906
Halloran, Aubrey, B.A., 1892, LL.B.
Halloran, George Henry, B.A., 1896
Halloran, Ida, B.A., 1893 (Mrs. Yabsley)
Halloran (formerly Guérin), Bella, M.A.

Hamilton, John Simpson, B. A., 1907
Hamilton-Brown, Elizabeth Isabel, M B., Ch.M.
Hammand, Kendall. M.B., 1907
Hammond, Alfred de Lisle, M.A.
Hammond, John Harold, B.A., 1896, LL.B.
Hammond, Walter Leslie, B.Se., 1907
Handcock, Charles Lancelot, M.B., Ch. M .
Hansard, Edith Hirst, B.A., 1897 (Mrs. Hirst)
Hansard. Norman William, M.B., Ch. M .
Hardman, Robert, M.B., 1900
Hardie, Howard G., B.D.S., 1906
Hargraves, Edward John, B.A., 1859

Harker, Constance Elizabeth, B.A., 1895
Harker, George, B.Sc. 1899
Harker, Mabel, B.A., 1907
Harley. Helen Louise, B.A., 1903
Harper, Rev. Andrew, M.A., D.D.ll
Harper, Margaret Hilda, M.B.,Ch.M.
Harriott, Charles Warre, B.A., 1889
Harriott, Georgina Jane, B.A., 1894
Harris, George, B.A.. 1891. LL.B
Harris, Henry Joseph, M B., Cin.M.
Harris, Herbert Theodore Rawson, B.E., 190 .

Harris, John, B.A., 1892
Harris, John Solomon, M.B., Ch.M.
Harris, Lawrence Herschell Levi, M.B., Ch.M.

Harris, Lewis Alexander, B.A., 1905, LL.B.
Harris, Marian, B.A., 1898, B.S'c.
Harris, Sir Matthew, B.A., 1863
Harris, Reginald Arthur,B.A., 1902
Harris, Samuel Henry, M.B., Ch.M:
Harris, Walter Eii, M.B., Ch.M.
Harris, William Henry, M.B., Ch.M.
Harrison, Edgar Sel wyn, M.B., Ch.M.
Hart, Basil Lloyd, M.B., Ch.M.
Harvey, Revina, B.A., 1895 (Mrs. Morison)
Harvey, Robert Frederick, B.A., 1908
Harvey, William George, B.A., 1894
Harwood, Marian Fleming, B.A., 1898
Haswell, William A., M.A., D.Sc., F.R.S. 9

Hawken, Roger Wiu. Hercules, B.E., 1900, B.A.
Hay, Mary Catherine, B.A., 1897 (Mrs. Johnson)
Hayes, David John, B.A., 1894
Hayley, Percy E. L., B.E., 1893
Haynes, Arthur Richard, M.B., Cb.M.
Healy, Patrick J., M.A.
Hedberg, John Alfred, B. A., 1896
Heden, Ernest Charles., B.A., 1898, B.Sc., B.E.

Helsham, Charles Howard, B.A., 1892

Henderson, G. Cockburn, B.A., 1893
Henderson, Robert Greenway, B.A., 1905
Henderson, Robert Newburn, B.A., 1895
Henning, Edmund Tregenna, B.E., 1903
Henry, Ada, M.A.
Henry, Arthur, M.B., Ch.M.
Henry, Hugh, B.A., 1905, LL.B.
Henry, Ida Emily, M. A.
Hertzberg, Marcus, B.A., 1906, LL.B.
Hewitt, Thomas Cotgrave, B.A., 1904
Heydon, George A. M., B.A., 19078
Hicks, Alick Walter, B.A., 1908
Hicks, Harold Frank, B.D.S., 1908
Higgins, Frederick Charles, M.B., Ch.M.
Higgins, Michael A., B.A., 1879
Higgins, Percy Reginald, B.A. ,1893, LL.B.
Hill, Douglas Bayley, M:B., Ch,M.
Hill, Evelyn M., B.A., 1895
Hill, George Arthur, M.A.
Hill, James Henry Fraser, B.A., 1900, B.E.

Hill, John Goodwin Watson, B.A., M.B., Ch.M.

Hill (née Uther), Mary Handfield, M.A.

Hill, Thomas, M.A.
Hilliard, Arthur Vaughan, B.A., 1890
Hills, Henry H., M.A.
Hinder, Henry V.C., M.B., Ch.M. \(\pi\)
Hinder, Robert John. B.A.. IS89
Hinder, W. Septimus, D.D.S. \(\%\)
Hinton, William Samuel, B.A., 1902, LL.B.
Hipsley, Alice Ellen, B.A., 1898
Hipsley, Percy Leslie, M.D., Ch.M.
Hobbs, Edwin, B.A., 1897
Hobbs, John Willlam, B.A., 1894
Hodge, Ernest Arthur, B.A., 1895
Hodge, Sydney Trevillian, B.A., 1902, LL.B.
Hodgkins, Amy Alice, B.A., 1895 (Mrs. James)
Hodgson, Evelyn G. M.A.§

Hoets, John William van Rees, M.B., Ch.M.

Hogarth. Julius W. \(\mathrm{If}^{2}\)
Hogg, James E., M.A.§
Hogg, Kate Emily, B.A., 1894
Holden. Florence Mackenzie, B.A., 1906
Hole, William Francis, B.E., 1896
Holland, John Joweph, M.B., 1905
Holliday, Andrew, B.A., 1898, LL.B.
Hollingdale. Bernard Austin, B.A.. 1906, LL.B.
Holloway, Irene Anna, B.A., 1904
Holme, Ernest Rudolph, M.A. \({ }^{\boldsymbol{T}}\)
Holme, John Barton, B.A., 1893, LL.B.
Holmes, Harry Glennie, M.B., Ch.M.
Holmes, William Fredk., B.A., 1894
Holt, Arthur Christian, B.A., 1895 , M.B.

Holt, Edith Jane Katherine, B.A., 1902 (Mrs. Morgan)
Holt, Wilfrid John, M.A.
Hood, Dannina, B.A., 1894 (Mrs. Lanfear)
Hope, Percival. B.A., 1903
Hopkins, Francis Irviue, B.A., 1893:
Hopman, Johu Henry, B.A., 1894
Hurniman, Alexander, B.A., 1866
Horton, Marion Charlotte, B.Sc., 1897 (Mrs. White)
Hosking. Richard, B.Sc.§
Houison, Andrew, B.A., 1869
Houison, James, B.A., M.D.
Honison, Stepheu James, B.A., 1898:
Howard, John Bruton, B.A., 1895
Howard, Vera, B.A., 1907
Howson, Frank, M.A. (Oxon.), M.R.C S. 9

Hudson, William, M.A.
Huggart, Alfred Theodore, B.A., 1892
Huggart, William Charles, B.A., M.B., Ch.M.

Hughes, Charles Michael, B.A., 1886
Hughes, Hugh Jason, B.A., 1897
Hughes, James Charles, M.B., Ch.M.
Hughes, James O'Donoghue A.. B.A., 1894

Hughes, John, B. A., 1906, LL. B.

Hughes, Michael O'Gorman, B.A., 1890, B.Sc., M.B.
Humphery, Esca Morris, M.B.,Ch.M.
Humphries, Herbert Gordon, M.B., Ch M.
Hungerford, Hedley Heber, B.A., 1886
Hunt, Claude L. W., M.B., Ch.M.
Hunt, Digby St. Clair W., B. A., 1895
Hunt, Fanny E., B.Sc., 1888
Hunt, Hugh Alton Stanislaus, B.A., 1897
Hunt, Willian Edwin, B.A., 1908.
Hunter, John, M.A.
Hunter. Mary Alison Miles, B.A., 1895
Hunter, Thomas Brown, B.A., 1898
Hunter. William Allen, M.B., 1902
Hurst, George, M.A.
Hutchinson, George Thos., B. A.,1900
Hyde, Ellis, B Sc., 1907 §
Hyues, Sarah, B.A., 1891
Iceton, Edward Arthur, M.A.
Irvine. Robert F., M.A. \({ }^{1}\)
.Jack, Robert Lockhart, B.E., 1899
.Jackson, Clements F. V., B.E., 1895
Jackson, Elizabeth, B.A., 1907
.Jackson, Frederick Chas., B. A., 1897
Jackson, Frederick H., B E., 1903
Jackson, Henry Latimer, M.A.§
Jackson, John Wm., M.B., Ch.M.
Jackson, Robert, M.A.
Jacobs, James, B.A., 1894
James, Arthur Henry, B.A., 1893
James, Augustus G. F., B.A., 1888
James, George Alfred, B.A., 1893
James, Thomas, B.A., 1896
James, William Edwin, M.A.
Jamieson, G. Wellington, B.A., 1893
Jamieson, Sydney, B.A., 1884
Jacques, Harold Vivian, B.A., 1904, LL.B.
Jarrett, Marjorie Kate. B.A., 1901
Jarvie, Bemie, B.A., 1898
Jefferis, James, LL.D.
Jenkins, Charles J., B.A., 1887
Jenkins, Chas. Warren B., B.E., 1895
Jenkins, Edward J., M.D. \(\oint_{\ddagger}^{+}\)
Jensen, Harold Ingemann, D.So.
Jensen, Klio, M.A.

Johnson, Martin Luther, B.A., 1893
Johnson. Norman Russell, B E., 1908
Johnston, Alexander W., M.A.
Johnston, Ella Russell, B.A., 1890 (Mrs. Martin)
Johnston. Herbert Hough. M.B., Ch.M.
Johuston, John, B.A., 1887
Johnston, Lanyluh Parker, M.B., Ch.M.
Johnston, Mary Eleanor B.A., 1896 (Mrs. Woodlands)
Johnston, Stephen Tason, B.A., 1894 B.Sc. \(\pi^{1}\)

Johnston, Thomas Harvey, M.A., D.Sc.

Johnstone, Henry T., B.A., 1885
Jones, Albert E., LL.B., 1889\$
Jones, Cortis Harry Frederick, M.A.
Jones, Eric D. L., B.A., 1906
Jones, Ernest Trevor, B.A., 1884
Jones, Grace Eveline, B.A., 1907
Jones, G. E. Russell, M.A.
Jones, John Russell, B A.. 1908
Jones, Sir Philip Sydney, M.D. \(\dagger\)
Jones, Philip Syduey, M.B., Ch.M.
Jones, Rees Rutland, M.A.
Jones, Richard Theophilus, M.D.
Jones, Stephen William, B E., 1908
Jones, Thomas, B.A., 1895
Jones, Thomas E., B.A., 1884
Jopling, Mildred Hilda. B.A.. 1908
Jordan, Frederick Richard, B.A., 1904 , LL.B. + \&
Jordan, George Edward Gustavus, B.Sc., 1901

Joseph, Horace B., B.A.. 1887
Kaeppel, Andrée Adelaide, B.A., 1906
Kater, Norman William, M.B., Ch. M.
Kay, Robert, M.A.
Kay, Stuart, M.B., Ch.M.
Kellett, Frederick, M.A.
Kellick, Arthur Charles T'apleyat
Kelynack, Arthur James, B. A., 1889, LL.B.
Kelynack, Harold Leșlie, B A., 1893
Kemmis, William Henry, B.A., 1890
\& Admitted ad eundem gradum
\(T\) Public Teacher

\footnotetext{
+ Fellow of the senate.
† Examiner.
}

Kemp, L. Mildred King, B.A., 1902
Kemp, Richard Cyril King, B.A., 1903, LL.B.
Kemp, Richard Edgar, M.A.
Kendall, Frank Louis, B.A., 1893
Kendall, Herbert William, M.B., 1905
Kendall, Theodore M., B.A., 1876
Kenna, Patrick J., B.A., 1882
Kennedy, Annie Augusta, B.A., 1893 (Mrs. Atkins)
Kennedy, Emily Clara, B.A., 1895 (Mrs. Studd Browne)
Kennedy, Philip, M.A.
Kent, Fredk. Deacon, M.A.
Kent, Harty Chambers, M.A.
Kershaw, Joseph Cuthbert, B.A., 1894, LL.B.
Kesteven; H. Leighton, D.Sc.
Kidston, Robert Matthew, B.A., 1892
Kilgour, Alexander Jamer, B.A., 1894, LL.B.
King, Aubrey Arthur, M.B., Ch.M.
King, Cecil J., M.A.
King, Copland, M.A.
King, Frederick-Hart, M.A.
King, George C., B.A., 1887
King, R. W., B.A., 1884 §
King, Walter U. S., M.A.
Kinross, Robert Menzies, B.A., M.B., Ch.M.
Kirchner, Edward Ruvane, B.D.S., 1917
Klein, James Angustur, M.A.
Kuaggs, Samuel 'Thomas, M.D. \(\}\)
Knox, Adrian, LL.B., 18909
Knox, Edward William \(\dagger\)
Knight, Arthur, M.A.
La Donce, Felicie Aurélie., B.A., 1905
Lafferty, Terence Matthew, B.A., 1899
Laird. Henry Hermann, B.A.. 1907, LL. B
Lamrock, Arthur Stauton, B.A., 1891
Lancaster, Llewellyn Bentley, M.B., Ch.M.
Lance, Elisabeth Ada, M.A.

Lander, William H., M.A.
Lane, Alan Philip Reade, B.D.S 190 S
Lane, Frederick George, B.A., 1895
Lang, John Gavin, M.A.
Langley, Isabella E., B.A., 1897
Langton, Frederick W., B.A., 1887
Langton, William Digan, M.B.,Ch.M.
Larcombe, Ernest Rich., B.A., 1902
Larkins, Frank Joseph Moore, B.A., 1902, LL.B.
Larkins, Harold Matihew, B.E., 1907
Larkins. Nicholas Clement, M.B., Ch.M.
Lasker, Samuel, M.A.
Latham, Oliver. M.B., Ch.M.
Latreille, Meta Gertrude Emily, B.A., 1905
Lawrence, Raymond Lister, B.A., 1908, LL. B.
Lawes, Charles Herbert Essery, M.B., Ch.M.

Layton, John Edward, B.A., 1893
Leahy, John Patrick Daunt, B.A., M.B., Ch.M.

Ledger, William Heury, B.E., 1893
Lee, Henry Herbert, M.B., Ch.M.
Lee, Herbert Ernest, B.A., 1896
Lee, Thomas Nelson, M.A.
Lee, William, M.A.
Lees, Geoffrey John, M.B., 1900
Leeson, Ida Emily, B.A., 1906
Legge, J. Gordon, M.A., LL.B.
Lehane, Thomas Joseph, LL.B., 1903
Leibius, G. Hugo, B.A., 1888
Lennox. Edith, B A., 1906
Lenthal, Ellen Melicent, B.A., 1893
de Lepervanche, Eustace Mézières, B.A., 1900

Leslie, James Robert, M.B., Ch.M.
Lethbridge, Harold Octavius, M.B., Ch.M.
Leverrier, Frank, B.A., 1884, B.Su. \(\dagger\)
Levick, Alfred Manning, B.A.. 1904
Levy, Daniel, B.A., 1893, LL.B.
Lewis, Henry Clyde, B.A., 1893
Lichtscheindi, Rose, B.A., 1894 (Mrs. Innes)
Liddell, Andrew Innas, M.A.

Liggins, Jessie Hunsdon, B.A.. 1899
Light, Hilda Vera, B.A., 1908
Lightolier, George Henry Standish, . M.B., Ch.M.
Lindsay, W. C., B.A. 1903, LL.B.
Lingen, John Taylor, M. A. \(\oint\)
Linsley, Wm. H., B.A.. 1880
Lion, Rosine, M. A
Lipscomb, Thomas Walter, M.B., Ch.M.
Lister, Henry, M.B., 1S9?
Litchfield, W. Frederick, M. B., 1893
Little, Vivian Agincourt Spence, M.A.

Littlejohn, Edward S.. B.A., 1887
Liversidge, Archibald. M.A., LL.D., F.R.S. \({ }^{11}\)

Llewellyu, Rees Frank, M.B., 1902
Lloyd, Frederick, M.D.
Lloyd, Thomas, B.A., 1878
Lodder, Nellie, B.A., 1908
Logan, George, B.A., 1903
Lomer, Caroline, M.A. (Mrs. Vidler)
Lord. Frank Colbran Turner, B.A., 1903
Loudon, Bertha Winifred, B. A., 1904
Louis, Philip Herbert, M.A.
Love, William Arnold, B.D.S., 1907
Lovell, Heury Tasman, M.A., Ph.D. 9
Lowick, Clara, B.A., 1904
Loxton, Edward James, M.A.
Loxton, Frederick E., B.A., 1906
Ludowici, Edward, M.B., Ch.M.
Luker, Donald, M.B., Ch.M.
Lukin, Gresley W. H., M.A.
Lusby, Sydney Gordon, M.A.
Lydall, John French, B.A., 1907
Lyden, Michael J., M.D. \(\bar{\phi}\)
Lydon, James, B.A., 1894
Lynch, Joseph, M.A.
Lyuch, Michael D., B.A., 1870
Lynch, Williann, B.A., 1863
Lyon, Pearson, B.A., 1890
Lyons, Ettie, B.A., 1904
Layons, Richard J., B.A., 1906
Macansh, Andrew W., B.A., 1885
MacCallum, Isabella Renton, B.A., 1904
MacCallum, Mungo L., B.A., 1906
MacCallum, Mungo W., M.A.IT \(\dagger\)

Macarthy, Herbert T. S., B.A., 1860
McCarthy, Arthur W., B.A., 1881
McClelland, Hugh, B.A., 1881
McClelland, Walter Cecil, B.Sc., M.B., Ch.M.

McCook, Adam Stuart. B.A., 1895
McCook, William Henry, B.A.. 1900
MacCormick, Alexander, M.D. \(\oint \uparrow\)
McCey, William Taylor, B.A., 1894
McCrae, Arthur Gordon, B.E.. 1903
MacCreadie, John Laing Martin, M.B., Ch.M.

McCredie; RobertWm., M.B., Ch.M.
MacCulloch, Harrington Thomas Cuthbert, M.B., Ch.M.
McCulloch, Percy V., B.A., 1881
MacCulloch, Stanhope H., M.B., Ch.M. \(\ddagger\)
McDermott, Vesian B., B.A., 1887
McDonagh, John M., B.A. 1879
Macdonald, Fanuy Elizabeth, B.A., 1895
Macdonald, James M., M.A.
Maudonald, Louisa, M.A.jill
McDonald, Timothy George, B.A., 1903
McDonald, William Alphonsus, B.A., 1907
McDonnell, Æneas J., M.D., Ch.M.
McDonnell, Randall C. W., B.A., 1888
McDowall, James, M.A.
McDowall, St. Andrew William Logan, M.B., 1905
McDowall, Valentine, M.B., 1905
McElhone, Frank Eric, B.A., 1908
McEncroe, Jas. Michael, M.B., Ch.M.
McEvilly, Augustus, B.A., 1886
McEvilly, Ulric, B.A., 1583
McEvoy, Bertie Patrick, B.A., 1899
McEroy, John Joseph Stuart, M.B., 1900
McFarlane, John Stuart, M.B., 1908
MacFarlane, Laurie M., B.A., 1906
McGill, Alec Douglas, B A., 1908
McGuinn, Denis, B.A., 1884
MacInnes, Angus, B.A., M.B., Ch.M.
MacInnes, Isabel Mary, B.A., 1904 (Mrs. G. L King)

1 Admitted ad cumlem gradum. \(\dagger\) Fellow of the Senate.
"t Public Tearchar.
: Ezaminer.

Macintosh, Alexander Hay, M.B., Ch.M.
McIntosh, Alexander M., B.A., 1906, M.B.
Macintosh, Cyril Leslie Stewart, M.B., Ch.M.

Macintosh, George Donald, M.B., Ch.M.
McIntosh, Harold, B.A., 1889
McIntyre, Aug. T., B.A., 1879
McIntyre, Duncan A., B.A., 1888
Mack, Sidney, B.A., 1890, LL.B.
Mack, Augustus Charles, B.E., 1902
Mackaness, George, M.A.
Mackay, Iven Giffard, B.A., 1904 T
McKay, James, B.A., 1896
McKay, William J. Stewart, B.Sc., M.B., Ch.M.

McKean, Alexander, B A., 1908
McKean, Leslie John, B.A., 1907, LL B.
McKelvey, John Lawrence, M.B., Ch.M.
Mackenzie, Arthur Joseph, M.B., Ch.M.
Mackenzie, John, M.B., Ch.M.
McKeown, Eric W., B.E. \(\Phi\)
McKeown, Frederick Maurice, B.A., 1907
MoKibbin. Rachel, B.A., 1908
Mackie, Alexander, M.A. \(\oint\) T
McKie, Ernest N., B.A., 1906
McKillop, Archibald, M.B., 1906
McKillop, Lachlan Martin, M.B., Ch. M.
Mackinnon, Ewen, B.Sc., 1907
Mackinnon, Roger R. S., M.B., Ch.M.
Mackintosh, Bertha Adeline Hilda, B.A., 1899

Mackness, Constance, B.A., 1902
Maclardy, J. D. St. Clair, M.A.
Maclardy, Margaret M. St. C., B.A., 1907
McLaren, Alexander Duncan, M.A., LL.B.
McLaren, John Gilbert, B.A., 1895
McLaughlin, Daniel, B.A., 1890
MacLaurin, Charles, M.B., Ch.M. \(\ddagger\)

MacLaurin, Hon. Sir Henry Normand, M.A., M.D., LL.D. \(\dagger\)
MacLaurin, Hemry Normand, B.A., 1899.

McLean, Archie L..B.A., 1906, M.B.
Naclean. Charles Hector Roderick, B.A.. 1901

Maclean, Fredk. S., B.A., 1887
McLean, George, M.B., Ch.M.
McLeod, James, B.A., 1879
McLintock, Colin Scott, B.A., 1900
McMahon, Gregan, B.A., 1896
MacManamey, James Frazer, B.A., 1881
MacManamey, John Frazer, B.A., 1889
MacManamey, William Frazer, B.A., 1892
MacMaster, Donald Aneas D., B.A., B.Sc., M.B., Ch.M.

MacMulien, Frank, M.A.
McMurray, Wahab, M.D.
Macrossan, Hugh Denis, B.A., 1902
McNeil, Andrew, B.A., 1889
McNevin, Arthur Joseph, B. A., 1895
McNerin, Thomas Butler, B.A., 1893
MacPherson, John: M.A., B.Sc., M.B., Ch.M.

MacPherson, Peter, B.A., 1889
Mac'Taggart, Edgar A., B.D.S., 1906
MacTaggart, John Norman C., M.E.
McWilliam, Neville Gilbert, B.A., 1903, LL.B.
Madsen, John Percival Vissing, B.Sc., 1900. B.E. \({ }^{\text {II }}\)

Maftey, Reginald William H., B.A., 1596, M.B.
Magarey, Frank W. A., M.D., Ch.M.
Maher, Charles H., B. A., 1877
Maher, Charles Weston, M.B., Ch.M.
Maher, Matthew E., B.A., 1867
Maher, Thomas Francis, B.A., 1893
Maher, W. Odillo, M.D.§
Maiu, John. B.A.. 1892
Maitland, Herbert Lethington, M.B., Ch.M.
Makin, William. B.A., 1902
Malcolm, Olive, B.A., 1908

Mallarkey, Ethel May, M.A.
Maloney, Audrew W., B.A., 1893
Maloney, John Thomas, B.A., 1899
Mann, William J. G., M.A.
Manuell, Francis Worthington, B.A., 1892
Manning. Henry Edward, B.A., 1900, LL.B.
Manuing. Hugh Eldred, B.A., 1005, LL.B.
Manning, James N., M.A., LL.D.
Manning, Reginald K., B.A., 1887
Manning, Williann Alexander, M.A.
Manning, W. Hubert, M.A.
Manning, William Ernest, B.A., 1892
Mansfield. Walter Charles, M.B., Ch.M.
Marden, John, LL.D.
Markell, Horace Francis, B. A., 19 Jo LL B.
Marks, Hyam, B.A., 1892
Marks, Florence, B.A., 1893
Marks, Gladys Hope, B.A., 1908
Marks, Leah, R.A., 1893
Marks, Percy J., B.A., 1887
Marr, Famie Augusta, B.A., 1899 (Mrs. Jack)
Marr, Gordon William Singer, M.B., 1901
Marrack, John Rea M., M.A.
Marsden, Ernest Ambrose, M.B., Ch.M.
Marsh, Alison Mary. B A , 1908
Marsh, Harold Seaward, M.B. 1903
Marsh, Harold Theodore, M.B., Ch.M.
Marshall, Frank B.D.S., 1906
Marshall, William Henry, B.D S., 1908
Martin, Laura Margaret, B. A., 1907
Martin, Lewis Ormsby, B.A., 1893, LL.B.
Martyn. Athelstane Markham, B.E., 1905
Martyn, Sydney Charles, B.A., 1889
Mason, Thomas William, M.B., 1903
Mason, William Harry, B.Sc., 1905
Massey - Makinson, Arthur, B.A., 1903
Mate, William H., B.A., 1864

Mathews, Hamilton Bartlett, B.A., 1899
Mathison, Walter, B.A., 1850
Mathison, Walter Charter, B.E., 1899
Matthews, Henry Delahunt, M.B., 1908
Maughan, David, B.A. 1906 ;
Mawson, Douglas, B.E., 1902, B.Sc.
Mawson, William, M.B., Ch.M.
Maxwell, Henry Francis, B.A., 1895
Maxwell, William, B.A., lyot
Maxted, Henry Louis, B. A., 1902
May, Hubert Waiter, B E, 1908
Maynard, Ethel Margaret, B.A., 189.4 (Mrs. Pedeu)

Mayne, William M., M.A.
Mityne, J. O'Neill, B.A., 1884
Maze, William A. A., B.A., 1892
Meagher, Luuis Felix, B.A., 1889
Meares, Hercules, B.A., 1893, LL.B.
Meares, Matilda, M.A.
Meek, Herbert A.rthur, B. A., 1903
Meillon, John, M.A. LL.B.
Meillon, Joseph, B.A.. 1863
Meldrum, Henry Johu, B.Sc., 1907
Mell, Cecil Newton, B.A., 1894
Melville, Hector Pope. B. A., \(1: \mathrm{in}_{5}\)
Menzies, Guy Dixon, M.B., Ch.M.
Merewether, E. A. M., B.A., 1884 , B.E.

Merewether, Hugh H. M., B.A., 1894, LL. B.
Merewether, Wialton I.., M.A.
Merewether, Willian D. M., B.A., 189.5, LL.B.

Merrington, Emest Northcroft,M.A.
Metcalfe, George, M.A.
Middletun, Robert John. M.A.
Miles, James Albert, B.A., 1894
Miles, Vivian Jaines. M.A.
Millard, Alfred C. B.A., 1885
Millard, Godfrey William, M.A.
Millard, Reginald J., M.B., Ch.M.
Miller, James W., B.A., 1896
Miller, Richard John, B.A., 188.
Miller, Robert Christr, M.B., 1908
Mills, Archibald Joseph, B.A., 1907
Mills, Arthur E., M.B., Ch.M.T

Mills, Elsie Ada Harland, M.A. (Mrs. Holmes)
Mills, Percy Harcourt, B.A., 1893, LL.B.
Minter, Clifford, B.A., 1907 , LL.B.
Mitchell, Clarice, B.A., 1908
Mitchell, Ernest Meyer, B.A., 1896, LL.B. \({ }^{9}\)
Mitchell, Ethel Robertson, B.A., 1898
Mobbs, Athol Walter, M. B.. Ch M.
Molesworth, Edmund Harold, M.B., Ch.M.
Moloney, Thomas P., B.A., 1885
Molster, Eliza, B.A., 1893 (Mrs. Dowe)
Molster, Sarah, M.A.
Monaghan, John Graham, M.A.
Monuhan, William Willis, B.A., 1897, LL.B.
Mounington, Alfred. M.A.§
Montarue, James H., M.A.
Montefiore, Hortense Henriette, B.A., 1896

Montgunerie, John, B.A., 1889
Moore, David C., B.A., 1883
Moore, Frauk Joseph S.; B.A., 1883
Moore, George. M.D.
Moore, Heury Edington, B. A., 1907, LL B.
Moore, John, B.A., 1883
Moore, Samuel, M.A.
Moore, Verner, B.A., 1884
Monre, Walter Albert, B.A., 1894
Moors, Elphinstone M., M.A.q
Moran. Herbert Miehael. M. B., 1907
More, George Allan, B.E., 1601
Morgan, Fredk. A., B.A.. 1888
Morgan, Thomas H. D.: B.A., 1592
Morley, Ireue Madeline, B.A., 1904
Morley, Muriel Violet, M.A.
Morrice, John, B.A., 1874
Morris, John James, B.A., 1895
Morris, Robert N., B.A., LL.D.
Morrish, Francis, B.A., 1882
Morrison, Archibald, B.E., 1908
Mort, Harold Sutcliffe, B.Sc., 1901. B.E.

Mort, H. Wallace, M.A.§
Mort, Selwyn Robert, B.E., 1900
Morton, Gavin, M.B., Ch.M.

Morton, John, M.B., Ch.M.
Morton, Selby, M.D.
Moseley, Arthur Henry, M.B., Ch.M.
Mote, Amold Rudulph, B.A.. 1902
Mote, Livingstone Charles, M.A.
Mott. Olive Lenore, B.A., 1905
Mottershead, Arthinr, B.A., 1906
Moulton, James E., B.A., 1892
Moustaka, Orea Emma Hellas,B.A., 1897 (Mrs. Beatty)
Mowbray. Rupert Wallace, B.A., 1903
Moxham, Cecil G., B.D.S., 1906 T
Moylan, William P., B.A.. 190 ,
Magliston, Mudeline Lucy, B.A., 1904
Mulhollaud, John Joseph, B.A., 1899
Mullens, Arthur Frank Macquarie, B.A., 1896

Mullins, Gıorge Lane, M.D. \(\phi\)
Mullins, Join Lane, M.A.
Murray, Charles Edward Robertson, M.A.

Murray, C. O’Connor, B.A., 1904 , LL.B.
Murray, Donald, M.A.
Murray, Florence Jane, M.A. (Mrs. Armitage)
Murray, George Lathrop, M.B., Ch.M.
Murray, Mercy M. H., B.A., 1897 (Mrs. Nugent Robertson)
Murray-Prior, Dorothea Katherine, B.A., 1904

Murray-Prior, Ruth A., B.A., 1906
Murray-Prior, RobertSterling, B.A., 1905
Muscio, Allan, M.B., 1902
Musmann, Carl Ernst Guttlicb, B. A., 1897

Mutton, Isaiah, B.A., 1900
Myers, David M., B.A., 1866
Myers, Harold Walter, B.E., 1901
Nardin, Collis Carleton, B.E., 1905
Nardin, Ernest Willoughby, B.E., 1894
Nash, John Brady, M.D.§
Nathan, Edward Alleyne, M.A., LL.B.
Neave, Bevan W., B.D.S.. 1906
Nelson, Duncan John, B.A., 1895

Nettleship, Edward, B.A., 1895
Newham, Arthur, M.A.I
Newman, Ernest Ladlow, M.B., 1903
Newman, George Hine, B.A., 1887
Newman, James Malcolm, B.E., 1901
Newman, Kelsey Tllidge, B.A., 1894
Newsham, Alice Isabel, B.A., 1900
Newton, Alice Sarah, M.B., Ch.M. (Mrs. Newton-Tabrett)
Newton, Heury, B.A., 1889
Newton, Roland G., B.A., 1906
Newton, William Thomas Joseph, M.B., 1900

Nicholls, William Hunt Ward, B.A., 1891
Nicholson, George Gibb, B.A., 1899ヶ
Nimmo, William Muir, B.A., \(190{ }^{7}\)
Noad, Emma Alison, B.A., 1907
Noake, Arthur R., M.A.
Noake, Reginald, B.A., 1877
Noake, Reyinald Robert, B.A., 1904
Noake, Stephen C., B.A., 1906
Noakes, Mabel Alicia, B.A., 1896 (Mrs. Stonham)
Noble, Edmund Murray, M.A.
Nolan, John Henry Monteith, M.A.
Nolan, HerbertRussell,M.B.,Ch.M. \({ }^{\text {T }}\)
Norman, Edwin Philip, B.E., 1911 T
Norman, John Lupton. B.E., 1907
Norrie, George, M.B , Ch M.
North, Frederick, B.A., 1907
Northcote, Right Hon. Hemry Stafford, Baron, M.A. §
Northcott, Clarence Hunter, B.A., 190.)

Oakes, Florence Isabella Mantel, B.A. 1905

O'Brien, Agnes Gertrinde, B.A., 1895
O'Brien, Francis, M.A.
O'Brien, The Right Rev. Monsignor James J., D.D. \(\|\)
O'Brien, Kathleen Moira, B.A., 1894
\(O^{\prime}\) Brien, Lucius, B.A., 1865
O'Brien, Ormond, B.A., 1876
O'Brien, Patrick Daniel, B.A., 1894, LL.B.
O'Connor, Arthur C., M.B., Ch.M.
O'Connor, Hon. Mr. Justice R. E., M.A. \(\dagger\)

O'Conor, Broughton B., B.A., 1892 , LL.B.
O'Donohue, John P. Markham, B.A., 1895, LL. B.
O'Halloran, Charles Michael, M.B., 1908
Old, George Greensil, M.B., 1900
Oliver, James, M.A.
Olver, William Reath, M.B., Ch.M.
Oram, A. Murray, M.D. \(\oint\)
O'Keefe, John A., B.A., 1887
O'Keefe, John James, M.B., 1898
O'Mara, Michael, M.A.
O'Neill, James Bernard, B. A., 1890
O'Reilly, Hubert de Burgh, B.A., 1892, LL.B.
O'Reilly, Theophilus Linnell, M.B., Ch.M.
O'Reilly, Susamah Hennessy, B.Sc., M.B., Ch.M.

O'Reilly, Walter Creswell, B.A., 1903
O'Reilly, Walter William Joseph, M.D.

Ormiston, Martha Isabel, M.B., 1907
Osborue, Henry Stuart, B.A., 1596
Osborne, John King, M.B., Ch.M.
O'Sullivan. Daniel Roche, B.A.. 1901
O'Sullivan, Eugene Francis, B.A., 1901
Oswald, Alfred William, B.A., 1903
Oxenham, Humphrey Bede, M.B Ch.M.
Owen, Tom Mackellar, B.E., 1905
Page, Arthur Ernest, B.A. 1899
Page, Earle Christmas Grafton M.B., Ch.M.

Pain, Allan Franklyn, B.A., 1894
Pain, Arthur Wellesley, B.A., 1884\}
Pain, Ernest Maynard, M.B., Ch.M.
Paine, Benningtou Haille, B.A.. 1893
Paine, George Henry, B.A., 1894
Palmer, Allan Burnett. B.A., 1907
Palmer, Arthur A., M.B.. Ch M. \(\ddagger\)
Palmer, Chas. Reginald, M.B.,Ch.M.
Palmer, Henry Wilfred, M.B., Ch.M.
Palmer, Selina Elizabeth, B.A., 1903
Palmer, Thomas Henry, B.E., 1898
Paris, Jane Elizabeth, B.A., 1897 (Mrs. Martin)

Parish, Walter G., M.A.
Park, Joseph, M.B., Ch.M.
Parker, Leslio Richard, M.B., Ch.M.
Parker, Reginald Arthur, M.B., Ch.M.
Parker, Wm. A., B.A., 1892, LL.B.
Parkinson, Henry Hallam, M.B, Ch.M.
Parnell, Ethel Caroline, M.B., Ch.M.
Parsons, Emily Waugh, B.A., 1899
Parsons, Florence Louey, B.A., 1906
Parsons, Joseph, M.A.
Parry, Edward Lloyd D., M.B., Ch.M.
Paterson, John, M.A.
Paton, Arthur T., B.A., 1887
Paton, Mary Paterson, B.A , 1902
Patterson, Benjamin Gilmore. B.E., 1904
Patterson, Mervyn Stuart, M.B., Ch.M.
Pattinson, Anthony Walton, B.A., 1894
Paul, Alfred, B.A., 1905, B.Sc.
Paul, Charles Norman, M.B , Ch.M.
Paul, George Augustus, M.B.,Ch.M.
Paxton, Betha, M.A.
Paxton, Grace, B.A., 1907
Pearce, William T. L. A., B.A., 1907
Peden, John B., B.A., 1892, LL.B. \(9 \dagger \dagger\)
Penman, Arthur P., B.E., 1906
Penman, John Edwards Foggon, B.A., 1897

Pemman, Leslie E., B. A., 1906
Perkins, Alfred Edward, M.A., M.B., Ch.M.
Perkins, Frederick Thomas, M.A.
Perkins, Joseph A. R., B.A., 1892
Perkins, Richard, M.B., Ch.M.
Perry, John, M.A.
Perské, Hermann, B.A., 1887
Peterson, Arthur James, B.Sc., 1901, B.E.

Petherbridge, Walter Charles, M.B., Ch.M.
Petrie, Edith Maud, B. A., 1901
Petrie, James Matthew, D.Sc.
Philip, Frederick Charles, M.A.
Phillips, Catherine Agnes, B.A., 1896

Phillips, Arthur Bradridge, M.B., Ch.M.
Phillips, Frederick Geo., B.A., 1902
Phillips, Reginald Bede, B.A., 1902
Pickburn, James P., B.A., 1892, LL.B.
Piddington, Albert Bathurst, B.A., \(1883 \dagger\)
Piddington, Francis Llewellyn, B.E., 1898
Pike, George B.. M.A.
Pilcher, George de Vial, B.A., 1.859

Pilcher, Charles E., B.A., 1865
Pilcher, Norman George Stafford, B.A., 1898, LL.B.

Pincombe, Torrington Hawke, B.A., 1890
Pitt, Arthur Gladstone Matcham, B. A., 1902, LL. B.

Platt, Cecil Percival, B.E., 1905
Plomley, Francis James, M.A.
Plomley, Morris James, M.B., Ch.M.
Plume, Henry, M.A. \(\rho\)
Poate, Hugh Raymond Guy, M.B., Ch.M. \({ }^{-1}\)
Pockley, Eric Osbaldiston, M.B., Ch.M.
Pockley, F. Antill, M.B., 1888 § 11
Poidevin, Leslie Oswald Sheridan, B.A., 1900

Pollock, James Arthur, D.Sc. \({ }^{\text {II }}\)
Poole, William, B.E., 1900
Poolman, Arthur Ed., B.A., 1883
Pope, Roland J., B.A., 1885
Portus, Garnet V., B.A., 1906
Potts, Cuthbert, B.A., 1898
Powell, James William Garnett, B.A., 1904, B.Sc.

Powell, Theodore, M.A.
Power, F. Danvers4
Power, John Wardell, M.B., Ch.M.
Power, Percy Horne, B.A., 1901
Power, Reginald, B.E., 1908
Praed, Aunie, B.D.S., 1906
Pratt, Frederick V., M.A.
Pratt, Walter Henry, B.A., 1901
Prentice, Arthur J., B.A., 1892
Prescott, William Arnold, B.E., 1907
Pridham, Alice Mary, B.A., 1908

Pridham, Edward, B.D.S., 1907
Pridham, Harold Ernest, M.B., Ch.M.
Priestley, Henry, B.Sc., M.B.,Ch.M.
Pring, Robert Dorlow, M.A.
Pritchard, Alice, B.A., M.B., Ch.M.
Pritchard, Wm. Clowes, B.A., 1888
Proctor, Lizzie, M.A. (Mrs. Cocks)
Pulleine, Robert Henry, M.B., 1898
Punch. James Steensor, B.D.S., 1907
Purcell, Philip Francis, B.A., 1898
Purcell, Winifred Dalton, B.A., 1895
Purser, Cecil, B.A., M.B., Ch.M. \(\dagger\)
Purves, Alan Melrose, M.B., Ch.M.
Purves, John Mitchell, M.A.
Quaife, Frederick Harrison, M. A.
Quaife, Walter Thorold, M.B.,Ch.M.
Quaife, William F., B.A., 1879
Quick, Sir John, LL.B., 1881
Quigley, James, B.A., 1890
Quinn, John Joseph, B.A., 1905, LL.B.
Radford, Louis Rostock, M. A., D.D.\|
Rae, Thomas Robert, B.E., 1905
- Ralston, Alexander G., M.A.

Ralston, Alexander Windeyer, B.A., 1907, LL.B.
Ramsay, James, B.A., 1885
Ramsden, Edward Maxwell, M.B., 1908
Ranclaud, A. B. B., B.Sc., 1908, B.E. \(\ddagger\)

Ranson, Jcseph Robert, B.A., 1908
Raves, George Alfred, B.A., 1897
Raves, Helen Alice, M.A.
Read, Elizabeth Jnne, B.A., 1899
Read, William Henry, M.B., Ch.M.
Reading, R. Fairfax, M.R.C.S., L.D.S. 7

Real, Idward Thynne, B.A., 1905, LL.B.
Redgrave, Harold W.. B.A., 1906
Redgrave, Leslie Alfred, B.A., 1905
Redshaw, George, B.A., 1895
Rees, Walter Llewellyn, M.B., Ch.M.
Reid, Norman, B.E., 1898
Reid, Robert Stewart, B E., 1905
Reid, Roberta Jane Sinclair, B.A., - 1904

Reid, Violet Margaret, B.A., 1902
Reidy, John Jas. Gralton, B.A., 1896
Rennie, Edward H., M.A.
Rennie, George E., B.A., 1882
Renwick, Charles Saunders, M.B , Ch.M.
Renwick, Herbert John, B.A., 1893
Reynolds, Alfred John, B.A., 1907
Reynolds, Arthur J. P. G., B.A., 1890
Reynolds, Reginald Blair, M.A.
Rhodes, Alice O. R., B.A., 1906
Rich, George E., M.A.
Richards, Samuel J., M.B., Ch.M.
Richardson, Charles Noel Derwent, B.A., 1893, LL.B.

Richardson, Rosilyn James Dalyell, B.E., 1903

Richardson, Henry A., B.A., 1867
Riekard, Jonathan Charles, B.A., 1907, LL. B.
Rigg, Thomas, M.A.
Riley, Edward Blomfield Gerald, B.D.S., 1907

Riley, Ernest Arthur, M.A.
Riley, Patrick William, B.A.. 1894
Riley, Spencer George Birkenhead, B.A., M.B., Ch.M

Riley, Valentine B., B.A., 1872
Rishworth, Henry Shiers, B.A., 1908
Kitehie, Harold John, M. B., Ch.M.
Roberts, Alfred John Spencer Cecil, M.B., Ch.M.

Roberts, James W., B.E.. 1892
Roberts, Thomas Taylor, M.A.
Robert: on, James William, B.E., 1904
Robertson, Joseph, M.A.
Robertion, Lionel Joseph, M.B., 1903
Robinson, Charles H. P., B.A., 1893
Robinson, George Frederick Greenwell, B.A., 1890
Robinson, Grace Fairley, M.B., Ch.M. (Mrs. Boelke)
Robinson, Katherine, B.A., 1907
Rebinson, Mabel Fuller, B.A., 1890 (Mrs: Windeyer)
Robinson, Mabel Hawthome, B.A., 1907
Robjohns, Leonard, B.A., 1894

Robson, Win. Elliott Veitch, B.A., 1889
Roe, James Martin, M.B., 1900
Rofe, John F., M.A.
Rofe, Ruth Irene, B.A., 1904
Roger, Robert, B.A., 1876
Roger, Rubert, M.B., Ch.M.
Rogers, Francis Cecil, M.B., Ch.M.
Rogers, Francis Edward, M.A., LL.B. \(\dagger\)
Rogers, Leslie Halse, M.B., Ch:M.
Kogers, Percival Halse, B.A., 1905
Rogers, William Arnott Halse, LL.B., 1903
Rolin, Tom, M.A.
Rooney, William J., B.A., 1892
Rorke. Sydney Norman, M.B., Ch.M.
Ruseby, Clara, B.A , 1908
Roseby, Edmund Rupert, M.B. Ch.M.
Roseby, Gertrude Amy, B.A., 1895
Roseby, Minnie, B.A., 1895
Roseby, Sarah Mabel, B.A , 1900
Ruseby, Thomas, M.A., LL.D.
Roseby. Thomas Ernest, M.A.
Ross, Chisholm, M.D.
Ross, Colin John, B.E., 1891 §
Ross, William John Clunies, B.Sc., 1.891 §

Rossiter, Florence Ammie, B.A., 1898 (Mrs. D. M. Cooper)
Roth-Schmidt, Frederica, B.A., 1897
Roughton, Gladys M., B.A., 1906
Rourke, Ernest John, B.A., 1893
Rourke, George Augustus, B.A., 1893
Rourke, Lillie Agnes, B.A., 1890
Rowan, Thomas, M.D.
Rowland, Norman de Home, B.A., 1890̈, LL.B.
Rowlands, Harold Berkeley, B.E., 1897
Royle, John MacD., B.E.
Rudder, Sydney Llewellyn, B.A., 1891
Russell, Charles Townsend, B.A., 1891
Russell, Edward, M.A.
Russell, Ethel Albinia, B.A., 1893
Russell, Francis Alfred Alison, M.A.

Russell, Harry A., B.A., 1887
Russell, Jane Foss, M.A. (Mrs. Barff)
Russell, John F. S., M.A.
Russell, Lillian, B.A., 1891 (Mrs. G. C. King

Russell, Williarn. M.A,
Russell, Willian Patrick, B.A., 1907
Rutherford, Constance Muriel, B.A., 1903, M.B.
Rutherford, Florence Marion, B.A., 1900 (Mrs. Fric Fitzhardinge)
Rutherford, George Washington, B.A., 1900, LL.B.

Rutledge, Edward H., M.B , Ch.M.
Rutledge, William F., B.A., 1871
Ryan, Gerald, B.A., 1893
Ryan, James William, B.A., 1901
Rygate, Charles D. H., B.A., 1883
Rygate, Henry B., B.A., 1885
Rygate, Philip William, M.A., B.E.
Saddington, Arthur G.. B.A., 1887
Sadler, Alexander, B.A., \(1!00\)
Sadler, Henry Frank, M.B., 1903
Sandes, Francis Percival, M.D., Ch.M.
Sandford. Blanche Vavasour, B.A., 1902
Sands, John Marshall, B.A., 1889
Supsford, Clinton Pelham, M.B., Ch.M.
Saunders, Arthur, B.A., 1893
Saunders, Eva Florence, B.A., 1897
Saunders, Florence Louisa, B.A., 1903, M.B.
Saunders, Gcorge Joseph, B.E., 1904
Savage, Vincent Wellesley, M.B., Ch. M:
Savage, Edward Joseph, M.B., Ch.M.
Sawkins, Dansie Thomas, M.A.
Sawkins, Frederick John T., M.B., Ch.M.
Sawyer, Basil, B.E., 1896
'Saxby, George Campbell, B.A., 1891
Saywell, Thomas Stanley, B.A., 1900 LL.B.
Scarvell, Edric Sydney, B.A., 1893, LL. B.
Schenk, Theodor W. G. H., M.B., Ch.M.

Schleicher, Bernard Michael John, M A.
Schlink, Herbert Henry. M.B..Ch.M. Schmidt, Egmont T. C., M.B., Ch.M.
Schofield, James A., A.R.S.M., F.C.S. 9

Schrader, Cyril Petersen. M.A.
Scot-Skirving, Robert, M.B., 1888\{ \(\uparrow\) Scott, Edward Henry, M.B., Ch.M.
Scott, Walter, M.A. \({ }^{\text {T }}\)
Scoular, David, B.A., 1895, LL.B.
Scroder, Aphra Frances, B. A., 1907
Scrutton, Caroline Maude, B.A., 1900
Seaward, William T., B.A., 1592
Seldon, Florence Mary, B.A., 1894 (Mrs. Stobo)
Seldon, William, M.B., 1902
Sellors, Richard P., B.A., 1890
Sendall, Alfred E., B.A., 1888
Serisier, Lavigne Emest, B.A., 1891
Shand, Alexander B., B.A., 1884
Sharp, Granville Gilbert, B.Sc.. M.B.. Ch. M.
Sharp, Lewis H., B.Sc., 1906, B.E.
Sharp, W. Hey, M.A. \(\oint\)
Sharp, Walter Alexander Ramsay, B.A., М.B., Ch.M.

Sharpe, Ernest, B.A., 1865
Sharpe, George Frederick, M.A.
Sharpe, William George, B.A., 1597
Shaw, Frederick C. S., M.B., Ch.M.
Shaw, Henry Giles, M.A.
Shaw, John A. K., B.A., 1885
Sheehy, William, M.B., Ch.M.
Sheldon, Herbert, M.B., Ch.M.
Sheldon, Stratford, B.Sc., M.B., Ch.M.
Shellshear, Cyril, M.B., Ch.M.
Shellshear, Joseph Lexden, M.B., Ch.M.
Shellshear, Wilton, B.E., 1904
Sheppard, Arthur Murray, M.B., Ch.M.
Sheppard, Edmund Haslewood, B.A., 188\%
Sheridan, Francis B., B.A., 1874
Sheridan, John Patrick, B.A., 1890
Sheridan, Muriel Eulalie Bingham. B.A., 1900

Sherlock, John Bolt, B.A., 1895
Sherring, Beatrice Alice, B.Sc., 1908
Sheweroft, Alfred John, B.A., 1893
Shirley, Jonn, B.Sc., 1887
Shirlow, Sydney S., M.B., Ch.M.
Shiriow, William J.. M.B., Ch.M.
Short, Frederick, B.A.. 190 S
Shorter, Herbert Leopold Ashton, M.B., 1899

Shortland. Percy D., M.A.
Simpson, Hon. Mr. Justice Archibald Henry, M.A. \(\dagger \dagger\)
Simpson, Edward S., B.E., 1895
Simpson, Francis G. M., M.B., Ch.M.
Sinclair, Colin Archibald, B.A., 1899, LL.B.
Sinclair, George Wade, B.A., 1908
Skerritt, Arthur P.. B.E., 1906
Skillen, Elizabeth, B.A., 1904
Skuthorpe, Garnett Stenyn, B.E., 1905
Skillman, Jessie, B.A., 1907
Slack, Ella Mary; B.A., 1905
Slack, Ida Leslie, M.A.
Slade. Oswald Carey, B A.. 1903, LL.B.
Slee, Richard Thilthorpe. B.E., 1901
Sloman, C. Wansbrough. B.A., 1893
Sloman, John, B.A., 1872
Sly, George J., M.A., LL.D.
Sly, Joseph D., M.A., LLL.D.
Sly, Richard Meares, M.A., LL.D.
Smail, Herbert Stewart Inglis, B.E., 1897
Smail, James Alex. Moore, B.E., 1905
Smairl, Joseph Henry, M.A.
Small, Ethel Ella, Mi.A.
Smee, Reginald, B. A., 1901
Smith, Archibald, B.A., 1889
Smith, Charles Percy, B.A., 1908
Smith, Donald \({ }^{\text {¢ }}\)
Smith, Emma Isabel, B.A., 1893
Smith, Grafton Elliott, M.D., Ch.M.
Smith, Herbert Saumarez, M. A. \(\oint\)
Smith, Hilton Charles Garnett, M.B.. Ch.M.
Smith, Kenneth, M.B., Ch.M.
Smith, Nellie May, B.A.. 1906
Smith, Norruan, B.A., 1894

Smith, Percy Edward Walton, M.B.; Ch. M.
Smith, Robert, M.A.
Sinith, Stewart Arthur, M.B., Ch.M. \(9 \pi\)
Smith, Stanley Clifton, B.A.: 1906
Smith, William S., M.A.
Smith, William, B.A., 1902
Smith, William Michael, M.A.
Smithers, Ada Margery, B.A., 1907
Smyth, Frank L. S., M.A.
Smyth, John Sauds, M.B., Ch.M
Snow, Stuart Bishop, B.A., 1908
Somerville, George B., B.A., 1882
Spark, Einest J. T., M.B., Ch.M.
Sparling, Lilian Grace, B.A., 1906
Spence, John, B. A., 1904, LL.B.
Spier, Reginald Vinceut, B.E.. 1902
Spronle, Margaret, B.A., 1903
Sproule, Robert, B.A., 1907
Squire, Hilton Bell, B.A., 1893
Stack, John, M.A.
Stacy, Fitzroy Somerset, B.A., 1897, LL.B.
Stacy, Harold Skipton, M.D., Ch.M.
Stacy, Valentine Osborne, M.B., 1908
Stanley, Fredk. Veruon. B.E., 1902
Stanley, George P., M.B., Ch.M.
Stanton-Cook, Millicent Ivy, B.A., 1907
Starkey, John N., B.D.S., 1906
Starkey, William Augustus, B.D.S., 1907
Steel, Robert, M.A.
Steele; Andrew Buchanan, M.B., 1907
Stephen, Edgar Horatio Milner, M.B., Ch.M.

Stephen, Edward Milner, B.A., 1891
Stephen, Henry Montagu, B.A., 1900, LL.B.
Stephen, James Farish, B.E., 1905
Stephen, John Wu. Farish, B.A., 1897
Stephens, Charles T., B.E., 1892
Stephens, Frederick Glover Neason, M.B., Ch.M.

Stephenson, Anita Leila, B.A., 1901
Stephenson, John Hunter, M.A.
Stevens, Wm. Woodburn, M.B., Ch.M.

Stevenson, William Henry Webster, M.A.

Stewart, Alexander Hay, B.E., 1902
Stewart, Charles, M.D.
Stewart, Colin Percival, M.B., Ch.M.
Stewart, Donald Grant, B.A., 1896
Stewart, Jas. Douglas, B.V.Sc.M.R.C.V.S. \({ }^{\top}\)

Stewart, James Robert, B.A,, 1903.
Stewart, William Pentleton, B.A., 1907
Stiles, Bernard Tarlton, M.B.. Ch.M.
Stirling, E. C., M.D. \(\ddagger\)
Stook well, Leslie G., B.D.S., 1906
Stokes, Edward S., M.B., Ch.M.
Stokes, Frank Oliver, M.B., 1907
Stoney, Edmund Heighton, B.A., 1898
Stonham, John, M.A.
Stonham, Kathleen, B.A., 1895 (Mrs. Willis)
Storey, John Colvin, M.B., Ch.M.
Stoyles, Herbert George, M. A.
Street, Charles James, M.A.
Street, Philip Whistler, B.A., 1883.
Strickland, Tom Percival, B.E., 1897
Stuart, T. P. Anderson, M.D. \(\oint\), LL.D. \(\dagger\) 『
Stuckey, Francis Seavington, M.B., Ch.M.
Studds, Harold Augustus, B.A., 1900
Studdy, Albert J., B.A., 1888
Studdy, Annie Avice Matilda, B.A., 1891
Studdy, William B., M.B., Ch.M.
Suckling, Frank Martin, M.B.,Ch.M.
Sulman, John, F.R.I.B.A.II
Sullivan, Denis Joseph, B.A., 1899
Sullivan, Henry, B.A., 1872
Sullivan, James, B.A., 1894
Sullivan, James, B.A., 1867
Sullivan, Reg., B.A., 1892, LL.B.
Sutherland, Constance A., M.A.
Sutherland, Elmina L., B.A., 1891
Sutherland, Peter, B.A., 1890
Sutton, Mabel Harriet, B.A.. 1904
Swanwick, Kenneth ffoulkes, B.A., 1896, LL. B.
Sweet, Geoffrey Bruton, M.B., 1893
Swynny, William Frank, B.A., 1899

Symonds, Bertha Violet, B.A., 1897 (Mrs. Knight.)
Symouds, Daisy, B.A., 1893
Tait, Leslie Gordon, M.B.. 1910 9
Talbot, Ethel, M.B., Ch.M.
Tange, Charles L., B.A., 1880
Tange, Frank Septimus, M.B , Ch.M.
Tarleton, John Willington, M.B., 1902
Tarplee, William F., B.A., 1884
Tarrant, Thomas Ambrose, B.A., 1907
Taylor, Charles, M.D.
Taylor, Charles James, M.B., Ch.M.
Taylor, Elizabeth Ironside, M.A. (Mrs. Bowden)
Taylor, Hugh W., M.A.
Taylor, James Wilson, M.A. \(\oint\)
Taylor, John M., M.A., LL.B.
Taylor, Sarah, B.A., 1893
Taylor, Thomas Griffith, B.Sc., 1904, B.E.
Taylor, Thomas Manning. B.A., 1901
Tebbutt, Arthur Hamilton, B.A., 1905
Teece, Ashley Howard, B.A., 1907
Teece, Richard, F.I.A., F.F.A. \(\dagger\)
Teece, Richard Clire, M.A., LL.B.
Teece, Roy Noel, M.A.. LL.B.
Telfer, James Burnet, M.A.
Terrey, Hedley, M.B., Ch.M:
Terry, Frank, B.A. 1906
Thallon, James B., B.A., 1876
Thomas, Darid, B.E., 1902
Thomas, George Bowen, M.B., Ch.M.
Thomas, Richard Weld, B.A., 1893
Thompson, Alexander, B.A., 1895
Thompson, Harold Lindsay, B.E., 1908
Thompson, I. Florence, M.A.
Thompson, James A., M.A.
Thompson, Joseph, M.A., LL.B.
Thompson, Robert Alfred, B.A., 1891
Thompson, Sydney A., B.A., 1887
Thompsen, William Mann, M.A., B.E.

Thomson, Alec., B.A., 1891, LL.B.
Thomson, Jack Mowbray, M.B., Cb.M.

Thomson, Jean Graeme, M.B., Ch. M.
Thorburn, James Thomas, B.A., 1886
Thorne, George, B.A., 1865
Thornton, Septimus, B.A., 1896
Throsby, Herbert Zouch, M.B., 1898
Tidswell, Frank, M.B., Ch.M.
Tietkins, Emi'y Mary, B.A., 1907
Tighe, William, B.A., 1892, LL.B.
Tivey, John Proctor, B.A., 1902, B.Sc., B.E.

Todd, Frederick Angustus, B.A., 1901, Ph.D. \({ }^{\text {TT }}\)
Todd, R. H., B A., M.D , Ch.B. \({ }^{\text {T }}\)
Tole, Joseph, B. A., 1869, LL.B.
Tom. Wesley, B.A., 1860
Tomkinson, William, B.A., I908
Tomlinson, George Leigh, B.A., M.B., Ch.M.

Toose, Stanley Vere, B.A., 1908
Townley, Percy Langford, B.A:, M.B., Ch.M.

Townshend, Samuel Edward, B.A., 1905, LL.B.
Tozer. Seymour Darvall, B.A., IS99, LL.B.
Tracey, Frederick, M.A.
Trebeck, Tom Beal, M.A.
Tremlett, Frank C. G., B.A., 1906
Trindall, Richard B., B.A., M.B., Ch.M.
Try, Johu Cowley, B.E., 1902
Tudor-Jones, Evan, M.B., Ch.M. -
Turner, Annie Elizabeth, B.A:, 1899
Turner, Emily May, M.A. (Mrs. Corkhill)
Turner, Basil W., A.R.S.M. \({ }^{\text {T }}\)
Twynam, Henry, B.E., 1896
Ure, Edith, M.B., Ch.M.
Ure, Sarah Louisa, M.B., Ch.M.
Uther, Allan Hanmill, B.A., 1891, LL.B.
Uther, Jennie Bertha, B.A., 1894
Uther. Mary Handfield, M. A. (Mrs. Hill)
Utz, Harold Stuart, B.A , 1908
Vallack, Arthur Styles, M.B., Ch.M.
Vane, H. Dunstan, F.S.I.A.TI
Varley, Charles Grant, LL.B., 1902§
Veech, Michael, M.B., Ch.M.

Veech, Louis Stanislaus, B.A., 1890, LIL.B.
Verco, Sydney Manton, M.B., Ch.M.
Verco, Clement Armour, M.B., Ch.M.
Verge, Arthur, M.B., Ch.M.
Verge, Cuthbert Arnold, M.B , Ch.M.
Verge, John, B.A., 1899, B.E.
Vernon, Geoffrey Hampden, M.B., Ch. M.
Vernon, Murray Menzies, M.B., Ch.M.
Vicars, James, M.E.
Vickers, Leslie, B.A., \(1!08\)
Vickers, Wilfred, M.B., Ch.M.
Vickery, Ebenezer Frank; B.A., 1901, LIL.B.
Vivers, George Arthur, M.B., Ch.M.
Vonwiller, Oscar Ulric, B.Sc., 1902 q
Waddell, Annie, B.A., 189:) (Mrs. Thomas)
Waddell, George Washington, M.A., LL.D. 9
Waddy, Ernest Frederick. B. A., 1907
Waddy, Richard Granville, M.B., Ch.M.
Waddy, Percival Richard, B.A., 1891, LL.B.
Waddy, Percival Stacy, M.A.§
Wade, Robert Blakeway, MI.D., Ch.M. \({ }^{-1}\)
Wade, Charles Gregory, B A., \(1^{0} 0 \overline{0} \dot{\rho}\)
Wade, Robert Thompson, B. A., 1905
Waine, Victor J., B.E., 1900
Waldron, Thomas W. King, B.A., 1893, LL. B.
Walker, Arthur D.. B.A., 1906
Walker, Clifton C. P., B.A., 1906
Walker, Hugh, B.E., 1903
Walker, James Ernest, B.A., 1894, LL.B.
Walker, John Stuart Dight, B.E., 1907
Walker, Samuel Herbert, B.A., 1894
Walker, William A., B.A., 1888
Walker-Smith, Hugh Bell, M.B., 1907
Walkom, Arthur B.. B.Sc. \(\Phi\)
Wallace, Donald, M.A., M.B., Ch.M.
Wallace, F. E., B.A., 1859, LL.B.
Wallach, Bernard, B.E., 1897

Wallach, Henriette, B.A., 1907
Walsh, John James, B.A., 1899
Walsh, William M. J., M.A.
Walton, George Henry Montague, B.A., 1899, LL.B.

Walton, John Francis, M.B.. 190 :
Walton, William Bain, M.B., Ch.M.
Ward, Bertha Raymond. B A., 1907
Ward, Leonard K., B.A., 1900, B. E .

Ward, Ruby Estelle. B.A., 1897
Ward, Thomas W. C., B.A., 1884, B.E.

Wardrop, Gabriel, B.A., 1893
Wardrop, Maggie Robertson, B.A., 1903
Waring, Herbert R., B.A., \(1!06\), LL.B.
Wark, Florence Helen, M.A.
Warren, Ernest William, B.E., 1897, B.A., LL.B.

Warren, Williaru Edward, M.D. \({ }^{\text {j }}\)
Warren, William Henry, M.I..C.E.It
Wassell, Joseph Leathom, M.B., Ch.M.
Waterhonse, Eben Gowrie, B.A., 1903
Waterhouse, Gustavus Athol. B.Sc., 1894, B.E.
Waterhouse, John, M. A.
Watkius, Huthert Lance, B.A , \(1900^{7}\)
Watkins, Tohn Leo, M.A.
Watson, H. F.. B.A., 1903. LL.B.
Watson, James Fred-rick, M.B., Ch.M.
Watson, Lindsay G. H , B.A., 1907
Wats u, Maria Eleanor, MA.
Watson, William Georgr, M.A.
Watson, Robert, S., B.A., 1887
Watt, Andrew Robert Jimes, B.A., 1893, LL.B.
Watt, Charles Prosper, B.A., 1893
Watt, John Alexander, M.A., B.Sc.
Watt, Robert Dickie, M. A. B.Sc. \({ }^{\pi}\)
Watt, Thomas Evans, B.A, 1906, LL B.
Watt., Ethel Lucy, B A.. 1908
Watts, Percy Richard, R.A., 1904 . LL.B.
Waugh, Keith Cameron. B.E., 1908

Waugh, Richard Andrew Phipps, M.B., 1903

Waugh, Robert, M.A.
Wearne, Amy Isabel, B.A., 1893
Wearne, Minnie F., M.A.
Wearne, Richard Arthur, B.A., 1895
Weatherburn, Charles Ernest, M.A., B.Sc.

Webb. Bernard L., B.A., 1906
Webb, James Eli, B.A.. 1908
Webb, Sydney Douglas, B.E., 1905
Weedon, Cyril James, M.B. Ch.M.
Weigall, Albert Bythesea, M.A.
Weigall, A. Raymond, B.E., 1894
Weigall, Harold Walter, B.A., 1895
Weigall, Henry Stewart, B.E., 1903
Wellisch, Edward Montague. M.A.
Welch, John Basil St. Vincent, M.B., Ch.M.
Welch, Kenyon St. Vincent, M.B., Ch.M.
Welsh, David Arthur, M.A., B.Sc., M.D. \({ }^{1}\)

Wentworth, Fitzwilliam, M.A.
West, Edith Annie, B.A., 1900
West, Francis William. M.B., Ch.M.
Weston, Percy Leonard, B.Sc., 1901 B.E.

Wheeler, Arthur Russell, B. A., 1904. LLL. B.
Wheeler, Harold Charles Fearon, B.A., 1902

Wherrett. Ernest Albert, M.B., Ch. M.
White, Charles Alfred, B.A., 1895
White, Charles Josiah, B. Si.., 1907, B.A.

White, Norman Frederick, B.E., 1894
White, Wilfred James. M B., 1907
White, W. Moore, LL.D. \(\dot{\text {. }}\)
Whiteman, Reginald John Nelson, M.B., Ch. M.

Whiteman, Woodleigh D., B.E., 1906
Whitfeld, Eleanor Madeline, B.A., 1895 (Mrs. Wood)
Whitfeld, HubertE., B.A., 1897, B.E. Whitfeld, Lewis, M.A.

Whiting, Joseph, B.A., 1895
Whitney, George C.. M.A.
Whyte, Henry William, B.A., 1908:
Wilkins, Thomas, B.E., 1911 II
Wilkinson, Frederick B., M.A.
Wilkinson, Henry L., B.A., 1880
Wilkinson, Ida Beatrice, B.A., 1903. (Mrs. Donelley)
Wilkinson, W. Camac, B.A., 1878
Williams, A. Lukyn, M.A. \({ }^{\text {¢ }}\)
Williams, Alfred James, B.A., 1898:
Williams, James L., B.A., 1892
Williams, Johu Alfred, B. A., 1894
Williams, Leslie Ballesat, B.A., 1899, B.E.

Williams, William, B.A., 1891
Williams, William, B.A., 1895
Williams, Wm Henry, B.A., 1894
Williamson, Percy Leyden, B.A., 1899
Willis. Carlyle Gordon. B.A.. 1907
Willis, Charles Savill, M.B., Ch.M.
Willis, Charles St. Leger, M.B., 1906
Willis, Robert Spier, M.A.
Wilshire, Hector, M.A.
Wilson, David, M.A., LL.B.
Wilson. Mary Dunstan, M.A. (formerly Ella Wilson)
Wilson, Frederick James, B.A., 1893.
Wilson. George Harry, B.A., 1901, LL.B.
Wilson, Gwendolene Lilian, B.A.,. 1900
Wilson, John Bowie, B.E., 1897
Wilson, James T., M.B., Ch.M., F.R.S. \({ }^{\text {I }}\)

Wilson, Richard Cunliffe, BSc., 1901. B.E.

Wilson, Roger, B.A., 1877
Wilson, Thos. George, M.D., Ch.M.
Wilton, Edward Nowill. B.A., 1900
Windeyer, John Cadell, M.D., Ch.M.
Windeyer, Richard, B.A., 1891
Windeyer, William Archibald, B.A., 1893
Winton, Louis Joseph, B.E.. 1901
Wise, Bernhard R., B.A., 1855 §
Withers, Oswald Edgar Bruce, M.B., 1907

\author{
Withycombe, Einest John, .B.A., 1899
}

Wolstenholme, Harry, B.A., 1890
Wood, Ebenezer C., M.A., B.Sc., B.E.

Wood, Fredk. Ernest, B.A., 1890
Wood, Frederick William, B.A., 1894
Wood, George Arnold, M.A.t
Wood, Henry. B.E., 1903
Wood, James Patrick, B.E., 1895
Wood, Harrie Dalrymple, B.A., 1893, LL. B.
Woodburn, Joseph William, B.E., 1903
Woodcock, Lancelot Richard, B.E., 1905
Woodd, Henry A., B.A., 1887
Woodhouse, William John, M.A. 9 I
Woodlands, Mabol Rose, B.A., 1908
Woodthorpe, Robert A., M.A.
Woodward, Frederick P., B.A., 1892
Woolcock, John L., B.A., 1883
Woolnough, George, M.A.
Woolnough, Robert Edmund, M.B., Ch.M.

Woolnough, Walter George, D.Sc. \({ }^{\text {TI }}\)
Wootton, Eruest, B.A., 1892
Woore, John Morris Simeon, B.E., 1896
Worrall, Ralph, M.D. \(\$\)
Wright, Gilbert 9
Wright, Stewart, B.A., 1882
Wyatt, Arthur H., M.A.
Wylie, Mary Wilhelmina, M.B., Ch.M.
Wyudham, Elinor Margaret, B.A., 190S
Yarnold, Alfred Henry, M.A.
Yarnold, Isabel May, B. A., 1899
Yarrington, Clive T. L., M.A.
Yarrington, William H. H., M.A., LL.B.
Yeates, Ainslie Arthur, M.A.
Yeomans, Allan, M.A.
Young, Edgar Harold, M.B., Ch.M.
Young, Hilda May, B.A., 1907
Young, James, B.A., 1900, LL.B. Zlotkowski, Frederick Sobieski Wladimir, M.B., Ch.M.

\section*{GRADUATES.}

\section*{MASTERS OF ARTS.}

Anderson, Catherine, 1901
Anderson, Francis, 1890 §
Anderson, Henry C. L., 1878
Backhouse, Alfred P., 1873
Barber, Richard, 1889
Barbour, Groorge Pitty, 1889
Barff, Heury E., 1882
Barlee, Frederick Rudolph, 1884
Br:lex, Harrie Norman Clayton, 1910
Burnes, Pearl Ella, 1905
Barraclough, Francis Egerton, 1909
Burton, Edmund, 1870
Binns, William Johnstone, 1902
Blam :r, Charles. 1908
Blumer, George Alfied, 1897
Board, Peter, 1891
Bowden, John E., 1863
Bowmaker, Ruth, 1895
Bowman, Andrew, 1564
Bowman, Edward, 1864
Bowinau, Myril Macdougall, 1910
Brennan, Christopher J., 1897
Breman, Francis P., 1882
Brennan, Sarah O., 1891
Broughton, Alfred, 1870
Brown, George Edward, 1900
Bucknel, D'Aucy H., 1886
Campbell, Edward, 1884
Campbell, Gerald R., 1885
Campbell, Joseph, 188:
Cape, Alfred John, 1867
Carruthers, Joseph H., 1878
Castleman, Arthur, 1906
Chalmers, Stephen Trummond, 1899
Chambers, George Alexander, 1904
Chandler, Harry, l909
Chapman, Benjamin Burgoyne, 1910
Chelmsford, His Excellency Lord, 1910 §
Cocks, Nicholas John, 1892
Coghlan, Charles A., 1879
Cohen, John J., 1881
Cole, Percival Richard, 1905
Commolly. John, 1908
Cooper, Pope A., 1874
Cordingley. Grace Marion, 1903
Cormack, Alexander J.. 1886

Cowlishaw, William Patten, 1862
Cramp, Karl Reginald. 1906
Crawford, Thomas Simpson, 19 ) 4
Cribb, Estelle Muriel Bridson, 1901
Cribb, John George, 1593
Grocker, Herbert D., 1886
Cullen, William Portus, 1882
Curtis, William C., 1859
Cusbert, Allan William, 1910
Curtis, William John, 1903
Dalton, Gerald T. A.. 1882
Dart, Georqe, 1911
Davies, Edith Mary, 1911
Davies, Edith Warlow, 1901
Dawson, Arthur F., 1577
Dawnon, Jaınes, 1903§
Deane, Henry, 1893\}
Deane, Wallace, 1909
Deane, William Smith, 1884
Delohery, Comelius, 1538
Deunis, Jumes, 1897
Dillon, John T., 1876
Docker, Eimest B., 1865
Dunovan. John J., 1859
Doust, Edith Lucy, 1898
Dimlop, Mabel Laura Lange, 1909.
Dunstan, Ephwam, 1870
Edmonds, Wialter, 1879
Edwards, John, 1908
Edwards, J. Ross. 1884
Edwards, Edwd. Samuel, 1898
Elduidge, Ada Maitland, 1903
Ellis, Mary, 1904
Fairfax, James Oswald, 1910 s
Faithfull, George E., 1869
Faithfull, William P., 1868
Fisher, Dommelly, 1875
Fitzgerald, Robert M., 1859
Fitzhardinge, Grantiey H., 1869
Fitzhardinge, Julie Grantley, 1908 :
Fitzhardinge, Maude Yeomaris, 1901
lrletcher, Frank E., 1883
Fletoher, Joseph J., 1876
Fletcher, Michael Scott, 1902
Flint, Charles Alfred, 1884
Flower, Emily Monica, 1911
Flymn, John. 1879

Flymm, Joseph A., 1881
Fosbery, Eustace E., 1881
Francis, Henry R., l870
Fry. Florence Mildred, 1905
Fuller, George W., 1882
Fullerton, Lottie 1905
Garland, James R., 1862
Garland, Johis, 1907§
Garnsey, Arthnur Henry, 1896
Garran, Robert Randolph, 1899
Garrick, Joseph H., 187 l
George, John, 1910
Gibbes, Alfred George, 1875
Giles, John Porter H., 1908
Gill, Alfred Chalmers, 1899
Gillam, Dora Alice, 1903
Gordon, Emily Isabel, 1902
Gowing, Ellis Norman, 1909
Gray, Arthur St. J., 1887 ,
Griffith, Alfred John, 1896
Guiffith, Samuel W., 1S70
Gourlay, Mary Elizabeth Florence, 1910
Miall, William Hessell, 1890
Halloran (riéc Guérin), Bella, 1892§
Hammond, A. de Lisle, 1884
Healy, Patrick J., 1877
Henry, Adit, 1908
Heury, Emily Ida, 1908
Hill, George Arthur, 1899
Hill, Thomas, 1878
Hills, Henry H., 1880
Hodgson, Evelyn G., 1881 §
Hoge, James E., 1890§
Holme. Ernest Rudolph. 1909
Holt, Wilfred John, 1902
Hudson, William, 1902
Hunter, John, lS69
Hurst, George, 1882
Jceton, Edward Arthur, 1870
Jackson, Henry Latimer, 1886§
Jackson, Robert, 1880
James, Willian Edwin, 1903
Jensen, Klio, 1!105
Johnston, Alexander W., 1876
Juhnston, Thomas Harvey, \(190{ }^{7}\)
Jones, Griffith E. R., 1877
Jones, Cortis Harry Frederick, 1902
Jones, Rees R., 18:2
Kay, Robert, 1876

Kellett, Frederick, 1895
Kemp, Richard E., 1873
Kennedy, Philip, 1903
Kent, Frederick D., 1874
Kent, Hary C., 1875
King, Cecil J., 1887
King, Copland, 1887 c
King, Frederick H., 1876
King, Walter Uther S., 1884
Klein, Jame: Augustus, 1909
Knight, Arthur, 1409
Lance, Elisabeth Ad^, 1900
Lander, Williain H., 1882
Lang, John Gavin D., 1884
Lasker, Samuel, 1903
Lee, Edward, 1559
Lee, Thomas Nelson, 1907
Lee, Willian, 1878
Legge, J. Gordon, 1887
Liddell, Andrew I., 1875
Lingen, John Taylur, \(1881 \oint\)
Lion, Rosine, 1911
Little, Vivian Agincourt Spence, 1907
Lomer, Caroline, 1891
Louis, Philip Herbert, 1904
Lovell, Henry Tasman, 1908
Loxton, Edward James, 1888
Lukin, Gresley WT. H., 1891
Lusby, Sydney Gordon, 1908
Lynch, Joseph, 1910
MacDonald, Jas. M., 1879
McDowall, James, 1905
Mucdonald, Louisa, 1892 §
Mackaness, George, 1911
Mackie, Alexander, 1907 §
McLaren, Alexander Duncan, 1903.
Maclardy, J. D. St. Clair, 1883
MacMullen, Frank, 1901
MacPherson, John, 189.
Mallarkey, Ethe] May, 1906
Mann, William J. G., 1882
Manniug, Jas. Napoleon, 1885
Manning, William A., 1875
Manning, W. Habert, 1878
Marrack, John Rea Melville, 1884
Mayne, Wm. M., 1884
Meares, Matilda, 1892
Meillon, John, 1888
Merewether, Walton L., 1879
Merrington, Emnest Northeroft, 1903:

Metcalfe, George, 1868
Middleton, Robert John, 1911
Miles, Vivian James. 1910
Millard, Godfrey William, 1896
Mills. Elsie Ada Farland, 1903
Molster, Sarah, 1904
Monaghan, John Graham, 1902
Monningtor, Alfred, \(1888 \$\)
Montague, James H., 1877
Moore, Samuel, 1882
Morley, Muriel Violet, 1911
Mort, H. Wallace, 1881 §
Mote, Livingstone Charles, 1911
Mullins, John Lane, 1879
Murray, Charles E. R., 1865
Murray, Donald, 1892
Murray, Florence Jane, 1905
Nathan, Edward A., 1882
Noake, Arthur Raynor, 1909
Noble, Edmund Murray, 1890
Nolan, John Henry Monteith, 1903
Northoote, Right Hoo. Henry Stafford, Baron, 1906 §
O'Brien, Francis, 1568
O'Connor, Richard E., 1873
O'Mara, Michael, 1877
- Oliver, James, 1880

Parish, Walter G., 1866
Parsons, Joseph, 1904
Paterson, John, 1907
Paxton, Betha, 1903
Perkins, Alfred Edward, 1886
Perkins, Frederick Thomas, 1901
Perry, John, 1876
Philip. Frederick Charles, 1910
Pike, George H., 1891
Plomley, Francis James, 1876
Plume, Henry, 1889 §
Powell, Theodore, 1876
Pring, Robert D., 1875
Proctor, Lizzie, 1898
Purves, John M., 1873
Quaife, Frederick H., 1862
Ralston, Alexander G., 1883
Raves, Helen Alice, 1907
Rennie, Edward H., 1876
Reynolds, Reginald Blair, 1903
Rich, Greorge E., 1885
Rigg, Thomas, 1590
Riley, Ernest Arthur, 1905

Roberts, Thomas Taylur, 1910
Robertson, Joseph, 1877
Robinson, Frederick Walter, 1911
Rofe, John F., 1885
Rogers, Francis E., 1863
Rolin, Tom, 1885
Roseby, Thomas, 1871
Roseby, Thomas Ennest, 1901
Russell, Edward, 1830
Russell, Frank A. A., 1894
Russell, Jane Foss, 1889
Russell, Johm Frazer S., 1896
Rassell, William, 1882
Rygate, Philip William, 1886
Sawhins, Dansie Thomas, 1902
Schleicher, Bernard Michael John, 1911
Schrader, Cyril Peterson, 1911
Sharp, William Hey, 1881§
Sharpe, George Frederick, 1908
Shaw, Henry Giles, 1894
Shortland, Percy Douglas, 1909
Simpson, Archd. H., 18905
Slack, Ida Leslie, 1901
Sly, George J., 1874
Sly, Joseph D., 1872
Sly, Richard M., 1876
Smairl, Joseph Henry, 1896
Sinall, Ethel Ella, 1902
Smith, Herbert Saumarez, 1908 \(\rho\)
Smith, William Michael, 1904
Smith, William S., 1905
Smith, Robert, 1878
Smyth, Frank L. S., 1879
Stack, John, 1860
Steel, Robert, 1879
Stephensoii, John Hunter, 1892
Sterenson, William Henry Webster, 1910
Stonham, John, 1996
Stoyles, Herbert George, 1904
Street, Charles James, 1909
Sutherlaud, Constance Adelaide, 1889
Taylor, Elizabeth Irouside, 1899
Taylor, Hugh W., 1884
Taylor, James Wilsou, 1887\$
Taylor, John Michael, 1891
Teece, Richard Clive, 1901
Teece, Roy Noel, 1904
Telfer, James Barnet, 1903

Thompson, I. Florence, 1887
Thompson, James A., 1882
Thompson, Joseph, 1875
Thompson, William M., 1875
Tracey, Frederick, 1885
Trebeck, Tom Beal, 1884
Turner, Emily May, 1902
Uther, Mary Handfield, 1904
Waddell, George Washington, 1900
Waddy, Percival Stacy, \(1908 \S\)
Wallace, Donald, 1899
Walsh, William M. J., 1889
Wark, Florence Helen, 1905
Waterhouse, John, 1876
Watkins, John L., 1876
Watson, Maria Eleanor, 1909
Watson, William George, 1873
Watt, John Alexander, 1892
Waugh, Robert, 1879
Wearne, Minnie, 1892
Weatherburn, Charles Ernest, 1906

Weigall, Albert B., 1869
Wellisch, Edward Montague, 1906.
Wentworth, Fitzwilliam, 1876
Whitfeld, Lewis, 1882
Whitney, George Charles, 1908
Wilkinson, Frederick Bushby, 1884:
Williams, A. Lakyn, 1881§
Willis, Robert Spier, 1862
Wilshire, Hector, 1904
Wilson, David, 1903
Wilson, Mary Dunstan (formerly: Ella Wilson). 1895
Wood, Ebenezer Clarence, 1886
Woodthorpe, Robert A., 1890
Woolnough, George, 1873
Wyatt, Arthur H., 1869
Yarnold, Alfred Henry, 1903
Yarrington, Clive Tennyson L., 1895:
Yarrington, William Hemry H., 1880.
Yeates, Ainslie Arthur, 1900
Yeomans, Allan, 1871

BACHELORS OF ARTS.

Abbott, George H., 1887
Abbott, Henry Palmer, 1893
Abbott, Thomas K., 1888
Abigail, Eliza L., 1593
Abigail, Ernest Robert, 1896
Abrams, Reginald Oriou, 1908
Alexander, Hilda Mary, 1908
Alexander, Mand Marion, 1902
Allan, Edith Jeamie, 1895
Allen, Arthur W., 1883 §
Allen, Carleton Kemp, 1910
Allen, Frederick T, 1909
Allen, George Boyce, 1877
Allen, Leslie Holdsworth, 1904
Allen, Reginald C., 1879
Allen, William V., 1911
Amess, William, 1883
Anos, Jeanie Cairns, 1890
Amos, Nellie Margaret, 1902
Anderson, Hugh Miller, 1890
Anderson, Lily Winifred Marshall, 1909
Anderson, Mand Edith, 1896
Anderson, Robert, 1906
Anderson, Virginia, 1904
Anderson, William Addison S., 1892
Andrews, Ernest Clayton, 1894
Anstey, George Webb. 1893
d'Apice, Antoine William M., 1899.
Archdall, Henry Karow, 1908
Armitage, Charles Horsfull, 1902
Armstrong, Alexander Milner, 1908.
Armstrong, Clare Anuie Constance,., 1905
Armstrong, Helen Daphne Harvey, 1902
Armstrong, Ina Beatrice Harvey, 190 h.
Armstrong, Isabella, 1895
Armstrong, Laurens F. M., 1884
Armstrong, Margaret Jane, 1897
Armstrong, Millicent Sylvia, 1910
Armistrong, Netta Hohroyd, 1909
Armstrong, Tancred de C., 1891
Armstrong, William G., 1884
Arnold, Edwin Charles, 1896
Artlett, Ettie, 1858
Artlett, William Langridge, 1902:
Ash, Fortescue Leo, 1908
Askham, Albert Charles, 1905
Aspinall, Arthur Ashworth, 1889•
Atkins, William Leonard, 1893
Atterton. Beatrice Sophia, 1909
Auld, John Hay Goodlet, 1897
Austin, Alfred Herbert, 1903
Austin, Fauny May, 1905
Ayres, Charles. 1882

Back, John, 1911
Badman, Gladys Eunice, 1907
Bailey, Margaret Anne, 1900
Ballantine, Mabel Alice, 1910
Baret, Fienri Victor David, 1903
Barker, Henry Auriol, 1881 §
Barker, Thomas Charles, 1886
Bamet, Donald MeKay, 1890
Barrow, Isaac Manly, 1905
Barry, Duncan Robertson, 1905
Barry, Hugh de Barti, 1898
Barton, Joama, 1893
Barton, John a'Beckett D., 1896
Barton, Wilfred Alexander, 1903
Bathgate, Donald Gordon, 1903
Bavin, Gertrude Lillian, 1898
Bavin, Thos. Rainsford, 189.4
Baxendale, James, 19 IL
Baylis, Harold M., 1883
Beardmore, Adu, 1896
Beardsmore, Emily Mand, 1894
Beardsmore, Robert Henry, 1895
Beaumont, Amuie Holloway, 1898
Beckenham, John George, 1904
Beegling, Daniel, 1855
Beehag, Samuel Alfred, 1886
Beith, Janet Agnes Rouse, 1911
Bellhouse, Constance Annie, 1906
Bender, Edwin Cormack, 1909
Bennett, Sidwell, 1908
Bentley, Ernest Grafton, 1911
Berman, Frederick Thomas, 1911
Berne, Percy Witton, 1883
Berry, David Houston, 1908
Bertie, Charlotte Maud, 1896
Biddulph, Lindon Helton, 1910
Black, Reginald Anstin William, 1596
Blacket, A.rthur R., 1872
Blacket, Cuthbert, 1891
Blair, Ammie Scutt, 1909
Bland, Francis Armand, 1909
Blanksby, Harold Robertson, 19i0
Blanksby, Leslie Holmes, 1908
Blatchford, Torrington, 1894
Blaxland, Hemry Charles, 1897
Blight, Stanley Eindean, 1911
Bloomfield, Elsie I'Anson, 1897
Bloomfield, William John, 1896
Blumer. Reginald Charles, 1910
Bode, Arnold G. H., 1588
Bonamy, Nellie Mildred Blanche, 1899
Bolton, Barbara Marion, 1892

Bonney, Reginald Schofield, 1904
Booth, Irene Mildred, 1907
Booth, Mary, 1890
Bourne, Florence Ida, 1906
Bourke, Joseph Ormond Aloysius, \(190{ }^{\circ}\)
Bowden, Robert John, 1911
Bownaker, Jessie, 1901
Bowmaker, Theophilns Robert, 1896
Bowman, Alister S., 1878
Bowman, Arthur, 1880
Bowman, Emest M., 1880
Boxall, Nelson Leopold, 1896
Boyce, Francis Stewart, 1893
Brady, Vincent Johir Joseph, 1911
Breakwell. Ernest, 1911
Brearley, Edwin Andrew, 1904
Brennand, Henry John W., 1896
Brentnall, Nina Tillotson, 1903
Brereton, John Le Gay, 1894
Brierley, Alan Numan, 1910
Brierley, Nina Benson, 1907
Britten, Herbert Edward, 1888
Britton, Theodosia Ada, 1891
Broderick, Cecil Thomas Hawken, 1896
Brodie, Isabella Esther, 1895
Brodziak, Birdie Kate. 1908
Broinowski, Leopold T., 1897
Brook, Henry James Sidney, 1896
Broome, Edward, 1897
Brown, Alfred, 1866
Brown, Catherine Vernon, 1909
Brown, George Edward, 1904
Brown, James, 1907
Brown, Mary Elizabeth, 1885
Brown, Merton Carlyle, 1911
Brown, Millicent Amiel Macmillan, 1909
Brown, Sophia, 1594
Brown, William Richard, 1911
Brown, William Venion, 1894
Browne, William C., 1864
Browning, Robert Humphrey. 1908
Brownlie, Elizabeth Alice Dalziel, 1901
Brownlie, Eveline Agnes, 1902
Bruce, Amnie, 1901
Bruce, Grace Mitchell, 1901
Bruce, James Fawthrop, 1911
Bruce, Mary Jane, 1896
Bruce, Mary H., 1887

Buchanan, Charles Arthur, 1889
Buchanan, Charles Pitkenham, 1900
Buckland, Thomas, 1878
Buckley, Cora Ruby, 1911
Bulteau, Alfred Wilitim James, 1911
Bundock, Charlew, 1878
Bunting, Edith Annie, 1896
Burfitt, Mary Boyd, 1905
Burfitt, Walter F., 1894
Burges, Jimes Clement, 1909
Burnell, Frederick Spencer, 1908
Burns, Dorothy, 911
Bushnell, Pollie, 1896
Bussmann, Frederick, \(19{ }^{\circ} 0\)
Batler, Francis Joseph, 1882
Butler, Patrick James, 1900
Butler, Spencer Joseph St. C., 1893
Butler, Stanley William Beanchamp, 1900
Batler, Thomas, 1876
Byrne, James Kevin, 1894
Byrne, Lily Comyn, 1896
Byrne, William Edmund, 1892
Byth, George Leonard, 1911
Cadden, Leslie George Barton, 1899
Cahill, Amnie Lucille, 1894
Cakebread, William Jowers, 1894
Callaylan, Stanislaus Kostha, 1905
Calow, Pand Framcis, 1910
Cameron, Archibald Peter, 1894
Cameron, William Thomas, 1904
Camphell, Alexander Petrie, 1904
Campbell, Allan, 1874
Campbell, Arthur Lang, 1909
Campbell, Charles Robert, 1893
Campbell, Florence Eva, 1907
Campbell, George Polding, 1885
Campbell, John Stuart, 1902
Campbell, Maggie, 1910
Canaway, Arthur P., 1894
Candlish, Robert Smith, 190t
Cane, Percy Frank, 1909
Cautrell, Sydney William, 1907
Cargill, John Syduey, 1889
Carlile-Thomas, Ella, 1900
Carlisle, William W., 1878
Carlos, Joseph, 1893§
Carey, Daisy, 1904
Caro, Hilda, 1896
Carroil, William John Smyth, 1904
Carruthers, Ada Mary, 1904

Carter, Albert George, 1909
Carrosso, Albert B., 1884
Casey, Michael Alphonsus, 1896
Castlehow. Stamlev, 1908
Castling, James Robert, 1896
Chapman, Alfred Ernest, 1893
Chi-holm, Alan Rowland, 1911
Chisholm, William, 1875
Chrismas. Charles Herbert. 1906
Chubb, Montague Charles Lyttelton, 1896
Clark, Francis George, 1900
Clark, Marjorie Dufaur, 1906
Clarke, Francis William, 1884
Clayton, Hector Juseph Richard, 1907
Clegg, William Carnegie, 1899
Clemens, Wi!liam Francis, 1911
Clines, Peter Joseph, 1896
Clipsham. Gertrude Mary, 1899
Closs, William John Leech, 1890
Clonston. Lavinia, 1907
Clubb, Wallace, 1896
Coen, Francis. 19116
Coffey, Francis Louis Verhalst, 1894
Cohen, Alroy Maitland, 1903
Cohen, Ceril Hope, 1910
Cohen, Finny, 1908
Cole, Arthur George, 1907
Cole. Louisa. 1898
Coleman, Ernest Albert, 1906
Collier, Frederick William Dean, 1901
Collings, Edith, 19:4
Collins, Clarence Richard, 1909
Gollins, Clifford Malua, 1906
Collins, Lillian, 1909
Combes, Jane Frances, 1895
Compton, Albert Zarenne, 1904
Conlon, William Aluysius, 1891
Cinnal, Norman, 1910
Connell, Marion Agnes, 1911
Connellan, John, 1892
Connor, Thomas John, 1895
Copland, Frank Fawcett, 1894
Cook, Millicent Ivy Stanton, 1907
Cook, Sydney Leicester, 1898
Conke, Clarence Hudson, 1892
Coombes, Archie James, 1905
Corbett, William Francis, 1883
Cosh, James, 1891
Cotton, Edith Madge, 1910

Cotton, Leo Arthur, 1906
Cousins, Arthur, 1911
Coutts, Margaret, 1903
Cowan, David, 1894
Cowie, Herbert, 1907
Cowlishaw, Winifred, 1903
Cox, Harold, 1889
Coyle, William Thomas, 1891
Craig, Alexander Donald, 1893
Craig, Charles, 1892
Crane. Charles, 1882
Crane, Clive Charles, 1908
Cranswick, George Harvard, 1904
Crawford, Stella Mand C., 1896
Creagh, Albert Jasper, 1889
Creagh, William John, 1892
Cripps, Esther Fischer, 1891
Crisford, Hilda Nelsie Moore, 1902
Croft, Edith, 1908
Crowley, Archibald, 1901
Cruise, Emily A., 1897
Cullinane, Johu Aloysius, 189;
Culpin, Daisy Ellen, 1907
Cumming, Jemine, 1896
Curlewis, Harold Burnham, 1897
Curlewis, Herbert Raine, 1890
Curnow, William Leslie, 1890
Curren, Ethel, 1905
Curry, John Nicholas, 1908
Daley, Frank H., 1889
Dalmas, Lizzie, 1890
Daiy, May Edíth, 1895
D'Arcy, George Symott, 1895
D'Arcy, John Symnott, 1890
D'Arcy-Irvine, Malcolm M., 1889 .
Dargin, Sydney, 1871
Dash, Ebenezer, 1894
David, Margaret Edgeworth, 1997
David, Mary Edgeworth, 1909
Davidson, Colin George Watt, 1899
Davies, Arthur Bernard, 1894
Davies, Ernest Stanley, 1907
Davies, Isobel. 1906
Davies, Wyndham John E., 1893
Davis, Agnes Marianne Harrison, 1896
Davis, Eleanor Theresa, 1910
Davis, Henry, 1890
Davison, Samuel Beaumont, 1896
Dawes. Madeleine Mabel, 1905

Day, Leo Septimus, 1899
Debenham, Frank, 1906
Debenham, Herbert, 1910
Debenham, Jessie, 1906
Deer, Margaret, 1909
Deffell, Alice H., 1909
De Lissa, Ethel Naida, 1898
De Lissa, Horace, 1896
Denham, Howard Kynaston, 1903:
Densley, Lucy Norma, 1908
De Putron, Vera Ruth, 1909
De Putrou, Violet Edith, 1908
Dettmann, Herbert Stanley, 1897
Dey, Charlotte Johnston, 1898
Dick, James Adam, 1886
Dick, Lily Jane, 1909
Dick, William Thomas, 1890
Dickinson, Edward Moseley, 1899-
Dimond, Margaret Cecilia, 1893
Dixon, Herbert Hutchinson, 1894
Dixson, Thomas Storie, 1910
Doak, Frank Wiseman, 1891
Docker, Gladys Mary Brougham, 1903:
Docker, Wilfred Brougham, 1905
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Douglass, Albert Horace, 1908
Dowe, Philip William, 1893
Dowling, Frauk Vincent, 1898
Doyle, John, 1891 §
Drummond, Shafto Landour, 1893:
Dudley, Joseph T., 1885
Duesbury, Yearl, 1908
Duff, Victor Clark, 1904
Dumolo, Nona, 1598
Duncan, Annie Burnett, 1909
Dunlop, John W., 189.5
Dunlop, Norman John, 1890
Dunne, Charles Daniel, 1873
Dummicliff, Mary Clifton, 1898
Durack, Joseph Jerry E., 1899
Dyce, Alexander Henry. 1911
Eames, Jane, 1895
Ebsworth, Samuel Wilfred, 1905.
Edmunds, John Michael,. 1892
Edmunds, May, 1897
Edwards, David Sutherland, 1894:
Edwards, Dorothea. 1908
Edwards, Edward Evan, 1898
Edwards, Henry George, 1908

Elder, Francis R., \(187 \overline{7}\)
Eldershaw, Philip Sheridan, 1909
Elkin, Jonathan Bevan, 1895
Elliott, Millicent V., 1895
Ellis, Ethel, 1594
Elphinstone, Elsie Mary, 1899
Elphinstone, James, 1851
Elphinstone, James Cooke, 1896
Emanuel, Nathaniel, 1867
England, Theophilus, \(1885^{\circ}\)
England, Thomus H., 1885
Curight, Walter John, 1893
Evans, Ada Eauily, 1895
Evans, Evan Gustave Severn, 1910
Evans, Joseph, 1909
Evans, Sara, 1904
Evans-Jones, Duvid Pentland, 1898
Ewing, Thomas. 1907
Fahey, Bartley Francis, 1901
Fallon. Cyril Joseph, 1908
Feez, Arthur H., 1880
Fell, Catherine Isabella, 1900
Ferguson, David G., 1886
Ferguson, Joha Alexander, 1902
Ferrier, Elizabeth Irene, 1909
Fetherston, Leslie, 1908
Fidler, Carleton B., 1888
Fidler, Ethelwyn, 1907
Fidler, Isabel Margaret, 1898
Fielding, Una Lucy, 1910
Finu, William George, 1895
Finuey, Charlotte, 1895
Finney, Joseph, 1894
Fisher, Arthur Donnelly W., 1904
Fitzgerald, Edmnnd, 1866
Fitzgerald, John Timothy, 1890
Fitzpatrick, Bernard Joseph, 1897
Fitzpatrick. Mabel, 1908
Fitzpatrick, Thomas John A:, 1893
Flannery, George Einest, 1892
Flashman, James Froude, 1892
Flavelle. Lucy Isabel, 1896
Fleming, Howard George T., 1894
Fletcher, Alice May, 1411
Fletcher, Archibald William, 1886
Fletcher, (eecil Edgar Bowen, 1911
Fletcher, Charles R., 1881
Fletcher, J. A., 1879
Fletcher, Katherine Elizabeth, 1895
Flynn, William J., 1884
Forde, James, 1891
Foreman, Henry James C., 1896

Forster, Charles E., 1876
Forsyth, Walter George, 1898
Fox, Harold S., 1885
Fox, Millicent, 1905
Francis, Irene Isabel, 1910
Fraser, Alexander Dale, 1910
Fraser, George, 1906
Fraser, Robert W., 1885
Fraser-Hill, Charlotte Eliz., 1902
Freeman, Ambrose William, 1896
French, Bernard Russell, 1907
Fry, Edith May, I904
Fry, Era Jane, 1907
Fuller, Bryan Cecil, 1910
Fullerton, Alex. Y, 1885
Futter, Victor Sedley, 1906
Gale, Charles Albert, 1906
Gallagher, James Lawrence, 1911
Galt, James, 1899
Garnsey, Edward R.. 1885
Geddes, Samuel, \(188{ }^{\circ}\)
Geer, Lilian, 1909
Gerber, Edward William T., 1892
Gibson, John, 1911
Gillies, James, 1889
Giltinan, Richard, 1911
Goddard, Ernest James, 1904
Goddard, Thomas Herbert, 1904
Gombert, France, 19is
Gordon, George Acheson, 1895
Gordon, Georye Acbeson, 1907
Gorman, John R., 1866
Graham, Emily Rebecca, 1903
Graham, Erances, 1905
Grahame, George Frier, 1909
Grant, William James, 1903
Grassick, Charles C., 1897
Green, Henry Mackenzie, 1902
Greenlees, Gavin, 1895
Greenway, Alfred R., 1870
Gregson, Edward Jesse, 1903
Gregson, William Hilder, 1898
Gretton, Fithel Mary. 1911
Greville, Minnie, 1907
Grey, Francis Temple, 1909
Grieve, Alexander Campbell, 1909
Grieve, Robert Heury, 1900
Griffith, James Shaw, 1895
Griffiths, Frederick Guy, 1898
Grogau, Albert Thomas Henry, 1897
Haddock, David Alfred, 1911

Hadley, Alfred Edward, 1893
Hadley, Charles William, 1899
Haigh, Victor, 1905
Hall, Alfred Ernest, 1893
Hall, Austin Vine, 1908
Hall, Dorothy Vine, 1906
Hall, Florence Sidney, 1907
Hiallett, Percy William, 1910
Halliday, George C., 1884
Halloran, Aubrey, 1892
Halloran, George Henry, 1896
Halloran, Ida, 1893
Hamilton. Juhn Simpson, 1907
Hammond, John Harold, 1896
Hansard, Edith Hirst, 1897
Hargraves, Edward John, 1859
Harker, Constance Elizabeth, 189.5
Harker, Mabel, 1907
Harley, Helen Lonise, 1903
Harriott, Charles Warre, 1889
Harriott, Georgina Jane, 1894
Harris, George, 1891
Harris, John, 1892
Harris, Lewis Alexander, 1905
Harris, Marian, 1898
Harris, Matthew, 1863
Harris, Reginald Arthur, 1902
Harves, Revina, 1895
Harvey, Robert Erederick, 1908
Harvey, William George, 1894
Harwood, Marian Fleming, 1898
Hatfield, William Frederick James 1910
H:awken, Roger William H., 1902
Hay, Mary Catherine, 1897
Hayes, David John, 1894
Hayes, James William, 1909
Hedberg, John Alfred, 1896
Heden, Ernest Charles, 1898
Helshim, Charles Howard, 1892
Henderson, George Cockburn, 1893
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Herlihy, Kathleen, 1910
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Higgins, Michael A., 1879

Higgins, Percy Reginald, 1893
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Hill, Evelyn M., 189.)
Hill, Janes Henry Fraser, 1900
Hill, John Goodwin Watson, 1901
Hilliard, Arthur Vaughan, 1890
Hilliard, William George, 1910
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Hinton, William Siamuel, 1902
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Hobbs, Edwin, 1897
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Holden, Florence Mackenzie, 1906
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Hope, Percival, 1903
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Hopman, John Henry, 1894
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Houison, Andrew, 1869
Houson, James, 1863
Houison, Stephen James, 1893
Howard, George Charles, 1909
Howard, John Bruton, 1895
Howard, Vera, 1907
Huggart, Alfred Theodore, 1892
Huggart; William Charles, 1893
Hughes, Charles Michael, 1886
Hughes, Hugh Jason, 1897
Hughes, James O'Donoghue A., 1894
Hughes, John, \(190{ }^{\circ}\)
Hughes, Michael O'Gorman, 1890
Hughes, Roger Forrest, 1911
Hungerford, Hedley Heber, 1886
Hunt, Digby St. Clair W., \({ }^{1895}\)
Hunt, Hugh Alton Stanislaus, 1897
Hunt, William Edwin, 1908
Hunter, Mary Alison Miles, 1895

Hunter, Thomas Brown, 1898
Hutchison, George Thomas, 1900
Hynes, Sarah, 1891
Jackson, Elizabeth, 1907
Jackson, Frederick Charles, 1897
Jacobs, James, 1894
James, Arthur Henry, 1893
James, Augustus G. F., 1988
James, George Alfred, 1893.
James, Thomas, 1896
Jamieson, George Wellington, 1893
Jamieson, Sydney, 1884
Jaques, Harold Vivian, 1904
Jarrett, Marjorie Kate, 1901
Jarvie, Bennie, 1898
Jenkins, Charles J., 1887
Jerrems, Richmond, 1911
Johnson, Martin Luther, 1893
Johnston, Ella Russell, 1895
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Johnston, Mary Eleanor, 1896
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Jones, Ernest Trevor, 188
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Jopling, Mildred Hilda, 1908
Jordan, Frederick Richard, 1904
Joseph, Horace B., 1887
Kaeppel, Andrée Adelaide. 1906
Kaeppel. Carl Henry, 1910
Kelynack, Arthur James, 1889
Kelynack, Harold Leslie, 1893
Kemmis, William Henry, 1890
Kemp, Laura Mildred King, 1902
Kemp, Richard Cyril King, 1903
Kendall, Frank Lonis, 1893
Kendall, Theodure M., 1876
Kenna, Patrick, 1882
Kennedy, Annie Angusta, 1893
Kennedy, Emily Clara, 1895
Kershaw, Joseph Cuthbert, 1894
Kidston, Robert Matthew, 1892
Kilgour, Alexander James; 1894
King, George C., 1887
King, Oro Romilda Z. Z., 1909
King, R. W., 1884
Kinross, Robert Menzies, 1889

Lafferty, T'erence Matthew, 1899
Laird, Henry Herman, 1907
Lamrock, Arthur Stanton, 1891
Lane, Frederick George, 1895
Lane, John Bayly, 1909
Lane, Laura Elizabeth, 1909
Langley, Isabella Edwardes, 1897
Langton, Frederick W., 1887
Larcombe, Ernest Richard, 1902
Larkins, Frank Joseph Moore, 1902
Latreille, Metu Gertrude Emily, 1905
Laurence, Raymond Lister 1908
Layton, John Edward, 1893
Leahy, John Patrick Daunt, 1890
Leaver, John, 1910
Lee, Amos John, 1909
Lee, Herbert Ernest, 1886
Leeson, Ida Emily, 1906
Leibins, G. Huga, 1888
Lennard, Wallace, 1911
Lennox, Edith, 1906
Lenthall, Ellen Melicent, 1893
de Lepervanche, Eustace Mézièrew, 1900
Leroy, Alfred Ernest, 1911
Leverrier, Frank, 1884
Levick, Alfred Manning, 1904
Levy, Daniel, 1893
Lewis, Enid de Save, 1910
Lewis, Errington, 1910
Lewis, Henry Clyde, 1893
Lichtscheindl, Rosa, 1894
Liggins, Jessie Hutsdon, 1899
Lindsay, William Carlow, 1963
Linsley, William H, 1880
Light, Hilda Vera, 1908
Lilley, Kathleen Mitford, 1911
Lillingston, Jessie Mary Grey, 1911
Little. Edy, 1909
Littlejohn, Edward S., 1887
Lloyd, Alan Stredwick, lyll
Lloyd, Thomas. 1878
Lodder, Nellie, 1908
Logan, George, 1903
Longnuir, George Fraser, 1909
Lord, Frank Colbran Turner, 1903
Loudon, Bertha Winifred, 1904
Lovell, Mildred, 1909
Loxton, Frederick Ewen, 1906
Lowick, Clara Warne, 1904
Lucas, Cecil Rodwell, 1911

Lumsdaine, Keith Broughton Frederick, 1910
Lydall, John French, 1907.
Lydon, James, 1894
Lynch, Michael D., 1870
Lyuch, William, 1863
Lyon, Pearson, 1890
Lyons, Ettie, 1904
Lyons, Richard Jenkins, 1906
MacCallum, Isabella Renton, 1904
MacCallum, Mungo Lorenz, 1906
Macansh, Andrew W.. 1885
McAdam, Francis Victor, 1911
McAulay, Mary, 1910
MacOarthy, Herbert T. S., 1860
MoCarthy, Arthur W., 1881
McCaulay, Joseph Francis, 1910
McCook, Adam Stuart, 1895
MoCook, William Henry, 1900
McCoy, William Taylor, 1894
McCredie, Jessie, 1911
McCredie, Gladys Ethel, 1911
McCulloch, Percy V., 1881
McDermott, Vesian B., 1887
MeDonagh, John M., 1879
MacDonald, Fannie Elizabeth, 1895
McDonald, Timothy George, 1903
MacDonald, William A., 1907
McDonnell, Randal C. W., 1888
McElhone, Frank Eric, 1908
McEvilly, Augustus, 1886
McEvilly, Ulric, 1883
McEvoy, Bertie Patrick, 1899
MacFarlane, Laurie Moreton, 1906
McGill, Alec. Douglas, 1908
McGlynn, Rebecca Mary, 1898
McGuin, Denis, 1884
McIlwraith, John, 1911
McIlwraith, William Daniel, 1911
MacInnes, Angus, 1901
MacInnes, Isabel Mary, 1904
McIntosh, Alexander Menzies, 1906
McIntosh, Harold, 1889
McIntyre, Aug. T., 1879
McIntyre, Duncan A., 1888
Mack, Sidney, 1890
McKay, Janes, 1896
Mackay, Iven Giffard, 1904
McKean, Alexander, 1908
McKean, Leslie John, 1907

Macken, James Victor, 1909
McKeown, Frederick Maurice, 1907
McKeŕu, Albert Stanley, 1911
McKibbin, Rachael, 1908
Mackie, Harold Douglas, 1910
McKie, Ernest Norman, 1906
Mackinnon, Malcolm, 1909
Mackintosh, Bertha Adeline Hildar. 1899
Mackness, Constance, 1902
Maclardy, Duncan St. Clair, 1911
Maclardy, Margaret McIntyre St. Clair, 1907
McLaren, John Gilbert, 1895
McLaughlin. Daniel, 1890
MacLaurin, Herry Normand, 1899
McLean, Archie Laug, 1906
Maclean, Chas. Hector Roderick, 1901.
McLean, Constance, 1910
MacLean, Frederick S., 1887
Maclellan, Annette, 1909
McLelland, Hugh, 1881
McLeod, James, 1879
MicLintock, William Colin Scott, 1900 .
McMahon, Gregan, 1896
MacManamey, James Frazer, 1881
MacManamey, John Frazer, 1889
MacManamey, William Frazer, 1892
MacMaster, Donald Æneas D., 1894
McMinu, Wilfred, 1909
McNeil, Andrew, 1889
MoNevin, Arthur Joseph, 1895
McNevin, Thomas Butler, 1893
Macphee, Isabel, 1909
MacPherson, Peter, 1889
McWilliam, Neville Gilbert, 1903
Macrossan, Hugh Denis, 1902
Maffey, Reginald William H., 1896.
Maguire, Michael Joseph, 1911
Maher, Charles H., 1577
Maher, Matthew E., IS67
Maher, Thomas Fraucis, 1893
Maiden, Acacia Dorothy, 1911
Main, John, 1892
Makin, William, 1902
Malcolm, Olive, 1908
Mallett, Thomas Richmond, 1911
Maloney, Andrew William, 1893
Maloney, John Thomas, 1899
Mann, James Elliott Furneanx, 1909

Mannell, Francis Worthington, 1892
Manning, Henry Edward, 1900
Manning, Hugh Eldred, 1905
Manning, Reginald K., 1887
Manning, William Ernest, 1892
Marchant, Arthur Dudley Bathgate, 1910
Markell, Horace Francis, 1905
Marks, Gladys Hope, 1908
Marks, Hyam, 1892
Marks, Percy J., 1887
Marks, Florence, 1893
Marks, Leah, 1893
Markwell, Gladys Emilie, 1911
Mart, Fannie Augusta, 1899
Marsh, Alison Mary, 1908
Martin, Laura Margaret, 1907
Martin, Lewis Ormsby, 1893
Martyn, Sydney Charles, 1889
Massey-Makinson, Arthur, 1903
Mate, William H., 1864
Mathews, Hamilton Bartlett, 1899
Mathison, Walter, 1880
Maughan, David, 1906§
Maxted, Henry Louis, 1902
Maxwell, Allen Victor, 1909
Maxwell, Henry Francis, 1890
Maxwell, William, 1904
Maynard, Ethel Margaret, 1894
Mayne, J. O'Neill, 1884
Maze, William Archibald A., 1892
Meagher, Louis Felix, 1889
Meares, Hercules, 1893
Meek, Herbert Arthur, 1903
Meek, Hubert Kingsley, 1910
Meillon, Joseph, IS63
Mell, Cecil Newton, 1894
Melville, Hector Pope, 1905
Merewether, Edward A. M., 1884
Merewether, Hugh H. M., 1894
Merewether, William D. M., 1895
Miles, James Albert, 1894
Millard, Alfved Charles, 1885
Miller, James W., 1596
Miller, Richard J., 1885
Mills, Archibald Joseph, 1907
Mills, Percy Harcourt, 1893
Minter, Clifford, 1907
Mitchell, Clarice, 1908
Mitchell, Ernest Meyer, 1896
Mitchell, Ethel Robertson, 1898
Moftitt, Herbert William, 1910

Moffitt, William Heath, 1909
Moloney, Thomas Patrick, 1885
Molster, Eliza, 1897
Monahan, William Willis. 1897
Monro, John Patterson, 1909
Montefiore, Hortense Heuriette, 1896
Montgomerie, John, 1889
Moody, Colin, 1910
Moore, Charles Henry, 1911
Moore, David C., 1883
Moore, Edith Elizabeth. 1910
Moore, Frank Joseph Sarsfield, 1883
Moore, Henry Edington, 1907
Moore, John, 1883
Moore, Verner, 1884
Moore, Walter Albert, 1894
Morgan, Frederick A., 1888
Morgan, Thomas H. D., 1892
Morley, Irene Madeline, 1904
Morrice, John, 1874
Morris, John James, 1895
Morris, Robert N., 1870
Morrish, Francis, 1882
Mote, Arnold Rudolph, 1902
Mott, Olive Lenore, 1905
Mottershead, Arthur, 1906
Moulton, James Egan, 1892
Moustaka, Orea Einma Hellas. 1897
Mowbray, Rupert Wallace, 1903
Moylan, William Patrick, 1906
Mugliston, Madeleine Lucy, 1904
Mulholland, John Joseph, 1899
Mulholland, William James, 1911
Mullens, Arthur Frank Macquarie, 1896
Murphy, Peter Lawrence, 1910
Murray, Charles O'Connor, 1904
Murray, Mercy M. H., 1897
Murray-Prior, Dorothea Katherine, 1904
Murray-Prior, Robert Sterling, 1905
Murray-Prior, Ruth Angela, 1906
Muscio, Bernard, 1910
Mussmann, Carl Ernst Gottlieb, 1897
Mutton, Isaiah, 1900
Myers, Darid M., 1866
Nelson, Duncan John, 1895
Nettleship, Edward, 1895
Newman, George Hine, 1887
Newman, Kelsey Illidge, 1894
Newsham, Alice Isabel, 1900

Newton, Henry, 1889
Newton, Roland George, 1906
Nicholls, Willian Hunt Ward, 1891
Nicholson, George Gibb, 1899
Nimmo, Willian Muir, 1907
Noad, Emma Alison, 1907
Noake, Reginald, 1577
Noake, Reginald Robert, 1904
Noake, Steplien Charles, 1906
Noakes, Mabel Alicia, 1896
Norman, Keith Dixou, 1910
Norris, Ma'el, 1909
North, Frederick, 1907
Northcott, Clarence Hunter, 190.5
Nowlan, Joseph Gabriel, 1910
Nutman, Robert Eruest, 1910
Oakes, Arthur Wellesley, 1911
Oakes. Florence Irabelle Mantell, 1905
O'Brien, Agues Gertrude, 1895
O'Brien, Kathleeu Moira, 1894
O'Brien, Lucius, 18 ë̃
O'Brien, Ormond, 1876
\(O^{\prime}\) 'Brien, Patrick Daniel, 1891
\(\mathrm{O}^{\prime}\) Conor, Broughton B., 1892
O'Donohue, John P. Markham, 189j
O'Keefe, John A., 1887
Olden. Percy Peurhyn, 1910
O'Neill, James Bernard, 1895
O'Reilly, Hubert de Burgh, 1892
O'Reilly, Walter Cresweil, 1903
Osbome, Henry Stuart, 1896
O'Sullivan, Daniel Roche, 1901
O'Sullivan, Eugene Francis, 1901
Oswald. Alfred William, 1903
Page, Arthur Emest, 1899
Page, Reqiuaid Arthur, 1910
Page, William Robert. 1910
Pain, Allan Franklyn, 1894
Pain, Arthur Wellesley, 1884 §
Paine, Bennington Haille, 1893
Paine, George Henry, 1894
Palmer, Allan Burnet, \(190{ }^{-}\)
Palmer, Charle: Herbert, 1909
Palmer, Selina Elizabeth, 1901
Paris, Jane Elizabeth, 1897
Parker, William Arthur, 1892
Parkinson. Kathleen Alvena, 1910
Parsons, Emily Waugh, 1899
Parsons, Florence Louey, 1906
Patison. Irene Mary. 1911

Paton, Arthur T., 18S7
Paton, Mary Paterson, 1902
Pattinson, Anthony Wa:ton, 1894
Paul, Alfred, 1905
Paxton, Grace, 1907
Pearce, William Thomas Louis Archdall, 1 yot
Peden, John Beverley, 1892
Penman, John Edwards Foggon, 1897
Penman, Leslie Ethelbert, 1906
Perkins, Joseph Abraham R., 1892
Perry, Irene Frances, 1909
Perské, Hermann, 1587
Petrie, Edith Maud, 1901
Phillips, Catherine Agues, 1896
Phillips, Frederick George, 1902
Phillips, Reginald Bede, 1902
Philp. Doris Maryaret, 1911
Pickburn, James Prosper, 1892
Piddington, Albert Bathurst, 1883
Pilcher, Charles E., 1865
Pilcher, George de Vial, 1859
Pilcher, Norman George Stafford, 1898
Pincombe, Torrington Hawke, 1890
Pitt, Arthur Gladstone Matcham, 1902
Poidevin, Lestie Oswald Sheridan, 1900
Pooiman, Arthur Edward, 1883
Pope, Roland James, 1885
Porter, George, \(1 \dot{9} 11\)
Porter, Wilfred Ernest Thomas, 1909
Portus, Gamet Vere, 1906
Potts, Cuthbert, 1898
Power, Percy Horne, 1901
Powell. James William Garnet, 1904
Prati, Walter Henry, 1901
Prentice, Arthur James, 1892
Price, Berjamin John, 1910
Pridham, Alice Margaret, 190 S
Priestley, Louie, 1911
Pritchard, Alice, 189.5
Pritchard, William C., 1888
Purcell, Philip Francis, 1898
Purcell, Winifred Dalton, 1895
Purnell, Frank. 1910
Purnell, Lily Clara, 1911
Purser, Cecil, 1855
Quaife, William F., 1879
Quigley. James. 1890

Quinn, John Joseph, 1905
Ralston, Alexauder Windeyer, 1907
Ramsay, Janes, 1885
Ramsay, Muriel Berry, 1909
Ranson. Joseph Robert, 1908
Raves, George Alfred, 1897
Redshaw, George, 189,
Read, Elizabet: Jane, 1599
Real. Edward Thymue. 1905
Redgrave, Harold Wilfrid, 1906
Redgrave, Leslie A'fred, 1905
Reid, Roberta Jane Sinclair. 1904
Reid, Violet Margaret, 1902
Reidy, John James Gralton, 1896
Remie, George Edward, 1852
Renwick, Herbert Juhn, 1893
Reynolds, Alfred John, 1907
Reynolds, Arthar J. P. G., 1890
Rhodes, Alıce Olivia Raybould, 1906
Rich, Charles Ellison, 1911
Richardsou, Charles Noel'D.. 1893
Richardson, Hemry A., 1867
Rickard. Jonathun Charles, 1907
Riley, Patrick William, 1894
Riley, Spencer George Birkenhead, 1897
Riley, Valentine B., 1872
Rishworth, Menry Shiers, 1908
Roberts. Mabel Beatrice, 1911
Roberts, William, 1909
Rubertion, Theodore Gordon, 1910
Rubinson, Charles H. P., 1893
Robinson, George Frederick G., 1890
Robinson, Katherine, \(190{ }^{-}\)
Robinson, Mabel Fuller, 1890
Robinson, Mabel Hawthorue, 1907
Robjohns, Leonard, 1894
Robson, William Elliott V., 1889
Rofe, Ruth Irene, 1904
Roger, Robert, 1876
Rogers, Percival Halse, 1905
Rooney, William James, 1892
Roseby, Clara, 1008
Roseby, Gertrude Amy, 1895
Roseby, Minnie, 1895
Roseby, Sarah Mabel, 1900
Rossiter, Florence Ammie, 1898
Roth-Schmidt, Frederica, 1897
Roughton. Gladys Muriel, \(190{ }^{\circ}\)
Rourke, Ernest John, 1893
Rourke, George Augustus, 1893

Rourke, Lillie Agnos, 1895
Rowland, Norman de Horne, 189.5
Roxburgh, Norman William, 1911
Rudder, Sydney Llewellyn, 1891
Russell, Charles Townseud, 1891
Russell, Ethel Albinia, 1893
Russell, Harry Ambrose, 1887
Russell, Lillian, 1891
Russell, Willam Patrick, 1907
Rutherford, Constauce Muriel, 1903.
Rutherford, Florence Marion, 1900
Rutherford, Geo. Washington, 1900
Rutledge, William F., 1871
Ryan, Gerald, 1893
Ryan, James William. 1901
Rygate, Charles D. H., 1883
Rygate, Henry Bertram, 1885
Saddington, Arthur G., 1887
Sadler, Alexander, 1900
Salting, George, 18.57
Sandford, Blanche Vavasour, 1902
Sands, John Marshall, 1889
Saunders, Arthur, \(189{ }^{3}\)
Saunders, Eva Florence, 1897
Saunders, Florence Louisa, 1903
Saunders, Pearl Muriel, 1911
Saxby, George Campbe!1, 1891
Saywell, Thomas Stanley, 1900
Scarvell, Edric Syduey, 1893
Schleicher, Dorothy Caroline Mary, 1911
Scott; Rupert Kingr. 1910
Scoular, David, 189.
Scroder, Aphra Frances, 1907
Scrutton, Caroline Maude, 1900
Seaward, William T., 1892
Seldon, Florence Mary, 1594
Sellors. Richard Pickering, 1890
Sendull, Alfred E., 1888
Serivier, Lavigne Ernest, 1891
Shand, Alexander B., 1884
Sharp, Percival John, 1911
Sharp, Walter Alex. Ramsay, 1897
Sharpe, Ernest, 1865
Sharpe, Willian George, 1897
Shaw, Johi A. K., 188.
Sheppard, Edmurd Haslewood, 1882
Sheridan, Francis B., 1874
Sheridan, John Patrick, 1890
Sheridan, Muriel Eulalie Bingham, 1900
Sherlock, John Bolt, 1895

Shewcroft, Alfred John, 1893
short, Frederick, 1908
.Shortland, Edith, 1909
Shortland, Leslie John, 1911
Simonds, Eugene Francis, 1910
Simpson, Edward Telford, 1911
Simpson, Robert Ian, 1911
Sinclair, Callander Wade, 1911
:Sinclair, Colin Archibald, 1899
Sinclair, George Wade, 1908
Skillen, Elizabeth, 1904
Skillman. Jessie, 1905
Slack, Ella Mary, 190.5
Slade, Oswald Carey, 1903
Sloman, Oharles Wansbrough, 1893
Sloman, John, 1872
Smee, Reginald, 1901
Smith, Allan Malcolm, 1910
Smith, Arohibald, 1889
Smith, Charles Percy, 1908
Smith, Eleanor Rose, 1910
:Smith, Enema Isabel, 1893
Smith, Nellie May, 1906
Smith, Norman, 1894
.Smith, Stanley Clifton, 1906
Smith, William, 1902
Smithers, Ada Margery, 1907
Snow, Stuart Bishop, 1908
.Solomon. Keneth Maurice Halgren, 1911
Somer ville, George B., 1882
Sparling, Lilian Grace, 1006
Spence, Jeanie Lockhart, 1910
Spence, John, 1904
Sproule, Robert, 1907
Sproule, Margaret, 1903
Squire, Hilton Bell, 1893
Stacy, Bertie Vandeleur, 1911
Stacy, Fitzroy Somerset, 1897
Steel, James Barnet Victor, 1911
Stephen, Edward Milner, 1891
Stephen, Henry Montagu, 1900
Stephen, John Newton, 1910
Stephen, John William Farish, 1897
Stephen, Montague Consett, 1909
StepLenson, Anita Leila, 1901
Stewart, Donald Grant, 1896
Stewart, Dorothea Leila, 1911
Stewart, James Robert, 1903
Stewart, William Kelvey, 1910
Stewart, William Pentleton, 1907

Stoney, Edmund Haighton, 1898
Stonham, Kathleen, 1895
Street, Kenneth Whistler, 1911
Street, Philip Whistler, 1883
Studds, Harold Augustus, 1900
Studdy, Albert John, 1885
Studdy, Annie A vice Matilda, 1891
Sullivan, Denis Joseph, 1899
Sullivan, Henry, 1872
Sullivan, James, 1867
Sullivan, James, 1894
Sullivan, Reginald, 1892
Sutherland, Elmina Louise, 1891
Sutherland, Peter, 1590
Sutton, Mabel Harriett, 1904
Swanwick, Kenneth ffoulkes, 1896
Swain, Edith Muriel M., 1909
Swynny, William Frank, 1899
Symonds, Bertha Violet, 1897
- Symonds, Daisy, 1893

Tait, Ernest Waldegrave, 1911
Tange, Charles L., 1880
Tarplee, William F., 1884
Tarrant, Thomas Ambrose, 1907
Taylor, Margaret Helen, 1909
Taylor, Robert Challis, 1909
Taylor, Sarah, 1893
Taylor, 'Thomas Manning, 1901
Teasdale, Charles Andrew, 1909
Teasdale, Frederick Vass, 1911
Tebbutt, Arthur Hamilton, 1905
Teece, Ashley Howard, 1907
Terry, Frank, 1906
Thallon, James B., 1876
Thom, James Campbell, 1910
Thomas, Richard Weld, 1893
Thompson, Alexander, 1895
Thornpson, Robert Alfred, 1891
Thompson, Sydney A., 1887
Thomson, Alec, 1891
Thomson, Edith Moginie, 1909
Thorburn, James Thomas, 1886
Thorme, George, 1865
Thornton, Septimus, 1896
Tietkens, Emily Mary, 1907
Tighe, William, 1892
Tivey, John Proctor, 1902
Todd, Frederick Augustus, 1901
Tole, Joseph, 186S
Tom, Wesley, 1860
Tomkinson, William, 1908

Tomlinson, George Leigh, 1905
Toose, Stanley Vere, 1908
Townley, Percy L., 1886
Townshend, Samuel Edward, 1905
Tozer, Seymour Darvall, 1899
Tremlett, Frank Cecil Glazebrook, 1906
Trindall, Richard B., 1885
Tugwell, Frederic Williann, 1910
Thuner, Annie Elizabeth, 1899
Uther, Allaı Hammill, 1891
Uther, Jennie Bertha, 1894
Utz, Harold Stewart, 1908
Veech, Louis Stanislaus, 1890
Verge, John, 1899
Vickers, Leslie, 1908
Vickery, Ebenezer Frank, 1901
Waddell, Annie, 1895
Waddy, Ernest Frederick, 1905
Waddy, Percival Richard, 1891
Wade, Charles Gregory, 1905§
Wade, Robert Thonupson, 1905
Waldron, Thomas W. King, 1893
Waley, Robert G. K., 1909
Walker, Arthur Dight, 1906
Walker, Clifton Claude Parton, 1906
Walker, Edward Bell, 1909
Walker, James Ernest, 1894
Walker, Samuel Herbert, 1894
Walker, William A., 1888
Wallace, Frank Ernest, 1889
Wallach. Henriette, 1907
Walsh, John James, 1899
Walton, Geo. Henry Montague, 1899
Ward, Bertha Raymond, 1907
Ward, Leonard Keith, 1900
Ward, Ruby Estelle, 1897
Ward, Thomas W. C., 1884
Wardrop, Gabriel, 1893
Wardrop, Maggie Robertson, 1903
Waring, Herbert Raymond 1906
Warren, Ernest William, 1898
Waterhouse, Eben Gowrie, 1903
Watkins, Hubert Lance, 1907
Watson, Erelyn Amnie, 1911
Watson, Herbert Frazer, 1903
Watson, Lindsay Geo. Herbert, 1907
Watson, Robert S., 1887
Watt, Andrew Robert James, 1893
Watt, Charles Prosper, 1893
Watt, Thomas Evans, 1906
Watts, Ethel Lucy, 1908

Watts, Percy Richard, 1904
Wearne, Amy Isabel, 1893
Wearne, Richard Arthur, 1895
Webb, Bernard Linden, 1906
Webb, James Eli, 1908
Weigall, Harold Walter, 1895
Wellisch, William Montague, 1903:
West, Edith Annie, 1900
West, William M., 1909
Weston, Claude Alfred, 1909
Wheaton, Ruby, 1910
Wheeler, Arthur Russell. 1904
Wheeler, Harold Chas. Fearon, 1902
White, Charles Alfred, 1895
White, Charles Josiah, 1908
Whitfeld, Eleanor Madeline, 1895
Whitfeld, Hubert Edwin, 1897
Whiting. Joseph, 189;
Whyte, Henry William, 1908
Widmer, Frederick Edward, 1911
Wilkinson, Henry L., 1880
Wilkinson, Ida Beatrice, 1903
Wilkinson, W. Camac, 1878
Williams, Alfred James, 1898
Williams, James Leslie, 1892
Williams, John Alfred, 1894
Williams, Leslie Ballesat, 1899
Williams, William, 1891
Williams, William, 1895
Williams, William Henry, 1894
Williamson, Percy Leyden, 1890
Willis, Carlyle Gordon, 190
Wilson, Frederick James, 1893
Wilson, George Harry, 1901
Wilson, Gwendolene Lilian, 1900
Wilson, Jessie Leila, 1910
Wilson, Roger, 1877
Wilton, Edward Nowill, 1900
Windeyer, Richard, 1891
Windeyer, William Archibald, 1893
Wise, Bernhard R., 1885§
Withers, Phyllis Livingston, 1910
Withycombe, Ernest John, 1899
Wolstenholme, Harry, 1890
Wood, Frederick Ernest, 1890
Wood, Frederick William, 1894
Wood, Harrie Dalrymple, 1893
Woodd, Henry A., 1887
Woodlands, Mabel Rose, 1908
Woodward, Frederick P., 1892
Woolcock, John L., 1883
Wootton, Ernest, 1892

Wright, Stewart, 1882
Wyudham, Elina Margaret, 1908
Yarnold, Isabel May, 1899

Yates, Malcolm Edwin, 1905
Young, Hilda May, 1907
Young, James, 1900

DOCTORS OF LAW.
H.M. the King, 1901 §

Coghlan, Charles A., \(188:\)
Cullen, William P., 1887
Donovan, John J., 1867
Green, Arthur V., 1887
Jefferis, James, 188 is
Manning, J. Napoleon, 1892
Marden, Johu, 1890

Morris, Robert Newton, 1886
Reseby, Thomas, 1873
Sly, George J., 1878
Sly, Joseph D., 1873
Sly, Richard M., 1877
Waddell, George Washington, 1903
White, W. Moore, 1852 \({ }^{\text {j }}\)

BACHELORS OF LAW.

Abigail, Ernest Robert, 1899
d’Apice, Antoine William M., 1904
Armstrong, Laurens F. M., 1890
Arnold, Austin Guerry de Lauret, 1903
Barraclough, Francis Egerton, 1899
Bathgate, Donald Gordon, 1906
Bavin, Thomas Rainsford, 1897
Baxter-Bruce, Arthur Chambers, 1909
Beckenham, John George, 1908
Bloomfield, William John, 1899
Bonney, Reginald Schofield, 1907
Boyce, Francis Stewart, 1896
Breckenridge, Charles Campbell Poole, 1906
Brierley, Frank Nunan, 1897
Broderick, Cecil Thomas Hawkes, 1902
Brown, George Edward, 1906
Browne, Joseph Alexander, 1904
Butler, Spencer Joseph St. Clair, 1896
Chapman, Alfred Ernest, 1903
Christie, George, 1911
Clark, Francis George, 1902
Clayton. Hector Joseph Richard, 1910
Clegg, William Cannegie, 1901
Clines, Peter Joseph, 1898
Coen, Francis, 1908
Coffey, Francis Louis Verhulst, 1896
Cohen, Alroy Maitlaud, 1905
Collins, Clifford Matua, 1910
Craig, Charles, 1900
Creagh, William John, 1897

Cullinane, John Aloysius, 1897
Curlewis, Herbert Raine; 1892
Curtis, William John, 1904
Davidson, Colin George Watt, 1901
Davies, Arthur Bernard, 1897
Davies, Wyndharn John E., 1895
Denham, Howard Kynaston, 1906
Dibbs, Leonard Burton, \(!410\)
Ebsworth, Samuel Wilfred, 190 S
Edmunds, Walter, 1881
Edwards, David Sutherland, 1899
Edwards, Henry George, 1911
Elphinstone, James Cuoke, 1898
Evans, Ada Emily, 1902
Evans-Jones, David Pentland, 1904
Fahey, Bartley Francis, 1:04
Ferguson, John Alexander, 1905
Fisher, Arthur Donnelly IV., 1907
Flannery, George Ernest, 1894
Forsyth, Walter George, 1900
French, Bernard Russell, 1911)
Gerber, Edward W. T., 1894
Gill, Alfred Chalmers, 1895
Green, Henry Mackenzie, 1905
Haigh, Victor, 1909
Halloran, Aubrey, 1894
Hammond, Johu Harold, 1898
Harris, George, 1893
Harris, Lewis Alexander, 1908
Henry, Hugh, 1907
Hertzberg, Marcus, 1908
Higgins, Percy Reginald, 1895
Hinton, William Samuel, 1904
Hodge, Sydney Trevillian, 1905

Holliday, Andrew, 1903
Hollingdale, Bernard Austin, 19118
Holme, John Barton, 189;
Hooke, Richard Watkins, 1911
Hughes, John, 1909
Jaques, Harold Vivian, 1906
Jones, Albert E., 1889 \({ }^{\circ}\)
Jordan, Frederick Richard, 1907
Kelynack, Arthur James, 1892
Kemp, Richard Cyril King, 1905
Kershaw, Joseph Cuthbert, 1896
Kilgour, Alexander James, 1904
Knox, Adrian, 1893§
Laird, Henry Herman, 1911
Lamond, Harold Lewis, 1911
Larkins, Frank Joseph Moore, 1906
Laurence. Raymond Lister, 1911
Legge, James Gordon, 1890
Lehane, Thomas Joseph; 1903
Levy, Daniel, 1895
Lindsay, William Carlow, 1905
Lowe, Matthew Henry, 1910
-Mack, Sidney, 1892
Macken, James Victor, 1911
McLaren, Alexander Duncan, 1903
McWilliam, Neville Gilbert, 1906
Manning, Henry Edward, 1902
Manning, Hugh Eldred, 1907
Markell, Horace Francis, 1911
Martin, Lewis Ormsby, 1895
MeKean, Leslie John, 1911
Meares, Hercules, 1894
Meillon, John, 1892
Merewether, Hugh Hamilton Mitchell, 1898
Merewether, William David Mitchell, 1898
Merrick, John, 1909
Mills, Percy Harcourt, 1897
Minter, Clifford, 1910
Mitchell, Ernest Meyer, 1900
Monahan, William Willis, 1900
Mnore, Henry Edington, 1909
Murray, Charles O'Connor, 1906
Nathan, Edward Alleyne, 1891
O'Brien, Patrick Daniel, 1897
\(0^{\prime}\) 'Conor, Broughton B., 1895
O'Donohne, John P. Markham, 1902
O'Reilly, Hubert de Burgh, 1894
Parker, William Arthur, 189 S
Peden, John Beverley, 1898

Pickburn, James Prosper, 1894
Pilcher, Norman George Stafford, 1901
Pitt, Arthur Gladstone M., 1904
Quick, John, 1881 §
Quinn, John Joseph, 1908
Ralston, Alexander Windeyer, 1909
Real, Edward Thynne, 1907
Richardson, C. Noel Derwent, 1900
Rickard, Jonathan Charles, 1911
Rogers, Francis E., 1867
Rogers, William Arnott Halse, 1903
Rowland, Norman de Horne, 1906
Rutherford, George Washington, 1902
Saywell, Thomas Stanley, 1902
Scarvell, Edric Sydney, 1896
Scoular, Darid, 1899
Sinclair, Colin Archibald, 1905
Slade, Oswald Carey, 1911
Spence, John, 1909
Stacy, Fitzroy Somerset, 1901
Stephen, Henry Montagu, 1903.
Sullivan, Reginald, 1900
Swanwick, Kenneth ffoulkes, 1905
Taylor, John Michael, 1893
Teece, Richard Clive, 1903
Teece, Roy Noel, 1906
Thompson, Edmund Harvie, 1909
Thompson, Joseph, 1869
Thomson, Alec, 1894
Tighe, William, 1894
Tole, Joseph, 1869
Townshend. Samuel Edward, 1909
Tozer, Seymour Darvall, 1901
Uther, Allan Hammill, 1893
Varley, Charles Grant, 1902§
Veech, Louis Stanislaus, 1893
Vickery, Ebenezer Frank. 1904
Waddy, Percival Richard, 1893
Waldron, Thomas W. King, 1895
Wallace, Frank Ernest, 1899
Walker, James Ernest, 1896
Walton, Geo. Henry Montague, 1902
Waring, Herbert Raymond, 1909
Warren, Ernest William, 1900
Watson, Herbert Frazer, 1905
Watt, Andrew K. J., 1894
Watt, Thomas Erans, 1908
Watta, Percy Richard, 1907
Williams, Keith, 1909

Wilson, David, 1906
Wilson, George Harry. 1904
Wheeler, Arthur Russell, 1908

Wood, Harrie Dalrymple, 1896
Yarrington, W. H. H., 1887
Young, James, 1902

DOGTORS OF MEDICINE.

Bennet, Francis Alexander, 1896§
Barret, James, 1873
Belgrave, T. B., 1882§
Blackburn, Charles Bickerton, 1903
Blair, John, 1877
Bremnand, H. John Wolferton, 1908
Chisholm, William, 1887\$
Cleland, John Burton, 1902
Corlette, Cyril Ernest, 1895
Davis, James Shedden, 1905
Flashman, James Fronde, 1897
Gillies, Sinclair, \(1905 \$\)
Griffiths, Frederick Guy, 1911
Hall, Edwin Cuthbert, 1904
Hipsley, Percy Leslie, 1907
Houison, James, 1870
Jenkins; Edward Johnstone, 1856§
Jones, Richard Tr., 1874
Knaggs, Samuel T., 1882§
Lloyd, Frederick, 1872
Lyden, Michael John, 1892§
MacCormick, Alexander, 1888 §

McDonnell, Æueas J., 1896
McMurray, Wabab, \(1892 \$\)
Magarey, Frank William Ashley, 1903
Maher, W. Odillo, 1834 §
Moore, George, 1872
Morton, Selby, 1877
Mullins, George Lane, \(1890 \$\)
Nash, John Brady, 1903§
Oram, Arthur Murray, 1882\$
O'Reilly; Walter William J., 1882§
Ross. Chisholin, 1886
Rowan, Thomas, 1882
Sandes, Francis Percival, 1903
Smith, Grafton Elliott, 1890
Stacy, Harold Skipton, 1901
Stewart, Charles, 1872
Stuart, T. P. Anderson, 1889§
Taylor, Charles, 1872
Wrade, Robert Blakeway, 1904
Warren, William Edward, 1882\%
Wilson. Thomas George, 1904
Worrall, Ralph, 1885§

BACHELORS OF MEDICINE.

Abbott, George Hemry, 1891
Adams, Francis Charles, 1904
Affleck, Ada C., 1898
Aiken, Percy Norman, 1903
Allen, Hugh George, 1908
Ambrose, Theodore, 1902
Anderson, Arthur, 1902
Anderson, Hugh Miller, 1902
Andrews, William, 1887§
Archdall, Mervyn, 1908
Armstrong, William G., 1888
Arnold, Aldous Campbell, 1909
Aspinall, Archibald John, 1906
Aspinall, Jessie Strahorn, 1906
Bancroft, Peter, 1888
Baret, Henri Victor D., 190 S
Barling, James Eric Vernon, 1900
Barnes, Edmund Horatio, 1897
Barron, George Moncrieff, 1908
Barrow, Isaac Manly, 1910
Barton, Alan Darvall, 1909
Barton, John à Beckett Darvall, 1901

Beatty, Harold Ramsay, 1909
Bell, George, 1906
Bell, Henry Charles Rikard, 1904
Benjafield, Virian, 1904
Bennetts, Harold Graves, 189;
Berge, Charles Gustav, 1910
Biffin, Harriett Eliza, 1898
Binney, Constance Clarice, 1906
Binney, Edward Harold, 189:3
Binns, William Johnstone, 1907
Blaney, Henry Patrick, 1903
Bligh, Erasmus A. R., 1905
Blue, Arehibald Irwin, 1901
Blumer, George Albert. 1910
Böhrsmann, Gustav Hall, 1898
Böhrsmann, Rudolph Hermann, 1894
Boelke, Paul, \(1893^{\circ}\)
Bond, Lionel Wilfred, 1904
Bottrell. Edwin Horace, 1906
Bourne, Eleanor Elizabeth, 1903
Bowker, Cedric Vietor, 1898
Brade, Gerald Francis, 1899

Bradley, Clement Henry Burton, 1907
Brearley, Edwin Andrew, 1908
Brierley, Frank Sheppard, 1909
Broadbent, Percy Lewis, 1902
Broinowski, Gracius Herbert, 1897
Brookes, George Arthur, :903
Brooks, William Seymour, 1909
Browne, Elsie Forrest, 1908
Browne, Claude Seccumbe, 1904
Buchanan, George Arthur, 1904
Buchanan, Joseph David, 1905
Bullock, Howard, 1908
Burfitt. Mary Boyd, 1909
Burfitt, Walter Fitzmaurice, 1900
Burge, Stephen Bruce, 1900
Burkitt, Edmund Henry, 1896
Busby, Hugh, 1900
Butler, Arthur Graham, 1908§
Cahill, Arthur Charles, 1907
Cahill, John Hampton, 1903
Cameron, Donald Allan, 1900
Campbell, John Stuart, 1907
Candlish, Robert Smith, 1908
Cargill, William Duthie, 1899
Carlile-Thomas, Julia, 1898
Challands, Frederick, 1892
Chapman, Herbert Owen, 1907
Cheuhall, William Thomas, 1897;
Child, Sophia Ruth, 1909
Chisholm, Edwin Claude, 1904
Clarke, Gother Robert Carlisle, 1902
Clarke, Philip Sylvester, 1903
Clayton, Harry John, 1910
Clifford, James Percy, 1906
Clipsham, William Brooks, 1910
Clouston, Thomas Bennett, 1905
Coen, Bernard Joseph, 1908
Coen, Joseph, 1905
Coghlan, Iza Frances Josephine; 1893
Collier, Frederick William Dean, 1908
Colvin, Arthur Edmund, 1908
Combes, Edgar William Anthony, 1902
Conlon, William Aloysius, 1896
Connolly, Thomas Patrick, 1904
Conolly, Henry Willans, 1909
Conroy, Lionel Bigoe Henzell, 1903
Cook, Sydney Leicester, 1908
Cooley, Percy Glover, 1898
Cope, Hubert Roger, 1898

Corbin, Albert George, 1900
Corfe, Anstruther John, 1903
Cosh, John Inglis Clark, 1897
Cotton, George Reginald Cope, 1908
Cowlishaw, Leslie, 1906
Cox, Frederick Henry, 1895
Cox, Harrie, 1900
Craig, Francis Brown, 1907
Craig, Robert Gordon, 1894
Crawley, Aubrey Joseph C., 1896
Croll, David Gifford, 1909
Crothers. Charles Alexander, 1909
Culpin, Ernest. 190.5
Dalyell. Elsie Jean, 1909
Dansey, St. John Warburton, 1903
D'Arcy, Constance Elizabeth, 1904
Davies, Reginald Laidlaw, 1901
Davidson, Leslie G., 1888
Davis, Neville John, 1910
Day, Edward James, 1906
Deakin, John Edward Ferdinand, 1907
Deck, George Henry Baring, 1896
Deck, John Northcote, 1900
Delohery, Henry Charles, 1899
Dey, Lindsay Alexander, 1909
Dey, Robert, 1898
Dick, Robert, 1892
Dickinson, Evelyin Elizabeth, 1908
Diethelm, Oscar Albert Anton, 1907
Dight, William Billingsley, 1902
Dixon, Graham Patrick, 1897
Docker. Emest Noel Brougham, 1909
Donovan, Harrie Caresfort Edmond. 1906
Doyle, William Oscar, 1906
Dunlop, Leslie Winliam, 1909
Dunn, Archibald Jamiesou, 1909
Dunlop, Norman John, 1896
Durack, William Joseph, 1900
Edwards, James George, 1907
Edye, Benjamin Thomas, 1910
Eichler, Wm. Otto Heldmuth, 1900
Ellis, Lawrence Edward, 1898
Elwell, Laurence Bedford, 1908
Elworthy, William Henty, 1903
Finglish, Robert Joseph, 1909
Ewing, Thomas, 1909
Fahy, James Francis, 1908
Fairfax, Edward Wilfred, 1899
Farrell, Robert Meredith, 1897 -

Ferguson, Eustace W., 1908
Finckh, Alfred Edmund, 1905
Finselbach, Friedrich William August, 1906
Fitzgerald, Maurice, 1910
Fitzhardinge, John Fortescue Grantley, 1909
Fitzpatrick, Edward Bede Lucien, 1903
Flashman, Charles Ernest, 1903
Flecker, Hugo, 1908
Flecker, Oscar Sydney, 1902
Fordyce, Henry St. Clair, 1895
Forster, Redmond Clavence Hall, 1901
Fox, Arthur Wesley, 1908
Fox, Edith Emily, 1910
Fox, Hedley Ebenezer, 1903
Foy, Leslie Harold, 1910
Fraser, Donald, 1909
Freshney, Reginald, 1892
Furber, Robert Iggulden, 1908
Garde, Henry Lee, 1901
Giblin, William Eric, 1908
Gibson, Dancan David, 1906
Gilchrist, James Joseph, 1907
Gillespie, Arthur Panl, 1907
Godsall, Robert Spencer, 1904
Goergs, Karl Randolph Wilhelm, 1905
Goldsmid, Joseph Albert, 1895
Golledge, Kenneth Alfred, 1709
Graham, David Harrinon, 1908
Graham, James, 1886\$
Graham, Mabel Jessie, 1900
Grant, William, 1905\$
Green, Terence Albert, 1893
Greenham, Eleanor Constance, 1901
Grey, William Charles, 1903
Griffiths, John Neville, 1905
Grigor, William Ernest, 1908
Gullett, Lucy Edith, 1900
Halcombe, Charles Digby, 1902
Hall, George Reginald Percy, 1895
Halliday, John Charles W., 1896
Hamilton-Browne, Elizabeth Isabel, 1909
Hammand, Kendall, 1907
Handcock, Charles Lancelot, 1894
Hansard, Norman William, 1907
Hardman, Robert. 1900

Harper, Margaret Hilda, 1906
Harris, Henry Joseph, 1908
Harris, John Solomon, 1906
Harris, Samuel Henry, 1906
Harris, Walter Eli, 1900
Harris, Lawrence Herschell Levi, 1896
Harris, William Henry, 1897
Harrison, Bede James Michael, 1910
Harrison, Edgar Selwyn, 1906
Hart, Basil Lloyd, 1900
Haynes, Arthur Richard, 1910
Heaslop, James William, 1908
Heggaton, Rupert Dufty, 1900
Henry, Arthur, 1889
Heydon, George Aloysius Makinnon, 1908
Higgins, Frederick Charles, 1897
Hill, Douglas Bayly, 1908
Hill, John Goodwin Watson, 1906
Hinder, Henry V. C., 1889
Hoets, John W. van Rees, 1908
Holland, John Joseph, 1905
Holmes, Harry Glennie, 1900
Holmes â Court, Alan Worsley 1910
Holt, Arthur Christian, 1901
Horton, William Henry, 1902
Huggart, Williann Charles, 1906
Hughes, James Charles, 1908
Hughes, Michael O'Gorman, 1895
Humphery, E'sca Morris, 1903
Humphries, Herbert Gordon, 1910
Hunt, Claude Leopold W., 1891
Hunter, William Allen, 1902
Jackson, John William, 1895
Johnston, Herbert Fuff, 1908
Johnston, Langloh Parker, 1906
Jones, Philip Sydney, 1900
Jones, Sydney Evan, 1910
Kater, Norman William, 1898
Kay, Stuart, 1905
Kendall, Herbert William, 1905
King, Aubrey Arthur, 1900
Kinross, Robert Menzies, 1894
Lancaster, Llewellyn Bentley, 1896
Langton, William Digan, 1903
Larkins, Nicholas Clement, 1909
Latham, Oliver, 1903
Lawes, Charles H. E., 1892
Leahy, John P. D.. 1892

Lee, Henry Herbert, 1901
Lees, Geoffrey John, 1900
Leslie, James Robert, 1905
Lethbridge, Harold Octavius, 1904
Lightoller, G. Henry Standish, 1906
Lindeman, Grant Brawhall, 1910
Lipscomb, Thomas Walter, 1898
Litchfield, William Frederick, 1893
Lister, Henry, 1892
Llewellyn, Rees Frank, 1902
Luddy, John Joseph, 1909
Lndowici, Edward, 1899
Luker, Donald, 1894
Lyons, Ettie, 1909
Macartney, George William, 1910
McClelland, Reginald Eustace, 1910
McClelland, Walter Cecil, 1896
MacCreadie, JohnLaing Martin, 1894
McCredie, Robert William, 1901
MacCulloch, Harrington Thomas Cuthbert, 1906
McDowall, St. Andrew William Logan, 1905
McDowall, Valentine, 1905
McEncroe. James Michael, 1905
McEvoy, John Joseph Stuart, 1900
Macfarlane, John Stuart, 1908
McIntosh, Alexander Menzies, 1910
Macintosh, Alexander Hay, 1901
Macintosh, Oyril Leslie Stewart, 1909
Macintosh, George Donald, 1909
McKay, William John S., 1891
McKelvey, John Lawrence, 1905
MacInnes, Angus, 1907
Mackenzie, Arthur Joseph, 1907
Mackenzie, Donald Stewart, 1909
Mackenzie, John, 1899
MoKillop, Archibald, 1906
McKillop, Lachlan M., 1908
Mackinnon, Roger Robert S., 1894
Maclean, Lillian Alexia, 1909
McLean, Archibald Lang, 1910
McLean, George, 1900
MacMaster, Donald Æneas Dunlop, 1899
McPhee, Vincent Joseph, 1908
MacPherson, John, 1898
Maffey, Reginald William H., 1900
Maher, Charles Weston, 1907
Maitland, Herbert L., 1892
Mansfield, Walter Charles, 1905

Markwell, Norman Walter, 1910
Mart, Gordon William Singer, 1901
Marsden, Ernest Ambrose, 1901
Marsh, Harold Seaward, 1903
Marsh, Harold Theodore, 1909
Martin, Walter Wallace, 1910
Mason, Thomas William, 1903
Matthews, Henry Delahunt, 1908
Matthews, Walter Frederick, 1909
Mawson, William, 1904
Menzies, Guy Dixon, 1896
Millard, Reginald Jeffey, 1891
Miller, Robert Christy, 1908
Mills, Arthur Edward, 1889
Mobbs, Athol Walter, 1909
Molesworth, Edmund Harold, 1906
Moran, Her bert Michael, 1907
Morton, Gavin, 1890
Morton, John, 1890
Moseley, Arthur Henry, 1906
Murray, George Lathrop, 1894
Muscio, Allan, 1902
Newton, Alice Sarah, 1898
Newnan, Ernest Ludlow, 1903
Newton, Wm. Thomas Joseph, 1900
Nolan, Herbert Russell, 1890
Norrie, George, 1910
Nowland, Horace Henry, 1910
Oakes, Arthur, 1881 §
O'Connor, Arthur Charles, 1896
O'Halloran. Charles Michael, 1908
O'Keefe, John James, 1898
O'Reilly, Susannah Hennessy, 1905
O'Reilly, Theophilus Linnell. 1906
Old, George Greensil, 1900
Olver, William Reath, 1900
Ormiston, Martha Isabel, 1907
Osborne, John King, 1903
Oxenham, Huinphrey Bede, 1908
Page, Earle Christmas Grafton, 1902
Pain, Ernest Maynard, 1897
Palmer, Charles Reginald, 1906
Palmer, Henry Wilfred, 1906
Park, Joseph, 1892
Parker, Leslie Richard, 1909
Parker, Reginald Arthur, 1907
Parker, Thomas Eric, 1911
Parkinson, Henry Hallam, 1909
Parnell, Ethel Caroline, 1909
Parry, Edrard Lloyd Davenport, 1909

Paton, James Wright, 1900
Patterson, Mervyn Stuart, 1908
Paul, Charles Norman, 1910
Paul, George Augustus, 1907
Paul, James Hogg, 1910§
Perkins, Alfred E., 1888
Perkins, Richard, 1904
Petherbridge, Walter Charles, 1909
Phillips, Arthur Bradridge, 1904
Pittman, Ernest Ellis, 1910
Plomley, Morris James, 1903
Poate, Hugh Raymond Guy, 1907
Pockley, Eric Osbaldiston, 1900
Pockley, Francis Guy Autill, 1910
Pockley, Frank Antill, 1888\$
Powell. James William Garnet, 1910
Power, John Wardell, 1905
Prevost, Richard Lewis de Teissier, 1909
Pridham, Harold Ernest. 1907
Priestley, Henry, 1909
Pritchard, Alice, 1906
Pulleine, Robert Henry, 1898
Purser, Cecil, 1890
Purves, Allan Melrose, 1909
Quaife, Cyril, 1909
Quaife, Walter Thoroid, 1906
Ramsden, Edward Maxwell. 1908
Read, William Henry, 1898
Rees, Walter Lleweilyn. 1902
Renwick, Charles Saunders, 1907
Richards, Samuel J., 1893
Kiley, Spencer George Birkenhead, 1906
Ritchie, Harold John, 1908
Roberts, Alfred John Spencer C., 1905
Robertson, Lionel Joseph, 1903
Robertson, Norman Keith, 1910
Robinson, Grace Fairley, 1893
Robison, Erskine Hugh, 1896
Roe, James Martin, 1900
Roger, Robert, 1909
Rogers, Francis Cecil, 1908
Rogers, Leslie Halse, 1908
Rorke, Sydney Norman, 1909
Roseby, Edmund Rupert, 1900
Rutherford, Constance Muriel, 1908
Rutledge, Edward Hamilton, 1908
Sadler, Henry Frank, 1903
Sapsford, Clinton Pelham, 1906

Savage, Edward Joseph, 1900
Savage, Vincent Wellesley, 1901
Sawkins, F'rederick John T., 1892.
Schenk, Theodor William George Henry, 1909
Schlink, Herbert Henry, 1907
Schmidt, Egmont Theodore Carl, 1909
Scot-Skirving, Robert, 1888§
Scott, Edward Heury, 1893
Sear, Herbert Roy, 1910
Seldort, William, 1902
Sharp, Granville Gilbert, 1904
Sharp, W. Alexander Ramsay, 1902
Shaw, Frederick C. S., 1892
Sheehy, William, 1906
Sheldon, Herbert, 1898
Sheldon, Stratford, 1896
Shellshear, Cyrij, 1905
Shellshear, Joseph Lexden, 190:
Shellshear, Walter Guy, 1910
Sheppard, Arthur Murray, 1890
Shirlow, Syduey Stewart, 1892
Shirlow, William John, 1892
Shorter, Herbert Leopold Ashton, 1899
Simpson, Francis George Macneill; 1905
Sinclair, Archibald Fietcher, 1909
Smith, Clara Rebecua. 1909
Smith, Clive Nigel, 1909
Smith, Gerald Keith, 1908
Sinith, Kenueth, 1908
Smith. Hiltou Charles G., 1908
Smith, Percy Edward Walton, 1905
Smith, Stewart Arthur, 1.903
Smyth, John Sunds, 1910
Spark, Ernest James T., 1890
Stacy, Valentine Osborne, 1908
Stanley, George Percival, 1891
Steele, Andrew Buchanan, 1907
Stephen, Edgar Horatio Milner, 1902
Stephens, Frederick Glover Neason, 1908
Stevens, William Woodburn, 1898
Stewart, Colin Percival, 1908
Stiles, Bernard Tarlton, 1906
Stokes, Edward Sutherland, 1891
Stokes, Frank Oliver, \(190{ }^{-}\)
Storey, John Colvin, 1909
Stuckey, Francis Sea vington, 1902

Studdy; William Bradridge, 1895
Suckling, Frank Martin, 1903
Sweet, Geoffrey Bruton, 1893
Tait, Leslie Gordon, 1910
Talbot, Ethet, 1908
Tange, Frauk Ŝeptimus, 1902
Tarleton, John Willington, 1902
Taylor, Charles James, 1900
Tebbutt, Arthur Hamiltou, 1908
Terrey, Hedley, 1897
Thomas, George Bowen, 1901
Thomson, Ewing George, 1910
Thomson, Jack Mowbray, 1903
Thomson, Jeau Graeme, 1906
Tidswell, Frank, 1892
Throsby, Herbert Zouch, 1898
'Tomlinson, George Leigh, 1908
Townley; Percy Langford. 1890
Trindall, Richard B., 1889
Tudor-Jones, Evan, 1902
Turuer, Trevor Armstrong, 1910
Ure, Edith, 1902
Ure, Sarah Louisa, 1905
Vallack, Arthur Styles, 1893
Veech, Michael, 1894
Veech, Michael Stąnislaus, 1909
Verco, Clement Armour, 1901
Verco, Sydney Manton, 1900
Verge, Arthur, 1905
Verge, Cuthbert Arnold, 1910
Vernon, Geoffrey Hampden, 1905
Vernon, Murray Menzies, 1904
Vickers, Wilfred, 1907

Vivers, George Arthur, 1904
Waddy, Richard Granville, 190s
Walker, Allan Seymour, 1910
Walker-Smith, Hugh Bell, 1907
Wallace, Donald, 1902
Walton, William Bain, 1898
Walton, John Francis, 1903
Ward, Hugh Kingsley, 1910
Wassell, Joseph Leathom, 1897
Watson, James Frederick, 1903
Waugh, Richard A. P.. 1903
Weedon, Cyril James, 1908
Weedon, Stephen Hertford, 1910
Welgh, John Basil St. Vincent, 1906
Welch, Kenyon St. Vincent, 1908
West, Francis William, 1900
Wherrett, Eriest Albert, 1906
White, Wilfrid James, 1907
Whiteman, Reginald John Nelson, 190.

Whiting, Keith Moore, 1909
Willis, Charles St. Leger, 1906
Willis, Charles Savill, 1899
Windeyer, John Cadell, 1899
Withers, Oscar Edgar Bruce, 1907
Woodburn, James John, 1909
Woolnough, Robert Edmund, 1903
Wooster, Frank Cowper, 1910
Wylie, Mary Wilhelmina, 1906
Young, Edgar Harold, 1905
Zlotkowski, Frederic Sobieski Wladimir, 1896

\section*{MASTERS OF SURGERy.}

Abbott, George Henry, 1891
Affleck, Ada C., 1898
Allen, Hugh George, 1909
Ambrose. Theodore, 1902
Anderson, Arthur, 1902
Anderson, Hugh Miller, 1902
Armstrong, Willium G., 1888
Arnold. Aldous Campbell, 1910
Aspinall, Archibald John, 1906
Aspinall, Jessie Strahorn, 1906
Bancroft, Peter, 1888
Barling, James Eric Vernon, 1901
Barnes, Edmund Horatio, 1897
Barron, George Moncrieff, 1909
Barton, Alan Darvall, 1910
Barton, John a'Beckett Darvall, 1901
Beatty, Harold Ramsay, 1910

Bell, George, 1910
Bell, Harry Charles Rikard, 1904
Benjafield. Vivian. 1904
Bennetts, Harold Graves, 1896
Berge, Charles Gustav, 1910
Biffin, Harriett Eliza, 1898
Binney, Edward Harold, 1893
Blackburn, Charles Bickerton, 1899
Bligh, Erasmus A. R., 1905
Blue, Archibald Irwin, 1901
Blumer, George Albert, 1910
Büelke, Paul, 1893
Böhrsmam, Gustav Hall, 1898
Böhrsmann, Rudolph Hermanı, 1894
Bond, Lionel Wilfred, 1904
Bottrell, Edwin Horace, 1908
Bourne, Eleanor Elizabeth, 1903

Brade, Gerald Francis, 1911
Bradley, Clement Heury Burton, 1907
Brearley, Edwin Andrew. 1908
Brennand, Henry John W., 1899
Brierley, Frank Sheppard, 1910
Broadbent, Percy Lewis, 1902
Browne, Claude Seccombe, 1904
Browne, Elsie Forrest, 1908
Buchanan, George Arthir, 1904
Buchanan, Joseph David, 1905
Bullock, Howard, 1909
Burfitt, Mary Boyd, 1910
Burfitt, Walter Fitzmaurice, 1900
Busby, Hugh, 1900
Cahill, Arthur Charles, 1909
Cameron, Donald Allan, 1901
Candlish, Roberi Smith, 1909
Cargill, William Duthie, 1899
Carlile-Thomas, Julia, 1898
Challands, Frederick, 1892
Chapman, Herbert Owen, 1907
Chisholm, Edwin Claude, 1904
Clarike, Gother Roberi Carlisle, 1902
Clarke, Philip Sylvester, 1903
Cleland, John Burton, 1900
Coghlan, Iza Frances Josephine, 1893
Colvin, Arthur Edmund, 1908
Combes, Edgar Wm. Anthony, 1902
Conlon, William Aloysius, 1898
Connolly, Thomas Patrick, 1904
Cooley, Percy Glover, 1898
Corbin, Alfred George, 1900
Corfe, Anstruther John, 1904
Corlette, Cyril Ernest, 1892
Cosh, John Inglis Clark, 1897
Cowlishaw, Leslie, 1906
Craig, Robert Gordon, 1894
Crawley, Aubrey Joseph C., 1896
Dalyell, Elsie Jean, 1 Y10
Dansey, St. John Warburton, 1903
D'Arcy, Constance Elizabeth, 1904
Davidson, Leslie G., 1888
Davies, Reginald Laidlaw, 1901
Davis, James Shedden, 1903
Day, Ernest James, 1906
Deakin, John Fdward Ferdinand, 1907
Deck, George Henry Baring, 1901
Deck, John Northcote, 1902
Dey, Robert, 1898
Dick, Robert, 1892
Dickinson, Erelyn Elizabeth, 1910
Dight, Wilfred Billingsley, 1902

Dixon, Graham Patrick, 1897
Dunlop, Leslie William, 1910
Dunlop, Norman John, 1896
Durack, William Joseph, 1905
Edwards, James George, 1907
Eichler, Wm. Otto Heldmuth, 1900
Elis, Lawrence Edward, 1898
Elwell, Laurence Bedford, 1890
Elworthy, William Henry, 1903
English, Robert Joseph 1910
Ewing, Thomas, 1 J10
Fairfax, Edward Wilfred, 1899
Farrell, Rohert Meredith, 1897
Ferguson, Eustace William, 1909
Fitzpatrick, Edward Bede L., 1903
Flashman, James Fronde, 1894
Flecker, Hugo, 1908
Flecker, Oscar Sydney, 1902
Fordyce, Henry St. Clair, 1895
Forster, Redinond Clarence Hall, 1901
Fox, Hedley Ebenezer, 1905
Foy, Leslie Harold, 1910
Fraser, Dunald, 1909
Freshney, Reginald, 1892
Furber, Robert Iggulden, 1908
Garde, Henry Lee, 1901
Gibson, Duncan David, 1906
Gilchrist, James Joseph, 1907
Godsall, Robert Spencer, 1904
Goergs, Karl R. W., 1907
Golledge, Kenneth Alfred, 1909
Graham, Mabel Jessie, 1902
Greenham, Eleanor Constance, 1901
Grey, William Charles, 1903
Griftiths, Frederic Guy, 1911
Grigor, William Ernest, 1909
Gullett, Lucy Edith, 1901
Hall, Edwin Cuthbert, 1898
Hall, George R. P., 1895
Hallidxy, John Charles W., 1896
Hamilton-Browne, Elizabeth lsabel, 1910
Handcock, Charles Lancelot, 1894
Hansard, Norman William, 1906
Harper, Margaret Hilda, 1906
Harris, Henry Joseph, 1908
Harris, John Solomon, 1906
Harris, Lawrence Herschell L., 1896
Harris, Samuel Henry, 1906
Harris, William Henry, 1897
Harris, Walter Eli, 1900
Harrison, Edgar Selwyn, \(i 906\)
Hart., Basil Lloyd, 1901

Haynes, Arthur Richard, 1910
Henry, Arthur, 1889
Heydon, George Aloysius Makinson, 1908
Higgine, Frederick Charles, 1897
Hill, Douglas Bayly, 1909
Hill, John Goodwin Watson, 1906
Hinder, Henry V. C., 1889
Hipsley, Percy Leslie, 1903
Hoets. John William van Rees, 1909
Holmes, Harry Glenuie, 1900
Hughes, James, 1909
Humphery, Esca Morris, 1903
Humphries, Herbert Gordon, 1910
Hunt, Claude Leopold W., 1891
Jackson, John W., 1895
Johnston, Herbert Hough, 1909
Johnston, Langloh Parker, 1906
Jones, Philip Sydney; 1901
Kater, Norman William, 1898
Kay, Stuart, 1905
King, Aubrey Arthur, 1900
Kinross, Robert Menzies, 1894
Lancaster, Llewellyu Bentley, 1901
Langton, William Digan, 1903
Larkins, Nicholas Clement, 1910
Latham, Oliver, 1905
Lawes, Charles H. E., 1892
Leahy, John P. D., 1892
Lee, Henry Herbert, 1901
Leslie, James Robert, 1905
Lethbridge, Harold Octavius, 1904
Lightoller, George Heury Standish, 1906
Lipsoomb, Thomas Walter, 1898
Ludowici, Edward, 1899
Luker, Donald, 1894
McClelland, Walter Cecil, 1896
MacCreadie, John Laing Martin, 1894
McCredie, Robert William, 1901
MacCulioch, Harrington Thomas Cuthbert, 1906
McDonnell, Æueas J., 1889
McEncroe, James Michael, 1905
MacInnes, Angus, 1907
Macintosh, Alexauder Hay, 1901
Macintosh, Cyril Leslie Stewart, 1910
Macintosh, George Donald, 1910
McKay, William John S., 1891
McKelvey, John Lawrence, 1911
Mackenzie, Arthur Joseph, 1907
Mackenzie, John, 1899

McKillop, Lachlan Martin, 1909
Mackinnon, Roger R. S., 1894
McLean, George, 1900
MacMaster, Donald Æneas D., 189.9
MacPherson, John, 1898
Magarey, Frank William A., 1899
Muher, Charles Weston, 1907
Maitland, Herbert L., 1892
Mansfieid, Walter Charles, 1906
Marsden, Ernest Ambrose, 1901
Marsh, Harold Theodore, 1910
Mawson, Williain, 1904
Menzies, Guy Dixon, 1896
Millard, Reginald Jeffrey, 1891
Mills, Arthur Edward, 1889
Mobbs, Athol Walter, 1911
Molesworth, Edmund Harold, 1906:
Moncrieff, Edward Woods, 1902
Morton, Gavin, 1890
Morton, John, 1890
Moseley, Arthur Henry, 1906
Murray, George Lathrop, 1894
Newton, Alice Sarah, 1898
Nolan, Herbert Russell, 1903
Norrie, George, 1911
0 'Connor, Arthur Charles, 1896
Olver, Willian Reath, 1901
O'Reilly, Susamah Hennessy, 1907
O'Reilly, Theophilus Linnell, 1906
Osborne, John King, 1903
Oxenham, Humphrey Bede, 1909
Page, Earle Christmas Grafton, 1902
Pain, Ernest Maynard, 1897
Palmer, Charles Reginald, 1906
Palmer, Henry Wilfred, 1906
Park, Joseph, 1892
Parker, Leslie Richard, 1910
Parker, Reginald Arthur, 1907
Parkinson, Henry Hallam, 1909
Parnell, Ethel Caroline, 1910
Parry, Edward Lloyd Davenport, 1909
Patterson, Mervyn Stuart, 1909
Paul, Cbarles Norman, 1910
Paul, George Angustus, 1908
Perkins, Alfred E., 1888
Perkins, Richard, 1904
Petherbridge. Walter Charles, 1910
Phillips, Arthur Bradridge, 1904
Plomley, Morris James, 1903
Poate, Hugh Raymond Guy, 1907
Pockley, Eric Osbaldiston, 1901

Power, John Wardell, 1905
Pridham, Harold Ernest, 1909
Priestley, Henry, 1910
Pritchard, Alice, 1906
Purser, Cecil, 1890
Purves, Allan Melrose, 1909
Quaife, Walter Thorold, 1907
Read, William Henry, 1898
Rees, Walter Lewellyn, 190'2
Renwick, Charles Saunders, 1907
Richards, Samuel J., 1896
Riley, Spencer George Birkenhead, 1906
Ritchie, Harold John, 1908
Roberts, Alfred John Spencer C., 1905
Robinson, Grace Fairley, 1893
Robison, Erskine Hugh, 1896
Roger, Robert, 1910
Rogers, Francis Cecil, 1908
Rogers, Leslie Halse, 1909
Rorke, Syduey Norman. 1910
Roseby, Fdmund Rupert, 1902
Rutledge, Edward Hamilton, 1908
Sandes, Francis Percival, 1899
Sapsford, Clinton Pelham, 1906
Savage, Edward Joseph, 1901
Savage, Vincent Wellesley, 1901
Sawkins, Frederick John T., 1892
Schenk, Theodor W. G. H., 1910
Schlink, Herbert Henry, 1907
Schmidt. EginontTheodore Carl, 1910
Scott, Edward Henry, 1893
Sharp, Granville Gilhert, 1904
Sharp, Walter Alex. Ramsay, 1902
Shaw, Frederick C. S., 1892
Sheehy, William. 1906
Sheldon, Herbert, 1898
Sheldon, Stratford, 1896
Shellshear, Cyril, 1905
Shellshear, Joseph Lexden, 1907
Sheppard, Arthur Murray, 1890
Shirlow, Sydney Stewart, 1892
Shirlow, William John, 1892
Simpson, Francis G. M., 1905
Smith, Gerald Keith, 1911
Smith, Grafton Elliott, 1893
Smith, Hilton Charles Garnet, 1909
Smith, Kenneth, 1909
Smith, Percy Edward Walton, 1905
Smith, Stewart Arthur, 1903
Smyth, John Sands, 1910

Spark, Ernest J. T., 1895
Stacy, Harold Skipton, 1898
Stanley, George Percival, 1891
Stephen, Edgar Horatio Milner, 1904
Stephens, Frederick Glover Neason, 1910
Stevens, William Woodburn, 1900
Stewart, Colin Percival, 190y
Stiles, Bernard Tarlton, 1906
Stokes, Edward Sutherland, 1891
Storey, John Colvin, 1910
Stuckey, Francis Seavington, 1902
Studdy, William B., 1895
Suckling, Frank Martin, 1903
Sweet, Geoffrey Bruton, 1893
Talbot, Ethel, 1909
Tange, Frank Septimus, 1902
Taylor, Charles James, 1900
Terrey, Hedley, 1900
Thomas, George Bowen, 1901
Thomson, Jack Mowbray, 1903
Thomson, Jean Graeme, 1906
Tidswell, Frank, 1892
Tomlinson, George Leigh, 1908
Townley, Percy Langford, 1890
Trindall, Richard B., 1889
Tudor-Jones, Evan, 1902
Ure, Edith, 1902
Ure, Sarah Louisa, 1906
Vallack, Arthur Styles, 1893
Veech, Michael, 1894
Verco, Sydney Manton, 1900
Verco, Clement Armour, 1901
Verge, Arthur, \(190{ }^{\circ}\)
Verge, Cuthbert Arnold, 1910
Vernon, Geoffrey Hampden, 1907
Vernon, Murray Menzies, 1904
Vickers, Wilfred, 1907
Vivers, George Arthur, 1904
Waddy, Richard Granville, 1908
Wade, Robert Blakeway, 1907
Wallace, Donald, 1909
Walton, William Bain, 1898
Wassell, Joseph Leathom, 1897
Watson, Janes Frederick, 1903
Weedon, Cyril James, 1908
Welch, John Basil St. Vincent, 1906
Welch, Kenyon St. Vincent, 1908
West, Francis William, 1900
Wherrett, Ernest Albert, 1906
Whiteman, Reginald J. Nelson, 1905

Willis, Charles Savill, 1899
Wilson, Thomas George, 1899
Windeyer, John Cadell, 1899
Woolnough, Robert Edmund, 1903

Anderson, Edward Sinclair, 1909
Atwill, Milton Spencer, 1909
Barnes, Margaret Estelle, 1906
Boud, Harold Henry, 1906
Boulton, Keith Roy, 1911
Bradley, John Houghton, 1906
Broughton, Frank Wm. Walford, 1908
Burne, Alfred Dangar, 1908
Bush, Richard Bolitho. 1911
Capper, Lisle Hyne, 1907
Cozens, George Charles, 1907
Crouch, Frederick Richard, 1906
Deck, Norman Cathcart, 1907
Dolan, Alfred Pearson Berkeley, 1906
Douglass, Arthur, 1911
Gattenhof, Wm. Vincent, 1908
Grosse, Edward Henry, 1907
Hardie, Howard Gordon, 1906
Hardwick, Frederick George, 1909
Hawkins, Ernest Vale, 1910
Hicks, Harold Frank. 1908

Wylie, Mary Wilhelmina, 1906
Young, Edgar Harold, 1905
Zlotkowski, Frederic S. W., 1896

LICEN'ILATES IN DEN'IAL, SURGERY.
Boys, Reginald Septimus, 1905
Burkitt, Cyril Theodore, \(190{ }^{\circ}\)
Clark, John James, 1905
Neale, James Harold, 1905
doctors of science.

Goddard, Emest James, 1910
Jensen, Harold Ingemann, 1908
Johnston, Thomas Harvey, 1911
Kenteven, Hereward Leighton, 1911

Petrie, James Matthew, 1905
Pollock, James Arthur, 1905
Woolnough, Walter George, 1904

\section*{BACHELORS OF SGIENCE.}
d'Apice, John Edmund F., 1900
Armstrong, Harriet Ethel Mary, 1907
Bateman, John Edwin, 1908
Bennett, Agnes Elizabeth L., 1894
Benson, William Noel. 1908
Blume, Bertha Elizabeth, 1908
Birks, Lawrence, 1901§
Blumer, Reginald Charles, 1911
Booth, Frederick Athal, 1909
Boyd, Arthur, 1901
Breakwell, Ernest, 1908

Brearley, Joseph Heury Draper, 1894
Brennan, Sarah Octavia 1898
Browne, William Rowan, 1910
Burfitt, Mary Boyd, 1908
Burfitt, Walter Fitzmaurice, 1898
Burrows. George Joseph, 1910
Close, Johu Campbell, 1903
Cohen, Fanny, 1909
Corbin, Albert George, 1895
Cotton, Carl Max. 1909
Cotton, Leo Arthur, 1908

Crane, John T., 1887
Davis, Agues Marianne Harrison, 1898
Deer, Margaret, 1908
Dunlop, Norman John, 1895
Edwards, Rowland Campbell, 1908
Ewing, Thomas, 1906
Farran-Ridge, Clive, 1908
Flashman, James Froude, 1893
Fletcher, Archibald W., 1888
Flint, Arthur Carson, 1911
Flynn, Theodore Thomson, 1907
Forde, James, 1893
Free, Mary Grace, 1907
George, Sydney, 1909
Gray, George James, 1905
Grey, Egerton Charles, 1910
Griffiths, Edward, 1909
Hall, George Reginald Percy, 1893
Hallman, Edward Francis, 1906
Halloran, Garnet Reginald, 1910
Hammond, Walter Leslie, 1907
Harker, George, 1899
Harris, Marian, 1902
Heden, Ernest Charles Burgess, 1901
Herbort, Douglass Philips, 1909
Holloway, Rupert Arthur, 1910
Horton, Marion Charlotte, 1897
Hosking, Richard, 1905\$
Hughes, Michael O'Gorman, 1893
Hunt, Fanny E., 1888
Hunter, John George, 1909
Hyde, Ellis, 1905§
Jacob, Grace Elizabeth, 1910
Johnston, Stephen Jason, 1902
Jordan, Geo. Edward Gustavus, 1901
Leverrier, Frank, 1885
Little, Elaine Marjory, 1911
Lloyd, Arthur Crawley, 1909
MacMaster, D. Æneas Dunlop, 1897
McClelland, Walter Cecil, 1894
McKay, William J. S., 1887
Mackinnon, Ewen, 1907

Mackim:on, Malcolin, 1909
McLaughlin, Beryl Mary, 1910
MacPherson, John, 1896
Madsen, John Percival Vissing, 1900
Mason, William Henry, 1905
Mawson, Douglas, 1905
Meldrum, Henry John, 1907
Morison, Marian Wilhelmina, 1910
Mort, Harold Suteliffe, 1901
Norman, Edward Philip, 1909
O'Reilly, Susannah Hennes:y, 1903
Paul, Alfred, 1907
Peterson, Arthur James, 1901
Powell, James William Garnet, 1907
Priestley, Henry, 1906
Ranclaud, Archibald B. B., 1908
Robison, Erskine Hugh, 1894
Ross, Allan Clunies, 1910
Ross, William John Clunies, \(1891 ई\)
Sharp, Granville Gilbert, 1902
Sharp, Lewis Hey, 1906
Sheldon, Stratford, 1894
Sherring, Beatrice Alice Sophia, 1908
Shirley, John, 1887 \({ }^{\text {j }}\)
Simonds, Eugene Francis, 1911
Sly, Eileen Meares, 1910
Sly, Marion Constance Meares, 1910
Smith, Catherine Drummond, 1911
Smyth, Marjorie Kane, 1910
Swain, Herbert John, 1910
Taylor, Thomas Griffith, 1904
Tivey, John Proctor, 1907
Vonwiller, Oscar Ulric, 1902
Walkom, Arthur Bache, 1910
Waterhouse, Gustarus Athol, 1899
Watkins, Dorothy Margaret, 1910
Watt, John Alexander, 1894
Weatherburn, Charles Ernest, 1905
Weston, Percy Leonard, 1901
White, Charles Josiah, 1907
Wilson, Richard Cunliffe, 1901
Wrood, E. Clarence, 1885

\section*{MASTERS OF ENGINEERING.}

Boyd, Robert James, 1907
Bradfield, John Job Crew, 1896
Cook, Walter Edmund, 1899j

Dare, Henry Harvey, 1894
Mac'Taggart, John Norman C., 1905
Vicars, James, 1892

\section*{BACHELORS OF ENGINEERING.}
(Civil Engineering.)

Ampblett, Edward Albin, 1889
Amphlett, Henry Martin, 1897
Arnott, Robert Fleming, 1895
Barraclough, Samuel Henry, 1892
Beaver, William Richard, 1899
Birch, William John, 1891
Bowman, Archer, 1889
Boyd, Arthur, 1902
Brearley, Joseph Henry D., 1895
Bucknell, Louis Geoffrey, 1891
Colyer, Moreton John Godden, 1896
Corfe, Duncan Bertram, 1903
Corlette, James Montagu Christian, 1902
Cowdery, George Eric, 1909
Craig, Alexander Donald, 1895
Deane, Henry James, 1897
Doak, Walter James, 1895
Donkin, William Dalkeith, 1907
Fitz, Norman, 1888
Frew, Alison Eavis Harding, 1908
Hawken, Roger William H., 1900
Hayley, Percy Edmund Llewellyn, 1893
Henning. Edmund Tregenna, 1903
Hole, William Francis, 1896
Jackson, Clements F. V., 1890
Ledger, William Henry, 1893
Maclean, Alister Grant, 1910

Madsen, John Percival Vissing, 1901.
Mallarky, Stephen Raymond, 1911
Martyn, Athelstan Markbam, 1905
Massie, Hugh Hamon Ingoldsby, 1910
Mathison, Walter Charter, 1899
Merewether, Edward A. M., 1885
Morrison, Archibald, 1908
Myers, Harold Walter, 1901
Platt, Cecil Percival, 1905
Poole, William, 1900
Roberts, James Waller, 1892
Ross, Colin John, 1891§
Rowlands, Harold Berkeley, 1897
Rygate, Philip W., 1885
Sawyer, Basil, 1896
Smail, Herbert Stuart Inglin, 1897
Smail, John Alexander Moore, 1905
Stephens, Charles Thomas, 1892
Strickland, Tom Percival, 1897
Thompson, William Mann, 1886
Vincent, William Frederick, 1911
Wallach, Bernard, 1897
Ward, Thos. Wm. Chapman, 1886
Warren, Ernest William, 1897
White, Norman Frederick, 1894
Wood, Ebenezer Clarence, 1885
Wood, James Patrick, 1895
Woore, John Morris Simeon, 1896

Anderson, William Thomas, 1911
Armstrong, John Nicholas, 1904
Atkinson, John, 1907
Ball, Lionel Clive, 1900
Barker, Nigel Chase, 1909
Bairker, Reginald Frederick, 1900
Barr, James, 1904
Bedford, Max Ehrensvard, 1910
Bennett, Vy viyan Christopher, 1904
Black, Reginald Austin Wm., 1898
Boyd, William Sprott, 1901
Boydell, Wm Guy Broughton, 1905
Bridge, John Morrice, 1906
Burgess, John Henry, 1905
Butler, Angus Leicester, 1909
Caddy, James Pascoe, 1903
Cameron, Colin Bowman, 1902

Campbell-Brown, George Frederick, 1905
Caro, Phillip, 1904
Clayton, Cyril Henry Josephi, 1903
Clayton, Horace Edward, 1910
Cohen, Arthur Francis, 1904
Coldham, John Cockburn, 1906
Corlette, James Montagu Christian, 1903
Coward, William Beresiord, 1909
Cropper, Cecil Howe, 1906
Dart, Riverine Norman, 1904
Davies, Hany Warlow, 1903
Debenham, Arthur John, 1903
Delohery, Ernest Cecil, 1903
Dight, Arthur Hilton, 1905
Dixon, James Thomson, 1895

Docker, Alfred Brougham, 1903
Foxall, Hanry George, 1906
Foy, Leslie Harold, 1903
Freeman, Ambrose William, 1904
Freeman, Charles Cuthbert, 1902
Garde, Henry Thomas, 1903
Garry, John Joseph Patrick, 1905
Giblin, Norman Ernest, 1903
Gibson, Charles George, 1900
Gorringe, Lloyd Septimus, 1901
Gould, Hubert John, 1902
Gray, George James, 1903
Gregsou, William Hilder, 1901
Grut, Charles Frederick de Jersey, 1901
Haigh. Victor Arnold, 1910
Hall, Ernest Kingsbury, 1903
Hanton, Thomas Gladstone, 1911
Harris, Herbert Theodore Rawion, 1907
Hill, James Henry Fraser, 1904
Heden, Ernest Charles Burgess, 1902
Howatson, George, 1909
Izacs, Robert McIntosh, 1904
Jack, Robert Lockhart. 1899
Jackson, Clements Frederick V., 1900
Jackson, Frederick Henry, 1903
Jenkins, Charles Warren B., 1895
Johnson, Norman Russell, 1908
McArdle, Frederick Owen, 1904
McBryde, James, 1909
McCrae, Arthur Gordou, 1903
Mack, Augustus Charles, 1902
Mawson, Douglas, 1902
More, George Allan, 1901
Morris, Albert Colin, 1909
Mort, John Laidley, 1910.
Mort, Selwyn Robert, 1900
Mulligan, Edric Noel, 1911
Nardin, Ernest Willoughby, 1894
Nardin, Collis Carleton, 1905
Newman, James Malcolm, 1901
Niall, Kenneth Mansfield, 1909
Owen, Tom Mackellar, 1905
Palmer, Thomas Henry, 1898
Patterson, Benjamin Gilmore, 1904
Peterson, Arthur James, 1903
Penman, Arthur Percy, 1906

Piddington, Francis Liewellyn, 1898
Phippard. Frederick George, 1910
Poole, William, 1900
Rae. Thomas Robert, 1905
Reid, Norman, 1898
Reid, Robert Stewart, 1905
Richardson, Rosslyn James Dalyell, 1903
Robertson, James William, 1904
Roe, Charles William, 1910
Saunders, George Joseph, 1904
Sewell, Leonard Greville, 1909
Shellshear, Wilton, 1904
Simpson, Edward S., 1895
Skerritt, Alfred William, 1906
Skuthorpe, Garuett Stemyn, 190;-
Slee, Richard Thilthorpe, 1901
Smith, Harold Hardy, 1911
Spier, Reginald Vincent, 1902
Stanley, Frederick Vernon. 1902
Stephen, James Farish, 1905
Stewart, Alexander Bay, 1902
Taylor, Thomas Griffith, 1905
Thomas, David, 1902
Try, John Cowley, 1902
Twynam, Henry, 1896
Verge, John, 1903
Waine, Victor Joseph, 1906
Walker, Hugh, 1903
Walker, John Stuart Dight, 1907
Ward, Leonard Keith, 1903
Waterhonse, Gustavus Athol, 1900
Waterhnuse, Leslie Vickery, 1910
Waterhouse, Lionel Lawry, 1909
Waugh, Keith Cameron, 1908
Webb, Sydney Douglas, 1905
Weigall, Arthur Raymond, 1894
Weigall, Henry Stuart, 1903
Whiteman, Woodleigh Dowling, 1906
Whitfeld, Hubert Edwin, 1902
Williams, Leslie Ballesat, 1902
Williams, Owen Beresford, 1910
Winton, Louis Joseph, 1901
Wilson, John Bowie, 1897
Wilson, Richard Cunliffe, 1903
Wood, Henry, 1903
Woodburn, Joseph William, 1903.
(Mechanical and Electrical.)

Ada, William Leslie, 1909
Beeston, Samuel Lievesley, 1911

Bellemey, Sidney James, 1906
Brooks, Harold Arthur, 1905

Burn, Alan, 1911
Burnell, John Gurner, 1908
Carleton, George Brabazon, 1909
Carter, Edward Moore, 1909
Carter, Herbert Gordon, 1908
Clayton, Frank Herbert, 1907
Clift, Guy Chalmer:s, 1909
Cowlishaw, Roy Gratton, 1906
Daridson. George Frederick, 1909
De:nis, Spenser, 1909
Doyle, Alec Broughton, 1911
Flashman. Horace West, 1907
Forster, Alfred David John, 1911
Fry, Harold Willoughby, 1910
Hebblewhite, William Rayner, 1911
Herbert, Douglass Phillips, 1911
Houston, Robert, 1911
Hudson, Joha Macansh, 1909
Ireland, Oscar Arthur, 1910
Jones, Stephen William, 1908
Knight. Oscar Le Maistre, 1911
Larkins, Harold Matthew, 1907
Lloyd, Arthur Sydney, 1910

McKeown, Eric Waverley, 1910
May, Hubert Walter, 1908
Mort, Harold Sutcliffe, 1908
Myers, Harold Walter, 1903.
Norman, Edwin Philip, 1911
Norman, John Lupton, 1907
Ogilvie, Charles, 1910
Power, Peginald, 1908
Prescott, William Arnold, 190;
Ranclaud, Archibald Boscawen Boyd, 1910
Roberts, Harold Ashfield, 1909
Royle, John MacDiarmid, 1910
Sachs, Walter John, 1911
Sharp, Lewis Hey, 1908
Smith, Reginald George, 1910
Thompson. Harold Lindsay, 1908
Tivey, John Proctor, 1907
Wardrop. Rubert Davidson, 1959
Weston, Percy Leonard, 1904
Wilkins, Thomas, 1511
Woodcock. Lancelot Richard, 194,
Wright, Charles Edward, 1910

Stewart, James Douglas, 1911.

\section*{DIPLOMAS.}

DIPLOMA IN PUBLIC HEALTH.
Harris, John James, M.B, 1910
Suckling, Frank Martin, M.B., Ch.M., 1910

DIPLOMA IN MILITARY SOIENCE.

Anderson, William Thomas, 1910
Charlton. Jemes Robert, 1911
Cohen, Harold Francis, 1911
Crichton, William Jocelyn, 1911
Davidson, George Frederick, 1908
Denham, Howard Kynaston, 1909
Edwards, Henry George, 1909
Lloyd, Artbur Sydney, 1910

Mort, Harold Suteliffe, 1910
Phippard, Frederick George, 1910
Ralston, Alexander Windeyer, 1908
Roberts, George Arthur, 1911
Shannon, Martin Rowland, 1911
Smith, Reginald George, 1910
Wootten, Willlam Frederick, 1911

\section*{DLPLOMA IN ECONOMICS AND COMMERCE.}

Bateman, Stanley Bearby, 1910
Beardmore, Frederick Joshua, 1911
Beach, Henry, 1910
Brown, Robert Leslie, 1910
Campbell, Charles Norman, 1910
Cane, John Beecroft, 1910
Carson, Alfred Decimus, 1910
Comyn, Francis James, 1910
Docker, Frederick Joseph, 1911
Eade, Henry Arthur, 1911
Ewing, Wilhiam Cunningham, 1910
Ferguson, John William, 1910
Glassford, David Murray, 1910
Goddard, Robert Edward Grounds, 1910
Hancock, Edward Cooper, 1911
Hattersley. George, 1910
Herlihy, Francis Joseph, 1911
Hicks, George Collyer, 1911

Lacey, Walter Cecil, 1910
Leiferman, Charles Henry, 1911
Mace, Williarn Ralph, 1910
McDonald, Herbert Leslie, 1911
Moore, Walter Albert, 1910
Oakes, Arthur Wellesley, 1910
Robinson, Arthur Evelyn, 1910
Selby, Ernest, 1910
Sharp, Arthur Sylvester Ramsay, 1910
Stevenson, Arthur Edward, 1910
Street. Henry Eastwood, 1910
Sutherland, John Joseph Oliver, 1910
Swain, Edith Muriel Maitland, 1911
Symonds, James Garfield, 1910
Waddington, William Robert, 1910
Walcot, Edward Octavius, 1910
Wylie, Allan Dixon Pollock, 1910

\section*{UNDERGRADUATES. \\ FACULTY OF ARTS.}

FIRST YEAR.
*Arthur, Beatrice Sinclair
*Arthur, Jessie Gwendolin
Barton, Francis Maxwell
*Bates, Albert Edward
Baynes, Richard Henry Beindge
Beaver, Edmund
Beavis, Alice E.
Bell, Russell Moncrieff
Beriram, Kathleen Mary
Beveridge, Thomas William
Blackwell, Clive de la 'Tour
Bogle, James
Bray, Irene Mabel
Bromley, Myrtle Sperrey
Brown, Rosina Muriel
Browne, Wallace James Richard
Butterworth, Nineveh Rose
Byrne, Elizabeth Martha
Cade, May Teresa
Carrothers, Pearl
Childe, Gordon
Clinch, Eric John
Coatsworth, Kathleen Beryl
Currey, Mabel
Daly, Minnie
De Putron, Irene Marion
Dixson, Athole Storie
Donnellan, Gregory
Duckworth, Reginald Kaye
Dunn, William Douglas
Dwyer, Sydney Keith
Edwards, George Munro
\(\dagger\) Ferguson, Ernest Adie
Firkin, Caleb Lawry
F'lynn, Michael Richard
*Frogegatt, Gladys Harding
Fisher, William Graham Duncan
Furnival, Cicely
Gallagher, John Vincent
Gibson, Thomas Kinloch
Godfrey, Gordon Hay
Hadley, Esme Lilian
Hall, Tna Muriel Stanley
Hamilton, Ellice Ettie Peden
Hawke, Allan Jackson
Heath, Leo Barclay
Henderson, Stewart Hamilton
Henry, Harry Andre

Henson, Marjory Bernard
Herd, Mona Dorothea
Hewitt, Catherine Mary
Hillcoat, William George Vincent
Howie, Robert John
Hudson, James John
Hutchinson, Lloyd Chase
Jones, Frank Harold
Kelly, Arthur William
Kent, Geoffrey Maule
Leask, Eric Graham
Little, Cicely Enid
*Lloyd, Mollie
*McCarthy, Elwyn
McCloy, Samuel Millar
MacKeuzie, Donald William Morison
McMahon, Lilian
Macneil, Alexander Rutherford
Mann, Osric Alwyn
Manton, Irene Mariel
Millar, Norman Stuart
Mitchell, Alan David
Moulsdale, Lucy Marion
Nield, John Roscoe
*Nosworthy. Madge
O'Rourke, Kathleen Mary
Owen-Harris, Jean Margaret
Owens, William
Partridge, Kingsley Foster
Pulling, Charles Willoughby Lee
Pugh, Constance Mary
Rabett, Noel Boden Lee
Racklyeft, Robert Claude
Reid, Harry Lansbury Urquhart
Richardson, Alexander Evelyn
Roper, M. Teresa
Ross, Henry Egerton Clunies
Saunders, Septima Ethel
Small, Hubert Arthur
Steel, Edward Victior
Street, Jaurence Whistler
Tranter, Frederick William James
Wade. Charles George
Watt, Raymond Gosford
*Wuugh, Cbristian
Windeyer, Marian Miller
Woodriff, Allan Tingcombe

\footnotetext{
* Unmatriculated. + Not passing through the regular course.
}

SECOND YEAR.

Abbott, Joseph Palmer
Armstrong, Mary Enid
Arnold, Geoffrey Penrose
Atkins, Mary De la Hunt.
Barr, Dorothy May
Barrington, Mary
Blanchard, Julian Ralph
Bootle, Bertha Caroline
Boyce, Raymond Charles Manning
Boyer, Richard James Fildes
Campbell, Annie Elsie Innes
Cockett, Charles Beruard
Conolly, Emily Sylvia
Colville, Andrew Bayley
Cummings, Victor George
Desmond, Austin Thomas
Dew, Mildred Rose
Erhard, Elsa
Fergusson. Margaret Wilsie
Fitz-Herbert, John Aloysius
Flannery, Francis Leonard
Fredriksen, Selina Beatrice May
Hall, Hessell Duncan
Harrison, Charles Henry
Herbert, Constance Isabelle
Herd. Mary Agnes
Hill, Eleanora Douglas
Hubble, Georgina Temperley
Hughes, Randolph William
Jenkins, Gwendolen

Jones. John Henry
Jones, Richard John Edward Victor
Kidston, Roderick Robert
Lesslie, Mary Elizabeth
Lewers, Rachael Dylix
Lyous, Kathleen Grace
McDonald, Kenneth David
McLellan, William
McNamara, Marion
Macneil, Hugh Sutherland
* Meares, Lorina Devenish

Moir, Catherine Margaret
Nash, Agnes Mary
Orr, Mabel Norwood
Page, Clarence Garfield
Patrick, Robert Alexander
Paradise, Ilna Margaret
Perkins, George William Herbert
Ritchie, Herbert Alexander
Simpson, Brian George Cassan
Sherwin, Margaret Adèle
*Steinlechner. Marie Therese
Stephen, Adrian Consett
Summers, Charles Parnell
Swan, Amy May
Thompson, Vivian Ward
Wallace, Mary
Walsh, Ivy Marie
Waterhouse, Doria Emmie
Wingrove, Alice Máry

Austin, Elsie Myra
THLRD YEAR.
Barber, Minnie
Bardon, Richard
Beresford, Marcus Jervis de la Poer
Burginann, Eirnest Henry
Carter, Beatrice Frances
Crago. Violet Ethel
Crawford, Edward William
Crawford, Robert James Wentworth Glasgow
Currey, Charles Herbert
De Low, Nellie Daphne
Docker, Constance Isabella Brougham
Donaldson, Charles Bernard
Dunstan, Dorothy Frances
Eldridge, Frank Burgess
Gale, Kathleen Windeyer
Gasteen, Elsie Frances
Gumbert, Renée
Gray, William John
Grieve, Dora
Hadley, Enid Lesley
Hollingdale, Eustace 'Thomas
Honison, Laura Osborne
Joseph. Marie Frances
Lewis, Martha Jane
Lodder. Ida
Lonsdale, Lionel Marcellus
Macdonald, Flora Ámée
Mackay, Helen Elisabeth
McTiernan, Ed ward Aloysius Francis
Meares, Nellie Devenish
Meok, Rupert Wallace
Miller-Hermes, Rachel Rittenburg
* Unmatriculated.

Mulvey, Roy Dadson
Oakey, Dorothy Margaret
Packham, Cecily Florence
Pauss, Olga Marian
Petrie, Horace William
Pitt, Willian MoIntyre
Prescott, Kathleen Margaret
Robinson, Oovey Jessie
Rofe, Wyndham John Fulton
Richardson, Sydney Robert Wilkins
Slade, Clive Stuart
Smith, Duncan Malcolm

Smith, Willian Henry
Smyth, Sybil Rosamond
Saunders, May Annie
Stephenson, James Hunter
von Hagen. Conrad James
Watsun. Constance Emily
White, Constance Emily
Williams. Dudley
Wilson, Jane Elizabeth Margaret. Lorrain
Wise, Dorothy
Young, James Rarity

\section*{EVENING STUDENTS.}

Faculty of Arts.
ERRST YEAR.

Allen. Herbert Daniel
Aston, Frances Emma
Atkins, Walter
Ball, Frank
*Barber, Reginald
Barnetson, Alexander John
Barlow, Richard Cyril
Bartrop, William Ewart Gladstone
Blanchard, Alfred George
Buchan, William
Champion, George Stephen
Christie. Charles Grant Campbell
Christopherson, Hans
Clinch, George Waverley
Cocks, Herbert Stanley
Collings, Edith
*Cragg, Mabel Elizabeth
Crapp, Peter Francis
*Desailly, Helen
*Dixson, Thomas Meiklejohn
Drew, Alice Beauchamp Clarice
- Lryer, Albert Thomas Benedict

Dunn, William Douglas
* Everingham, Amos Leonara
*Farnsworth, Henry Gordon
Fox, Oliver Stanton
Harkness, Bertie Clarence
*Hansen, Peter
Harney, James Augustine
Harrison, Francis Daniel
*Hetherington, Alfred Robert Hodge, Roy Selwy

Horniman, Lancelot Vicary
James, Norman Lionel
Johnson, Leslie Alexander
Johnson, Millicent
Jonas, Reginald John
*Kearney, James
Lecky, Charles Stuart
Lecky, Joseph
*Luke, Alfred Vincent
MacGregor, Donald Neil
*McReady, Philip Martin
*Macnee, James
*Meldrum, Thomas Alfred
* Murphy, George Francis
*Newton, William
Page, Harold Hillis
*Perrin, Alice
Proudfoot, Stella Elizaberh Sarah.,
Pulsford, Frank Edyar
Racklyeft, Robert Claude
*Reid, Marian
*Reilly. William Josejh
Ryan, Kevin Joseph
Short, Edith Elsie
Simmonds, Clive Charles
Stanger, Norman Alfred
Telfer, Buchan Fraser Francis
*Tierney, Owen
Tonkin, Henry Lawrence
*Willock, William Joseph
*Wilson, George Millar

SECOND YEAR.
Blacklock, Lydia
Cantello, George Alfred
*Cameron, Elizabeth Cavell, Elsie Mildred Chalmers, George
Clark-Duff, William George
Cummings, Victor George
Cusack, Margaret
Flannery, Francis Leonard
Hannay, Keith
Harrison, Charles Henry
Hodge, Roy Selwyn
Johns, George Esmond
Keller, Leo Francis
Kendall, Louis Gordon
Kelly, Francis Parnell
Keys, Sidney George
*Killip, Elsie Margaret
Killip, James Hubert
Lacey, Edward Francis
Laws, James Henry
Leaver, Harry

Andrew, Gertrude
Bergin, Evangeline Annie
Bourke, Cecil Austin Regis
Cahalan, Edward Bernard
Cumeron, Robert George
Clough, Hedd Lloyd
Clyne, Thomas Joseph
*Daries, Ethel
Eldridge, Frank Burgess
Fischer, Ernest Frederick
Gallagher, Francis Joseph Emmet
Gormley, Ella May
Greaves, John William
Harris, Harold Lark
Heinrich, James Oscar
Layh, Lilian
Lewis, Martha Jane
Baker, Harold Napier
Baxendale, James, B.A.
Bentley, Ernest Grafton, B.A.
Bowden, Robert John, B.A.
Brady, Vincent John Joseph, B.A.
Brown, William Vernon, B.A.
Burns, Dorothy, B.A.

Levy, Michael Charles Ivan
Lipscomb, Winifred Haughton
Lusby, John Macintosh
McCrory, Juhn
Manns, John Wills
Montgomerie, Frederick Nixon
Morling, George Henry
Moore, Olive Vera
Murray, James Edward
Palazzi, Victoria Leonie
Parker, Edwin Henry William
Peterson, Vivian Woodward
Ridley, Jessie Isabel
Selle, Walter Albert
Shield, Richard Victor
Smith, Arnold Leslie
Spaull, George Thomas
Taylor, Gladys Esme
*Walpole, George Anderson
Waugh, John
Wilby, Willian
Woodward, Harold Mosman
THIRD YEAR.
Machin, Jonathan
McDarra, Gerald
MeKenzie, John Gordon
MoNiven, Ronald James
MeNiven, William Sutherland
Meldrum, Henry John, B.Sc.
Mulvey, Roy Dadson
Munro, William
Neville, John
Owen, Thomas Alexander
Potter, Fred
Ranson, Marion
Sheehy, Theophilus
Thomas, George Ross
Tonkin, William Henry
Willcocks, Herbert Percy

\section*{Graduates.}

Cakebread, Willian Jowers, B.A.
Cantrell, Siduey William, B.A.
Collings, Edith, B A.
Collins, Clurence Richard, B.A.
Connell, Marion Agnes, B.A.
Davies, Edith Warlow, M.A.
Davies, William Grafton

\footnotetext{
= Unmatriculated.
}

Deffell, Alice Hibbert, B.A.
Dunnieliff, Mary Clifton. B.A.
Francis, Irene Isabel. B.A. Gallagher, James Lawrence, B.A. Hill, Ethel Letitia, B.A.
McCredie, Gladys Ethel, B.A.
McIlwraith, John, B.A.
McIlwraith, William Daniel, B.A.
Mulholland, William James, B.A.
Perry, Irene Frances, B.A.
Raves, Helen Alice, M.A,

Ross, Allan Clunies, B.Sc.
Schleicher, Bernard Michael John, M.A.

Schleicher, Dorothy Caroline Mary, B.A.

Skillen, Elizabeth, B.A.
Slack, Ida Leslie, M.A.
Tarrant, Thomas Ambrose, B.A.
Taylor, Rubert Challis, B A.
Teasdale, Frederic Vass, B.A.

Baynes, Richard Henry Beindge
Bushell, Edward Harry
Buttner, Adolph Rudolf William Colyer, Moreton John Godden, B.E. Concannon, Georye Lewis Blake de Low, Harold Charles Gibson, Thomas Kinloch
Gill, George Edward Griffith
Hamilton, John
Hayne, Robert
Hyman, Arthur Wellesley

Lucas, Herbert Sammons
McDouald, Charles George
Murphy, George Francis
Nixon, Robert James
Parker, Benjamin Frederic
Saunders, William Henry
Smith, Clarence Gervaise
Townshend, Samuel Edward, B.A., LL.B.
Wall. Hugh Alton A
Wardlaw, Henry Sloane Halcro

FACULTY OF LAW.
INTERMEDLATE EXAMINATION.

Abbott, Joseph Palmer
*Abrahams, Leonard Sydney
Baldick, George Leslie
Bell, Ernest Hastings Dillon
Beresford, Marcus Jervis de la Poer
Biddulph, Lindon Helton, B.A.
Blanksby, Harold Robertson, B.A.
Bourke, Cecil Anstin Regis
Burns, Philip Harry Carveth
Cahalan, Edward Bemard
Chedgey, Hubert Victor
Collier, Clarence Timbrell
Compton, Albert Zarenne, B.A.
Crawford, Thomas Simpson, M.A.
Donaldson, Charles Bernard
Ferguson, Bernard Hall
Flannery, Francis Leonard
*Florance, Victor Aikman
Gibson, Fenton Manifold
Hardwick, Charles Anbrey
Hollingdale, Eustace Thomas
Howard, George Charles, B.A,

Kidston, Roderick Robert
Lacey, Edward Francis
Lloyd, Alau Stredwick, B.A.
Lucas, Cecil Rodwell, B.A.
MacDougall, Gould John Campbell
Macneil, Hugh Sutherland
Makin, William, B.A.
McLelland, Henry Wellsteed
MoTiernan, Edward Aloysius
Moser, Reginald John Henry
Mullins, John Thomas
Nimmo, William Muir, B.A.
Patrick, Robert Alexander
Perdrian, Ralph Joseph
Petrie, Horace William
Ranson, Joseph Robert, B.A.
Rich, Charles Ellison, B.A.
Rofe, Wyndham John Fulton
Sheppard, Wilfrid Joseph
Simpson, Edward Telford B.A.
Simpson, Robert Ian, R.A.
Slade, Clive Stuart

\footnotetext{
* Unmatriculated.
}

Smith, Arthur Charles
Solomon, Keneth Maurice Balgren, B. A

Stacy, Bertie Vandeleur, BA.
Stephen, Adrian Consett
Stepheuson, James Huuter
Street, Kenneth Whistler, B.A.
Summers, Philip Lee
-Tait, Ernest Waldegrave, B.A Terrey, Lisie Chiene. Thom. Alexander Osborne Von Hagen, Conrad James Wall, William Thomas Stanislas Williams, Dudley Young, Charles Throsby

\section*{FINAL EXAMINATION.}

Bender, Edwin Cormack, B.A.
Bland, Fraucis Armand, B.A.
Cohen, Cecil Hope, B.A.
Cordell, John Charles Stanley
Cullen, George Francis
D'Arcy-Irvine, Malcolm Mervyn, B.A.

Eldershaw, Philip Sheridan, B.A.
Fuller, Bryan Cecil. B.A.
Gellatly, Francis Mephan
Grahame, George Frier, B.A.
Lane, John Bayley, B.A.
Little, Edy, B.A.
Mason, Harold Harvey

Maxwell, Allan Victor, B.A.
MuDonald, Eugene Francis McElhone, Frank Eric, B.A. McMinn, Wilfrid, B.A. Moylan, William Patrick, B.A. Olden, Percy Penrhyn, B.A. Rishworth, Henry Shiers, B.A. Sproule, Robert, B.A.
Stewart, William Kelvey, B.A. Swan, William John Toose, Stanley Vere. B.A. Utz, Harold Stewart, B.A. Weston, Claude Alfred, B. A. Wray, Charles Douglas Waller

\section*{ECONOMICS AND COMMERCE.}

FIRST YEAR.

Barnes, Walter
Bosward, Thomas Henry
Bowen, Norman Forster
Clarke, Francis George
Cotton, Lionel Frederick Burnaty
Crook, Vivian Ebenezer
Dale, Geoffrey
Dalwood, Harold Pettman
Fetherston, Richard Arthur
Flockart, Keith Waverley
Fullerton, James Alexander
Harradine, Stanley
Harrison, Keith
Helliarich, John Forbes
Henriques. Claude Augustus
Hughes, Joseph Sidney
Hughes, Thomas Robert
Hurcombe, Alfred Josiah Kimberley
Ireland, John Bede
Judd, Everard
Leroy, Alfred Ernest

Middleton, Ernest John Eathem
Moloney, Frederick Michael
Murray, William
Nutman, Robert Ernest, B.A.
Peterson, Vivian Woodward
Priest, Herbert Charles
Richardson, Alexander Erelyn.
Rogers, Christopher Johu
Rolfe, John Joweph
Rouse, Claude Mirtin
Rust, Arthur
Shannon, Ernest
Simpson, Horace Henry
Spence, John
Sticpewich, Angelo
Taylor, Robert C.
Watts, Henry Percival
Weston, William
Wilson, Horatio Alfred
Young, Arthur

Anderson, Samuel Thomas Bartlett, Harold James
Brierley, Alan Nunan, B.A.
Casson, Arthur John Tarrant Cox, Percy Parkes
George, Raymond Ferris
Jones, Frederick Walker
Kennedy, Hugh
Lancaster, John Edward
Lee, John George
Marz, Rudolph Alfred

SECOND YEAR.
Rickard, Thomas Nathaniel
Rodgers, Frederick Francis Xavier
Salmon, Nuel Leslie
Sharland. William Stanley Cockburn
Sheehy, Eugene Joseph
Smith, Frank Lewis.
Staples, Eric Hope
Titchen, John Henry
Willians, Frederick Argyle
Wheaton, Frank Forest

Christie, Allan
Clifford, Clande William Percy
Craigie, Wallace
Dawson, Ross Camphell
Day, William Oscar Campbell
Donaldson, Charles Bernard
Doyle, William Samuel Hall
Eldridge, John C.
Golledge, Halford Williams
Goodman, George Cornelius
Haigh, Victor,
Harbutt, Richard Edward Henderson, Alfred George
Merrett, Joseph
Moffitt, Thomas Wilkinson
Murphy, John J.
Perrignon, Heniry Butler
Scrutton, Robert Le Neve
Stillman, Wilfred Henry
Trotter, John
Waites, Thomas
Webb, Alan Mayo

\section*{FACULTY UF MEDICINE.}

\section*{EIRST YEAR.}

Allen, Theophilus George
Aspinall, Willian Robert
Barr, George
Barriskill, John Robert
Barrow, Richard Selwyn
Bateman, Charles Danbery
Beale, Hector Llewellyn
Beale, John George Morris
Bechtel, Friedrich Carl
Beith, Bruce McNeil
Benjafield, Cleon
Braby, Arthur
Bradfield, Edward Ventris
Bray. Charles Wynwood
Braye, Helen Margaret Inglis
Brown, John Harold Balfour
Brown, John Stanley
Brown, William Douglas
Burfitt. Charles Aloysius
Burnett-Bruce, Herbert George
Butler, Sylvester Winter
Cameron, Gavin Holme
Cameron, William Wallace

Campling, Campbell Roy.
Clark. Harold Picton
Cook, William Henry
Coppleson, Victor Marcus
Courtney, Placid
Crawford, Audrew Pinkerton
Daniel, Phillip Lisle
Denham, Howard Kynaston, B.A., LL.B.
Douglas, Stephen
Farrar, Frank Martindale
Finlay, Mervyn
Finlayson, Malcolm Robert
Fluok, William Keith Walker
Franklin, Samuel De Vere
Frecker, Eric Wiltrid
Hamilton, John Simpson
Harris, Walter Terence Joseph
Harrison, John Leslie
Harrison, Nellie Atkinson
Hill, Norman Fitz
Howard, Arthur John de Size
Howell, David Leslie

Hudson, Alfred Roy
Jefferis, Robert Elbury
Kidston, Thomis Arthur
King, Stanley William Milton
Kirkland, Hugh Edward
Lamb, Robert Carlyle
Lamrock, John James Campbell
Lance, Arnold Llewellyn
Leeds, Robert Harvey
Loxton, Edward Hamilton
McAllister, Thomas Leo Keith
McDonald, Charles George
McKelvey, Stephen John
McKensey, Harold Morell
McKenzie, Arthur Duncan
Maclean, Jonathan Murray
McLeod, Hector Reginald
Mack, Brian Hamilton
Maher, Herbert Odillo
Marks, Horace Owen
Matheson, Christopher Norman
Minty, Cyril Charles
Mitchell, Johu Alau Roy
Monie, Roy Douglas John
Moreau, Samuel Joseph Henry
Murphy, John Romanus
Murray, Cedric Walter
Murray, Gerald Aubrey
Noble, Ralph Athelstane
Oakeley, William Graham
O'Halloran, Oscar John Wolfetone

O'Neill, Veanard Francis
Parker, Keith Shelley
Parr, Thomas Liddou
Postle, William Lovel
Quilty, Willian Joseph
Quinn, Roy Francis
Reye, Albert James
Rich, Harold strathfield
Robinson, Clive Frederic
Rooney, Thomas William
Samson, Cedric Murray
Short, Frederick, B.A.
Sinclair, Callander Wade, B.A.
Small, Dudley Stewart
Smith, Clarence Gervaise
Smith, John William
Sülling, Fritz Peter Max
Stcvenison, Walter Frederick
Symonds, Hyman
Talbot. Edith
Templeman, Colin Gordon
Traill, Alan James
Troy, Richard Joseph
Uren, Cecil
van Someren, Bertram
Voss. Paul Ernest
Williams, Grosvenor John
Wong, Reginald
Woolnough. Sydney James
Young, William Rae

SECCND YEAR.
Allen, Cecil Walter Gordon
Anderson, John Thomson
Aspinall, Andrew Eric
Bamber, Leo
Barbour, Eric Pitty
Blashki, Eric Phillip
Brown, Keith Sigismund Macarthur
- Browne, Denis John

Buss, Roy Cecil Stanley
Burton, Russell Nelham
Byrne. Kevin
Carruthers, Bruce Maitland
Coghlan, Cecil Charles
Curtis-Elliott, Frederick Clissold
Dark, Eric Payten
Davidson, Arthur Madgwick
Davis, David Aubrey Arnot
Dean, Arnold William
Digby, John Lloyd
Donovan, Charles Owen Gregory
Douglas, Clifford Norval
Edwards, William Angwin
Farranridge. Clive, B.Sc.
Fenwick, Wilmot
Gardiner, Samuel Stoops
Gordon, George Acheson, B.A.
Gregg, Norman McAlister
Grey, Egerton Charles B.So.
Grey, Francis Temple, B.A.
Harris, Charles Moutagu
Haynes, Raymond Jarnes
Henderson, John Keith
Hill, Gordon Fitz
Hunter, Lancelot John
Huxtable, Charles Reginald Ralston
Jones, John Thomas
Jeffrey, Eric
Laing, John Kidd Collier

Langan, Alfred Meillon
Lowe, Gordon Bradley
McCaffrey, Ernest Moore
MacCulloch, John Roberts
Marshall, Thomas Edward
Morgan, Idris
Morris, Percy Alexander
Murphy, Peter James
Murray, Archibald Warden Graves
Nalder, Gordon Frederick
Nisbet, Alwyn Tom Hays
North, Harry Mander
Nott, Lewis Windermere
Nowland, Reginald Edward
Nye, Leslie John Jarvis
O'Regan, Stanislaus Vincent
O'Reilly, Olive Kelynack
Page, William Robert, B.A.
Parkinson, Philip Sidney
Rae, Robert Keith
Railton, Stanley Arthur
Randall, William Henry Norman
Ratchff, Sydney Wm. Gardiner

Renwick, Wilmot
Raymond, Arthur Wilmot
Richards, Russell William
Ridler, Henry Absalorn
Rivett, Amy Christine
Roberts, Alau Thoman
Sanbrook, Ebenezer Alexander
Sandford, Elma Linton
Saunders, James Leslie
Silberthau, Robert Joseph
Shand, John Cappie
Shaw, Richard Glyn Vallack
Stewart, James
Tanko, Cecil
Taylor, Marguerite Doloris
Tooth, Henry Laurence
Trindall, Roy Buckingham
Thomas, Alfred Charles
Voss, Dorothy Muriel
Wade, Burton Gregory
Wall, Hugh Alton Chandos
Winn, Roy Coupland
Zions, Norman

THIRD Year.
Adams, Charles Goldsbrough
Alcorn, Alfred
Alcorn, Robert Mandeville
Alexander, Nathan Marcus Adler
Anderson, Colin
Armitage, Charles Horsfall, B.A.
Balls, Raymond
Barlow, Charles Dight
Barton, Oswald
Beith, John Robert McNeil
Broughton, Norman Walford
Blomfield, Cecil Richard
Blumer, Sydney John
Brown, Wolfe Solomon
Buchanan, August Lyle
Butler, Thomas
Carter, Robert Burnside
Chapman, Clement Lorne
Clark, Charles Augustus Fraser
Clipsham, Sidney Bowker
Clowes, Ainslie Stalham
Cohen, Cedric Keith
Cuthbertson, Arthur
Daly, Terence Aubrey
Davenport, Percival Arthur Clive
Davis, Thomas Richard Earla
Donald, William Henry
Duhig, James Joseph Vincent
Duncan, George Meston
Elworthy, Robert Ernest
Evans, Wilfred
Exton, Harriette Martha
Farrar, John William
Fitzhardinge, Richard Grantley
Flett, Percival Herbert Crofton
Flower, Willoughby
Fox, Otho Parkes
Fowler, Enoch
Franki, Noel Halford
Gaden, Keith Burton
Gearin, Clifford
Graham, Stuart Millard
Greaves, Frederick Wallscourt Blake
Grieve, Keith Harvey
Grieve, Percy Neil
Hawthorne, William Stuart
Hay, George Mervyn
Henry, Clifford
Hudson, Richard Hastings
Hunter, John Gtorge, B.Sc-
Jamieson, James Ian Munro
Jekyll, Arthur Cyrit Albert

Jensen, Frederick Jorgen-
Jones, Maude Sydney
Kennedy, Hans McMurdie
Kesteven, Hereward Leighton, D.Sc.
Kirkwood, Noel Edmund Barton
Lane, Raymond Charles
Lilley, Charles Mitford
Lovejoy, Roy Arnold
McCarthy, Francis Justin
Macdonald, William Joseph
Machin, Arthur Edward
McIntyre, Fergus
Macnamara, Leslie Osborne
McMaster, Robert Maxwell
Malcolm, John
Manery, William Joseph
Marshall, Thomas Edward
Martin, Robert
May, Leonard
Meehan, Arthur Vincent
Mellor, Ernest James
Meyers, Errol Solomon
Millett, William Leonard
Minnett, Roy Baldwin
Mitchell, Paul Wanostrocht
Murphy, Arthur James .
Nixon, Robert James
O'Riordan, Sydney
Packer, Norman Edward
\(\dagger\) Panting, Arthur Ernest
Parkinson, Charles Kingsley
Parry, Ernest Kent
Pattinson, William Frederick
Paul, Alfred, B.A., B.Se.
Pinhey, Eustace Townley

Pockiey, Brian Colden antill
-Potts, Theodore Kenneth
Power, John Joseph
Quessy, Antoine Louis Léun
Rayson, Hagh
Rosenthal, Cecil Philip
Roughley, Theodore Cleveland :
Royle, Norman Dawson
Sinclair, George Wade, B.A.
Smith, Donald Ian Robertson
Snow, Leonard Leslie
Stack, Walter Jaques
Stafford, Albert Leslie
Stafford, Stanley Roy
Stephen, Gladys Vera
Strange, Clifford Resolute
Sutton, Arthur Fraser
Sutton, Mordaunt Graham
Taylor, Robert Joseph
Thomas, Frederick Samuel
Thomas, Harold Evan
Thomson, Ronald Moginie
Todd, Arthur Charles Rohert
Tozer, Claude John
Waine, Jack Grenville
Waldron, George Dibbs King
Walker, Gordon James
Welch, Herbert Locksley St Vincent.
Wesley, Char!es Herbert
Whiting, Cedric William
Wiley, Courtenay James
Willis, Henry Hastings
Wilson, Benjamin Gilmore
Yeates, Walter Francis Stewart
Young-Wai, Joshua

Ardill, Katie
Bateman, John Edwin, B.Sc.
Beujamin, Alva
Bray, Gordon Wolseley
Brünnich, Karl Ferdinand Christian
Burkitt, Arthur St. George Neville Handcock
Byrne, George Cumming
Church, James Vivian
Coleman, Amos Hubert
Collins, Arehibald John
David, Williain Edgeworth
Dunlop, Albert Tange

FOURTH YEAR.
Fallon, Cyril Joseph. B. A.
Fetherston, Leeslie, B.A.
Finlay, Donald Francis
Fisher, Eric Mortley
Fitzherbert, Keginald Aloysius
Forbes, Arthur Duncan
Gallagher, Michael Joseph
Giblin, Eric Louis
Gibson, Norman Muxwell
Graham, Roy Veseys
Green, Raymond Alfred Robert
Hair, James Manning
Hardie, John

Harris, Hubert Richard Joseph
Hawthorne. Harold Lester
Holloway, Edward Spencer
Jackson, Claude Phillip
Kelly, Patrick James
Kenuedy, Basil Carlyle
Kirkland, William Duncan
Lloyd, Charles Humphrey
Lilley, Edwyn Mitford
McGregor, Roy Stanley
MoLelland, Hugh Sylvester
McLenuan, Simon
Macqueen, Frederic Lindsay
Manning, Garnet Eric
Molesworth, Cecil Stanley
Norrie, Harold Francis Joseph
Norrie. James
North, Robert Bell
- O'Reilly, Merrick Fletcher

Pigott, Louis Michael
Plant, Harold Frederick Hood
Rattray, Ronald Harley
Renwick, Gordon Alick
Ross, Colin Chisholur
Scott, John Henry Victor
Simmons, William Foster
Single, Clive Vallack
Slattery, Matthew Joseph
Stantou, Arthur Mark
Teece, Leunox Graham
Thompson, Clive Wentworth
Van Epen, TheodoreWilliam
Walsh, Harvey Sylvester
Ward, Arthur Charles
W assell, Charles Ernest
Webb, James Eli, B.A.
Willcocks, George Charles

FIFTH YEAR.
Abernethy, Cecil William
Aspinall, Arthur Martel
Blaxland. Falkner
Beazley. Raymond Northfield
Booth, Fred Stanley
Boulton, Nigel Philip
Bourne, Harold Thornton
Bowman, Reginald McDongall .
Brettiugham-Moore, Edward
Bridge, Norbert Henry
Bridge, Reginald Harold
Bridges, Frederick John
Buckley, Emma Albam
Burke-Gaffiney, Aylmer Edward
Burke-Gaffney, Florence Charles
Chapple, Alexauder Temmant,
Chapman, Arthur James Partridge
Clatworthy, Charles Herbert
Curtin, Austin Sydney
Curtis, George Cyprian
Curtis, Percy Murray
Dawson, Arthur Lacy
Dawson, James
Donaldson, John Ebenezer
Finlay, Cecil Hubert
Fletcher, Wallis Merryn Alfred
Fowler, Cosmo William
Freeman. Margherita Mary
Frizell, Thoman James
Furber, Thomas Maynard
Gibson, Alfred John
Glissan, Denys Joseph
Goddard, Thomas Herbert
Griffiths, Neville
Halloran, Garnet Reginald, B.Sc,
Herlihy, John Daniel Redmond
Hodgkinson, Hemry Richard
Hittmann. Frederic Charles Bruce
Hughes, Laurence Hugh
Hunt, Gladstone Montagıe
Inglis, William Keith
Jame, John Alexander
Kay, William Elphinstone
Kenny, Joseph Patrick
Kenny, John
Lentaigne, John Gerald
Macdonald, Enid Craig
McDonald, William Alphonsus
McDonnell, Randal
McKee. James Walter Stewart
McKenzie, John Bernard Francis
Macqueen, Reginald Alan Archibald
Magnire. Frederick Arthur
Mason, George William
Metcalfe, James Beverley
Mollison. Arthur. John
Morris, Emanuel Sydney
Murphy, Johu Joseph
Murray-Prior, Mabel
Newton. Adam John
Northcott. Charles Henry
Pascoe, Elise Vivian

Paton, James Thomson
Payne, Percy Herbert
Pitt, Clive Nelson
Poulton, Reginald Lancelot
Pye, Cecil Robert Arthur
Rich, Vivian Mortis
Rorke, Frederick Charles
Sabiel, Frederick Herman
Shearman, Cyril Howard
Sherwin, Thomas Aylwin Skirving, Archibald Waller Scot Smith, Muir Paul

Stafford, Herbert Leslie
'Iansey, John Thomas Patrick
Thompson, Francis Clarke
Thompson, William Barbar
Tivey, Eric Alfred
Vance, Edmund Bruce Mortimer
Vickery, Kenneth Firth
Waddell, Harry Juanes
Walker, Clifton Claude Parton, B. A
Wallace, Robert Allez Rotherham
Watson, Francis Hilton

DEPARTMENT.OF DENTISTRY.

Barker, Gladys Winifred
Beckett. Leonard Sothern
Clark, Albert Edgar

Abbott, Gordon
Brown, Walter Benjamin

Clifford, William Patrick
Douglass, George
Goodall, Alfred Arthur
Kendall, Robert Clifton
Lane, Reginald Percy

FIRST YEAR.
Cronch, Edwin Cleveland
Grosse, Benjamin Melville Scholes, Llewellyn Robert
SECOND YEAR.
Butler. Wood, Irene Violet
Murphy, Claude Vincent
THIRD YEAR.
Magee, Eva Kemedy
*Moxham, Doric
Scott, Charles Frederick
Wallace, Ernest Stanley
fourth year.
Callaghan, Auriel Albert
Christiansen, Frederick Ernest
McMaster, William
Sutton, Arthur Fraser
* Dental Board Students.

Arnold, Henry Richard
Blackshaw, W.
Bolton, Frederick
Brown, Damel George
Cocks, Walter North
Cunningham, James Forrest Turubull
Doudney, Albert Arthur
Golsby, Frederick G.
Hogg, Owen Stanley Byjames
Hugill, Harold Ernest
Hunter, Milton Dumreath
Jennings, Hugh Donald
King, John Emery
Marshall, Allan Wiseman
Murphy, Joseph Francis
Nalder, Gordon Frederick
Oatley, Keith
Petherick, Percival Harold
Redman, Percy Quinton
Robberds, William Henry
Whitehead, John Herbert
Woolcott, Eric Stainer
* Pharmacy Students.

Anderson, Leslie
Baker, Alfred James Stanley
Bissaker, James Dominic

Blackall, Horace Manning
Bull, Edmund Ernest
Crain, Jack Richardson
*Unmatriculated.

Dickson, Horace Stanley
Dunbar, Leslie Roy
Earngey, Thales Livingstone
Eliott, Edward Goodman
Fletcher, Maurice Percival
Fogarty, Patrick
Fountain, Jack Alban
Gearin, Michael
Gibson, Robert Charles
Gissing, Heury Ernest
Gray, Charles Jtames
Green, Thomas Elston
Haulon, William John
Hearne, Frederick
Holmes, John George
Irvine, William Armour
Kelly, Francis William
Lancaster, George Eruest
McGirr, James 'T.
McHugh, Christopher Joseph
*Massage Students.
Allan, Jeanette
Butler, Marjory
Farrell, Pleasance Katharine
Gunn, Catherine Alexandrina
Jamieson, Doris
Kirkcaldie, Katherine Vida Methuen
Lane, Mary
Minter, Edith

Mackenzie, Allan Kenneth
Malone, Jaurence
Miller, Horace Richard
Molloy, John
Murphy, James Patrick
Parkes, Frederick William
Peck, Dorothy Mabel
Pye, Eric John Dunstan
Rose, Harry Clifford
Samuell, Dorian Eric Lewis
Schwinghammer, Clarence Arthur
Sinclair, Frederick James Knight
Sinclair, Thomas
Spencer, John Benjamin
Spicer, Norman George
Stevenson, Stirling
Stewart, Thomas Ralfe
Vesper, John Peter
Vincent, John Arthur
Williams, Sidney James
Moxham, Rita Mildred
Salek, Minnie
Pridham, Catherine Augusta
Sly, Enid
Smith, Lily
Sturgeon, Florence
Woodd, Joan Montgomery
Yates, Elizabeth

FACULTY OF SCIENCE.
FIRST YEAR.

Aurousseau, Marcel
Back, John, B.A.
*Bendeich, Joseph Henry
Best, Charles Frederick
*Bretnall, Raginald Wheeler
Brown, Janet Forrest McGillivray
Cayzer, Albert
Clinch, Erie John
*Coleman, Hedley Lawry
Crane, Clifford
Drake, David
*Finckh, Pearl Ray
*Fry, Dene Barrett
Grace, Walter Henry
Hadley, Enid Lesley
Harrison, Lancelot
Hellstrom, Carl Oscar
Hinder. Elhanor M.

Joseph, Marie Frances
Kellick, Arthur Charles Tapley
*King, James McEwan
Lennox, Frank Wentworth
McClean, James Robert
Mc,Donald, Kenneth David
McKay, Frances Christina Burrell
MuQuiggin, Harold George
*Mearns, Norman Ross
Neale, Marie Angrave
Pattinson. May
Payne, Warren Roy
Porter, Laura Eleanor Irene
*Rouse, Edgar John
Sandford, Frederick Esk
*Steele, Spencer Carlisle
*Troughton, Ellis Le Geyt

\section*{SECOND YEAR.}

\author{
Badham, Charles \\ Cotton, Frank Stanley \\ Dunkley, Arthur Macleay \\ Froggatt, Johu Lewis \\ -Gallop, Lena Frances Winifred \\ Gardner, Robert Augustin \\ Hunter, Lancelot John \\ Joseph, Marie Frances \\ Lennox, Frank Wentworth \\ Martin, George
}
*Moore, Harold John
*Plowman, Ashley
Rice, Charles Thomas
*Schleicher, Ruth Constance
Smith, Esther Lilian
*Spencer, Ammie Julia
Taylor, Frank Henry
Tearne, Donua Mary
Wardlaw, Henry Sloane Hulcro
THIRD YEAR.
Briggs, Edward Alfred
*Coombs, Frank Andrew
Davis, Sydney James George
Hanton, Thomas Gladstone
*Harding, Henry George Alan
Lewis, Adelaide Emily
Little, Elaine Marjory
*North, David Shepherd
Pierce, Sidney Ernest
"Panting, Arthur Edward
Perry, Mary Catherine
Shand, John Cappie
Southee, Ethelbert Ambrook
Robson, Alfred James
Taylor, Harold Burfield
Watson, Audrew Dougal
Researeh Students.
Hebblewhite, Wiiliam Rayner, B.E.
\(\begin{aligned} & \text { Petrie, James Matthew, D.Sc. }\end{aligned}\)
Smith, Catherine Drammond, B.Sc. Petrie, James Matthew, D.Sc.

\section*{DEPARTMENT OF VETERINARY SCIENCE. \\ first year.}
\begin{tabular}{|c|c|}
\hline \begin{tabular}{l}
Bourke, John Juseph \\
Dowling, Rowland Arthur \\
Geyer, Friedrich Christian Emil
\end{tabular} & \begin{tabular}{l}
Lucas, Herbert Summons \\
MacLaurin, Hugh Anthony Hoskins Ridley, William John
\end{tabular} \\
\hline \multicolumn{2}{|c|}{SEOOND tear.} \\
\hline Cunningham, Andrew Twynam & Patten, Robert Authony \\
\hline Davis. Vivian Everard Hogarth & Stewart John Roy \\
\hline Finiay, Gerald Fonstin & Veech. Bertie Claude \\
\hline Hindmarsh, William Lloyd & Walters. Cecil Julian Manning \\
\hline James, Edward Stewart & \\
\hline \multicolumn{2}{|r|}{\multirow[t]{2}{*}{\begin{tabular}{l}
THIRD YEAL: \\
Baker, Horace Morgan
\end{tabular}}} \\
\hline & \\
\hline \multicolumn{2}{|l|}{DEPARTMENT OF AGRICLLTURAL SCIENGE.} \\
\hline Downing, Reginald George Murray, Jack Keith & Waterhouse, Walter Lawry \\
\hline \multicolumn{2}{|r|}{SECOND YEAR.} \\
\hline Heinrich, James Oscar Southee, Ethelbert Ambrook & Stephens, Harry Wenholz, Harold \\
\hline
\end{tabular}
- Unmatriculated

\section*{DEPARTMENT OF ENGINEERING.}

FIRST YEAR.

Booth, Edgrar Harold
Brett, Herbert Victor
Callender, Geoffrey Gordon
Connell, George Weir
Cuninghame, William Fairlie
Fry, Artbur Ernest
Hain, Leslie Thomas
Harden, Guy Baldwin
Horne, Tom Copley
Irving, Rupert Charles Clark
Litchfield, Francis Raymond
McGrath, Michael Joseph

\author{
*Manning, Nugent Unga \\ Millner, James Stokes \\ Murray, David Macleay \\ Pelly, Joweph Hyacinth \\ Sinclair, Walter Robert \\ Stafford, Frank Douglas \\ Tandy, Percy Ellis \\ Thorne. Harold Henry \\ Tiddy, Hector Kingsley Portus \\ Wallace, Cecil Denver \\ Webb, Kenneth Eduard \\ Wilkinson, John Charles
}

SECOND YEAR.
Civil Engineering.

Clerke, Alexander Wilberforce
Corbett, Levick
Hall, George Edward
Lahey, Romeo Watkins
*Lewis, Selwyn

McMahon, John Terence
Massie, Robert John Allwright
Pennefather, Clarence Arthur
Potts, William Elinhirst

Minng and MEtathergy. Blumer, Cecil Herbert

Mechanical and Electrical.

Cowlishaw. Thomas
Dowling. Bruce Sheen
*Edwards, Arthur Rowland
Gibbes, Frederic William
Gibson, William Hope Harnett
Hamilton, John
Hooper, Geoffrey Herbert
Hope, Bertram Cedric

James, Harry Fuller
MacKinnon, Johu Younger
Pike, William Edward
Smith, Reginald George
Tidswell, Frederick Auld
Whitfeld, Geoffrey Ashford
Watt, Herbert Cecil

THIRD YEAR.
Civil Enyineering.

Bonrne, Cecil Alfred
Calvert, Francis James
De Burgh, Thomas Hubert Macartney

Alexander, Hubert
Cran, Charles Robert
Deane, Cedric
Hinder, Ronald Butler

Fry, Hugh Guyon
Lancaster, Edgar Edmund
Macintosh, Harold Vernon

Mining and Metallurgy.
*Loring, Edward Amos
McKern, James Gordon
Nielsen, Malcolm Mclntosh

\footnotetext{
* Unmatriculated.
}

Mechanical and Electrieal.
Campbell, Arthur Lang. B.A. Hebblewhite, Frederick Simpson

Maxwell, Marcuswell Roper, William Hugh

FOURTH YEAR.
Mining and Metalltugy.

Adamson, Robert Wilson Best, Grorge Hubert Thomas Desgrand, Vincent Aimée Grainger

Mechanical and Electrical.
Bridge, Clarence Walter Dennis, Cleon England, John
Hollingdale, Gerald Francis
Holloway, Rupert Arthur
Taylor, Eran Percy

Foxall, John Stuart
Lloyd, Arthur Crawley, B.Sc.

Reynolds, Lionel John
Roberts, Loris Maynard
Rorke, Harold Augustus

\section*{AFFILIATED COLLEGES.}

By the Act 18 Victoria, No. 37, superseded by Act 64 Victoria, No. 22, provision is made for the Foundation of Colleges within the University in connection with the various religious denominations, in which students of the University may enjoy the advantages of residence, instruction in the doctrine and discipline of their respective Churches, and tuition supplementary to the lectures of the University Professors.

No student can be admitted to any such College unless he immediately matriculates in the University, submits to its discipline, and attends the statutory lectures; nor can he continue a member of the College longer than his name remains upon the University books.

\section*{ST. PAUL'S COLLEGE.}

Incorporated by an Act 18 Victoria, in connection with the Church of England. In the terms of the Act the Visitor is the Archbishop of Sydney. The Corporation consists of a Wardeu, who must be in Priests' Orders, and eighteen Fellows, six of whom must be in Priests' Orders, and the remainder must be laymen. The Fellows, with the Warden, form the Council in which the Government of the College is vested.

VISITOR.
THE LORD ARCHBISHOP OF SYDNEY.
WARDEN.
The Rev. Lewis B. Radford, M.A., D.D., formerly Fellow of
St. John's Cullege, Cambridge.
SUB-WARDEN.
F. M. McKeown, B.A.

LECTURERS.
Resident:
Divinity, History and Philosophy-The Warden.
Classios-The Warden and Sub-Warden.
Mathematics and Science-J. E. Bateman, B.Sc.
Non-Resident:
French-W. H. W. Nicholls, B. A.
Medicine-H. J. Ritchie, M.B., Ch.M. BURSAR.
F. B. Wilkinson, M.A

ACCOUNTANT.
.J. Hunter Stephenson, M.A.

FELLOWS.
Backhouse, His Hon. Judge, M.A. Saumarez Smith, Rer. H., M.A. Corlette, C. E., M.D.
Flower, Rev. W., M.A.
Günther, Ven. Archdeacon, M.A.
Hodges, C. H., M.A.
Merewether, W. D. M., LL.B.
Peden, Prof. J. B., B.A., LL.B.
Purves, W. A., M.A.
Rusell, F. A. A., M.A.

Stretch, Right Rev. J. F., D.D., Bishop of Newcastle
Taylor-Young, H. C.. M.D.
Uther, A. H., B.A., LL.B.
Waddy, Rev. P. Stacy, M.A.
Weigall, A. B., M.A.
Wilkinson, F. B., M.A., Bursar
Williams, J. L., B.A.

GRADUATES.
(Continaing on the Books.)
M.A.

Faithfull, W. P.
Purves, J. M.
Faithfull, H. M.
Pring, Mr. Justice R. D.
Powell, T.
Dawson, A. F.
Taylor, Rev. H. W.
Campbell, Ven. J.
Hills, \(H\).
Russell, F. A. A.
Millard, G. W.
Perkins, Rev. F. T.
Roseby, T. E.
Abbott, Ven. T. K.
Chambers, Rev. G. A
Sharpe, E.
Blacket, A. R.
Noake, Rev. R.
Bundock, F. F.
Buckland, T.
Elder, Rev. F. R.
Bundock, C. W.
Feez, A.
Tange, \(\mathbf{C}\).
Morrish, Rev. Canon F.
Piddington, A. B.
Baylis, H. M.
Street, P. W.
Merewether, E. A. M.
Clarke, Rev. F. W.
Millard, A. C.
Jenkins, Rev. C. J.
Woodd, Ven. H. A.
Bode, Very Rev.A. G. H.
Britten, H. E.
Newton, Rev. H.
D'Arcy-Irvine, M. M.
McIntosh, \(\mathbf{H}\).
Uther, A. H.
Stephen, E. M.
Doak, F. W.

Windeyer, \(R\).
Russell, C. T.
Peden, J. B.
Helsham, C. H.
Tighe, \(\mathbf{W}\).
Williams, J. L.
Abbott, H. P.
Dowe, Rev. P. W.
Thomas, Rev. R. W.
Waldron, T. W. K.
Merewether, H. H. M.
Cakebread, Rev. W.J.
Rowland, N. de H.
Merewether, W. D. M.
Holt, A. C.
Maxwell, H. F.
Barton, J. s'B. D.
Hobbs, E.
Blaxland, H. C.
Houison, Rev. S. J.
Gregson, W. H.
Pilcher, N. G. S.
Evans-Jones, D. P. Brown, Rev. G. E.
Verge, J.

Stephen, H. M. Mutton, .
Rutherford, G. W. Harris, Rev. R. A.
Gregson, E.J.
Slade, O. C.
Cranswick, Rev. G. H.
Docker, Rev. W. B.
Barry, D. R.
Manning, H. E.
Waddy, E. F.
Futter, V. S.
Portus, G. V.
French, B. R.
McKeown, F. M.
Archdall, H. K.
Ash, Rev. F. L.
Consett-Stephen M.
Waley, R. G. K.
Biddulph, L. H.
Brierley, A. N.
Street, K. W.
Roxburgh, N. W.
Rich, C. E.
Simpson, E. T.

Uther, A. H.
Waldron, T. W. K.
Tighe, W.
Peden, J. B.

LL.B.
Merewether, H. H. M. Merewether, W. D. M.
Pilcher, N. G. S.
Rutherford, G. W.

Evans-Jones, D. P.
Slade, O. C.
Rowland, N. de H .
French, B. R.
M.D.

Chisholm, W.
M.B.

Armstrong, W. G.
Bancroft, P.
Hunt, C. L. W.
Millard, R. J.
Kater, N. W.
Ludowici, E.
Barton, J. s'B. D.
Stuckey, F. S.
Marsh, H. S.
Sharp, G. G.

Merewether, E. A. M.
White, N. F.
McCrae, A. G.

Crane, J. T.
Stuckey, F: S.
Abbott, J. P.
Beresford, M. J. de la P. Browne, D. J.
Burgmann, E. H. Cameron, G. H.
Cuninghame, W. A. F. Cunningham, A. J.
Dunlop, A. T.
Fitz-Hill, G.
Heath, L. B.
Hutchinson, L. C.

Lethbridge, \(\mathbf{H}\). \(\mathbf{O}\).
Simpson, F. G. McN.
Verge, A.
Brearley, E. A., B4A.
Ritchie, H. J.
Rutledge, \(\mathbf{E}\). H.
Rogers, F. C.
Stewart, C. P.
Waddy, R. G.
Docker, E. N. B.

Barton, A. D.
Brierley, F. S.
Dunlop, L. W.
Verge, C. A.
Lindeman, G. B.
Macartney, G. W.
Pockley, F. G. A.
Ward, H. K.
Weedon, S. H.

\section*{B.E.}

Sharp, L. H., B.Sc.
Verge, J.
Butler, A. L.
B.Sc.

Sharp, G. G.
STUDENTS.
James, H. F.
Macneil, A. R.
Macneil, H. S.
Massie, R. J. A.
Maxwell, M.
Metcalfe, J. B.
Nisbet, A. T. H.
Oakeley, G.
Pockley, B. C. A.
Pulling, C. W. L.
Rabett, N. B. L.

Hudson, J. M. Niall, K. M.

Sharp, L. H.
Reynolds, IL. J. Ross, C. C.
Shaw, R. G.V.
Simpson, B. G. C.
Stephen, A. C.
Street, L. W.
Tozer, C. J. Voss, P.E.
Watt, H. C.
Williams, D.
Young, J. R.
endowments and prizes.
A.-Open Scholarseips.
(1) The Kemp.-Principal, £400. Founded by the Iate. Mrs. C. Kemp in memory of her husband, the Rev. C. Kemp.

1911-C. W. L. Pulling.
(2) The Edward Aspinadil.-Principal, £500.

1911-Not Awarded.
(3) The Canon Stephen.-Principal, £761. Founded by subscription in memory of the late Rev. Canon Alfred H. Stephen.

The Kemp, Edward Aspinall and Canon Stephen Scholarships are awarded respectively to a student commencing the first, second or third year after his matriculation in the University. To be eligible for one of the above Scholarships the candidate must have taken at least second class honours or equivalent distinction in his last preceding University examination. If a student in one of the other Faculties, and of the requisite standing from matriculation, shall have taken honours or distinctions which in the opinion of the Council are higher than those of any corresponding candidate in the Faculty of Arts, the Scholarship will be awarded to him. In case of equality a candidate in the Faculty of Arts will have preference.
B.-'Tife Burton Exhibition.

This Exhibition is awarded to a student proceeding from the King's School to St. Paul's College. It is tenable for three years, the value not exceeding \(£ 40\) per annum. The holder is required to produce at the end of each term a certiticate of residence in College, and of good conduct, sigued by the Warden. 1910-D. J. Browne.
C.-Foundations for Resident Students who intend to take Holy Orders.
(1) The augusta Priddle Memohial--Principal, \(£ 600\). Founded by the late Rev.C.F.D.Priddle. Tenablefor three years by the son of a clergyman licensed in New South Wales.

1910-Not A warded.
(2) The Starling.-Principal, £1100.

1911-J. R. Young.
(3) The Henry Wilitam Abbott. - Principal, £1000. Founded by the late T. K. Abbott, Esq.

> -1910-E. H. Burgmann.
I.-The Mitchell Prize.

This Prize was founder by the late Hon. James Mitchell, and is awarded to the Bachelor of Arts of the College who shall, within twelve months after taking that Degree, pass the best examination (of sufficient merit) in the Doctrines and History of the Church of England.

1910-Not Awarded.
A prospectus giving further information may be obtained on application to the Warden.

\section*{ST. JOHN'S COLLEGE.}

Incorporated by Act 21 Victoria, in connection with the Roman Catholic Church. In the terms of the Act, the Visitor is the Roman Catholic Archbishop of Sydney. The Corporation consists of a Rector (who must be a duly approved Priest), and eighteen Fellows, of whom six must be duly approved Priests, and twelve Laymen. These eighteen Fellows, with the Rector, form the Council, in which the government of the College is vested:

VISITOR.
the roman catholic archbishop of sydney. 1907--His Eminence Cardinal Moran.

THE PRESENT SOCIETY.
RECTOR.
The Right Rev. Monsignor O'Brien.
FELLOWS.

Butler, F. J., B.A.
Byrue, Rev. P.
Coffey, F. L. V., B. A., LL.B.
Coonan, Very Rev. P. L.
Donovan, J., K.C.S.G., LL.D. Flannery, G., B.A., LL.B.
Flynn, J. E., M.A.
Gallagher, Right Rev. J. Ginisty, Rev. A.

Heydon. Judge
Louis, P. H., B.A.
Malier, W. Odillo, M.D.
Manning, Sir W. P.
MuEvilly, U., B.A.
Moynagh, Rev. J.
Mullins, J. L., M.A.
Watt, A. R. J., LL.B.
M.D.

Maher, W. Odillo.
M.B.

Blauey, H. P. Burfitt, W. Clifford, P .
Coen, J.
Coen, B.
Conuolly, T. P. Crawley, A. J. C. Crothers, C. A.

Durack, W. J. | Lister, H. | Marsden, E. A.

B:Sc.
Leverrier, \(\mathbf{F}\).
mining-b.E.
Diethelm, 0 .
Elworthy, W. H.
Fitzpatrick, E. B.
Godsall, R.
Haynes, A. R.
Holland, J. J.
Luddy, J. J.
Maher, C.
Woodburn, J. J.
м.в.
| Power, R.

O'Halloran, C. M. McKelvey, J. L. O'Keefe, J. A. Newell, B. A. Schlink, H. H. Savage, E. J. Veech, M.
Veech, M. S.
| Marsden, E. A.

Garry, J. J. P.
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LL.D. Coghlan, C. A.

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LL. B .
Coen, F.
Coffey, F. L. V.
Fahey, B. F.
Edmunds, W.
Brennan, F. P.
Butler, F.
Coghlan, C. A.
Clune, M. J.
Dalton, G. T.

Browne, W. C.
Butler, T.
Butler, F. J.
Carroll, W. J.
Callachor, Rev. H. B.
Casey, M.
Coen, F.
Connellan, J.
Corbett, W. F.
Coffey, F. L. V.
Cullinane, J. A.
Daley, F. H.
Douglans, R. J.
Durack, J. J. E.
Enright, W. J.
Fahey, B. F.
Flynn, W. F.
Fitzpatrick, B.
Fitzpatrick, T. J. A.
Gorman, J. R.
Duhig, J. V.
Fitz-Herbert, R.
Fitz-Herbert, J.
Gallagher, M. J.
Hawthorne, H. L.
Haynes, R. I.
Haynes, A. R.
\begin{tabular}{|c|c|}
\hline Sacred Scripture & \\
\hline Loarc & . \\
\hline Classics . . & - \\
\hline Mathematics & \\
\hline
\end{tabular}
o'Connell
B.A.

Higgins, M. A.
Kelly, T.
Kerma, P. J.
Leverrier, \(\mathbf{F}\).
Leahy, J. P.
Lehane, T. J.
Louis, P. H.
Lynch, W.
Lioyd, T.
Macnamara, P. B.
Macrossan, H. D.
McNevin, T.
Maher, M. E.
Maher, C. H.
Mayne, J.
Mayne, W. M.
McDonagh, J.
McEvilly, A.
McEvilly, U.
McGuinn, D.
undergraduates.
Kelly, \(\mathbf{P}\).
Kelly, A. F.
Kenny, Jos.
Kenny, John
Logan, C. D.
McNamara, L. O.

LECTURERS.

Flannery, \(G\).
Lehane, T. J.
O'Brien, P. D.
O'Donohue, J. P. M.
M.A.

Flynn, J. E. Flynn, J. A.
Freehill, F. B.
Healy, P. J.
Louis, P. H.

Real, E. T.
Tole, J. A.
Veech, L.,
Watt, A. R. J.
Mullins, J. L.
O'Connor, Richard E.
O'Mara, M.
Quirk, Rev. D. P.
Walsh, W. M. J.

Meagher, L. F. Meillon, J.
Moloney, T. P.
Morris, J. M.
\(O^{\prime}\) Brien, P. D.
O'Donohue, J. P. M.
\(O^{\prime}\) Keefe, J. A.
Phillips, R. B.
Power, P. H.
Real, E. T.
Sheridan, F. B.
Shorthill, J. R.
Sullivan, H.
Sullivan, J. J.
Swanson, E. C.
Tole, J. A.
Veech; L. S.
Watt, A. R. J.
Walsh, J. J.
.. .. Right Rev. Rector
Moore, E. B.
Murphy, J. J.
O'Neill, V. F.
Power, J.
Slattery, M. J.
Troy, R. I.

\section*{ST. ANDREW'S COLLEGE.}

Incorporated by Act of Parliament, 31 Victoria, in connection with the Presbyterian Church of New South Wales. The Moderator for the time being of the General Assembly of the Presbyterian Church in the State of New South Wales is Visitor. The Corporation consists of a Principal, who must be a duly ordained Presbyterian Minister, holding and prepared to subscribe (when called upon to do so) the standards of the Presbyterian Church of New South Wales, and twelve Councillors, of whom four, but not more, must be ordained Ministers of the same Church. These twelve Councillors, with the Principal, form the Council, in which the government of the College is vested.

VISITOR.
the moderator of the general assembly.
The Right Rev. Robert Kay, M.A.
PRINCIPAL.
The Rev. Andrew Harper, M.A. (Melb.), D.D. (Edin.)
VICE-PRINCIPAL.
R. C. Teece, M.A., LL.B.
* HUNTER-BAILLIE PROFESSORS.
binglibh Lanouage and Literature (in relation to heligion)-Ronald C. Macintyre. M.A., B.D.

Obiental and Polyneslan Languages-Andrew Harper, M.A., D.D.
LECTURERS.


\footnotetext{
* Hunter-Baillie Professorehips established under a bequest for the foundation of Professorships in the College.
}

\section*{councilimors.}

Bowman, Arthur, B.A.
Bowman, E., M.A., LL.B.
Bruce, Rev. D., D.D.
Clouston, Rev. T. E., B.A., D.D.
Ferguson, Rev. John
Fuller. Hon. G. W., M.A., M.H.R.

Garland, Hon. John, M.A., LL.B., M.J.C.

Goodlet, John Hay
Hood, A. Jarvie, M D.
McCormick, A.. M.D.
Macintyre, Rev. R. G., M.A., B.D.
Walker, Hon. J. T., Senator

TRUSTEES.
Anderson, H. C. L., M.A.
MacLaurin, Hon. Sir Normand, M.D., LL.D.

Bownan, Arthur, B.A.
Thomson, The Hon. Dugald, M.P.
Walker, J. T., Senator
graduates.
M.A.

Anderson, H. C. L. Chapman, B. B.
Cohen, J. J.
Crawford, T. S.
Cribb, J. G.
Edwards. Rev. J.
Flint, C. A.
Fuller, G. W.
Gill, A. C.
Hill, Rev. Thomas

Jacksou, Rev. R.
Kay, Rev. Robert
Mann, W. J. G.
Marrack, J. R. M.
Merriugton, E. N.
Moore, S.
Nolau, J. H. M.
Paterson, Rev. J.
Perkins, A. E.
Ralston, A. G.

Rygate, P.W.
Smairl, J. H.
Sta.cy, H. S.. M.D.
Steel, Rev. Robert
Teece, R. Clive
Teece, R. N.
Thompson. J. A.
Waddell, G. W.
Waugh, Rev. Robert

Aspinall, A.
Blue, A.J.
Bond, L. W.
Browne, C. S.
Cameron, D. A.
Clayton, H. J.
a'Court. A. Holmes
Daridsou, Leslie, G.
Davies, R. L.
Dick, Robert
Fresliney, Reginald
Fitzhardinge, J. F. G.
Griffiths, F. G., B.A.
Griffiths, J. N.
M.D.

Stacy, H. S.
м.в.

Heaslop, J. W.
Henderson, J.
Jones, P. Sydney
King, A. A.
Kinross, R. M.
Lightoller, G. H. S:
Macintosh, G. D.
MacDowall, St. A. W.
Mac:Dowall, V.
Macintosh, G. D.
McKenzie. A. J.
Markwell, N. W. Matthews. W. F. Norrie, Geo.

Phillips, A. B. Perkins, A. E.
Purser, C.
Roberts, A. S. C.
Savage, Vincent W
Sear, H. R.
Sheppard, A. M.
Stokes, Edward S. Storey, J. C.
Thomson; J. M. Thomson, E. G. Townley, Percy L. Whiteman, R. J. N

LL.D.
G. W. Waddell, M.A. LL. B .
Edwards, D. S.
Gill. A. C.
Minter, C.
Hertzberg M,
Parker, W. A.
Teece, R. N.
B.A.

Allen, Carleton Kemp
Anderson, Rev. W. A. S.
Auld, Rev. J. H. G.
Barnet, Rev. Donald
Barton, W. A.
Beegling, D. H.
Bownan, Alister S.
Bowman, Arthur
Bowman, Ernest
Brown, W: R.
Byth, G. L.
Canpbell, A. L.
Campbell, C. R.
Cameron, Rev. A. P.
Castlehow, s.
Cohen, C. H.
Copland, F. F.
Cosh, Rev. J., B.D.
Craig, A. D.
Crane, Rer. C.
Dettmann. H. S.
Dick, J. A.
Dick, W. T.
Dixson, T. S.
Doig, Rev. A. J.
Dudley, J. T.
Duff. V. C.
Edwards, D. S.
Edwards, E. E.
Elphinstone, James
Farran-Ridge, C.
Ferguson, D.
Fuller, B. C.
Gordon, Rev. G. A.

Gritfiths, F. G.
Halliday, G. C.
Henderson, R. G.
Hertzbers, W. M.
Hooton, J. R. Hope, P .
Hunt, Harold W. G.
Hunter, T. B.
Jamieson, S.
Johnston, J.
Kinross, R. M.
Lane, J. B.
Linsley, W. H.
Lyon, Pearson
Munro, W. J.
Nelson, D. J.
Nimmo, W. N.
Paine, Bennington H .
Parkor, W. A.
Paterson, J.
Perkins, Rev. J. A. R.
Perské, H.
Poidevin, L. O. S.
Pope, Roland \(J\).
Powell, J. W. G.
Prentice, A. J.
Purser, Cecil
MacCallum, M. L.
McCook, Rev. A. S.
McGill, A. D.
Mackay, I. G.
Mackie, H. D.
McKie, E. N.
! McLelland, Hugh

McManamey, James \(\mathbf{F}\).
McNeil, A.
Manning, R. K.
Miller, Rer. R.
Minter, C.
Moore, J.
Mowbray, R. W
Quigley, J.
Ramsay, J.
Robson, R. N.
Rogers, P. H.
Rygate, C. D. H.
Rygate, H. B.
Shand, A. B.
Sheppard. E. H.
Sinclair, G. W.
Somerville. G. B.
Stacy, F. S.
Stewart, W. P.
Swanwick, K. ff.
Solomon, K. M. H.
Steel, J. B. V.
Thorburn, Rev. J. T.
Townley, Percy L.
Tozer, S. D.
Utz, H. S.
Vickers, L.
Walker, E. B.
Walker, J. E.
Walker, S. H.
Webb, B. L.
White, Rev. C. A
Whitfeld, H. E.
Woodward. F. P.
M.E.

Bradfield, John J. C.
B.E.

Barker, N. C.
Bedford, M. E.
Bowman. Archer
Burn, Alan
Cameron, C. B.
Carter, E. M.
Carter, H. G.

\author{
Craig, A. D., B.A. \\ Freeman, A. W., B.A. \\ Haigh, V. A. \\ Jack, R. L. \\ Norman, E. P. \\ Owen, T. M.
}

Rowlands, H. B. Stanley, F. V.
Waterhouse. L. V.
Webb, S. D.
Whitfeld, H. E.
Williams, (I. B.

Holloway, R. A. | Noman, E. P.

STUDENTS IN RESIDENCE.

Arnold, G. P.
Barbour, E. P.
Bardon, R.
Barriskill, J. R.
Barton, 0.
Bates, J. H.
Bateman, C. D.
Beith, J. R. M.
Beith, B. McN.
Bourne, H. T.
Bowman, R. McD.
Boyce, R. C. M.
Bradley. W. G.
Brown, J. H. B.
Callender, G. G.
Callaghan, A. A.
Campbell, A. L., B.A.
Carter, A. G., B.A.
Clatworthy. C. H. Cohen, C. Keith Coppleson, V. M.
Crawford, R. W. G.

Davis, T. R. E.
Duff, W. Clark
Duncan, C. M.
Finlayson, M.
Fuller, B. C.
Grieve, A. C., B.A.
Hardie, J.
Holloway, R. A., B.Sc
Howie, R. J.
Jeffrey, E.
Jones. J. H.
Kay, W. E.
Kennedy, H. M.
Kirkland, W. D.
Kirkland, H. E.
Lane, J. B., B.A.
McAlpine, \(G\).
Mann, D.
Minnett, R. B.
Mitchell, A. D.
Morris, P. A.
Neild, J R.

Nye, L. J. J.
Page, C.
Pitt, C. N.
Plant, H. F. H.
Reid, H. L. U.
Richardson, S. R. W.
Roberts, A. T.
Rofe, W. J. T.
Saunders, J. L.
Snith, W. H.
Stafford, A. L:
Stafford, H. L.
Stafford, S. R.
Steel, J. B. V., B.A.
Sutton, M. C.
Teece, L. G.
Utz, H. S., B.A.
Waddell, H.J.
Walker, G. J.
Wassell, C. E.
Willeocks, G. C.
Wilson, B. J.
endowments and prizes.
I.-Scholariships.
1. Bowman Scholarship.-A sum of \(£ 1000\) was bequeathed in 1873 by the late Robert Bowman, Esq., M.D., of Richmond, for the foundation of a Scholarship.

1911-I.-A. G. Carter, B. A.
II.-J. B. V. Steel, B.A.
2. Frazer Scholarship.-In 1884, a sum of \(£ 1000\) was bequeathed by the late Hon. John Frazer, M.L.C., for Scholarship.

1911-S. R. W. Richardson.
3. The Gordon Scholarship.-A sum of \(£ 1000\) was given in 1882, by the late S. D. Gordon, Esq., M.L.C., for the foundation of a Scholarship for students who have taken the B.A. Degree, or first class in Classics.

1911- \(\left\{\begin{array}{l}\text { R. C. M. Boyce. } \\ \text { A. C. Grieve. }\end{array}\right.\)
4. The Lawson Scholarship.-A sum of \(£ 1000\) (in bank shares) was bequeathed in 1882; by the late George Lawson; Esq., of Yass, for the foundation of a Scholarship for students who have taken the B.A. Degree:

Not awarded.
5. The Struth Scholarship.-A sum of \(£ 1000\) was given in 1884, by J. Struth, Esq., for the foundation of a Scholarship.

1911-E. P. Barbour
6. The Horn Scholarships.-In 1883, the late Mr. John W. Horn, of Corstorphine, Edinburgh, bequeathed eighty shares of the A. G. Co., to found three Scholarships.
\[
1911-\left\{\begin{array}{l}
\text { R. A. Holloway, B.Sc. } \\
\text { A. L. Campbell, B.A. } \\
\text { C. M. Duncan. }
\end{array}\right.
\]
7. The Coutts Scholarship.-In 1884, the sum of \(£ 1000\) was bequeathed by the late Rev. James Coutts, M.A., of Newcastle, for the foundation of a Scholarship. A student of the name of Coutts to have preference.
\[
1911 \text {-J. R. Nield. }
\]
8. The late Rev. Colin Stewart, M.A., in 1886, bequeathed his property to the College in trust for (among other objects) the founding of Scholarships.

1911-H. L. U. Reid
R. J. Howie.
9. The Alexander Gordon Ross Scholarship (£50) for one year, open to students in Divinity.
\[
\begin{aligned}
& \text { 1911-I - }\left\{\begin{array}{l}
\text { W. H. Smith. } \\
\text { W. Clark-Duff. }
\end{array}\right. \\
& \text { II.-W. G. Bradley. }
\end{aligned}
\]
10. The Fullerton Scholarship (£40) for Medicine or Divinity.

1911-M. R. Finlayson.
П.-Prizeg.
1. The Dean Prize.-A sum of \(£ 100\) was given in 1879 , by Alexander Dean, Esq., for the foundation of an Annual Prize for General Excellence.
2. The Jarvie Hood Prize (£10), for proficiency in the subjects of the First Year Examination in Medicine. 1911-L. J. J. Nye.
3. Frazer Prize of \(£ 25\), for Modern History.

1891-Parker, W. A.
\(\left.\begin{array}{l}\text { 1892-A. C. Gill } \\ \text { J. E. Walser }\end{array}\right\}\) æq.
1893-A. C. Gill
J. E. Walker

1894-C. A. White
\(\left.\begin{array}{l}\text { 1895-A. J. Doig } \\ \text { G. W. Waddell }\end{array}\right\}\) æq. G. W. Waddell
F. G. Griffiths (2nd)
4. Bowman Prize (£5) for proficiency in Debating.
\[
\begin{aligned}
& \text { I.-A. S. Grieve, B.A. } \\
& \text { II. }-\left\{\begin{array}{l}
\text { A. L. Campbell, B.A. } \\
\text { B. C. Fuller, B.A. }
\end{array}\right.
\end{aligned}
\]

Of the above Scholarships, the Frazer, the Lawson and the A. G. Ross are restricted to students for the Ministry of the Presbyterian Church. A first class at the University Examinations is a necessary qualification for the Gordon, but not for any of the other Scholarships.

\section*{THE WOMEN'S COLLEGE.}

Incorporated by Act 53 Vict., No. 10, and not attached to any religious denomination. In the terms of the Act the Visitor is the Chancellor of the University, or in his absence the ViceChancellor. The Corporation consists of the Principal, who must be a woman, and twelve elected Councillors, of whom four at least must be women, and two ex-officio Councillors, nominated by the Senate of the University. The Councillors, with the Principal, form the Council in which the government of the College is vested.

According to the Act of Incorporation, the Women's College is a College within the University of Sydney, wherein may be afforded residence and domestic supervision for women students of the University, with efficient tutorial assistance in their preparation for the University Lectures and Examinations. All students in the College not already matriculated shall, as soon as shall be practicable, matriculate in the University, and shall thereafter be required duly to attend the lectures of the University in those subjects, an examination and proficiency in which are required for Degrees, with the exception, if thought fit by any such student, of the Lectures on Ethics, Metaphysics, and Modern History.

The Women's College is strictly undenominational, the Act of Incorporation providing "That no religious catechism or formulary which is distinctive of any particular denomination shall be taught, and no attempt shall be made to attach students to any particular denomination, and that any student shall be excused from attendance upon religious instruction or religious observances on express declaration that she has conscientious objections thereto."

The College fees are as follow:-
Resident Students.-£21 for each University Lecture Term, with \(£ 22 \mathrm{~s}\). a week for residence during vacation.

The fee of \(£ 21\) for the Lecture Term covers all College dues, including fire and light.

The Council provides all necessary furniture, but each student may arrange and add to the furniture in her room as she pleases.

Non-Resident Stuàents.-Werm fee, £4 4s., or \(£ 12\) 12s. per .annum.
visitor.
the chancellor of the university.
phincipal.
Miss L. Macdonald, M.A. (Loudon).
counctllors.
Barff, Mrs., M.A.
Cohen, Mrs. G. J.
Fairfax, Miss
Hughes, Hon. 'T.
Jones, Sir P. Syduey, M.D. (ex q/fficio)
Kater, Mrs. H. E.
Leverrier, Frank, B.Sc., B.A. (ex officio)

Maedonald, Miss, M.A. (Principal)
McMillan, Sir W., K.C.M.G.
Owen, Mrs. Langer
Rich. G. E., M.A.., K.C.
Sly, Mrs. R. M.
Stuart, Prof. Anderson, M.D., LL.D
Walker, Senator J. T. (Chuirman and Hon. T'reastrer)
Windeyer, Miss M., Hon. Socretary.
M.A.

Bowman, M.
Cordingley, Grace Cribb, Estelle Dunlop, M. L. S. Fitzhardinge, J. G. Fitzhardinge, Maude Y.

Jensen, Clio
Lance, E. A.
Lion, Rosine
Wark, F. H.
Watson, Eleanor
\begin{tabular}{|c|c|c|}
\hline Armstrong, H. D. & Donnelly (née Wilkin- & Noad, E. A. \\
\hline Armstrong, M. H. & , Ida B. & Parkinson, K. A. \\
\hline Ashton (née Anderson), & Drinkwater (née Ste- & Philp, D. M. \\
\hline Maud E. & phenson), A. L. & Read, Elizabeth J. \\
\hline Ballantine, & Densley, N. L. & Roseby, Minn \\
\hline (in residence) & Dunnicliff, Mary C. & Rutherford, C. M \\
\hline Beith, J. & Edwards, D. & Saunders, E.F. \\
\hline Bourne, Ida & Fitzhardinge (née & Skillman, Jessie \\
\hline Brown. M. A. M. & Rutherford), F. M. & Uther, J. B. \\
\hline Brownlie, E. A. D. & Harker, Constance E. & Watson, E. A. \\
\hline Brownlie, E. A. & Jones, G. E. & Watson (née Armstrong), \\
\hline \(\cdot \mathrm{Clark}\), M. D. & Lilley, K. & I.B.H. \\
\hline Curren, Ethel & Markwell, G. E. & Wilson, G. L. \\
\hline Darker (née Hill), Evelyn & Montefiore, Hortense H. Morgani (née Holt), Edith & Wood (née Whitfeld), Eleanor M. \\
\hline Dawes, M. M. & K & Wood (née Fell), C. I. \\
\hline
\end{tabular}

Aspinall, J.
Binney, C. C
Bourne, E. E.
Browne, J. H.
Child, S. R.
Dalyell, E. J.
M.B.

Leonard (née Browne), Ormiston, Isabel
E. F. \(\quad\) Parnell, E. C.

Greenham, Eleanor C. \(\mid\) Rutherford, C. M.
Günther (née Tbomson), Smith, C, R. J. G.

Maclean, A. L.
White, M. I. (deceased)
B.Sc.

Little, E. M.
White (née Horton), Marion C. | Watkins, D. M.

\section*{UNDERGRADUATES IN RESIDENCE.}

Braye, H. M. J.
Bray, I.
Buckley, E. A.
Coatsworth, K. B.
Exton, H. M.
Frederiksen, \(S\). Gasteen, E .

Houison, L.
Lewers, \(R\).
Little, C. E.
Macdonald, F. A.
Meares, N. D.
Moir, C. M.

Porter, L.
Sandford, E. L.
Smith, L. E.
Voss, D .
Watson, C.
Windeyer, M. F.

\section*{EXHIBITIONS.}

The Walker Exhibition.-An Exhibition of the value of £25, presented by Mrs. J. T. Walker, given to the student who on entering the College shows evidence of the highest attainments, provided that no student shall be eligible for the Exhibition unless she shall make it appear to the satisfaction of the Principal that she cannot, without such assistance, pay the expenses of residence in the College.
1892-Harker, Constance E. 1893-Montefiore, H. H.

1894—Saunders, Eva Florence
1895—De Lissa, Ethel N. 1895-De Lissa, Ethel N.

GRACE FRAZER SCHOLARSHIP.
The Grace Frazer Scholarship, of the value of \(£ 30\) (being the interest of \(£ 1000\) invested in New South Wales Government Funded Stock), presented by Mrs. C. B. Fairfax, in memory of her late sister. Awarded upon conditions settled from time to time by the Council, but hitherto tenable for three years.
```

1892-Whitfeld, Eleancr Madeline
1895-Lance, Elisabeth A.
1898-Armstrong, Ina Beatrice H.
1899-Armstrong, H. D. H.
1900-Murray-Prior, D. K.
1901-Not awarded.
1902-Skillman, Jessie

```

\footnotetext{
1905-Maclean, A.
1906-Maclean, A.
1507-Maclean, A.
1908-Watson, E. A.
1909-Watson, E. A.
1910-Watson, E. A.
1911-Windeyer, M. F.
}

\section*{COUNCILLORS' SCHOLARSHIPS.}

Two Scholarships, of \(£ 25\) each, tenable for one year, presented by the Councillors, were awarded in Lent Term, 1893, on the results of the University Examinations.

> 1893-Harker, C. E. Broad, A. W.

One Scholarship, of \(£ 25\), tenable for one year, awarded on the same terms as the Walker Exhibition.
```

1895-Saunders, Eva F.
1896-Dunnicliff, Mary
1897-Read, E.J.
1898-Bourne, Eleanor
1899-Stephenson, A. L.
1900-Brownlie, E. A.
1901-Saunders, F. L.
1903-Curren, Ethel
1904-Clark, M. D.
1895-Saunders, Eva F.
1896-Dunnicliff, Mary
1897-Read, E. J.
1898-Bourne, Eleanor
1900-Brownlie, E. A.
1901 -Saunders, F. L.
1903-Curren, Ethel
1904-Clark, M. D.

```

1905—Jones, Grace
1907-Smith, Clara
1903-Not awarded.
1909-Dalyell, E. J.
Hamilton-Browne, E.
1910-Watson, C.
\(\left.\begin{array}{c}\text { 19:1- } \\ \text { Mrederiksen, C. M. B. }\end{array}\right\} \underset{q}{ }\).

A Scholarship, of the value of \(£ 50\), tenable for one year, presented by Miss Walker, of Yaralla, given on similar terms to the Walker Exhibition.
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189j-Dunnicliff, Mary | 1905-Divided between Perry, Irene,
and Smith, Clara R.
1896-Read, Elizabeth J.
1897-Bourne, Eleanor E.
1898-Divided between Holt, E. J.
K., and Stephenson, A. L.
1899-Divided between Brownlie,
E. A., and Loudon, B. W.
1900-Saunders, F. L.
1001-Mugliston, M.
1902-Divided between Curren, Ethel
and Mugliston, M.
1903-Divided between Bourne, Ida,
and Watson, Eleanor
1904-Jones,Grace E.

```

1905-Divided between Perry, Irene, and Smith, Clara R.
1906-Divided between Norris, Mabel and Smith, Clara R.
1907-Divided between Armstrong, M. H., and Beith, J.

1908--Divided between Armstrong, M. H., and Parkinson, K. A. 1909-Dirided between Houison, L., and Watson, C.

1910-Divided between Fredriksen, S., and Moir, C. M.

1911—Porter, L.

A Prize of Books to the value of \(£ 5\), presented by the Kambala Girls' Union, given on similar terms to the Walker Exhibition.

1898-Divided between Holt, E. J. K., and Stephenson, A. L.

1899-Loudon, B. W.

1900-Murray-Prior, D. K.
1901-Mugliston, M.
190\%—Skiliman, Jessie

A Prize of Books, presented by the Alliance Française.
White, M. I.

THE HOLT SGHOLARSHIP.
A Scholarship, of the value of \(£ 25\), presented by Mrs. Holt, Parramatta, given on similar terms to the Walker Exhibition.

Clark, Marjorie D.
THE JANET COUTTS BURSARY.
The sum of \(£ 600\) was given by Mrs. Janet Coutts in November, 1907, the interest to be from time to time applied for the assistance of meritorious students who shall have completed at least one year's residence in the College, and shall be unable, without assistance, to finish their course in residence.
1908-Parnell, E. C. | 1909-Parnell, E. C. | 1910 -Houison, L. 1911-Watson, C. E.

THE MARIE WALLIS MEMORIAL PRIZE FOIK GERMAN.
A Prize of Books to the value of \(£ 212 \mathrm{~s}\)., presented by theformer'students of "Ascham" to be awarded annually to the Second Year Student who does best in the German HonoursExaminations.

1908-Ramsay, Muriel B. | 1909—Parkinson, K. A.
1911-Watson, C. E.
THE LODGE SCHOLARSHIP.
A Scholarship, of the value of \(£ 30\), for one year, presented by an anonymous donor, to be awarded in 1907 on similar terms. to the Walker Exhibition.

Ballantine, M.

\section*{ROYAL PRINCE ALFRED HOSPITAL.}

Lstablished and maintained in accordance with the promivions of the "PrinceAlfied Hospital Act," 36 Vic., and the "Prince Alfyed Memorial Hospital Site Dedication Act," 36 Fic., Nu. :S.

The Hospital was framed as a general Hospital and Medical. School for the instruction of students attending the Sydney University, and for the training of nurses for the sick.

The design was adapted to the site dedicated to the Hospital. by the Government, aided by the co-operation of the Sydney University.

The Hospital is managed by a Board of fifteen Directors. The Chancellor of the University and the Dean of the Faculty of Medicine are Directors ex officio; three Directors are appointed by the Government, and the remaining ten are elected by the Governors and subseribers.

The Medical Officers are all appointed by a conjoint Board, consisting of the Senate of the University and the Directors of the Hospital.

The University Lecturers in Medicine and Clinical Medicine are Honorary Physicians, the Lecturers in Surgery and Clinical Surgery are Honorary Surgeons, the Lecturer in Ophthalmic Medicine and Surgery is Honorary Ophthalmic Surgeon, and the Lecturer on Diseases of Women is Honorary Surgeon for Diseases of Women at the Royal Prince Alfred Hospital.

All Physicians and Assistant Physicians must be Graduates in Medicine of the University of Sydney, or of some University recognised by the University of Sydney.

All Surgeons and Assistant Surgeons must possess a Degree in Surgery, or a Surgeon's diploma from some University or College of Surgeons recognised by the University of Sylney.

Clinical Lectures are delivered in accordance with the University curriculum.

\section*{Patrons:}
H.M. the King.
H.M. the Queen.

\section*{Directors:}

The Chancellor of the University of Sydney. The Dean of the Faculty of Medicine (Chairman).
R. M. McC. Anderson, Esq.

Hugh Dixson, Esq.
Sir James Fairfax
Moritz Gotthelf, Esq.
Senator the Hon. A. J. Gould Sir James Graham, M.D., M.L.A.

The Hon. H. E. Kater, M.L.C.
F. D. Kent, Esq.

Sir P. Sydney Jones, M.D.
The Hon. C. K. Mackellar, M.B., M.L.C.

Col. Macarthur Onslow, M.L.A.

Dr. Cecil Purser
Senator the Hon. J. T. Walker Honorary Treasurer: The Hon. H. E. Kater. Secretary: William Epps.
Honorary Consulting Physician.-1887, Sir P. Sydney Jones, M.D. (Lond.).

Honorary Consulting Surgeon-1908, Chas. P. B. Clubbe, L.R.C.P., M.R.C.S.

Honorary Physicians.-1889, Robert Scot-Skirving, M.B., Ch.M. (Edin.) ; 1898, Cecil Purser, B.A., M.B., Ch.M. (Syd.) ; 1906, G. E. Rennie, B.A., M.D., M.R.C.S., F.R.C.P. (Lond.); 1910, A. E. Mills, M.B., Ch.M. (Syd.): 1911, Sinclair Gillies, M.A., M.D. (Lond.).
Honorary Surgeons.-1890, Alexander MacCormick, M.D., Ch.M. (Edin.), F.R.C.S. (Eng.) ; 1899, H. V. C. Hinder, M.B., Ch.M. (Syd.) ; 1906, Chas. MacLaurin, M.B., Ch.M. (Edin.) ; 1908, G. H. Abbott, B.A., M.B., Ch.M. (Syd.); 1911, R. Gordon Craig, M.B., Ch.M. (Syd.).
Honorary Gynecological Surgeons.-1895, Jos. Foreman, L.R.C.P. (Edin.), M.R.C.S. (Eng.); 1896, Edward T. Thring, F.R.C.S. (Eng.), L.R.C.P. (Lond.).
Honorary Ophthalmic Surgeon.-1889, F. Antill Pockley, M.B., Ch.M. (Edin.), M.R.C.S. (Eng:).
Honorary Physician for Diseases of the Skin.-1898, F. A. Bennet, M.A., M.D.
Honorary Surgeon for Diseases of the Ear, Throat, and Nose.-1906, H. Russell Nolan, M.B., Ch.M.
Honorary Medical Officer in charge of the Medical Gyanastics Department.-1906, Reuter E. Roth, M.R.C.S. (Eng.).
Honorary Radiographer. - Herschel Harris, M.B., Ch.M. (Syd.).

Honorary Assistant Physicinss.-1903, C. Bickerton Blackburn, B.A., M.D., Ch.M. (Syd.) ; 1903, E. W. Fairfax, M.B., Ch.M. (Syd.) ; 1906, J. I. C. Cosh, M.B., Ch.M. (Syd.), D.P.H. (Cantab.); 1910, J. Froude Flashman, B.A., B.Sc., M.D., Ch.M. (Syd.) ; 1910, S. A. Smith, M.B., Ch.M. (Syd.); 1911, Granville G. Sharp, B.Sc., M.B., Ch.M. (Syd).
Honorary Assistant Surgeons.- 1906, J. Morton, M.B., Ch.M. (Syd.).; 1908, F. P. Sandes, M.D., Ch.M. (Syd.) ; 1909, St. J. W. Dansey, M.B., Ch.M.; 1911, John L. McKelvey, M.B., Ch.M. (Syd.); 1911, Hugh G. Poate, M.B., Ch.M. (Syd.), F.R.C.S. (Eng.).
Honorary Assistant Surgeons, Diseases of Women.-1903, H. C. Taylor Young, M.D.; 1906, Fourness Barrington, M.B., M.S. (Edin.).

Honorary Assistant Ophthalmic Surgeons.-1902, H. Guy S. Warren, M.R.C.S. (Eng.), L.R.C.P. (Lond.); 1906, J. C. Halliday, M.B., Ch.M. (Syd.), F.R.C.S. (Eng.), D.P.H. (Cantab.).

Honorary Assistant Physician for Diseases of the Skin.-1911.-E. H. Molesworth, M.B., Ch.M. (Syd.).

Honorary Assistant Surgeon for Diseases of the Ear, Nose and Throat.-1906, Herbert W. Marks, M.A., M.D., B.C., M.R.C.S. ; 1911, W. C. Mansfeld, M.B., Ch.M. (Syd.).

Honorary Pathologist.-1902, Professor Welsh, M.A., B.Sc., M.D., M.R.C.P. (Edin.).

Honorary Pathological Chemist.-1908, H. G. Chapman, M.D., B.S.

Honorary Assistant Pathologists.-1908, J. E. V. Barling, M.B., Ch.M. (Syd.); W. F. Litchfield, M.B., Ch.M. (Syd.).

Medical Tutor.-1910, Sinclair Gillies, M.A., M.D. (Lond.).
Surgical Tutor.-1908, R. B. Wade, M.D., Ch.M. (Syd.).
Honorary Segretary of the Medical Board.-A. E. Mills, M.B., Ch.M. (Syd.).

Medical Superintendent.-1911, H. H. Schlink, M.B., Ch.M.
Assistant to Medical Superintendent.-1911, Kenneth Smith, M.B., Ch.M.


Junior Resident Medical Officers.-B. T. Edye, M.B.; A. S. Walker. M.B. ; H. J. Clayton, M.B.; N. J. Davis, M.B.; I. M. Barrow, M.B.: F. G. Wooster, M.B.; S. H. Weedon, M.B.; W. B. Clipsham, M.B.; H. R. Sear, M.B.; S. E. Jones, M.B.; T. A. Turner, M.B. ; N. K. Robertson, M.B.

Junior Resident Pathologist.-C. Norman Paul, M.B., Cb.M.
royal prince alfred hospital.-medical school.
Rules and Tegulations for the Clinical Study and Training of the University
Students of Medicine.
The Hospital shall be open to students for Clinical work from \(9 \mathrm{a} . \mathrm{m}\). to 5 p.m. throughout the year.

In order to obtain the ceritificate of hospital practice necessary to qualify for admission to the Final Examination for the Degrees of Bachelor of Medicine and Master in Surgery of the University of Sydney, students are required to pass through the hospital curriculum of study and practice in the various departments, according to the following scheme and time table of Clinical work.

The respective duties of all students, under the time table, shall be apportioned by the Medical Superintendent, and the necessary certificates will only be issued to those students who have shown punctuality, diligence, and efficiency in the performance of the duties assigned to them.

The Registrars shall report in writing to the Medical Superintendent each month as to the work done in their departments by each Clinical Clerk and Surgical Dresser, and the Medical Superintendent shall obtain reports from the members of the Honorary and Resident Medical Staff concerning the character of the work done by the students under supervision.

The Medical Superintendent shall report to the House Committee upon the character of the work done by each fourth and fifth year student, at the first or second meeting after the end of each term.

Students attending the Hospital shall be arranged by the Medical Superintendent in four divisions in each year, A, B, C and \(D\) respectively, and a list of the names thus appointed to the various departments shall be hung up in the Entrance Hall of the Hospital.

The Hospital vacation shall be from the end of the third week in November to the commencement of the second week in January, during which time the Hospital shall be closed to students other than those under examination.

Clinical Work Table.
FOURTH YEAR.
\begin{tabular}{|c|c|c|}
\hline Group. & Michaelama Term. & Long Vacation Term. \\
\hline A. & Casualty and Surgical Ont Patients. & Surgical Ward Dressing. \\
\hline B. & Surgical Ward Dressing. & Casualty and Surgical Out Patients. \\
\hline C. & Surgical Ward Dressing. & Surgical Ward Dressing. \\
\hline D. & Surgical Ward Dresssing. & Surgical Ward Dressing..... \\
\hline Group. & Lent Term. & Trinity Term. \\
\hline A. & Surgical Ward Dressing. & Surgical Ward Dressing. \\
\hline B. & Surgical Ward Dressing. & Surgical Ward Dressing. \\
\hline C. & Casualty and Surgical Out Patients. & Surgical Ward Dressing. \\
\hline & Surgical Ward Dressing. & Casualty and Surgical Out Patients. \\
\hline \multicolumn{3}{|c|}{fifte Year.} \\
\hline Grour. & First Micharlmas Trem. & Jona Vication Trem \\
\hline A. & Cinical Clerkship, Medical Wards. Tutorial Medicine (Ward). & Clinical Clerkship, Medical Wards. Tutorial Medicine (Out Eatients). \\
\hline \multirow[t]{2}{*}{B.} & \multirow[t]{2}{*}{Clinical Clerkship, Médical Wards Tutorial Medicine (Ward).} & Medical Out Patients' Attendance. \\
\hline & & Thtorial Medicine (Out Patients). Attend Gyugecological Out Patients. Attend Diseases of the Skin, Out Patients. \\
\hline \multirow[t]{2}{*}{C.} & \multirow[t]{2}{*}{Clinical Clerkship, Medical Wards. Tutorial Medicine (Out Patients).} & Clinical Clerkship, Medical Wards. Tutorial Medicine (Wards). \\
\hline & & Clinical Clerkship, Gynæcological Wards. \\
\hline D. & Clinical Clerkship, Medical Wards. Tutorial Medicine (Out Patients). & \begin{tabular}{l}
Clinical Clerkship, Medical Wards. \\
Tutorial Medicine (Wards). \\
Clinical Clerkship, Ophthalmic Wards. Attend Diseases of the Ere and Diseares of the Ear, Nose, and Throat (Out Patients).
\end{tabular} \\
\hline
\end{tabular}

YIFTH YEAR-continted.
\begin{tabular}{|c|c|c|}
\hline Group. & Lent Tebm. & Tbinity Term. \\
\hline A. & \begin{tabular}{l}
CliniealClerkship, Medicaland Ophthalmic Wards. \\
Attend Diseases of the Eye, and Diseases of the Ear, Nose, and
\end{tabular} & Clinical Clerkship, Medical and Gynæcological Wards. \\
\hline B. & \begin{tabular}{l}
Throat (Out Patients). \\
Clinical Clerkship, Medical Wards. Medical Out Patients' Attendance.
\end{tabular} & \begin{tabular}{l}
Clinical Clerkship, Medical and Ophthalmic Wards. \\
Attend Diseases of the Eye and Disearea of the Ear, Nose, and Throat (Out
\end{tabular} \\
\hline c. & Clinical Clerkship, Medical Wards. Attend Gynecological, Out Patients. Attend Diseases of the Skin, Out Patients. & Clinical Clerkship, Medical Wards. Medical Out Patiente' Attendance. \\
\hline D. & Clinical Clerkship, Medical and Gyneecological Wards. & Clinical Clerkship, Medical Wards. Attend Gynæcological Out Patients. Attend Diseases of the Ekin, Out Patiente. \\
\hline Group. & \multicolumn{2}{|r|}{Second Michaelmas Term.} \\
\hline A & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{Attend Gynæcological Out Patients. Attend Diseases of the Skin, Out Patients.}} \\
\hline & & \\
\hline \(\underset{\mathbf{C}}{\text { b }}\) & \multicolumn{2}{|l|}{\multirow[t]{2}{*}{\begin{tabular}{l}
Clinical Clerkship, Ophthalmic Wards. \\
Attend Diseases of the Eye, and Diseases of the Ear, Nose, and Throat
\end{tabular}}} \\
\hline & & \\
\hline D & Medical Out Datients' Attendonce. & \\
\hline
\end{tabular}

It shall be the duty of each Clinical Clerk to take the history of every patient admitted to the beds placed under his charge within forty-eight hours of admission, and to make all needful periodical reports upon the progress, symptoms, treatment, and results of each case.

It shall be the duty of each Surgical Dresser to take the history of every patient under his charge within twenty-four hours of admission, and to make all needful periodical reports upon the progress, symptoms, treatment and results of each case.

\section*{THE SYDNEY HOSPITAL.}

The Hospital was founded in 1811 and has for its three main objects:-(a) The affording of medical and surgical relief to the poor; (b) the education of medical students; (c) the training of nurses for attendance on the sick.

The Hospital is situated in Macquarie Street, City, and the number of beds available is 332 , besides which there are large casualty and out-door departments.

The Hospital is managed by a Board of Directors, and the Clinical School is under the direction of a Board of Medical Studies.

The Medical Officers are appointed by the Board of Directors, and the Resident Medical Officers are chosen from the most distinguished graduates each year by alternate selection with the Royal Prince Alfred Hospital.

The Honorary Medical Officers are appointed for a period of four years, and are eligible for, but not entitled to, re-election for a subsequent period; no Honorary Medical Officer shall hold office after attaining the age of sixty years, except as an Honorary Consulting Medical Officer.

All Physicians and Assistant Physicians must be graduates in medicine of the University of Sydney, or of some University recognised by the University of Sydney.

All Surgeons and Assistant Surgeons must possess a degree in surgery or a diploma in surgery from the University of Sydney, or from some University or College of Surgeons recognised by the University of Sydney.

The Sydney Hospital Clinical School affords a full course of instruction in accordance with the time table and regulations laid down by the University Senate, c.f. pp. 462-464.

All Clinical Lecturers and Tutors are appointed by the Board of Directors subject to the approval of the Senate of the University of Sydney.
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\section*{RECOGNIS\&D BY THE UNIVERSITY AS PLACES WHERE STUDY MAY BE CARRIED ON IN CONNECTION WITH THE FACULTY OF MEDICINE.}

ST. VINCENT'S HOSPITAL.
THE ROYAL HOSPITAL FOR WOMEN.
THE HOSPITAT FOR SICK CHILDREN.
THE GLADESVILLE HOSPITAL FOR THE INSANE.
THE CALLAN PARK HOSPITAL FOR THE INSANE.
THE WOMEN'S HOSPITAL.

\section*{UNITED DENTAL HOSPITAL OF SYDNEY.}

This Hospital was established in 1901 for the purpose of providing dental attendance for persons unable to pay the fees of ordinary dentists, and also to provide facilities for the instruction of the students attending the University Dental School. The business of the Hospital is carried on in a building at the corner of George and Bathurst Streets, opposite St. Andrew's Cathedral. It amalgamated with the Dental Hospital of Sydney on June 1st, 1905.

The Hospital is open for the treatment of patients from 10 to 5 p.m. daily, Saturdays excepted.

The Honorary Dental Surgeons are appointed by the Hospital Board.

The University Lecturers in Surgical and Mechanical Dentistry are ex officio Honorary Dental Surgeons of the Hospital.

The fee payable by students for the dental practice of the Hospital is \(£ 10\) 10s. per annum.

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Mr. S. Chaim
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hon. TREASURER. Dr. Alfred Burne . \(\quad\) Mr. Donald Smith

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Dr. L. A. Carter
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Mr. E. K. Satchell
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honorary pathologist.
Professor D. A. Welsh, M.D.
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Dr. Scot Skirving
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\hline Date. & Donor. & Anount. & Object of Foundation. \\
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\hline & Lady Renwick ... & 20200 & For a Window in the Medical School, in memory of her late fiather. \\
\hline & P. S. Jones, Esq., M.D. & \(\begin{array}{lll}220 & 0 & 0 \\ 140 & 0 & \end{array}\) & \\
\hline & G. Bennett, Esq., M.D. & 14000 & For Windows in the Medical school. \\
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\hline & John Harris, Esq. .. & \(120 \quad 00\) & For a Window in the Medical School, in memory of the late Dr. Hiamis. \\
\hline & F. J. Homer, Esq. & 20000 & Exhibition-In Mathematics. \\
\hline \multirow[t]{2}{*}{1890} & The Trustees of the Will of the Hon. John Fiazer, M.L.C. & \(2,000 \quad 0 \quad 0\) & Scholarship-In History. \\
\hline & George Beunett, Esq., M.D. & & John Gould's Works on Ornithology. \\
\hline 1891 & William Gruhame, Esq. & 10000 & Arnual Praze-In the Senior Public Exami-
nation. \\
\hline 1892 & Rev. R. Collie, F.L.S.. & 10000 & Alnual Prize-For Botany \\
\hline 1896
1004 & P. N. Russell, Esq. ... & 50,000 0 0 & ( For the endowment of the P. N. Russell \\
\hline 1004 & & 50,000 00 & School of Engineering and for Scholar( ships. \\
\hline \multirow[t]{4}{*}{\[
\begin{aligned}
& 1898 \\
& 1900
\end{aligned}
\]} & Thomas Garton, Esq. ... & 2,050 00 & Scholnrships-In French and German. \\
\hline & Henry Wait, Esq. & 1,000 0 0 & Bursary-In the Faculty of Medicine. \\
\hline & Mrs. George Harris Cecil Darler, Esa & 1,700 00 & Scholarship-In the Faculty of Law. \\
\hline & Cecil Darley, Esq. & & \begin{tabular}{l}
An Astionomical Equatorial Telescope and \\
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\end{tabular} \\
\hline \multirow[t]{2}{*}{1901} & Eurl Beauchamp & 62500 & Prize for an English Essay. \\
\hline & Mrs. Jessie E. Duncan & \begin{tabular}{l}
80819 \\
10519 \\
\hline
\end{tabular} & \{ Bequost for Bursary. \\
\hline 1903 & G"eorge M̈rsöters, Ësq. & & A Natural History Collection. \\
\hline 1904 & Kambala Girls' Union & 250 & Annual Prize-For Girls at Matriculation. \\
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\hline & \begin{tabular}{l}
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Subscribers to Dr. F.
\end{tabular} & \(\begin{array}{lll}110 & 0 & 0 \\ 125 & 0 & 0\end{array}\) & Prize for Latin Essay
Prize in Psychological Medicine. \\
\hline 1907 & Norton Manning Memorial Prize & 1250 & Prize in Psychological Medicine. \\
\hline 1909 & Hugh Dixson, Esq. ... & 7,050 00 & For purchase of Aldridge Collection of Minerals from Broken Hill. \\
\hline \multirow[t]{3}{*}{1910} & Subscribers to Parkinson Memorial Fund & 223157 & Prize in Pathology. \\
\hline & Executors of the Will of the late Miss Frances Mary Busby & \(\begin{array}{cccc}500 & 0 & 0 \\ 176 & 8 & 6\end{array}\) & Musical Scholarship. \\
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\section*{REPORT of the \\ SENATE OF THE UNIVERSITY OF SYDNEY}

FOR THE YEAR ENDED 3lst DECEMBER, 19 i 0.
1. The Senate of the University of Sydney, in pursiance of the provisions of Section 16 (i) of the "University and University Colleges Act \(1900, "\) has the honour to transmit the account of its proceedings during the year i 910 for the information of His Excellency the Governor and Executive Councii.
2. The number of studerits admitted to matriculation in March, 1910, with a view to proceeding with the curriculum in one of the various Faculties was 207.

\section*{Attendance at Lectures.}

3 The following table shows the number of students in the several faculties:-


Annual University Examinations.
4. The number of students who attended and passed the Annual Examinations in December, 1909, and March, 1910, after attending the prescribed courses of lectures, is shown in the fcilowing table :-

Faculty of Arts.
First Year Examination .. .. .. .. 110 . 97
Second Year Examination .. .. .. 89 81

Third Year Examination .. .. .. 71 . 65,
Department of Economics and Commerce.
First Year Examination . . . . . .. 25 . 23
Second Year Examination .. .. .. 10 10
Third Year Examination .. .. .. 30 27
In addition to the students passing through the regular curriculum, 26 evening students and students of special subjects passed the examination in individual subjects after attendance upon the prescribed courses.

Department of Military Studies.
Candidates. Passed.
Military Science 1. (Military History and Strategy) .. .. 23
Military Science II. (Military History and Imperial Defence) 12
Military Engineering .. .. .. .. .. .. 14
Military Topography .. .. .. .. .. .. 28
Faculty of Law.
Intermediate Examination-Section I. .. 18 12
Section II. .. 14 14
Final Examination—Section I. .. .. 10 9
Section II. .. ... 1 I

Sections I. and II. .. 6
Faculty of Medicine.
First Degree Examination .. .. .. 125 94
Second Degree Examination .. .. .. "81 60
Third Degree Examination .. .. 55 52
Final Examination : .. .. .. 54 46
Factlty of Science.
First Year Examination . . . . . . 11 11
Second Year Examination .. .. .. . . 4 4
Third Year Examination .. .. .. 15 15
Faculty of Science-Department of Engineering.
First Year Examination .. .. .. .. 22 20
Second.Year Examination-Civil .- .. 3
Mining and Metallurgy 6
Mechanical and Electrical 76


In the Faculty of Science and the Department of Engineering 9 students of special subjects passed in the Final Examination of their subjects.

In Pharmacy 81 students seeking a qualification presented themselves for the University examinations at the conclusion of the courses of lectures which they had attended ; 66 passed in individual subjects, 8 completing the whole course.

\section*{Degrees Conferred.}
5. The following degrees were conferred after examination :-

Master of Arts (M.A.) :-Harrie Norman Clayton Barlex, Myril MacDougall Bowman, Benjamin Burgoyne Chapman, Alan William Cusbert, John George, Mary Elizabeth Florenoe Gourlay, Joseph Lynch, Vivian James Miles, Frederick Charles Philip, Thomas Taylor Roberts, William Henry Webster Stevenson.
Bachelor of Arts (B.A.) :-Carleton Kemp Allen, MillicentSylvia Armstrong, Mabel Alice Ballantine, Lindon Hilton Biddulph, Harold Robertson Blanksby, Reginald Charles Blumer, Alan Nunan Brierley, Frederick Bussmann, Paul Francis Calow, Maggie Campbell, Cecil Hope Cohen, Norman Connal, Edith Madge Cotton, Eleanor Theresa Davis, Herbert Debenham, Thomas Storie Dixson, Evan Gustave Severa Erans, Una Lucy Fielding, William Forsyth, Irene Isabel Francis, Alexander Dale Fraser, Bryan Cecil Fuller, Percy William Hallett, William Frederick James Hatfield, Kathleen Herlihy, William George Hilliard, John Russell Hooton, Carl Henry Kæppel, John Leaver, Enid de Save Lewis, Errington Lewis, Keith Broughton Frederic Lumsdaine, Mary McAulay, Joseph Francis McCaulay, Harold Douglas Mackie, Constance Mary McLean, Arthur Dudley Bathgate Marchant, Hubert Kingsley Meek, Herbert William Mofftt, Colin Moody. Charles Henry Moore, Edith

Elizabeth Moore, Peter Lawrence Murphy, Bernard Muscio, Keith Dixon Norman, Joseph Gabriel Nowlan, Robert Ernest Nutman, Percy Penrhyn Olden, Reginald Arthar Page, William Robert Page, Kathleen Alvena Parkinson, Benjamin John Price, Frank Purnell, Theodore Gordon. Robertson, Rupert King Scott, Eugene Francis Simonds, Allan Malcolm Smith, Eleanor Rose Smith, Jeanie Lockhart Spence, John Newton Stephen, William Kelvey Stewart, James Campbell Thom, Frederic William Tugwell, Ruby Wheaton, Jessie Leila Wilson, Phyllis Livingston Withers.
Bachelor of Laws (LL.B.):-Hector Joseph Richard Clayton, Clifford Malua Collins, Leonard Burton Dibbs, Bernard Russell French, Matthew Henry Lowe, Clifford Minter.
Bachelor of Medicine (M.B.):-Isaac Manly Barrow, Charles Gustar Berge, George Albert Blumer, Harry John Clayton, William Brookes Clipsham, Neville John Davis, Benjamia Thomas Edye, Maurice Fitzgerald, Edith Emily Fox, Leslie Harold Fox, Bede James Michael Harrison, Arthur Richard Haynes, Alan Worsley Holmes-a-Court, Herbert Gordon Humphries, Sydney Evan Jones, Grant Bramhall: Lindeman, George William Macartney, Alexander Menzies McIntosh, Archibald Lang McLean, Reginald Eustace McClelland, Norman Walter Markwell, Walter Wallace Martin, George Norrie, Horace Henry Nowland, Thomas Eric Parker, Charles Norman Paul, Ernest Ellis Pittman, Francis Guy Antill Pockley, James William Garnet Powell, Norman Keith Robertson, Herbert Roy Sear, Walter Guy Shellshear, John Sands Smyth, Leslie Gordon Tait, Ewing George Thomson, Trevor Armstrong Turner, Cuthbert Arnold Verge, Allan Seymour Walker, Hugh Kingsley Ward, Stephen Hertford Weedon, Frank Cowper Wooster.
Master of Surgery (Ch.M.) :-Aldous Campbell Arnold, Alas Darvall Barton, Harold Ramsay Beatty, Charles Gustav Berge, George Albert Blumer, Mary Boyd Burfitt, George Bell, Frank Sheppard Brierley, Elsie Jean Dalvell, Evelyw Elizabsth Dickinson, Leslie William Dunlop, Robert Joseple English, Thomas Ewing, Leslie Harold Foy, Elizabet Isabel Hamilton-Browne, Arthur Richạd Haynes, Nicholas Clement Larkins, George Donald Macintosh, Cyril Leslie Stewart Macintosh, Harold Theodore Marsh, Leslie Richard Parker, Walter Charles Petherbridge, Ethel Caroline Parnell, Charles Norman Paul, Henry Priestley, Alaz Melrose Purves, Robert Roger, Sydney Norman Rorke, Theodor William George Henry Schenk, Egmont Theodere Carl Schmidt, John Sands Smyth, Frederick Glover Neason: Stephens, John Colvin Storey, Cuthbert Arnold Verge.
Bachelor of Dental Surgery (B.D.S.):-Ernest Vale Hawkins, Norman Stevens King, Harold Ewens Noble, Francis Windeger Traill, John Albert Basil Walker.

Bachelor of Engineering (B.E.) :-Marcus Ehrensvard Bedford, Horace Edward Clayton, Harold Willoughby Fry, Victor Arnold Haigh, Oscar Arthur Ireland, Arthur Sydney Lloyd, Hugh Hamon Ingoldsby Massie, John Laidley Mort, Eric Wa verley McKeown, Alister Grant Maclean, Charles Ogilvie, Frederick George Phippard, Archibald Boscawen Boyd Ranclaud, Charles William Roe, John McDiarmid Royle, Reginald George Smith, Leslie Vickery Waterhouse, Owen Beresford Williams, Charles Edward Wright.
Doctor of Science:-Ernest James Goddard.
Bachelor of Science (B.Sc.) :-William Rowan Browne, George Joseph Burrows, Egerton Charles Grey, Rupert Arthur Holloway, Garnet Reginald Halloran, Grace Elizabeth Jacob, Malcolm Mackinnon, Beryl Mary McLaughlin, Marion Wilhelmina Morison, Allan Clunies Ross, Marion Constance Meares Sly, Eileen Meares Sly, Marjorie Kane Smyth, Herbert John Swain, Arthur Bache Walkom, Dorothy Margaret Watkins.
6. The following degrees were conferred in accordance with the regulations governing admission to degrees, ad eundem gradum :-

Master of Arts :-His Excellency the Right Honourable Frederick John Napier. Baron Chelmsford, K.C.M.G., M.A. (Oxon.) : James Oswald Fairfax, M.A. (Oxon.).
Bachelor of Medicine :-James Hogg Paul, M.B. (Glasgow).
7. The total number of degrees conferred during the year was as follows :-M.A., 13 ; B.A., 66 ; LL.B., 6 ; M.B., 42 ; Ch.M., 34 ; D.Sc., l ; B.Sc., 16 ; B.E., 19 ; B.D.S., 5. Total, 202.
8. The degrees conferred by the University from its foundation to the end of 1910 are :-M.A., 381 ; B.A., 1,576 ; LL.D., 25 ; LL.B., 172 ; M.D., 51 ; M.B., 534 ; Ch.M., 349 ; D:Sc., 5 ; B.Sc., 111 ; M.E., 6 ; B.E., 221 ; B.D.S., 40 ; L.D.S., 30. Total, 3,501.

\section*{University Examinations.}
8. The results of the annual University examinations held in December, 1909, and March, 1910, including the award of annual prizes and scholarships, will be found appended to this report.

Bursaries, \&c.
\(\therefore\) 10. The number of students permitted to attend lectures without paying fees was 257 , including 48 State Bursars and
holders of the University bursaries, 179 students and exstudents of the Training College, and 78 in Military Science. The payments to bursars, other than State bursars, amounted to \(£ 838\), and to scholars, \(£ 2,383 \mathrm{l6s} 4 \mathrm{~d}\).
11. The following bursaries were awarded, each consisting of a payment to the student of a certain sum per annum for three years, together with exemption from the payment of lecture fees in the Faculty of Arts or that of Pure Science :-

The Maurice Alexander Bursary (one-half), the Hunter-Baillie Bursary, No. I. and No. II. (one-half): the Duncan Bursary, the John Ewan Frazer Bursary (one-half), the Wentworth Bursaries, No. I. (one-half) and No. 2 : the Walker Bursary No. IV. : and the \(J . B\). Watt Exhibition.

\section*{Public Examinations.}
12. The Junior Public Examination was held in the month of June in Sydney and at the following local centres :-

New South Wales.-Albury, Armidale, Bathurst, Bega, Bourke, Braidwood, Broken Hill, Carcoar, Catherine Hill Bay, Cooma, Dubbo, Forbes, Frederickton, Glen Innes, Goulburn, Grafton, Hay, Inverell, Lismore, Lithgow, Maitland, Milton, Moss Vale, Mudgee, Narromine, Newcastle, Orange, Parkes, Parramatta, Penrith, Port Macquarie, Queanbeyan, Scone, Singleton, Tamworth, Taree, Tenterfield, Tumut, Wahroonga, Wagga Wagga, West Kempsey, Windsor, Wingham, Wollongong; Yass, Young.

Queensland.-Brisbane, Bundaberg, Charters Towers, Childers, Geraldton, Gympie, Ipswich, Maryborough, Rockhampton, Southport, Toowoomba, Townsville.

The number of candidates was 1513 , and of these 1082 gained certificates.
13. The Senior Public Examination was held in November concurrently with an examination for Matriculation Honours and Scholarships in Sydney and at the following local centres:-

New South Wales.-Armidale, Bathurst, Goulburn, Inverell, Lithgow, Mudgee, Newcastle, Wahroonga.

Queensland.-Brisbane, Ipswich, Rockhampton.
The number of candidates was 178 , and of these 148 were successful.

Examinations for Articled Clerks.
14. Two Law Examinations were held for candidates for Articles of Clerkship with Solicitors; 43 candidates attended and 25 passed.

\section*{The Senale.}
15. The Senate held 11 ordinary meetings, 2 adjourned, and 1 special meeting, in addition to the annual commemoration. There were also 2 meetings of the Conjoint Board, consisting of the Senate of the University and the Directors of the Royal Prince Alfred Hospital.

The attendances of the various Fellows were as follow :-

The Hon. Mr. Justica W. P. Culen, M.A., Ll.D., Chief Justice of New South Wales, Vice-Chancellor 13
Anderson, H. C. L., Mr., M.A. .. .. .. .. 13
Backhouse, His Honour Judge, M.A. .. .. .. 16
Barton, the Right Hon. Sir Edmund, G.C.M.G., P.C., M.A., LL.D. .. .. .. .. .. .. 3

Butler, Professor T., B.A. .. \(\quad \because \quad \ddot{ } \quad \because \quad . \quad 12\)
Griffith, the Right Hon. Sir Samuel W., M.A., G.C.M.G., P.C. .. .. .. .. .. .. .. 8
-Jones, Sir Philip, M.D. .. .. .. .. .. 13
Knox, E. W., Mr. .. .. .. .: .. .. 12
Leverrier, F., Mr., B.A., B.Sc. .. .. .. .. 14
MacCallum, Professor M. W., M.A., LL.D. .. .. 16
O'Connor, the Hon. Mr. Justice R. E., M.A. .. .. 7
Peden, Professor J. B., B.A., LL. B. .. .. .. 14
\(\ddagger\) Piddington, A. B., Mr., B. A. .. .. .. .. 5
*Purser, Dr. Cecil .. .. .. .. .. .. 8
Rogers, His Honour Judge, M.A., LL.B. .. .. .. 10
Simpson, the Hon. Mr. Justice A. H., M.A. .. .. 12
†Stephen, C. B., Mr., M.A. .. .. .. .. .. 2
Stuart, Professor T. P. Anderson, M.D., LL.D. .. .. 14
Teece, Richard, Mr.. F.I.A., F.F.A. ... .. .. .. 13
'Warren, Professor W. H., M.Inst. C.E. .. .. .. 15
* Absent on leave through ill-health.
\(\dagger\) Deceased, July 3rd, 1910.
\(\ddagger\) Elected, 13th August, 1910.

At the various meetings of the Sub-Committees of the Senate for Finance, Grounds, and other matters held during the year, the attendances of members were as follow:-The Chancellor (the Hon. Sir Normand MacLaurin), 31 ; the ViceChancellor (the Hon. Dr. W. P. Cullen), 4 ; Mr. H. C. L. Anderson 4 ; His Honour Judge Backhouse, 24 ; Sir PhilipJones, 18 ; Mr. E. W. Knox, 11 ; Mr. F. Leverrier, 4 ; Mr. A. B. Piddington, 1 ; Dr. Cecil Purser, 5 ; the Hon. Mr. Justice A. H. Simpson, 3 ; Mr. R. Teece, 9.

\section*{Vice-Chancellor.}
16. The annual election of Vice-Chancellor in the month of April resulted in the re-appointment of the Honourable Mr. Justice W. P. Cullen, M.A., LL.D., Chief Justice of New South Wales.

> Vacancy in Senate.
17. The Senate has to report with deep regret the death of Mr. Cecil Bedford Stephen, M.A., K.C., who had been a Fellow of the Senate since the year 1888. The following resolution was passed by the Senate at a meeting held on the4th of July :-

> "The Senate desires to place on record its sense of the great loss sustained by the University through the death of Mr. Cecil Bedford Stephen, M.A., K.C., a distinguished graduate of the University and a fellow of the Senate for a period of twenty-two years, and an expression of sympathy with his widow and family in their bereavement."

\section*{Convocation.}
18. A Convocation for the election of a Fellow to fill thevacancy caused by the death of Mr. C. B. Stephen, M.A., K C., was held in the Great Hall of the University on Saturday, the 13th of August and resulted in the election of Mr. Albert Bathurst Piddington, B.A.

\section*{Professorial Board.}
19. The triennial election to the office of Chairman of the Professorial Board was held in the month of December, and: resulted in the re-election of Professor J. T. Wilson, M.B., Ch.M., for a period of three years from the lst of January, 1911.

\section*{Deans of Faculties.}
20. In the month of September, in accordance with the by-laws, the Senate selected the following branches of learning, the professors in which should be ex officio members of the Senate and Deans of the Faculties of Arts, Law, Medicine and Science respectively for a period of two years, viz. :Modern Literature-Professor M. W. MacCallum, M.A., LL.D. ; Law-Professor J. B. Peden, B.A., LL.B. ; Physiology-Professor T. P. Anderson Stuart, M.D., Ch.M., LL.D. ; Engineer-ing-Professor W. H. Warren, Wh.Sc., M .Inst. C.E..

\section*{Professor Emeritus.}
21. Under a resolution of the Senate passed in the month of March, Mr. Pitt Cobbett, M.A., D.C.L., who in 1909 resigned the Professorship of Law, which he had held for 19 years, was appointed Professor Emeritus of Law.

\section*{Chair of Education.}
22. Under arrangement with the Department of Public Instruction, Mr. Alexander Mackie, M.A., the Principal of the Training College, has been appointed Professor of Education in the University. Professor Mackie entered upon his duties at the commencement of Lent Term.

\section*{Changes in the Staff.}
23. In addition to those mentioned elsewhere, the following appointments or changes in the staff have been made :-

Mr. W. G. Armstrong, M.B., Ch.M., was re-appointed Lecturer in Public Health from the lst of January, 1911 ; Mr. 'C. Badham, Junior Demonstrator in Biology ; Assistant Professor Barraclough, B.E. (Sydney), MM.E. (Cornell), was re-appointed Lecturer in Mechanical Engineering from the lst of January, 1911 ; Captain C. H. Brand, Lecturer in Military Topography ; Dr. Alfred Burne, Lecturer in Mechanical Dentistry has resigned ; Miss Elsie Jean Dalyell, M.B., Ch.M., Junior Demonstrator in Pathology, from the 1st of March, 1911 ; Mr. St. J. W. Dansey; M.B., Ch.M., ActingTutor in Surgery for six months in the rocm of Mr. R. B. Wade, MःB., Ch.M., absent on leave ; Mr. S. Dodd, F.R.C.V.S., Lecturer in Veterinary Anatomy, from the Jst of January,

1911, and Lecturer in Pathology and Bacteriology from the lst of January, 1912 ; Mr. E. W. Ferguson, M.B.; Ch.M., Junior Demonstrator in Pathology from the lst of March, 1911; Mr. D. G. Ferguson, B.A., was re-appointed to the Lecturship in the Law of Procedure, Pleading and Evidence for three years from the lst of January, 1911 ; Mr. W. W. Froggatt, F.L.S., Lecturer in Economic Entomology, from the 1st of January, 1911 ; Mr. H. W. Fry, B.E., Junior Demonstrator in Mechanical Engineering ; Mr. Sinclair Gillies, M.A., M.D., Tutor in Medicine: Mr. E. C. Grey, B.Sc., ActingAssistant Lecturer and Demonstrator in Physiology; Mr. E. Griffiths, B.Sc., Junior Demonstrator in Chemistry, to include Organic Chemistry ; Mr. Sydney Jamieson, B.A., M.B., Ch.M., Lecturer in Medical Jurisprudence, has resigned; Mr. H. C. Jeffreys, B.A., M.R.C.S., L.R.C.P., Assistant Lecturer and demonstrator in Physiology (Mr. Jeffreys resigned before the end of the year to take another appointment) ; Mr. A. C. T. Kellick, Junior Demonstrator in Chemistry ; Mr. I. G. Mackay, B.A., Assistant Lecturer and Demonstrator in Physics; Mr. V. J. McPhee, M.B., Honorary Demonstrator in Anatomy ; Mr. E. W. McKeown, B.E., Junior Demonstrator in Engineering, Drawing and Design (Mr. McKeown has been appointed Assistant Lecturer and Demonstrator in Mechanical Engineering from the 1st of January, 1911) ; Mr. A. E. Mills, M.B., Ch.M., Lecturer in Principles and Practice of Medicine (Mr. Mills resigned his office as Tutor in Medicine) ; Mr. Frank Marshall, B.D.S. (Syd.), D.D.S., Lecturer in Mechanical Dentistry ; Mr. E. M. Mitchell, B.A., LL.B., has been reappointed Lecturer in the Law of Status, Civil Obligations, and Crimes for three years from the 1st of Jgnuary, 1911 ; Mr. H. R. G. Poate, M.B., Ch.M., F.R.C.S. (Eng.), Demonstrator in Anatomy; Mr. A. B. B. Ranclaud, B.Sc., B.E., Junior Demonstrator in Physics ; Mr. G. E. Rich, M.A., Lecturer in Equity, Probate, Bankruptcy and Company Law, has resigned ; Mr. H. A. Roberts, B.E., Assistant Lecturer and Demonstrator in Civil Engineering from the 1st of .January, 1911 ; Mr. J. McD. Royle, B.E., Junior Demonstrator in Civil Engineering; Mr. R. H. Todd; B.A., M.D., Ch.B., Lecturer in Medical Jurisprudence ; Mr. G. W. Waddell, M.A., LL.D., Lecturer in Roman Law for 1910 ; Mr. A. B.

Walkom, B.Sc., Junior Demonstrator in Geology ; Mr. W. Camac Wilkinson, B.A., M.D., F.R.C.P., Lecturer in Principles and Practice of Medicine, has resigned; Mr. C. E. Wright, B.E., Junior Demonstrator in Electrical Engineering.

Leave of absence for the year was granted to Professor W. A. Haswell, D.Sc. His duties were carried out by Mr. S. J. Johnston, B.Sc., who was accorded the title of ActingProfessor of Biology; Mr. S. George, B.Sc., taking Mr. Johnston's duties as Assistant Lecturer and Demonstrator in Biology.

Leave of absence for Michaelmas Term was granted to Professor D. A. Welsh, M.A., M.D., Professor of Pathology, his duties being carried out by Mr. J. F. Flashman, M.D., with the title of Acting-Professor of Pathology, and Mr. J. E. V. Barling, M.B., Ch.M.

Leave of absence for two terms was granted to Mr. G. E. Rich, Lecturer in Equity, Probate, Bankruptcy and Company Law. Mr. J. A. Browne, B.A., LL.B., and Mr. F. R. Jordan, B.A., LL.B., were appointed to deliver the lectures in that subject during his absence.

Kindergarten Union of New South Wales.
24. Professor A. Mackie, M.A., Professor of Education, has been appointed as the University's representative on the Council of the Kindergarten Union of New South Wales, in lieu of Professor Anderson, M.A., resigned.

\section*{Matriculation Examination.}
25. The regulations for the examination for matriculation in the various faculties and departments have been revised, and several alterations have been introduced, chief of which are the following :-

For the Faculties of Arts and Science a student may now substitute the subject of English History for one of the languages taken at the Lower Standard. The nomenclature, under which the examination had been divided into two Divisions (A and B), has been abolished, as it has been found that serious misconceptions as to the intention of the University by-laws have resulted from it. A candidate is now
required to pass in all the prescribed subjects of the examina. tion at one and the same examination unless he has previously passed the Junior or Senior Public Examination, in which case he may complete his qualification at the Matriculation Examination in November or in March. His qualification must be completed at not more than two examinations.

\section*{Regulations for Advanced Students in Arts and Science.}
26. Regulations have been made for the admission as advanced students of persons of the age of twenty-one years, or upwards, not graduates of this or any other University, who give such evidence of general education and special qualification for advanced study and research as may be approved by the Faculty with which their proposed course of study and research is most nearly connected. Such students will be required to pursue a course of study or research under the direction and supervision of one or more of the professors. After two years the student may submit to his Faculty a dissertation containing an account of, and embodying the results of his research or researches, and if the Faculty, after hearing the report of the referees, is of opinion that the work submitted is of distinction as an original contribution to learning, or is a record of original research, the student may be admitted to the degree of Bachelor of Arts or Bachelor of Science as the case may be.

\section*{Curriculum in Medicine.}
27. The curriculum in the Faculty of Medicine has been revised and a number of improvements have been introduced. In order that students may have more time for clinical instruction, it has been decided in future to hold the final examination for the degrees of M.B. and Ch.M. after the long vacation at the end of the fifth year instead of in the month of December as heretofore. Under this arrangement students will devote an additional period of three months to clinical study in the wards of the hospitals.

An intermediate examination in Anatomy and Physiology has been instituted at the end of Trinity Term of the second year, and a course of lectures on Materia Medica and Therapeutics has been introduced into the third year.

A Tutor in Midwifery is to be appointed and Boards of Studies have been constituted with the view of co-ordinating the work in the Departments of (a) Medicine, (b) Surgery, and (c) Midwifery and Gynæcology. These Boards will meet once in each term to discuss all matters relating to instruction in their several departments, and generally to co-ordinate the teaching.

A tutor is also to be appointed to give instruction in Practical Materia Medica and Pharmacy, to supplement the instruction in Practical Pharmacy given in the dispensaries.

Arrangements have been made with the authorities of the Royal Alexandra Hospital for Children under which students will obtain clinical instruction in the medical and. surgical diseases of children at that institution. The Board. of the Hospital has appointed lecturers in these subjects who have been approved by the Senate. The University lectureship in Diseases of Children, hitherto held by Dr. Mills, has. been abolished.

\section*{Faculty of Science.}
28. Amended by-laws have been adopted for the reconstitution of the Faculty of Science and the establishment of Boards of Studies for its several departments. Hitherto theFaculty of Science has had charge of the curriculum and studies of students proceeding to the degrees in Pure Science and of those in Engineering, but as the new departments of Veterinary Science and Agriculture are now added to the Faculty of Science, it has become necessary to establish. separate Boards of Studies.

Under the amended by-laws, the Faculty of Science has. been remodelled so as to include the professors in thesubjects required for the degrees in the four branches of science, together with representatives from the several Boards of Studies. These Boards of Studies have been constituted in (a) Pure Science, (b) Engineering, (c) Veterinary Science, (d) Agriculture, and have a wider basis than the Faculty, including all the independent lecturers, assistant professors, and assistant lecturers and demonstrators in each department. The Boards, of Studies report to the Faculty.

\section*{Curriculum in Agriculture.}
29. A curriculum in the newly created Department of Agriculture leading to the degree of Bachelor of Science in: Agriculture has been drawn up, and the courses of instruction: were commenced in Lent Term.

The curriculum covers a period of four years, in the first of which the subjects of study are almost the same as in thefirst year of the Faculty of Science.

In the second year the subjects of Chemistry, Botany, and Geology are pursued to a further stage, and students arealso instructed in the principles of agriculture and economicentomology.

In the third year they receive instruction in Agricultural Chemistry and Botany, Plant Pathology, Veterinary Pathology, and other veterinary subjects; and in the fourth year they have further instruction in Agriculture, in the principles of Fruit Culture and Viticulture and Forestry ; in EconomicScience as applied to agriculture, in Agricultural Engineering, Veterinary Parasitology and Agricultural Bacteriology.

Besides affording the opportunity of a University education specially suited to those who wish to obtain a livelihood from the land, and training teachers for agricultural schools and colleges, and experts in the different branches of agricultural science, it is the aim of the school to carry out research work in connection with agricultural problems and to disseminate the information gained thereby.

During the year the Professor of Agriculture, whose couses of instruction commence in the second year of the curriculum; has been engaged in a practical investigation of \({ }^{-}\) agricultural conditions and problems in practically all theagricultural districts of New South Wales, and he has delivered lectures or courses of lectures at thirty-four centres. These lectures have been free. He has also been engaged in consultation with the Government Architect in the preparation of plans for a building for the Department of Agriculture, which is to be erected on the University grounds on a site nearthe School of Veterinary Science.

\section*{School of Veterinary Science.}
30. During the year plans, which were being prepared by the Government Architect, for a building for the School of Veterinary Science have been completed. A tender has been accepted for the work and the building has been commenced. It is hoped that it will be sufficiently completed for the work of the School by the beginning of March, 1911.

Leave of absence has been granted to the Professor of Veterinary Science for a portion of the coming year to enable him to visit the principal veterinary schools of Europe with a view to obtaining as complete an equipment for the school as is possible.

During his absence the School will be in charge of Dr. Sydney Dodd, who, as stated elsewhere, has been appointed lecturer in Veterinary Anatomy for the year 1911, but who will subsequently give instruction in Veterinary Pathology and Bacteriology.

\section*{Diploma in Education.}
31. By-laws have been adopted for the institution of a Diploma in Education. Candidates for the diploma will be required, before admission to the curriculum, to produce evidence of having graduated in Arts or in Science. They will then be required to attend courses of instruction upon the mental and physical life of school children; the principles of education, the history of educational theory and practice, and the principles of school teaching and management. The student must also produce satisfactory evidence that he has pursued a course of practice in teaching ; observation of class teaching; continuous practice in the schoolroom, and the observing and giving of special lessons and taking part in discussions upon them. The curriculum may be completed in one year by those who devote their whole time to the work of the course.

\section*{Department of Military Science.}
32. A regulation has been passed by the Senate under which the lectures in Military Science, Military Engineering, Military Topography and Military Administration and Law will be free to all undergraduates of the University.

Nicholson Museum of Antiquities.
33. The collection of antiquities forming the present Nicholson Museum is in process of transference from the main building to the new rooms provided for it on the ground floor of the Fisher Library. Considerable additions have been made to the collection during the past year by the purchase of a number of casts of statues, busts and other objects from the British Museum and the Museums of Paris and Berlin. These casts, when suitably arranged, will enable the Curator (Professor W. J. Woodhouse) to give systematic courses of lectures on Greek art, which will be carried out under the authority of the Senate, and will be open to attendance on the part of the public.

\section*{The Australian Institute of Tropical Medicine.}
34. A meeting of the Committee of Management of the Australian Institute of Tropical Medicine, which consists of one representative from each of the Universities of Sydney, Melbourne and Adelaide, and a representative of the Commonwealth Government, was held in the month of November in the University of Melbourne.

The Committee made arrangements with the Government of Queensland, under which the Director (Dr. Anton Breinl), with the aid of assistants provided by the Queensland Government, will carry out certain special investigations on behalf of that Government.

\section*{Union Building for Students.}
35. A contract has been accepted by the University for the erection of a Union Building for the use of students and other members of the University. The building is being. placed on the site of the old engineering school near the Parramatta Road. It will contain common rooms, committee rooms for the various students' societies, a large hall for debates and meetings, as well as recreation rooms and other necessary accommodation. The plan has been prepared in such a way as to allow of an extension at some future time to include a dining-room and kitchen, when the present refectory in the basement of the Fisher Library becomes insufficient for all requirements.

\section*{University Extension Board.}
36. The University Extension Board reports that regular courses of lectures were delivered at the following centres during the past year :-

Northern line and branches.-Newcastle (2 courses), Maitland, Singleton (2 courses), Muswellbrook, Scone, Tamworth, Armidale, Glen Innes, Inverell, Moree, Narrabri.

North Coast line.-Casino, Murwillumbab.
Southern line.-Goulburn, Albury,
South Coast line.-Helensburgh, Woonona, Balgownie, Wollongong.

Western line and branches.-Katoomba, Blackheath (2 courses), Blayney, Orange ( 2 courses), Wellington ( 2 courses) Coonamble,

Sydney and suburbs.-At the following centres: Killara, Parramatta, the Railway Institute and the Trades Hall. Three special courses were also delivered under the direct management of the Board in Sydney by Professor David, Professor Skeats of Melbourne, and Professor Woodhouse.

In Victoria, Professor David delivered a lecture under the auspices of the Board on the British Antarctic Expedition.

In Queensland, lectures were deliveerd at Brisbane by Professor MacCallum and Mr. H. E. Barff, and a lecture was also delivered at Ipswich by Professor MacCallum.

In Western Australia Professor David delivered a number of lectures at Perth and at Kalgoorlie and Boulder.

In addition to the ordinary courses a number of lectures have been delivered by the lately appointed Professor of Agriculture, who has been engaged in making an investigation into the agricultural conditions of New South Wales. These lectures were delivered at 34 centres and were open to the public without charge.

A full report of the work of the University Extension Board during the year is published in a separate form.

Congress of Universities of the Empire.
37. The Senate has received an invitation from the University of London in association with the Universities of

Oxford and Cambridge to take part in a Congress of the Universities of the Empire to be held in London in the year 1912 by appointing four representatives of the University to attend the Congress.

Widening of Parramatta Road.
38. Representations having been made to the University by the Lord Mayor of Sydney and the City Council that it would be desirable to widen the Parramatta Road along that portion which adjoins the University grounds, an agreement has been made under which, subject to the approval of the Governor-in-Council, a strip of land not exceeding 30 feet in width will be given up by the University for this purpose, as well as a small portion at the corner of the Parramatta Road and the City Road where the traffic is becoming somewhat congested. The woodblocking of the Parramatta Road, which is now being carried out, will be of great advantage to the University in diminishing the quantities of dust which, under existing circumstances, not only cause inconvenience, but damage, to books and delicate instruments.

Expedition to View Eclipse of the Sun.
39. In the month of May, Mr. E. M. Moors, M.A., Assistant Professor of Mathematics, was granted permission to visit Tasmania for the purpose of assisting in the Australasian Scientific Expedition which had been arranged to observe an eclipse of the sun visible in that Island. Mr. Moors has also been granted permission to take part in an expedition which has been arranged by the Commonwealth of Australia to view an eclipse of the sun which is to take place early. in 1911, and which will be visible at one of the South Sea Islands.

\section*{Post-graduate Scholarships.}
40. Up to 1909 the Royal Commissioners for the Exhibition of 1851 have granted to this University in alternate years a nomination to a Science Research Scholarship of \(£ 150\) a year for two years. An additional nomination was offered by the Commissioners for 1910 as well as the usual nomination for 1911, and the Commissioners are considering an application made by this University for the privilege of an annual nọination as in the case of British Universities.

Mr. G. F. Davidson, B.E., was nominated for 1910, and Mr. W. N. Benson, B.Sc., for 1911.

Other post-graduate scholarships were awarded as follows :-

The John Coutts Scholarship for Science, Mr. G. J. Burrows, B.Sc.; the William and Jane Grahame Scholarship for Research in Mechanical Engineering, Mr. E.W. McKeown, B.E. ; the James King of Irrawang Travelling Scholarship, Mr. C. K. Allen, B.A.; the Cooper Graduate Scholarship for Classics, Mr. C. H. Kaeppel, B.A.

Mr. D. G. Macintosh, M.B., Ch.M., has been nominated by the University for appointment to the Imperial Naval Medical Service under regulations made by the Admiralty whereby such appointments are open to graduates of Australian Universities.

Deas-Thomson Mineralogy Scholarship.
41. A third scholarship has been established by means of the fund provided by Sir Edward Deas-Thomson, K.C.M.G., in 1854 for the foundation of scholarships for the encouragement of Natural Science. The deed of gift provided for the accumulation of certain portions of the fund for this purpose. The Scholarship is to be awarded for proficiency in Mineralogy to a student graduating in the Faculty of Arts or the Faculty of Science, who proposes to continue his studies in Mineralogy in a way satisfactory to the Faculty.

\section*{Assistants in French and Prussian Schools.}
42. Under arrangements made with the British Board of Education whereby a limited number of graduates of the University of Sydney are permitted to share in the benefits of the agreement made between the British Government and the Prussian and French Governments for' placing Assistants in the schools of the respective countries, one graduate, Miss Meta G. E. Latreille, B.A., has been appointed temporary assistant in a French School for the year 1910-11.

\section*{The Fisher Library.}
43. During the past year 2,149 volumes have been added to the Library, made up as follows:-Books, 1,359 ; perio-
dicals, 790 , which were derived from the following sources :By purchase, 1,114 ; by donation, 973 -by the terms of the Copyright Act, 62.

The Library now contains 92,000 volumes. Among the donations for the year were :-A collection of 34 volumes dealing with Hebrew literature and language, presented by the late Samuel Elyard; six volumes of antiquities, including a valuable facsimile of an Egyptian Hieratic papyrus of the reign of Rameses III., by Josiah Mullens, Esq.; also a valuable old Bible, the gift of Lady Windeyer.

The Fisher Library is especially indebted to the following amongst other donors, for the presentation of extensive collections of publications :-The Lords of His Majesty's Treasury, the Trustees of the British Museum ; the Carnegie Institution of Washington ; the Smithsonian Institution, Washington.

For the convenience of evening students, the Library has this year been opened two or three evenings a week during vacation in addition to being open every week-night during term.

The Fisher Library has now completed its first year in the splendid new building provided for it by the Government of New South Wales. The spacious accommodation it provides both for readers and books, together with its modern equipment for the shelving and handling of books, has enabled the Fisher Library to enter upon a new era of usefulness. This has already been amply demonstrated in the phenomenal increase in the number of students frequenting the readingroom, and also in the increased use the teaching staff has made of the Library.

\section*{Benefactions.}
44. The following benefactions, in addition to a large number of donations to the library and the various museums, are gratefully acknowledged :-
(a) A donation from Messrs. H. Gardiner and Company to the Engineering School of a Motor Generator for experimental and educational purposes. The donation was made through . Count Mörner, the Consul for Sweden.
(b) A sum of \(£ 175\) from subscribers for the foundation of a prizein honour of Professor Pitt Cobbett, who lately retired. from the Chair of Law. It has been determined that the prize shall be awarded annually in the subject of Constitutional Law.
(c) A portrait of Professor Archibald Liversidge, M.A., F.R.S., Emeritus Professor of Chemistry, by Sir John Collier, R.A., has been presented by subscribers and hung in the Great Hall.
(d) A bequest of \(£ 500\) from Miss Frances Mary Busby for the foundation of a musical scholarship. The amount of thelegacy has been invested and instructions have been given for the interest to be added to the principal until such time as a school of music shall have been established.
(e) A sum of \(£ 225\) from subscribers to a memorial of the late Thomas Carlyle Parkinson, M.B., Ch.M. (Sydney), who died at the Lister Institute from plague-pneumonia whileengaged in research upon bubonic plague.
(f) An additional sum of \(£ \overline{0} 0\) from Venour Nathan, Esq.. to be a warded as prizes for Imperial History and Geography.
(g) A donation from the Cape Explosive Works, South Africa, of a valuable piece of machinery-a Quinan Crusher Gauge, to be used for educational purposes in the Department of Engineering.
(h) The sum of five guineas from the Sydney Chamber of Commerce, to be given as a prize for the best pass amongst the candidates in the third year of the course on Economics. and Commerce.

\section*{Bibliographical Record.}
45. A list of the literary and scientific publications. issued by the University and members of the staff during theyear is appended to this report.

\section*{Accounts.}
46. The annual statements of receipts and expenditure showing the position of the various funds of the University at the 31st of December duly certified by the Auditor areappended to this report.

\author{
- H. E BARFF, Registrar.
}

FINANCIAL STATEMENTS.

\section*{RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF}

\section*{818.}

GENERAL ACCOUN'L.
Rechipts.

Balance in Commercial Banking Co. of Sydney, 31st Dec., 1909
\begin{tabular}{|c|}
\hline \multirow[t]{2}{*}{£} \\
\hline \\
\hline
\end{tabular}

Received from the Government of New South Wales:-
The Statutory Endowinent ... ... ... .. ... \(10,000 \quad 0 \quad 0\)
Towards Evening and Extension Lectures ...
Towards reduction of Lecture Fees ... ... ... ... 2,5c0 0. 0
For the establishment of Chairs of Agriculture and
Veterinary Science
From Vote for Additions, Repairs and Furniture
lare \(\cdots \quad \cdots \quad 300 \quad 0 \quad 0\)
......... 15,880
Less paid to Professors, Lecturers, etc. \(2,100 \quad 9 \quad 0\)
and to Prol
Matriculation Fees .. ... ... .. ... ...
\begin{tabular}{llllll} 
Degree Fees ... \\
University Examination Fees & \(\ldots\) & \(\ldots\) & \(\ldots\) &... \\
\hline
\end{tabular}
Testing Fees
Fines
\(\begin{array}{cccc}. . & \ldots & \ldots & \ldots \\ \ldots & \ldots & \ldots & \end{array}\)
Library Deposits
\(1,500 \quad 0 \quad 0\)
————18,800 \(0 \quad 0\)
\(13,72917 \quad 0\)
\(928 \quad 7 \quad 0\)
1,50600
862190
\(2815 \quad 6\)
from the Department of Lands towards expenses of Testing Timbers
\(200 \quad 0\)
for Bale of Medical Badges \(\quad \cdots \quad \cdots \quad \cdots \quad \cdots \quad \cdots \quad . \quad 2 \quad 0 \quad 0\)
Pasturage ... ... ... ... ... ... .... . 3710 0
Microscope Fees .. ... ... ... .. ... 289 g 11
Less paid for Microscopes \(\quad . . . \quad\)... \(\quad .\).
from Challis Fund. towards Administration, \(£ 500\); Scientitic Apparatus, \(£ 1,000 \ldots\).... ... ..
from Hovell Lectureship, towards Salary of Lecturer
in Geology and Physical Geography
from Macleay Curatorship, towards Salary of Curator of Macleay Museum ... ... Eng ....
Apparatus ... ... ... ... ...

\(98 \quad 2 \quad 5\)
208107
12500

Sydney, 27th January, 1911.-Audited and found correct.
David Fell, Auditor.


Sydney, 27th Janurry, 1911.--Audited and found correct. Danid Fril, Auditor.

SYDNEY FOR THE YEAR ENDED 31st DECEMBER, 1910.


ROBERT A. DALLEN, Accountant.


ROBERT A. DALLEN, Acountant.

\section*{RECEIPTS AND EXPENDITURE OF THE UNIVERSITY}

\section*{Br.}

CHAT.lIS FUND ACCOUNI.
Recripits. \(\quad\) \& \(\quad\) d. \(\quad\) s.d.
Received from Invéstments:-
Government Debentures and Funded Stock .. \(168 \quad 0 \quad 0\)
Bank Deposits ... ... ... ... ... ... 26 5 0

Rents of Properties ... ... ... \(\ldots\)... \(\because, 609 \because 3\)
Challis House ... \(. . . \quad . . \quad\).. \(6,20 \leq 106\)
Leess transfer in reduction of
Capital Aecount \(\quad . . \quad\).. \(1,0466.0\)

Inveetment Account.


Sydney, 27th January, 1911.-'Aivited and found correct. David Frll, Auditor.

AUSTRAILAN INSIITCTE OF TROPICAI. MEDICINE. Recerts.


OF SYDNET FOR THE YEAR ENDED 31st DECEMBER. 1910.


ROBERT A. DALTEEN, Accountant.

\section*{AUSTRALIAN INSTITUTE OF TROPICAL MEDICINE.}

Expenditure.
\[
\pm \text { s. d. }
\]
Paid Salaries ... ... ... ... ... ... ... ... ... .. 700 0 0

Ecientific Apparatus \(\quad \ldots \quad\)... \(. . . \quad \ldots \quad . .\). Genera] Maintenance Expenses of Laboratory ... ... ... ... \(150 \quad 0 \quad 0\). Travelling Expenses of Director ... ... ... ... ... .. 62 9 0 Miscellaneous
Bank Deposit-Temporary Investment 21510
\(250 \quad 0 \quad 0\)
Balance in Bank, 31st December, 1910
53151

\section*{RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF}

\section*{8 g r.}

\section*{rrivate foundations account. Receirts.}

Balance in Commercial Banking Co. of Sydney, 1st Jan., 1910
Receired from the Irustees of the Dalton Estate, balance of interest on investments after paying annuities, for Woolley Scholarship
f.s. d. \(\quad\)\begin{tabular}{ccc}
\(f\) & s. & d. \\
678 & 17 & 7
\end{tabular}
om the subscribers to the Parkinson Memorial Fund for the Foundation of a Prize in Pathology...

22315 T
from the Executors of the Will of the late Miss
Frances Mary Busby for a Musical Scholarshid
\(500 \quad 0 \quad 0\)
from the subscribers for the foundation of a Prize in
Law to be called the Pitt Cobbett Prize
17686
from the following for Annual Prizes:-

1. Donation to Union Building, transfer from General Fund .

12570
\(100 \quad 0 \quad 0\)
Received Income from Investments on account of the following


SYDNEY FOR THE YEAR ENDED 31ST DECEMBER, 1910.


RECEIPTS AND EXPENDITURE OF THE UNIVERSITY OF
공 x .
PRIVATE FOUNDATIONS ACCOUNT-Continued.


Received Income from Investments on account of the following
Foundations:-


\section*{IN VESTMENT' ACCOUN'I'.}


\footnotetext{
Sydney, 27th January, 1911.-Audited and found correct.
Dafid Eell, Auditor.
}

SYDNEY FOR THE YEAR ENDED 31si DECEMBER, 1910.

£1[; 8197.6

\section*{IN VESTMEENT ACCOUNT.}


ROBERT A. DALLEN, Accountant.

\section*{PRIYATE FOUNDATIONS-ORIGINAL ENDOWMENTS AND CREDIT BALANCES AT 31st DECEMBER, 1910.}


ROBER'T A. DALLEN, Accountant.

\section*{BIBLIOGRAPHICAL RECORD}

\author{
FOR THE
}

YEAR I9IO:
Note.-The entries marked with an asterisk were accidentally omitted from last year's list.

\section*{I.}

\section*{OFFICIAL PUBLICATIONS.}
1. Calendar of the University of Sydney. Sydney, Angus and Robertson, Ltd., 1910, 8vo. [Annual.]
2. Manual of public examinations held by the University of Sydney. ad Sydney, Angus and Robertson, Ltd., 1910, 8vo. [Annual.]:

\section*{II.}

PUBLICATIONS OF UNIVERSITY OFFICERS.
Percy A. Ash, D.D.S.
Lecturer in Surgical Dentistry, 1901--.
1. President's address : N.S.W. Society of Dental Graduates. Australian Jour. of Dentistry (Melb.), 1910, xiv, no. 5, pp. 156-161.
J. E. V. Barling, M.B., Ch.M.

Demonstrator in Pathology, 1907-.
1. A symptom-complex in ruptured abdominal hydatid. Aus. Med. Gaz., 20 July 1910, xxix, no. 7 (whole no. 346), pp. 349-350. [With D. A. Welsh.]

1a. Lancet, 1 Oct. 1910, clxxix (ii of 1910), no. 4544 (no. 14 of vol. ii), p. 1001.
H. Y. Braddon, Esq.

Lecturer on Business Methods, etc., 1907-.
*1. Business principles and practice : Australia. Sydney, William Brooke and Co., Limited, 1909, 8vo. Pp. xi [inc. 4 blank], l blank, 299, 2 blank.
J. Le Gay Brereton, B.A.

Assistant Librarian, 1902-.
1. Tomorrow. Sydney, Angus \& Roberton Ltd., 1910, 18mo. Paper wrapper, pp. viii [inc. 3 blank], 55, 1 blank. [Wrapper bears subtitle: "A dramatic sketch of the character and environment of Robert Greene. \({ }^{\text {: }}\)

\author{
John Haydon Cardew, Assoc. M.Inst.C.E., I.S. \\ Russell Lecturer in Surveying, 1906-.
}
*1. Prize essay on the best system of educating and training surveyors. The Surveyor, 30 Nov. 1909, xxii, no. ii, pp. 215-219. [Winner of prize offered by the Inst. of Surveyors, N.S.W.]
\(1^{*} a\). Sydney, Samuel E. Lees, 1909, 8vo. Paper wrapper, pp. 7, 1 blank. [Issued by the Institute of Local Government Engineers of Australasia.]

Horatio Scott Carslaw, M.A. Camb., D.Sc. Glasgow, Se.D. Camb., F.R.S.E.

Professor of Mathembatics, Pure and Applied, 1903-.
1. On the constructions which are possible by Euclid's methods. Math. Gaz., 1910, v, pp. 170-178.
2. The Bolyai-Lobatschewsky non-Euclidean geometry : an elementary interpretation of this geometry, and some results which follow from this interpretation. Proc. Edinb. Math. Soc., 1910, xxviii, pp. 95-120.
3. Gauss's theorem on the regular polygons which can be constructed by Euclid's method. Proc. Edint. Math. Soc., 1910, xxviii, pp. 120-128.
4. The Green's function for a wedge of any angle, and other problems in the conduction of heat. Proc. Lond. Math. Soc., 1910, viii (2 ser.), pt. 5, pp. 365-374.
5. On the scattering of waves by a cone. Phil. Mag., Oct. 1910, xx (6th ser.), no. 118, p. 690.

Henry George Chapman, M.D., B.S.
Demonstrator in Physiology, 1903-.
1. Concerning snake venom. Aus. Med. Gaz., 20 July 1910, xxix, no. 7 (whole no. 346), pp. 344-349. [With D. A. Welsh.]
2. On the weight of precipitate obtainable in precipitin interactions. Proc. Roy. Soc. Lond., 21 July 1910, B lxxxii, no. 5ā7, pp. 398-406.
3. On the differentiation of proteins of closely related species by the precipitin reaction. Jour. of Hygiene, 20 Sept. 1910, x, no. 2, pp. 177183. [With D. A. Welsh.]
4. A contribution to the study of the precipitins. Proc. Linn. Soc. N.S.W., 16 Nov. 1910, xxxv, pt. 3 (no 139), pp. 526-554.
5. On the interpretation of the precipitin reaction. Brit. Med. Jour., 12 Nov. 1910, no. 2602, pp. 1510-1513. [With D. A. Welsh.]

Pitt Cobrett, M.A., D.C.L.
Professor of Law, 1890-1909: Emeritus Professor, 1910-.
*1. Cases and opinions on international law, and various points of English law connected therewith : collected and digested from English and
foreign reports, official documents, and other sources : with notes containing the views of the text-writers on the topics referred to, supplementary cases, treaties and statutes. Part I. Peace. Third edition. London, Stevens and Haynes, 1909, 8vo. Pp. xxiv [inc. 1 blank], 385, 1 blank.
2. The Declaration of London : general character and probable effects; Sydney Morning Herald, 16, 17 and 19 Dec. 1910.

\author{
Thomas Flaschi, M.D., Ch.D. \\ Honorary Lecturer in History of Medicine.
}
1. Case of Brophy's operation for complete cleft of palate-result, seven years after. Aus. Med. Gaz., 20 Jan. 1910, xxix, no. 1 (whole no. 340), pp. 16-17.
2. Congenital cystic lymphangioma of the neck in a child. Aus. Med. Gaz., 20 Oct. 1910, xxix, no. 10 (whole no. 349), pp. 540-543, 2 illus.
3. Case of partial gastrectomy and colectomy for cancer. Aus. Med. Gaz., 21 Nov. 1910, xxix, no. 11 (whole no. 350), pp. 593-594.
4. Case of retro-peritoneal abdomino-pelvic lipoma. Aus. Med. Gaz., 20 Dec. 1910, xxix, no. 12 (whole no. 351), pp. 662-663, 1 illus.

\section*{J. Frodde Flashman, B.A., B.Sc., M.D., Ch.M. \\ Honorary Demonstrator in Neurology.}
1. Complement deviation in hydatid disease. Aus. Med. Gaz., 20 Jan: 1910, xxix, no. 1 (whole no. 340), pp. 6-10. [With A. G. Butler.]

Hubert John Foster, R.E.
Director of Military Science, 1907-.
*1. War and military history [ : lecture delivered 1 June 1908]. Jour. and Proc. United Service Inst. N.S.W. for the year 1908: 1909, xx, pp. 30-39.
2. The new Imperial General Staff [: lecture delivered 2 June 1909]. Jour. and Proc. Uni. Serv. Inst. N.S.W. for 1909: 1910, xxi, pp. 21-26.

Sinclair Gillies, M.A., M.D. (Lond.), M.R.C.S., L.R.C.P. (Lond.). Medical Tutor, 1910-.
1. The medical treatment of exophthalmic goitre. Aus. Med. Gaz., 20 Sept. 1910, xxix, no. 9 (whole no. 348), pp. 471-474.

Egerton Charles Grey, B.Sc.
Junior Demonstrator in Physiology, 1909——.
1. The fatty acids of brain lipoids: part i. Proc. Linn. Soc. N.S.W., 14 July 1910, \(\mathbf{x x x v}\), pt. 1 (no. 137), pp. 295-303.

\author{
E. Griffiths, B.Sc.
}

Caird Scholar, 1908. Junior Demonstrator in Organic Chemistry, 1910 \(\qquad\)
*1, Note on pucherite from West Australia. Jour. and Proc. Roy. Soc. N.S.W., 1908, xlii, pp. 251-252.
2. Chemical examination of the oil from the seeds of Bursaria spinosa, blackthorn. Jour. and Proc. Roy. Soc. N.S.W., 1910 (vol. for 1909), xliii, pp. 399.405.

\author{
F. B. Guthrie, F.I.C., F.C.S.
}

Acting Professor of Chemistry, 1896-97, 1904-05, 1908-09: Lecturer in History and Technology of Commercial Products, 1908 -.
1. Note on the occurrence of manganese in soil, and its effect on grass. Agric. Gaz. N.S.W., 2 March 1910, xxi, pt. 3, pp. 219-222. [With L. Cohen.]
2. Injurious substances in the soil : bare patches, etc. Agric. Gaz. N.S.W., 2 May, 1910, xxi, pt. 5, pp. 434-441.
3. Notes on the soil occurring in the area served by the Barren Jackirrigation scheme. Agric. Gaz. N.S.W., 2 Aug. 1910, xxi, pt. 8, pp.-663-666.
4. The chemical nature of the black-soil plains: with notes on the geological aspect of the question. Agric. Gaz. N.S.W., 4 Oct. 1910, xxi, pt. 10, pp. 855-860. [With H. I. Jensen.]
5. The present position of the flour question. The Australasian Baker, 31 Oct. 1910, xiv, no. 7, pp. 39-42.
6. The distribution of the principal crops in N.S.W. Roy. Agric. Society's Annual, Nov. 1910, pp. 227-238, 7 maps.

\section*{William A. Haswell, M.A., D.Sc., F.R.S. \\ Professor of Biology, 1890-.}
1. A text-book of zoology : with illustrations. [2nd. edn.] London, Macmillan and Co., Limited, 1910. 8vo. 2 vols. Pp. xl [inc. 5 blank], errata slip inset, 839, 1 blank, and xx [inc. 1 blank], errata slip inset, 728, 1241 text-figs. [With T. J. Parker.]

\section*{H. V. Critchley Hinder, M.B., Ch.M. \\ Lecturer in Clinical Surgery, 1895-.}
1. Surgical work of the year : presidential address delivered at the annual meeting of the N.S.W. branch of the British Medical Association. Aus. Med. Gaz., 20 April 1910, xxix, no. 4 (whole no. 343), pp. 175-181.
2. The treatment of the varied manifestations of tubercular disease. Aus. Med. Gaz., 21 March 1910, xxix, no. 3 (whole no. 342). pp. 134.139.
3. Some points in the diagnosis and surgical treatment of malignant disease of the stomach. Aus. Med. Gaz., 21 Nov. 1910, xxix, no. 11 (whole no. 350), pp. 588-593, 7 text-figs.
W. Septimus Hinder, D.D.S. (Phila.).

Lecturer on Mechanical Dentistry, 1901-.
1. Removable bridge work. Aus. Jour. of Dentistry, 30 June 1910, xiv. no. 6, pp. 186-193.

\author{
F. R. Jordan, B.A., LL.B.
}

Acting Lecturer in Equity, Probate, Bankruptcy and Company Law, for 1910. 1. The Weekly Notes [N.S.W.—Covers] has been edited by Mr. Jordan since the beginning of 1909 .

Mungo W. MacCallum, M.A., LL.D.
Professor of Modern Literature, 1887——.
1. Shakespeare's Roman plays and their background. London, Macmillan and Co., Limited, 1910, 8vo. Pp. xv [inc. 2 blank], 1 blank, 666.

Alexander Maceie, M.A.
Professor of Education, 1910-.
1. The training of teachers. Rept. Aus. Assoc. Adv. Sci. for 1909; 1910, xii, pp. 713-722.

\section*{J. Arthur Pollock, D.Sc.}

Professor of Physics, 1899-.
1. The ions of the atmosphere. Rept. Aus. Assoc. Adv. Sci. for 1909 ; 1910, xii, pp. 31-41.

\author{
F. A. A. Russell, M.A.
}

Lecturer on Commercial Law, 1908-.
1. A general view of the Bills of Exchange Act 1909. Jour. Inst. of Bankers of N.S.W., 31 May 1910, xix, no. 5, pp. 163-171.
2. A review of changes effected by the Bills of Exchange Act 1909. Jour. Inst. of Bankers of N.S.W., 30 June 1910, xix, no. 6, pp. 202-210.
3. Guarantees : 1. General. Jour. Inst. of Bankers of N.S.W., 30 July 1910, xix, no. 7, pp. 262-269.
4. Guarantees: 2. Recent cases. Jour. Inst. of Bankers of N.S.W., 30 Sept. 1910, xix, no. 9, pp. 326-333.

James A. Schofield, A.R.S.M., F.I.C.
Demonstrator and Evening Lecturer in Chemistry, 1892-1908: Assistant Professor in Chemistry, 1908-.
1. Notes on lecture and laboratory apparatus. Report Aus. Assoc. Adv. Sci. for 1909 ; 1910, xii, pp. 167-172, 5 text-figs.
R. Scot Skirving, M.B., Ch.M. (Edin.).

Lecturer in Clinical Medicine, 1889-.
1. A case of head injury, complicated by secondary syphilis, under the care of Dr. Scot Skirving. Reported by M. Veech, M.B. Aus. Med. Gaz., 20 May 1910, xxix, no. 5 (whole no. 344), pp. 248-249.
2. Case of arterio-venous aneurism, under the care of Dr. Odillo Maher and Dr. Scot Skirving. Reported by Dr. Veech. Aus. Med. Gaz., 20 Aug. 1910, xxix, no. 8 (whole no. 347), pp. 425-426.
3. Various reviews of medical books in the Aus. Med. Gazette.

\section*{T. P. Anderson Stuart, M.D., Ch.M., LL.D. (Edin.). \\ Professor of Physiology, 1883-}
1. The organs of speech. First principles of French pronunciation, by E. Saillens and E. R. Holme, Lond., 1909, pp. 13-33.

Jorn Sulman, F.R.I.B.A.
Lecturer in Architecture, 1887-.
1. Federal capital of Australia. Trane. Town-planning Conference, held in Iondon, Oct. 1910. [Details of publication not to hand.]

Frederick Augustus Todd, B.A., Ph.D.
Assistant Lecturer in Latin, 1903——; Acting-Professor for 1909.
1. Roman life and manners under the early Empire; by Ludwig Fried, länder [: a review]. Class. Rev., J une 1910, xxiv, no. 4, pp. 123-124.
2. Note on Plautus, Capt. 152-155 and Cist. 58. Class. Rev., June 1910. xxiv, no. 4, pp. 120-121.

\section*{William H. Warren, Wh.C., M.Inst. C.E. \\ Professor of Engineering, 1884-.}
1. Engineerirg construction in steel and timber; second edition. London, Longmans, Green and Co., 1910, 8vo. (Longmans' Civil Engineering series.) Pp. xv, 1 blank, 472, plates \(\mathrm{I}-\mathrm{V} b\) (i.e., 9 in all).

Robert Dickie Watt, M.A., B.Sc., F.C.S.
Professor of Agriculture, 1910-.
1. The conservation of soil moisture [ : lecture delivered on 18 July 1910 ].

Depart. of Agric. N.S.W : Farmer's Bulletin no. 42 : Conference of wheat-growers, with special reference to dry farming, Sept. 1910, pp. 7-29, 14 text-figs.
2. Agricultural education. Aus.Jour. of Educ., 15 Dec. 1910, viii, no. 6, pp. 9-11. [Paper read before Teachers' Guild of N.S:W., 26 Nov. 1910.]

Davic Arthur Welsh, M.A., B.Sc., M.D., M.R.C.P. (Edin.).
Professor of Pathology, 1902-:.
1. Cọncerning snake venom. Aus. Med. Gaz.; 20 July 1910, xxix, no. 7 (whole no. 346), pp. 344-349. [With H. G. Chapman.]
2. A symptom-complex in ruptured abdominal hydatid. Aus. Med. Gaz., 20 July 1910, xxix, no. 7 (whole no. 316), pp. 349-350. [With J. E. V. Barling.]

2a. —— Lancet, I Oct. 1919, elxxix (ii of 1910), no. 4544 (no. 14 of vol. ii). p. 1001.
3. On the differentiation of proteins of closely related species by the precipitin reaction. Jour. of Hygiene, 20 Sept. 1910, x, no. 2, pp. 177183. [With H. G. Chapman.]
4. On the prevention of tuberculosis. Aus. Med. Gaz., 20 Oct. 1910, xxix, no. 10 (whole no. 349), pp. 523-527.
5. On the interpretation of the precipitin reaction. Brit. Med. Jour., 12 Nov. 1910, no. 2002, pp. 1510-1513. [With H. G. Chapman.]

James T. Wilson, M.B., Ch.M. (Edin.), F.R.S.
Prolessor of Anatomy, 1890——.
1. Improved methods of utilising organised structures as directing marks for plastic reconstruction, and other notes on microscopical technique. Zeil. f. Wissenschaftliche Mikroskopie u. f. Mikroskopische Technik, 30 August 1910, xxvii, Heft 2, pp. 227-234, 2 text-figs.
2. Note on a neiv expedient for improving the colour-injection of dissection cadavera. Jour. of Anat. and Physiol., Oct. 1910, xlv, pt. 1., pp. 1-2.
3. On a method of mounting and exhibiting frozen sections of the cadaver in the anatomical museum. Jour. of Anat. and Physiol., Oct. 1910, xlv, pt. l, pp. 3-6.
W. G. Wool nough, D.Sc.

Assistant Lecturer in Mineraloay and Detrology, and Demonstrator in Geology, 190:-.
1. A geologist's slide rule and sundry problems in preparation of geological maps and sections. Rept. Aus. Assoc. Adv. Sci. for 1909; 1910, xii, pp. 244-249, 5 text-figs., 1 plate.

\section*{III.}

PUBLICATIONS OF RESEARCH SCHOLARS.
Leo Artritr Cotton, B.A., B.Sc.
Junior Demonstrator in Geology, 1903. Macleay Fellow of the Linnean Society. 1909.
1. The ore deposits of Borah Creek, New England, N.S.W. Proc. Linn. Soc. N.S.W., 17 Sept. 1910, xxxv, pt. 2 (no. 138), pp. 496.520, plates xv-xvi.

James Matteen Petrie, D.Sc., F.I.C.
Linnean Macleay Fellow in Bio-Chemistry, 1907
*1. The rôle of nitrogən and its compounds in plant-metabolism. Proc.
Linn. Soc. N.S.W., 11 March, 1909, xxxiii, pt. 4, pp. \(801-844\).
IV.

PUBLICATIONS OF UNIVERSITY CLUBS.
Sydney University Men's Ceristian Union.
1. University of Sydney students' handbook. Sydney, George B. Philip and Son, 1910. 18mo. [Illus. annual.]

Sydney Unifersity Undergraduates' Association.
1. Hermes, vol. \(x \nabla^{i}\) [ 6 numbers.]

\section*{UNIVERSITY CLUBS,. ETC.}

\author{
Sydney university undergraduates' association. \\ Office Bearers for 1911-12.
}

President-H. S. Utz, B.A.
Vice-Presidents-N. W. Broughton, C. C. P. Walker, B A., J. B. Lane, B.A., A. L. Campbell, B.A. (ex officio), G. C. Byrne (ex officio).

Hon. Secretaries-W. M. Pitt, 105 Newington Road, Marrickville; R. J. Taylor, " Woonona," McMahon's Point, North Sydney.

Hon. Treasurer-E. P. Barbour.
Gbneral Committee-J. C. Lamrock, V. M. Coppleson, N. M. Gregg. A. C. A. Jekyll, C. J, Wiley, L. G. Teece, J. A. James, A. S. Lloyd, W. K. Stewart, B.A., F, D. Stafford, R. J. A. Massie, C. Dennis, C. A. Bourne, J. C. Nield, L. B, Heath, H. A. Ritchie, C. S. Slade, V. Davis, T. Sheehy, R. Harkness, W. A. Selle, F. J. E. Gallagher, A. F. Sutton.

\section*{SYDNEY UNIVERSITY SPORTS UNION.}

The Union now comprises the following Clubs :-Football, Cricket, Boat, Athletic, Lawn Tennis, Baseball and Hockey. Such other Clubs as may from time to time be approved of by the Committee shall be admitted:

Membership.-Any person who shall have matriculated according to the by-laws of the University of Sydney, and shall be proceeding to a degree at such University, and any graduate of the said or any other recognised University, and any unmatriculated student of the University of Sydney, who shall be in attendence at lectures and bona fide proceeding to a certificate, diploma, or license, in respect of which he is required by the Regulations for the time being of the said University to attend lectures during a period of not less than nine terms, or any member of Convocation of the University of Sydney, shall be eligible for membership.' Any undergraduate who has attended lectures for at least six (6) consecutive terms shall be entitled to continue his membership, and nothing in this rule shall affect any member at the date of the passing thereof (April 6th, 1903).

Annual Subscription.-The annual subscription to the Sports Union for full active members is \(£ 2\) 2s., and for honorary members \(£ 1\) 1s. Ladies who comply with the provisions of the above rule as to mombership may become members on payment of an annual subscription of \(£ 11 \mathrm{~s}\). Any persen eligible for membership may become a life member on payment of \(£ 1515 \mathrm{~s}\).; a life honorary member on payment of \(£ 10\) 10s. Any member who shall have paid the aggregate sum of 15 guineas in annual subscriptions shall forthwith become entitled to life membership.

Members' badges are in the form of enamelled inedallions.
The \(O \mathrm{val}\).-The Oval is controlled and managed by a Ground Committee of five (5), appointed annually by the General Committee.

\section*{Office Bearers for 1911-12.}

Patron-The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M.L.C., Chancellor.

Presment-A. G. de L. Arnold, LL.B.
Vice-Presidents-Judge Backhouse, M:A., H. E. Barff, M.A., F. D. Kent, M.A., I. G. Mackay, B.A., H. Marks, B.A., J. B. Lane, B. A., T. de C. Armstrong, B. A., Dr. J. W. Hoets, Professor David, A. B. S. White.

Hon. Treasurers-Geo. Christie, LL.B., H. J. R. Clayton, B.A., LL.B., B. C. Fuller, B.A., R. J. Taylor.

Hon. Secretary-H. S. Utz, B.A., St. Andrew's College.
General Committee-L. J. Reynolds, A. S. Lloyd, B. C. A. Pockley, W. K. Inglis, A. J. Robson, K. W. Street, B.A., C. J. Tozer, E. P. Barbour, G. C. Willcocks, W.J. Stack, A. L. Campbell, L. C. Terrey, C. V. Single, T. C. Roughley.

Grounds Commttee-H. S. Utz., B.A. (Chairman) : R. B. Minnett Secretary), Dr. A. J. Aspinall, B. R. French, B.A., LL.B., E. M. Fisher.

Sydney university athletic club.
Office Bearers for 1911.
Patron-Sir Normand MacLaurin, M.A., M.D., LL.D, M.L.C., Chancellor.

President-B. R. French, B.A., LI.B.
Vice-Presidents - Professor David, Professor Anderson, Professor Pollock, Professor Stewart, F. G. A. Pockley, M.B., Ch.M., W. H. Savigny, H. J. R. Clayton, B.A., LL.B., R. Coombes.

Hon. Secretary-W. J. F. Rofe, St. Andrew's College.
Hon. Treasurer-B. C. A. Pockley.
Delbgates to S.U. Sports Union-B. C. A. Pockley., W. K. Inglis.
Delegates to N.S.W.A.A.A.-H. J. R. Clayton, B.A., LL.B., B. R. French, BA., LL.B., A. S. Lloyd, B. A.

General Committee-W. K. Inglis, R. J. Taylor, E. M. Fisher, J. C': Lamrock, G. P. Arnold, A. S. Lloyd, B. A., H. S. Maeneil, J. K. Henderson.

> SYDNEY UNIVERSITY BASEBALL CLUB.
> Founded 1904.
> Office Bearers for 1911.

Presment-H. R. G. Poate, M.B., Ch.M.
Vice-Presidents-Professor Pollock, T. E. Parker, M.B., Ch.M., D. S. McKenzie, M.B., Ch.M., F. D. Kent, M.A., H. G. Allen, M.B., Ch.M.; H. H. I. Massie, B.E., R. S. Candlish, M.B., Ch.M.

Hon. Secretary-C. V. Single.
Hon. Treasurer-H. McM. Kennedy.
Delegates to N.S.W.B.A.-F. E. McElhone, B.A., J Farrar.
Delegates to S.U.S.U.-C. V. Single, B. C. Kennedy.

General Committee-F. E. McElhone, B'A., J. Farrar, A. D. Wataon, R. B. Minnett, E. P. Barbour. L. J. Hunter, and ex officio C. V. Single and H. McM. Kennedy.

Selection Committee-F. E. McEthone; B.A., C. V. Singte, and A. D: Watson.

\section*{SydNEY UN!VERSITY boat Club.}

Office Bearers fop 1911.
Patron-His Honom Judge Backhouse, M.A., Vice-Cbancellor. President-F. Coen, B.A., LL.B.
Vice-Presidents-Professor Pollock, T. S. Dixson, B.A., V. V. Nathan, R. R. P. Hickson, W. T. Coyle. B.A., I. G. Mackay, B.A., A. Consett Stephen, A. Morrison, B.E., H. K. Ward, M.B., Ch.M.'

Captain-J. E. Monaldson.
Vice-Captain-H. T. Cumningham.
Hon. Secretary-K. W. Street, B.A.
Hon. Treasurer-A. J. Röbsoí.
Committee-C. B. Donaldson, A. B. Doyle, E. T. Simpson, Geo, Christie, D. Williams, A. T. Dunlop.

Trustees-H. E. Barff, M.A., Robert Smith, M. A.
Delegates to N.S.W. R.A.-A. G. de L. Arnold, LL.B., F. Coen, B.A., LL.B., J. E. Donaldson.

Delegates to Sports Union-A. J. Robson (ex afficio), K. W. Street, B.A.

Hon. Medical Orficer-A. Holmes à Court, M.B., Ch.M.

\section*{sydney university football club. \\ Office Bearers for 1911.}

Patron--The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M.L.C., Chancellor.

President-Hyan Marks, B.A.
Vice-Presidents-Professor David, James Hughes, M.B., Ch.M., J. W. Hoets, M.B., Ch.M., John Hughes, B.A., LL.B., H: J. Clayton, M.B., Ch.M., F. Coen, B.A., LL.B., I. G. Mackay, B.A., H. M. Moran, M.B., Ch.M.

Hon. Treasurer-L. J. Reynolds.
Hon. Secretaries-First XV.: Alan Lloyd. Second XV.: P. A. Morris. Third XV.: W. D. Kirkland.

Delegate to Sports Union-Alaṇ Lloyd.
Deleantes to Metropolitan Rugby Union-FI. J. R. Clayton, B.A.; LL.B., F. Coen, B.A., LL.B., L. J. Reynolds.

Delegates to City and Sububban Association-A. E. Aspinall, W. D. Kirkland.

Representative on Committer of Metrofolitan Rugey UnionF. Coen; B.A., LL.B.

General Committee-B. C. A. Pockley, E. M. Fisher, E. W. McKeown, B.E.; J. B. Metcalfe. N. W. Broughton.

\section*{SYDNEY UNIVERSITY HOCIEEY CLUB.}

Affiliated 1909.
Office Bibarkrs for 1911.
Patron-Professor Pollock, D.Sc.
Preaident-F. A. Eastangh.
Vrce-Presidents-Professor Wilson, T. de C: Armstrong, A. B. S. White, J. T. Paton, I. G. Mackay, Dr. N. K. Robertson.

Hon. Treasurer-A. L. Campbell.
Hon. Secretary - W. McI. Pitt.
Delegates to S. U. Sports Union-A. L. Campbell, L. C. Terrey.
Delegater to N.S.W. A. H. A.-A. L. Campbell, L. C. Terrey.
Committee-W. K. Inglis, L. C. Terrey, C. O. G. Donovan, R. A. R. Green, D. F. Finlay, R. J. Taylor, J. B. Lane.

\section*{sydney unjversity Lawn teninis crub. \\ Office Bearers for 19il-12.}

Patron-The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M.L.C., Chancellor.

President-T. de C. Armstrong, B.A.
Vice-Prebidents-H. E. Barff, M.A., Dr. H. C. Hinder, K. M. Niall, B.E., Professor Pollock, D.Sc., G. W. Waddell, M.A., LL.D., Professor Stewart, Dr. A. I. Blue, P: B. Colquhoun.

Hon. Secretary-B. C. Fuller, B.A.
Hon. Assistant Secretary-E. P. Barbour.
Hon. Treaburer-C. J. Tozer.
Delegates to N.S.W.L.T.A.-Geo. Christie, JLL.B., B. V. Stacy, B.A.

Delegates to S.U.S.U.-C. J. Tozer, E. P. Barbour.
General Commttee-W. J. Stack, L. G. Teece, N. M. Gregg, J. C: Lamrock, H. S. Utz, B.A., B. V. Stacy.

\section*{THE SYDNEY UNIVERSITY SCOUTS.}

This Corps of Volunteers was founded at the end of 1900 , but has now been converted into Militia. The authorised establishment is two companies of 60 men each, who must be past or present Uviversity students, and, by the Commonwealth Military Regulations, eighteen years of age, 5 ft .6 in . in height, and 34 inches chest measurement. Men engage to serve for at least three years, and if they fail to be efficient for that time are liable to a fine, and to be discharged.

There is no entrance fee or subscription. Drills are held chiefly at the University, at times convenient to Undergraduates. Uniform, arms and accoutrements are provided.

The following Trophies are offered for Coupetitiun in the
Corps:-
Fior Companies:-
1. The Denham Shield for Musketry.

\section*{For Half Companies :-}
2. The Half Company Cup (presented by Major R. C. Simpsou), for drill, attendance, and general efficiency.
3. The Liversidge Cup for field firing.

For Sections:-
4. The Visitors' Cup (presented by His Excellency the late Sir H. H. Rawson), for service shooting.
b. Silver Whistles (presented by Major R. C. Simpson), to efficient section commanders.

\section*{For Recruits:-}
6. The Edgley Cap (presented by Mr. H. D. Edgley), for the most efficient recruit of the year.
All the above, with the exception of No. 5, are Challenge Trophies.
Opficers.
Major J. F. Flashman, commanding. Captains H. K. Denham, B.A., LL.B., H. S. Mort, B.Sc., B.E., seconded; Lieutenant A. E. Finckh, M.B.; Second Lieutenauts, S. E. Townshend, B.A., LL.B., H. G. Carter, B.E., V. Waine, B.E., M. MacKinnon, B.Sc., O. U. Vonwiller, B.Sc.; Staff Company Sergeant-Major W. Foley; Signalling Sergeant M. P. Smith; Orderly Room, Macleay Museum.

\section*{Sydney university scouts rifle daub.}

The Club was formed in connection with the Sydney University Scouts. The object of the Rifle Club is to promote rifle shooting amongst the members of the Syduey University Scouts. Members of Sydney University Sconts are eligible for membership, also University officials and such honorary members as may be elected by the committee. The subscription is 2 s .6 d . per term, or 5s. per annum, in advance. The membership roll totals 105. There are three shoots per terin. In 1907 Mr . Venour Nathan presented a valuable shield for competition aboong the Australian Universities. Four matches have been fired, three of which were won by Sydney University, the last being won by Melbourne University. The next match will be fired at Adelaide, probably in August.

Office Bearers for 1911.
Patron-The Hon. Sir Normand MacLaurin, M.A., LL.D., M.D., M.L.C., Chancellor.

President-Major J. F. Flashman, commanding Sydney Universitỳ Scouts.

Vice-Presidents-Brigadier-General Gordon, Colonels Foster, Lyster, Campbell and Mort, Lieutenants-Colonel Legge, Bartlett, Irving, Wilson, Holmes and MacLagan, Majors Wallace Brown, Smail, and Simpson, Captains Mort, Corlette, Hanna, Ralston, Croll. Petherbridge, Denham, Patterson, and Storey, Lieutenants Barraclough, Gibson, Martyn, Smail, Hodge, Vine-Hall, Fatterson, Edgley, Bedford, Whiting, McLean, Hewitt, Clift, Waine, and Carter, Professors MacCallum, David, Carslaw, Warren, Anderson. Pollock. Anderson Stuart, Woodhouse, Liversidge, and Cobbett, Messrs. H. E. Barff, M.A., R. A. Dallen, E. M. Mitchell, B.A., LL.B., V. V. Nathan, J. Atkinson, B.E., also Captaịn Heeker, A.M.C., Lieutenant McKean, 2nd A.L.H., Lieutenant Edwards, A.I.C., Lieutenant Bundock, R.A.A., Lieutenant Smyth. and Lieutenant Bates.

Captain-Lieutenant MacKinnon, B.Sc.
Hon. Secretary-Corporal Nixon, Orderly Room, University.
Hon. Treasurer-Corporal Lowe.
Committer-Colour-Sergeant Flower, Sergeant Green, Sergeant Willis, Lance-Sergeant Graham, Corporal Smith, Private Coghlan, Private Dark.

IMPERIAL UNIVERSITIES' RIFLE MATCH.
This competition was instituted in 1909. It is open to teams of cight from any University in the British Empire, and is for a Perpetual Challenge Trophy, to be presented by the Australian Universities. Each team shoots on its own range on any day in May, June, or July. Seven teams competed last year. The competition is controlled by the following committee:V. V. Nathan, Esq., hon. sec., Orderly Ruorn, University of Sydney; Capt. H. S. Mort (Sydney); Capt. D. Bennett, Melbourne; Prof. Naylor (Adelaide); F. C. Greeu, Esq. (Tasmania). Local hon. secs. -S. F. Mort (British Isles), Queen's College, Oxford; Prof. Nobbs (Canada, Department of Agriculture, McGill Uiniversity, Montreal. A copy of the regulations and conditions governing the match may be seen at the Orderly Room, Macleay Museum.

SYDNEY UNIVERSITY MEN'S CHRISTIAN UNION.
The Sydney University Christian Union was founded on May 19th, 1896.
This Union is a branch of the Australasian Student Christian Union, which in its turn is a branch of the World's Stndent Christian Federation. This federation includes over 2,000 associations, with an aggregate membership of over 103,000 . The federation has made all the studeut movements of the world better acquainted with each other by establishing among them practical means of communication, such as world's conferences, intervisitation, correspondence, and interchange of publications.

Its objects may be gathered from Article II. of the Constitution :-
"To strengtheu the bonds of union among Christian students; to influence fellow-students to become followers of Christ; to deepen the spiritual life of students; to promote Christian work, especially by and for students; to lead students as they go forth from the University to place their lives where they will be most useful in extending the Kingdom of Cbrist."

Public meetings are held on Thursdays, from 1.25 p.m. to 2.10 p.m. Bible Classes are arranged weekly for the different years in the different faculties. There are several College Classes. Classes are also arranged fortnightly for studying the progress which Christianity is making throughout the world.

The Sydney University City Lads' Club is conducted by the Thion (for particulars see elsewhere).

The Union is in possession of a library, which contains many standard works on the religious problems of the day. It is situated in the lobby to Professor MacCallum's lecture room.

Membership-which is of two kinds, active and associate-is open to all members of the University. Sabscription, 3s. per annum.

Until 1903 the Union included both the men's and women's branches; but at the annual meeting of October, 1904, these two branches were separated to form two distinct self-governing unions, each with its own constitution. The annual meeting of the Union is held in the second week of Tinird Term, at which the executive officers are elected to serve for one year.

Office Bearers for 1911.
President-E. A. Southee.
Vice-Prebidents-N. D. Royle, R. G. Crawford.
Correspondina Secretary-I. Morgan.
Assistant Segretary-R. M. Boyce.
Recording Secretary-R. J. Blanchard.
Treasurer-E. P. Barbour.

> SYDNEY UNIVERSITY CITY LADS' CLUB.

This Club, from the nature of its work, is under the auspices of the Men's Christian Union, affording ample room for philanthropic activity of an essentially practical nature, yet its workers are by no means coufined to members of the S.U.C.U.

The Club carries on the work of the late Sydney University and City League formed in 1901. The object is to regularly influence boys who are not touched by any other organisation, to help them to fight against their evil surroundings, and to turn them out as useful citizens. The work was carried on for some years in Miller's Point. To allow for expansion, the Club was last year moved to Ultimo, and was open four evenings a week. It then amalgamated with Mrs. Vickery's Boys' Club in Bay Street, Glebe. This partnership was dissolved by mutual consent, and work was for some time carried on in Little Albion Street, Surry Hilis. For fuller details see the S.U.C.U. Handbook, or interview the Secretary.

Office Bearers for 1910.
Hon. Secretary-R. J. H. Moses.
Hon. Treasurer-F. C. Philip, M.A.
Committee - R. J. H. Moses (chairman); F. C. Philip, M.A. (ex officio); A. L. McLean, B.A.: A. L. Campbell, B.A., (Graduate members); A. S. Walker, A. Benjamin, K. W.Street (Undergraduate members).

\section*{Sydney unifersity dramatic society. \\ Ofpice Bearers for 1911.}

Patron-The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M:L.C., The Chancellor.

President-Professor MacCallum, M.A., LL.D.

Vice-Presidents-Professor Wilsou, Professor Woodhouse, AssistantProfessor Holme, Miss G. Marks, M.A.

Hon. Secretaries-Enid Armstrong, A. Consett-Stephen.
Hon. Treasurers-Gladys V. Stephen, E. P. Barbour.
Commttee-Misses M. Herd, J. Wilson, Pattinson, Messrs. L. Nott, McKeown, Dr. F. A. Todd.

\section*{SYDNEY UNIVERSITY ENGLNEERING SOCIETY.}

The object of the Society is to promote the welfare of the Department of Engineering by bringing into closer association the Graduates and Undergraduates in Engineering, by the reading of papers and the delivery of lectures on professional subjects, and by such other similar means as may be approved of by the Council of the Society. Membership is open to all students in the Faculty of Science, whether matriculated or not, to members of the teaching staff, graduates in Science and Engineering, and engineers in active practice, who may be approved by the Council. The subscription is one guinea for ordinary members and 7 s .6 d . per annum for Undergraduate members (which includes a copy of the Society's Proceedings), payable at the beginning of April. The Society offers an annual prize of \(£ 22 \mathrm{~s}\). for the best paper on original research work or design, contributed by an undergraduate during the year.

Prize, 1909 - No award.
Office Bearers for 1910.
Peesident-W. E. Cook, M.C.E. (Melb.), M.E., M.I.C.E.
Vice-Presidents-A. J. Gibson, A.M.I.C.E., J. P. Tivey, B.A., B.Sc., B.E., J. P. V. Madsen, D.Sc., B.E. E. W. Nardin, B.E., A.M.I.C.E.

Hon. Secretary-F. A. Eastaugh, A.R.S.M., F.C.S., F.G.S., A.I.M.M., Metallurgical Department, The University.

Hon. Assistant Secretary-A. D. J. Forster, Engineering School, The University.

Hon. Treasurer-H. M. Larkins, B.E.
Assistant Hon. Treasurer-T. Wilkins.
Council-H. S. Mort, B.Sc., B.E., F. D. Yower, F.G.S., R. J. Boyd, M.E., E. W. McKeown, B.E., H. G. Carter, B.E., W. J. Sachs, E. P. Norman, J. S. Foxall, C. A. Bourne, W. E. Pike.

\section*{sydney dniversity eventig students' association.}

This Association was founded in April, 1900, with the object of promoting social relations among Evening Students, past and present.

Office Bearers for 1911.
Patron-Assistant Professor Holme, M.A.
President-F. J. Berman, B.A.
Vice-Presidents-H. R. Blanksby, B.A., C. R. Collins, B.A., E. F. Hallman, B.Sc., W. K. Stewart, B. A.

Hon. Secretaries-Graduates: A. Cousins, B.A. Undergraduates:T. Sheehy.

Hon. Treasurer-G. A. Murphy.
Representatives.-Graduates; R. E. Nutman, B.A. Law School: W. J. Sheppard. Third Year: F. J. E. Gallagher. Second Year: W. A. Selle. First Year : B. C. Harkness, F. Telfer.

Representative on "Hermes" Staff-C. R. Collins, B.A.
General Commitree-J. Dunlop, B.A., F. C. Jackson, B.A., T. J. Clyne, J. H. Laws.

Auditors-G. R. Thomas, E. F. Fischer.

\section*{SYDNEY UNIVERSITY LAW SOCIETY.}

This Society was formed in Lent Term, 1902.
Its object is to unite law students and members of both branches of the legal profession in a society which will bring them together for social intercourse and discussion of subjects of professional interest. The members meet at various gatherings throughout the year, and Moots are set and heard by the Lecturers and members of the Bar at frequent intervals. In addition to these set Moots. students may themselves bring matters before a Moot Court recently established, either by simply stating the facts and question at issue, or by adopting the procedure followed in the various jurisdictions of the State and Federal Courts. The society's rooms in Selborne Chambers have been elegantly furnished by the kinduess of its past Patron, Professor Pitt Cobbett. The reading-room contains all the principal English and American Legal Magazines, as well as the more important magazines and reviews of general interest.

The following persons are eligible for membership on election by the Committee, and payment of an annual subscription of is. :-(1) Any Gradu. ate in Law; (2) any Graduate of the University who is a Barrister or Attorney of the Supreme Court of New South Wales or Queensland, or an Articled Clerk or Student-at-Law in New South Wales; (3) any person attending lectures in the Faculty of Law.

\section*{Office Bearers for 1911-1912.}

Emeritus Patron for Life.-Professor Pitt-Cobbett, M.A., D.C.L. Patron-Professor J. B. Peden, B.A., LL.B.
President-A. J. K.elynack, B.A., LL.B.
Vice-Prisidents-T. R. Bavin, B.A., LL.B., E. M. Mitchell, B.A., LJ.B., H. R. Curlewis, B.A., LL.B., F. R. Jordan, B.A., LL.B., and R. S. Bonney, B.A., LL.B.

Hon. Secretaries-Undergraduates: W. K. Stewart, B.A., Crown Law Office, Macquarie Street. Graduates: H. G. Edwards, B.A., LL.B., Law School, Selborne Chambers

Hon. Treasurer-B. H. Ferguson.
Conntteen-J. A. Ferguson, B.A., LL.B., S. E. Townshend, B.A., LL.B., R. W. Hooke, B.A., LL.B., C. A. Weston, B.A., H. H. Mason, H. R. Blanksby, B.A. and F. E. McElhone, B.A.

Hon. Auditors-C. D. W. Wria, and E. C. Bender. B.A.

\title{
SYDNEY UNIVERSITY: MEDICAL SOGIETY. \\ Office Bearers for 1910.
}

Presidfant-K. Smith, M.B., Ch.M.
Vice-Presidents-Dr. Aspinall, Dr. Candlish, Dr. Ewing, Dr. Mobbe, Dr. Parker, A. L. McLean, E. B. M. Vance.

Hon. Secretary-Graduate: Dr. Poate. Undergraduate: G. W. Macartney.

Assistant Hon. Segretary-J. B. Metcalfe.
Hon. Treasurer-E. A. Tivey.
Hon. Imbrarian-W. K. Iuglis.
Council-jth Year: S. H. Weedon. 4 th Year: J. E. Dona!dson. 3rd Year: W. J. Stack. ?nd Year: B. C. A. Pockley. lst Yeat: E. P. Barbour. Editor-in-Cimff-Dr. Hoets.

\section*{SYDNEY UNIFERSITY SCEEACE SOCIETY.}

The objects of this Society, which was founded in Augrust. 1904, are:
1. To promote the study of natural science for its own sake by means of papers, exhibits, discussions, and lectures on subjects of general scientific interest, and by geological, biological and other excursions which may be of assistance to students in their stindies.
2. To encourage originality, and stimulate the spirit of research amongst 'students.
3. To give the students and the teaching staff an opportunity to meet on equal footing to discuss scientific knowledge for mutual benefit and -instruction.

All students and ex-students of the Syduey University and all members of the teaching staff of the University are eligible for nembership.

The subscription to the Society is is per annum, payable in March. All subjects taught in the curriculum of the faculty of Science (not including Engineering) fall within the scope of the Society. Papers may be read by any member of the Society, provided due notice has been given to the Council.

Monthly meetings are held on the third Wednesday of each month at 8 p.m., and monthly excursions are held on days fixed by the Council.

During the past year lectures bearing on Geology, Biology, Chemistry, and Physics were given, and excursions were held at iutervals.

All students interested in any branch of Science are strongly recommended to join the Society.

Office Bearers for 1910-1911.
President-O. U. Vouwiller, B.Sc.
Vice-Presidents-W. G. Woolnoigh, D.Sc., J. A. Schofield, A.R.S.M., H. G. Chapman, M.D., B.Sc., W. S. Dun, S. J. Johnston, B.A., B.Sc., F. A. Eastangh, A.R.S.M.

Hon. Secretaries- E. Guiffiths, B.Sc, N. Burkitt, B.Sc.

\author{
Hon. Treasurer-W. N. Benson, B.Sc.
}

Council-R. S. Bonney, B.A., LL.B., H. I. Jensen, D.Se., F. A. Debenham, B.A., B.Sc., A. B. Walkom, B.Sc., G. J. Burrows, B.Sc., E. C. Grey, B.Sc., A. D. Watson, E. A. Briggs.

\section*{Sydney university union.}

The object of the Union, which was founded in 1874, is the promotion of the mental culture and fellowship of its members by means of Debates, Lectures, Reading of Papers, etc. The meetings are held at the University every Friday evening at 7.45 p.m. Past and Present Members meet at the Annual Dinner, which is held during Lent Term. The Professors, Lecturers, and Examiners of the Sydney University are ex officio Honorary Members. Any other member of the University, or student attending lectures, or fellow or councillor or student of an affiliated college, may become a member of the Union by paying his subscription to the Treasurer. Subscription, 2s. 6d per annum. Life Membership is obtained on the payment of four annual subscriptions. The Union year now begins in Trinity Term.

Office Bearers for 1911.
President-Professor J. B. Peden, B.A., LL.B.
Vice-Presidente-Professor W. J. Woodhouse, M.A., Assistant-Professor E. R. Holme, M.A.
Hon. Treasurer-S. V. Toose, B.A.
Hon. Secretaries-A. V. Maxwell, B.A., Law School, Philip Street; W. T. S. Wall, The University.

Committee-A. W. M. d'Apice, B.A., LL.B., R. S. Bonney, B.A., LL.B., C. H. Cohen, B.A., C. Donovat, H. G. Edwards, B.A., LL.B., R. W. Hooke. B.A., LL.B., R. S. Murray-Prior, B.A., LL.B., W. K. Stewart, B.A., R. Traylor, C. A. Weston, B.A.

\section*{UNIVERSITY CLUB.}

The University Club was founded on 27th March, 1905. Club premises were opened at 13 Castlereagh Street, Sydney, 27 th September, 1905, and 15 Castlereagh Street (new premises) on 19tb October, 1908.

Among the objects for which the Club was founded are-The promotion of social intercourse and goodfellowship among University men; the promotion of literary, scientific and artistic culture and research.

The qualifications of members shall be that they are males over twentyone years of age, and are either :-(1) Persons who were elected members of the Club prior to 15 th December, 1908; or (2) Graduates of the University of Sydney: or (3) Graduates of any University named in Ch. 19, Clause 1 of the Bye-Laws of the University of Sydney or of any University to the Graduates of which the Senate may have determined or may determine to grant degrees ad eundem gradum, or of any University the degrees of which the Directors, by a two-thirds majority of their whole number, are of opinion they should recognise; or (4) Persons who have matriculated and
have actually attended six terms lectures of a degree course at the University of Sydrọy, and who have bona fide entered on their senventh term, provided that no such person be nominated for membership if he shall tave ceased to attend lectures at the University for a period of five years; (5) Permanent members of the Teaching Staff of the Uuiversity of Sydney above the rank of Junior Demonstrator.

Patron-The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M.L.C., Chancellor.

Presment-The Hon. Sir W. P. Cullen, M.A., LL.D., K.C.
Chairmean or Directors - C. H. Helsham, B.A.
a..- Direefers-T. de C. Armstrong, B.A., A. G.. de .L. Aruold, LL.B.; Dic.E. B. Blackbumi, J. J. Cohen, M.A., M.L.A.; J. S. D'Arey, - B.A.; B.:S:- Edwards, B:A., LL.B., D. Maughau, B.A., E: M.. Mitchell, B.A., FIT.B., Dr. G. W. W.addell, L. Whitfeld, M:A.; A:B.-S. White, AssistantProfessor E. R. Holme and Dr: F. S. W. Zlntkowski. .. Secretary-N:Heath.

\section*{SYDNEY UNIVERSITY GLEE CLUB.}

The Uiniversity Glee Club was formed in October. 1908. Its objects are to foster the love of vocal music in the University, and to train the ears and voices of its members.:

Practices are held at 1.30 p.m. on Tuesdays and Fridays, in the Latin Lecture Room. Two concerts are given each year. The subscription is 7s. 6d. per annuma.

Office Bearets for 1911.
Patron--The Hon. Sir Normand MacLaurin, M.A., M.D., LL.D., M.J.C.;' Chäncellor:

President-F. A. Eastaugh, A.R.S.M.
Vice-Prisidents-Miss Fidler, B.A., H. E. Barff, M.A., E. W. McKeown, B.E., A. B. B. Ranclaud, B.Sc., F. A. Todd, B.A., Ph.D.

Hon. Treaburer-J. S. Foxall.
Hon. Librarian-L. Corbett.
\(=\) Hon. Skcretáries-Miss N. D. Meares, A. L. Lance.
Commptee-Misses Gasteen and Wallace, Messrs. C. K. Cohen, w. H. Donald, and S. M. Graham.

\section*{SYDNEY UNIVERSITY WOMEN UNDERGRADUATES' ASSOCIATION. \\ Office Beirres for 1911.}

Presideni-Miss Dunstan.
Secretart-Miss Crago.
Viee-President-Miss Erhard.
\(\therefore\) College VIge-Presidenti-Miss Watson. \(^{\prime}\)
Treasurer-Miss Austin.
Comitree-Miss Gale, Miss Bootle, Miss Hadley, Miss O'Reilly, Miss Lewis, and Miss Hamilton.

SYDNEY UNIVERSITY WOMEN's SOCLETY.
The Sydney University Women's Society is the ouly University Society which exists for the purpose of giving practical help to those in need of it. Its work is divided into two branches, which are:-
(i.) Visiting.the old people at Newingron Asylum, taking them prosents, and organising entertainments for them.
(ii) Maintaining and developing the University Women's Settlement in Little Queen Street, Newtown, which exists for the purpose of providing an outlet for a first-hand study of social and economic conditions, and of striving to diffuse the benefits of University education and training:

Office Bearers for 1911.
Patroness-Lady Chelnsford.
Presment-I Iady Cullen.
\(\therefore\) Vice-Presidents-Mrs. Ashburton Thompson; Mrs: Woodhouse, Mrs. Wilizon, Mrs. Barff, M.A.. Miss Fidler, B.A., Miss Macdonald, M.A.

Hon. Treasurer-Miss E. I. Heniy, M.A.
Hon. Orqanising Secretary-Miss Atterton, B.A.
How. Corresponding Secretary-Miss Una Fielding; B.A.
\(\therefore\) Hon. Assistant Srcretary--Miss Neale.
Representatives for Settlement-Miss Evans, B.A., Miss Morley, M.A.

Committee-Miss Wateon, M.A., Miss Flower, M.A., Miss Golding, Miss Lodder, Miss Wise.

Newington Representative-Miss Wallach, B.A.

\section*{Sydney university women's tennis cleb. \\ Office Bearers for 1910.}

President-Mrs. MacCalluú.
Vice-Presidents-Mrs. Wood, Miss Fidler, B.A., Mrs. Haswell, Mrs. Anderson, Mrs: Welsh, Mrs. Fawsitt.

Hon: Secretary-Kathleen M. Prescott, Newington College, Stanmoie.
Hon. Theásurer-Janet A. Beith.
Committee-Enid C. Macdonald, Jessie M. G. Lillingston, May A. Saunders, Constance I. Docker, M. Enid Armstrong, Anniie Laurie Edwards.

> SYDNEY UNIVERSITY WOMEN'S CHRISTIAN UNION:
> Office Bearfrs for 1911.

Presinent-Ida Lodder.
Vice-President-Dorothy Dunstan:
Correspondina Skcretary-Emily Conolly, Firth Street, Waverley.

Assistant Corresponding Segretary-Chrissie Rivett.
Recording Secretary-Eleie Gabteen.
Treasurer-Elsie Campbell.

\section*{MISSIONARY SETTLEMENT FOK UNIVERSITY WOMEN. (sydNEY UNIVEREITY BRANCH.)}

The Missionary Settlement for University. Women was founded in Bombay in 189.5. Its aim is fourfold:-1. To reach the women students of India. 2. To reach the higher class Parsi women and girls who are not yet students. 3. To meet the growing demand for women's education in India by providing Christian and not merely secular teaching. 4. To arouse and foster more missionary interest among the women students of Great Britain, and to band them together in a united effort by providing a definite outlet for their interest.

Branches exist in each of the Australian Universities, each State having its State Secretary, while the whole movement in Australia is under the direction of a General Secretary elected by the State Executives. A number of branches have also been established in the Secondary Schools. The M.S.U.W. and Y.W C.A. combined to send out in 1909, Miss Ada Carruthers, B.A., and Miss Nina Brentnall, B. A., both graduates of this University, who are now settled in Bombay and Calcutta respectively. The claims of the M.S.U.W. are urged upon new students as a movement which in its origin and aims must peculiarly appeal to them as students. The Undergraduate officers for 1910-11 are :-

Hon. Secretary-Cecily Packham.
Hox. Treasurer-Dorothy Wise.

\section*{UNIVERSITY CAMPS FOR GREAT PUBLIC SCHOOLS, N.S.W.}

The above movement was organised in 1907, on the model of similar movements in various Universities of Europe and America, but especially that in connection with Oxford and Cambridge. Like them, it organises annual holiday camps for boys from the Great Public Schools, together with a small proportionate number of 'Varsity men, undergraduates and younger graduates. The latter seek by the attraction of vigorous personality rather than by word, and in so far as their companionship and friendship is acceptable, to help the boys in strong Christian manliness. The camps, which are held at the end of the Schools' Christmas vacation, are recognised as an independent self-governing outgrowth of the work of the Australasian Student Christian Union. Further information may be had from the Secretary.

Council-His Grace the Arehbishop of Syduey, Rev. Principal Harper, M.A., D.D., Sir James R. Fairfax, Professor James T. Wilson, M.B., Ch. M., F.R.S., Professor D. A. Welsh, M.A., B.Sc., M.D., F.R.C.P., C. R. Walsh, and the Headmasters of the larger Great Public Schools.

General Committer.-E. P. Barbour, Assistant-Professor S. I. Barraclough, F. E. Barraclough, M.A., J. E. Bateman, B.Sc, C. A. Brough, C. A. Buchanan, B.A., A. J. P. Chapman, Rer. .D. Daries, M.A.; C. B. Fidler,
:B. A. (Chairman), A. J. Gibson, A.M.I.C.E., R. A. Holloway, B.Sc., F. M. MoKeown, B.A., L. C. Mote, B.A., C. H. Northcott, B.A., M. F. O'Reilly, N. D. Royle, A. T. Roberts, Rev. H. Saumarez Smith, M.A., G. C. Saxby, B.A., E. A. Southee (ex afficio), Rev. W. H. W. Stevenson, B.A., L. V. Waterhouse, B.E.

Exrcurive-C. B. Fidler, B.A. (Chairman), F. M. McKeown, B.A., R. A. Holloway, B.Sc. Rev. H. Sanmarez Smith, M.A. (Hon. Treasurer), C. A. Brough (IIon. Secretary).

SYDNEY UNIVERSITY GOLF CLUB.
Office Bearers for-1911.
President-Sir Normand MacLaurin, M.A., M.D., LL.D., M.L.C., Chaucellor.

Vice-President3-H. E. Barff, M.A., F. D. Kent, M. A., R. Smith., M.A., and Mr. Justice Sly.

Jont Hon. Segrataries and Treasurers-G. T. Balcombe and Keith Browne, University Club, Castlereagh Street.

Commitee--Dr. R. G. Craig, Wm. Warren, W. A. Windeyer, C. A. Sinclair, B.A., LL.B., E. M. Stephen, B.A., A. H. Uther, B.A., LL.B., and F.J. Blaxland.

\section*{SYDNEY UNIVERSITY wOMEN's UNION.}

The object of the S.U.W.U. is to provide an opportunity for both undergraduates and graduates to meet, and also for graduates to keep in touch with the University after they have ceased to attend lectures. The University Womens' Annual Reunion takes place under the auspices of this Union, and is arranged by a committee of members.

Office Bearers for 1911.
President-Miss E. Sutherland, B.A.
Hon. Graduate Treasurer-Miss J. Debenham, B. A.
Efon. Undergraduate Associate Treasurer-Miss L. Puruell., B:A.
Commttee-Dr. Aspinall, Miss Mallarky, M.A.. Miss Ida Slack, M.A. ex officu-Miss Fidler, B.A., Miss Macdonald, M.A., Miss MacCallum, B.A., and Miss Reid, B.A.

Delegates from Affiliated Societies.-Miss Evans, B.A., Misa Henry, M.A., Miss Turner, B.A., Miss R. Reid, B.A., and Miss Enid Macdonald.

Hon. Secretaries-Miss N. Brierley, B.A. and Miss G. H. Marks, B.A., Cambrian Villa, Potts Point.

\section*{SYDNEY UNIVERSITY CRICKET CLUB.}

This Club was established in the year 1865. All members of the Sports Uuion are Mcmbers of the Cricket Club. The Senate has granted to the Club the use of that portion of the University grounds known as the
"Oral." A considerable sum of money has been spent upon this ground, and a handsome pavilion has been erected upon it. Practice is carried on daily (Wednesdays excepted) from October to April (inclusive) on the Oval.

Office Bearers for 1910-11.
President-F. D. Kent, M.A.
Vice-Presidents-H. M. Stephen, B.A., LL.B., Dr. F. A. Todd, Dr. H. S. Stacy, C. A. Sinclair. B.A., LL.B., A. Blue, M.B., Ch.M., James Hughes, M.B., Ch.M., H. J. R. Clayton, B.A., LL.B., T. de C. Armstrong, B.A.

Hon. Secretary-L. C. Terrey, Edgedliffe House, Edgecliffe.
Assistant FIon. Secretary 2nd XI.-R. C. M. Boyce.
," . ,, ,, 3no XI.-.-B. V. Stacy.
", ", ", Vetbrans-F. M. MeKeown, B.A.

Hon. Treasurer-W. J. Stack.
Delegates tó S.U.S.U.-W. J. Stack, G. C. Willcocks.
Delegates to N.S.W.C.A.-C. A. Sinclair, B.A., LL.B., J. B. Lane, B.A.

Delegates to C.S.C.A.-A. Blue, M.B., Ch.M., F. M. McKeown, B. A.

Committee-E. M. Fisher, J. C. Lamrock, N. W. Broughton, C. V. Single, F. E. McElhoue, B.A., A. D. Watson, H. S. Utz, B.A., B. R. French, B. A.

Provisional Selection Commtree-J. B. Lane, B.A., W. J. Stack, R. B. Minnett, R. W. Adamsor, R. F. Hughes.

Veteran XI.-A. Blue, M.B., Ch.M., T. De C. Armstrong, B.A., Hyam Marks, B.A.

\section*{THE CLASSICAL ASSOCIATION OF NEW SOUTH WALES.}

The Classical Association of New South Wales was founded to provide the students and friends of the classics with an organisation which hitherto they had lacked. Its objects, as set forth in the Rules, are to promote the development and maintain the well-being of classical studies, and, in par-ticular- \((a)\) to impress upon public opinion the chaims of such studies; (b) to discuss the scope and methods of classical teaching; (c) to encourage investipation, and call attention to new discoveries; (d) to oreate opportunities for friendly intercourve among all lovers of classical learning in this country.

The Association meets at the University not less than four times a year. By arrangement with the Classical Association of Englaud, to which the New South Wales Association is affihated, each member receives annually "The Proceedings," and "The Year's Work," published in England abont January of each year. The annual subifription is seven shillings and sixpence, due on the 1st July.

Office Bearers for 1910-1911.
President-The.Hon. Sir Willián Cullen, Kt., M.A., LL.D. Hon. Treasurer-Professor W. J. Woodhouse, M.A. Hon. Secretary-F. A. Todd, B.A.. Ph.D., University of Sydney.

The Economics and Commerce Association was registered under the Companies Act, on 1st March, 1911. Among the objects for which the Association was founded are:-
(a) To stimulate interest and research in the Economics of Industry and Commerce by the granting of Fellowships, Prizes and Scholarships, by the reading of papers, and by the holding of lectures, and by such other means as may from time to time be determined.
( \(l\) ) To collect and diffuse information on all such śubjects, and to print, publish, issue and circulate such papers (other than newspapers), periodicals, books, circulars, and other literary matter as may seem conducive to this object.
(c) To establish a library and reading room, to provide rooms and other facilities for holding of meetings of the members, and generally to promote the in vestigatiou and discussion of all economic questions.
(d) To prolong and sustain the interest of students in Economics after the completion of their University course.
The qualification of members:-
(a) Honorary Members-(i.) All the professors of the Sydney University. (ii.) Such other as the Council may from time to time admit.
(b) Fellows-(i.) The professors and lecturers in the Department or Faculty of Economics and Commerce, University of Sydney. (ii.) Any Associate of two years' standing who has passed the Examination, if any, prescribed by the Council, or who, in the opinion of the Council, has contributed by research to the general stock of economic knowledge.
(c) Associates-(i.) Any person who has undergone the course in Economics and Commerce prescribed by the University of Sydney, and obtained the Diploma or Degree of the University, provided that he presents certificates as to his good fame from two Associates or the Chief Lecturer in the Department of Economics and Commerce, Sydney Uuiversity, and has such other qualifications as the Council may from time to time, or in any special case, require. (ii.) Any person who, in the opiaion of the Council, has qualifications which fit him to be an Associate Member.
(d) Student Members-Any person, being a student in Economics and Commerce, University of Sydney, subject to the same conditions as Associates.
The first officers of the Association are:-
Patron-Sir Normand McLaurin, M.A., M.D., LL.D., M.L.C., Chancellor.

President-R. F. Irvine, M.A.
Vice-Presidents-H. Y. Braddon, H. Dunstan Vane, F.G.P.A. J. Matland Paxton, A. Wunderlich.

Mon. Secretaries-Ernest Selby and Allan D. Wylie.
Hon. Treasurer-C. N. Campbell, A.C.P.A.
Councillors-W. Cunningham Ewing, H. E. Street', W. C. Lacey, E. O. Walcot, H. McDonald, J. Merrett, F. W. Jones.

UNIVERSITY WOMEN EVENiNg STUDENTS' ASSOCIATION.
- This Association was formed on 12th April, 1911. Its objects are to promote social relations among Women Evening Students, past and present, and tu further the interests of Eveuing Students.

Office Bearers for 1911.
Patroness-Mrs. Francis Anderson.
President-Elja Gormley.
Vice-Presidents-A. M. Fletcher, B.A., Leonie Palazzi.
Hon. Secretaries-Graduate: Jessie McCredie, B.A.; Undergraduate: Marion Ranson.

Hon. Treasurer--Elizabeth Cameron.
Committee-Edith Moore, B.A.; Third Year Representative: Gertrude Andrew; Second Year Representative: Winnie Lipscombe; First Year Representatives: Millicent Johnson and Elsie Killip.

\section*{EXAMINATION PAPERS*}

DECEMBER, 1910.

\section*{FACULTY OF ARTS. \\ LATIN I.-COMPOSITION AND UNSEEN.}
1. Translate into Latin-
(a) There are some who think it strange that Cicero attacked Verres so vehemently, after he had gone into exile.
(b) Cicero speaks of statues and pictures in such a way as to show that the Romans generally cared nothing for such things.
(c) Verres is said to hare plundered the temples of all the images of the gods that were made of bronze, ivory, gold, or silver.
(d) The Senate sent three envoys, sons of F'abius Ambustus, to warn the Gauls not to trouble further the men of Clusium. The barbarians took no notice of the message, and continued the war. Now it chanced that there was a battle fought while the three Fabii were still at Clusium, and they took part with the Clusians against the Gauls, and one of them was seen stripping the arms off a Gallic chieftain whom he had slain. 'The barbarians then demanded to be led straight against the city whose sons were so faithless, but the chiefs restrained them, and sent an embassy to Rome, demanding that the envoy should be given up. The Senate, not caring to decide so weighty a matter, referred it to the people; and so far was the people from listening to the demands of the Gaul, that, at the Comitia next ensuing, these very envoys were elected Military Tribunes. On hearing of this gross insult, Brennus broke up his camp at Clusium and marched southward for Rome.

\footnotetext{
*The time allowed for each paper is three hourn, except where otherwise stated.
}
2. Translate into English-

Delum venit; ibi ex fano Apollinis religiosissimo noctur clam sustulit signa pulcherrima atque antiquissima eaquein onerariam navem surm conicienda curavit. postridie cum fanum spoliatum viderent ei, qui Delum incolebant, graviter ferebant; est enim tanta apud eos eius fani religio atque antiquitas, ut in eo loco ipsum Apollinem. natum esse arbitrentur ; verbum tamen facere non audebant, ne forte ea res ad Dolabellam ipsum pertineret. tum subito tempestates coortae sunt maximre, iudices, ut non modo proficisci cum cuperet Dolabella non posset, sed vix in oppido consisteret; ita magni fluctus eiciebantur. hic navis illa praedonis istius, onusta signis. religiosis, expulsa atque eiecta fluctu, frangitur; in litore signa Apollinis reperiuntur; iussu Dollabellae reponuntur ; tempestas sedatur; Dolabella Delo proficiscitur. non dubito quin tametsi nullus in te sensus humanitatis, nulla ratio umquam fuit religionis, nunc tamen in metu. periculoque tuo tuorum tibi scelerum veniat in mentem. potestne tibi ulla spes salutis commoda ostendi, cum recordaris in deos immortalis quam impius, quam sceleratus, quam nefarius fueris? Apollinemne tu Delium spoliare ausus es? illine tu templo, tam antiquo, tam sancto, tam religioso manus impias ac sacrilegas adferre conatus es?

\section*{LATIN I.-AUTHORS.}
1. and 3. Translate into English, extracts from Cicero, The Fourth Verrine, and Virgil Georgics.
2. Translate, and comment on-
(a) Hic stupet attonitus rostris; hunc plausus hiantem

Per cuneos geminatus enion plebisque patrumque Corripuit ; gaudent perfusi sanguine fratrum.
(b) Mox tamen ardentes accingar dicere pugnas

Caesaris et nomen fama tot ferre per annos, Tithoni prima quot abest aborigine Caesar.
(c) Sed me Parnassi deserta per ardua dulcis Raptat amor; iuvat ire iugis, qua nulla priorum Castaliam molli devertitur orbita clivo.
4. Translate, and comment on-
(a) Nemo fere vestrum est quin quem ad modum captae sint a M. Marcello Syracusae saepe audierit.
(b) Nemo suspicari debet, tam esse me cupidum, ut tot viros primarios velim, praesertim ex iudicum numero, qui Syracusis fuerint, qui haec viderint, esse temeritati et mendacio meu conscios.
(c) Apud eos autem, quos vectigalis aut stipendiarios fecerant, tamen haec [maiores nostri] relinquebant.

\section*{LATIN II.-HORACE AND UNSEEN.}
1. Translate, and comment on extracts from Horace, Epistles.
2. Translate-
(a) Verum ut ad te, Caecili, redeam, quam multa te deficiant vides; quam multa sint in te quae reus nocens in accusatore suo cupiat esse profecto iam intelligis. quid ad haec dici potest? non enim quaero quid tu dicturus sis: video mihi non te, sed hunc librum esse responsurum, quem monitor tuus hic tenet; qui si te recte monere volet, suadebit tibi ut hinc discedas neque mihi verbum ullum respondeas. quid enim dices? an id quod dictitas, iniuriam tibi fecisse Verrem? arbitror; neque enim esset veri simile, cum omnibus Siculis faceret iniurias, te illi unum eximium cui consuleret fuisse: sed ceteri Siculi ultorem suarum iniuriarum invenerunt; tu, dum tuas iniurias per te, id quod non potes, persequi conaris, id agis ut ceterorum quoque iniuriae sint impunitae atque inultae; et hoc te praeterit, non id solum spectari solere qui debeat, sed etiam illud qui possit ulcisci; in quo utrumque sit, eum superiorem esse, in quo alterum, in eo non quid is velit, sed quid facere possit quaeri solere.
(b) O mihi dilectos inter pars prima sodales, unica fortunis ara reperta meis, cuius ab alloquiis anima haec moribunda reuixit, ut uigil infusa Pallade flamma solet; qui ueritus non es portus aperire fideles fulmine percussae confugiumque rati; cuius eram censu non me sensurus egentem, si Caesar patrias eripuissèt opes:
temporis oblitum diom me rapit inpetus huius, excidit heu nomen quam mihi paene tuum! tu tamen agnoscis tactusque cupidine laudis 'ille ego sum' cuperes dicere posse palam. certe ego, si sineres, titulum tibi reddere uellem, et raram famae conciliare fidem: ne noceam grato uereor tibi carmine neue intempestiuus nominis obstet honor. quod licet (hoc tutum est), intra tua pectora gaude meque tui memorem teque fuisse pium.

LATIN II.-JUVENAL AND TACITUS.
1. and 3. Translate into English, extracts from Juvenal (Selections) and 'lacitus, Aunals I.
2. Translate, and comment on-
(a) Plurimus hic aeger moritur vigilando, sed ipsum languorem peperit cibus inperrectus et haerens ardenti stomacho; nam quae meritoria somnum admittunt? magnis opibus dormitur in urbe. inde caput uorbi. raedarum transitus arto vicorum inflexu et stantis convicia mandrae eripient somnum Druso vitulisque marinis.
( \(b\) ) Habet Trebius propter quod rumpere somnum debeat et ligulas dimittere, sollicitus no tota salutatrix iam turba peregerit orbem, sideribus dubiis aut illo tempore quo se frigida circumagunt pigri serraca Bootae.
(c) Curritur ad vocem iucundam et carmen amicae Thebaidos, laetam cum fecit Statius urbem promisitque ditm ; tanta dulcedine captos adficit ille animos tantaque libidine volgi auditur; sed cum fregit subsellia versu, esurit, intactam Paridi nisi vendit Agauen.
(d) Idem populus, si Nortia Tusco favisset, si oppressa foret secura senectus principis, hac ipsa Seianum diceret hora Augustum. iam pridem, ex quo suffragia nulli vendimus, effudit curas; nam qui dabat olim imperium fasces legiones omnia, nunc se continet atque duas tantum res anxius optat, panem et circenses.
(e) Accipe quae contra valeat solacia ferre et qui nec cynicos nec stoica dogmata legit a cynicis tunica distantia, non Epicurum suspicit exigui laetum plantaribus horti. curentur dubii medicis maioribus aegri : tu venam vel discipulo committe Philippi.
4. Translate, and comment on-
(a) Inter quae senatu ad infimas obtestationes procumbente, dixit forte Tiberius se ut non toti rei publicae parem, ita quaecumque pars sibi mandaretur eius tutelam suscepturum. tum Asinius Gallus' 'interrogo' inquit, 'Cresar, quam partem rei publicae mandari tibi velis.' perculsus improvisa interrogatione paulum reticuit.
(b) Audito fine Augusti vernacula multitudo, nuper acto in urbe dilectu, lasciviae sueta, laborum intolerans, implere ceterorum rudes animos: venisse tempus quo veterani maturam missionem, iuvenes largiora stipendia, cuncti modum miseriarum exposcerent saevitiamque centurionum ulciscerentur.
(c) Cernị adhuc Germanorum in lucis signa Romana, quae dis patriis suspenderit. coleret Segestes victam ripam, redderet filio sacerdotium hominum : Germanos numquam satis excusaturos quod inter Albim et Rhenum virgas et securis et togam viderint.
(d) Nomen patris patriae Tiberius, a populo saepius ingestum, repudiavit; neque in acta sua iurari quamquam censente senatu permisit, cuncta mortalium incerta, quantoque plus adeptus foret, tanto se magis in lubrico dictitans. non tamen ideo faciebat fidem civilis animi; nam legem maiestatis reduxerat, cui nomen apud veteres idem, sed alia in iudicium veniebant.

LATIN II.-ROMAN HISTORY.
pass-One and a Half Hours. Distinction-Three Hours.
A.

PASS ONLY.
Not more than rour questions to be attempted.
1. The political career and character of Cinna.
2. Explain the reorganisation of the army effected by Marius, and point out the political bearings of his military reforms.
3. Explain clearly the Sullan reorganisation of the Courts of criminal justice.
4. Give a concise summary of events in Roman history from Cicero's return from exile in 57 в.c. to the beginning of the Civil War in 49 b.c.
5. "Cæsar was not a great statesman, but he was a great destroyer."-(Ferrero). Comment on this.
6. Gaius Gracchus 'set precedents for monarchy, while he handed down to his successors ideas that remained the common stock of reformers, and from them passed to the Empire." Explain and justify.
7. Criticise the aims and methods of the Gracchi.

\section*{B.}

\section*{DISTINCTION ONLY.}

Not more than five questions to be attempted.
1. Gaius Gracchus "set precedents for monarchy, while he handed down to his successors ideas that remained the common stock of reformers, and from them passed to the Empire." Explain and justify.
2. Sketch the condition of parties at Rome immediately after the death of Sulla.
3. "Sulla hoped to establish on a formal basis the power of the Senate in the constitution, and of the upper classes in the Senate." What were the chief features of the reorgauisation effected by Sulla?
4. "Cæsar was not a great statesman, but he was a great destroyer."-(Ferrero). Comment on this.
5. Explain clearly the relation to Rome of the communities possessing the ius Latinum, and of the civitates foederatae.
6. Criticise the Republican administration of the transmarine possessions of Rome.
7. Discuss the importance of Slavery as a factor in the economic and political history of Rome in your period.
8. What were the chief evils which contributed to the downfall of the Republic?
LATIN III.-HORACE, CATULLUS, TERENCE, AND UNSEEN.
1. and 3. Translate into English, extracts from Horace, Epistle, and Terence (Selectious).
2. Translate, and comment on tile underlined words-
(a) Nam Sestianus dum volo esse conviva, Orationiem in Antium petitorem Plenam veneni et pestilentiae. legi. Hic me gravedo frigida et frequens tussis Quassavit usque dum in tuum sinum fugi, Et me recuravi otioque et urtica. Quare refectus maximas tibi grates Ago, meum quod non es ulta peccatum. Nec deprecor jam, si nefaria \({ }^{\circ}\) scripta Sesti recepso, quin gravedinem et tussim Non mi, sed ipsi Sestio ferat frigus, Qui tum vocat me cum malum librum legi
(b) At pater, ut sumua prospectum ex arce petebat, Anxia in assiduos absumens lumina fetus, Cum primum inflati conspexit lintea veli, Praecipitem sese scopulorum e vertice jecit, Amissum credens immiti Thesea fato. Sic funesta domus ingressus tecta paterna Morte ferox Theseus, qualem Minoidi luctum Obtulerat mente immemori talem ipse recepit. Quae tum prospectans cedentem maesta carinam Multiplices animo volvebat saucia curas.
4. Translate-

0 mihi dilectos inter pars prima sodales, unica fortunis ara reperta meis, cuius ab alloquiis anima haec moribunda reuixit, ut uigil infusa Pallade flamma solet;
qui ueritus non es portus aperire fideles fulmine percussae confugiumque rati; cuius eram censu non me sensurus egentem, si Caesar patrias eripuisset opes:
temporis oblitum dum me rapit inpetus huius, excidit heu nomen quam mihi paene tuum!
tu tamen agnoscis tactusque cupidine laudis 'ille ego sum' cuperes dicere posse palam. certe ego, si sineres, titulum tibi reddere uellem, et raram famae conciliare fidem :
ne noceam grato uereor tibi carmine neue intempestiuus nominis obstet honor. quod licet (hoc tutum est), intra tua pectora gaude meque tui memorem teque fuissa pium.

LATLN III.—JUVENAL AND TACITUS AND PROSE UNSEEN.
1. and 3. Translate into English, extracts from Juvenal (Selections) and Tacitus, Aunals I.
2. Translate, and comment on-.
(a) Plurimus hic aeger moritur vigilando, sed ipsum languorem peperit cibus imperfectus et haerens ardenti stomacho; nam quae meritoria somnum admittunt? magnis opibus dormitur in urbe. inde caput morbi. raedarum transitus arto vicorum inflexu et stantis convicia mandrae eripient somnum Druso vitulisque marinis.
(b) Curritur ad vocem iucundam et carmen amicae Thebaidos, laetam cum fecit Statius urbem promisitque diem ; tanta dulcedine captos adficit ille animos tantaque libidine volgi auditur; sed cum fregit subsellia versu, esurit, iutactam Paridi nisi vendit Agauen.
(c) Idem populus, si Nortia Tusco favisset, si oppressa foret secura senectus principis, hac ipsa Seianum diceret hora Augustum. iam pridem, ex quo suffragia nulli vendimus, effudit curas; nam qui dabat olim imperium fasces legiones omnia, nunc se continet atque duas tantum res anxius optat, panem et circenses.
(d) Accipe quae contra valeat solacia ferre et qui nec cynicos nec stoica dogmata legit a cynicis tunica distantia, non Epicurum suspicit exigui laetum plantaribus horti. curentur dubii medicis maioribus aegri: tu venam vel discipulo committe Philippi.
4. Translate, and comment on-
(a) Inter quae senatu ad infimas obtestationes procumbente, dixit forte Tiberius se ut non toti rei publicae parem, ita quaecumque pars sibi mandaretur eius tutelam suscepturum. tum Asinius Gallus 'interrogo' inquit, ' Caesar, quam partem rei publicae mandari tibi velis.' perculsus improvisa interrogatione paulum reticuit.
(b) Audito fine Augusti vernacula multitudo, nuper acto in urbe dilectu, lascivire sueta, laborum intolerans,
implere ceterorum rudes animos: venisse tempus quo veterani maturam missionem, iuvenes largiora stipendia, cuncti modum miseriarum exposcerent saevitiamque centurionumi ulciscerentur.
(c) Cerni adhuc Germanorum in lucis signa Romana, quae dis patriis suspenderit. coleret Segestes victam ripam, redderet filio sacerdotium hominum: Germanos numquam satis excusaturos quod inter Albim et Rhenum virgas et securis et togam viderint.
(d) Nec patrum cognitionibus satiatus iudiciis adsidebat in cornu tribunalis, ne praetorem curuli depelleret; multaque eo coram adversus ambitum et potentium preces constituta. set dum veritati consulitur, libertas corrumpebatur.
5. Translate-

Radamistus in amplexus eius effusus simulare obsequium, socerum ac parentem appellare; adicit ius iurandum, non ferro, non veneno vim adlaturum; simul in lucum propinquum trahit, provisum illic sacrificii paratum dictitans, ut diis testibus pax firmaretur. mos est regibus, quoties in societatem coeant, implicare dextras pollicesque inter se vincire nodoque praestringere: mox ubi sanguis in artus se extremos suffuderit, levi ictu cruorem eliciunt atque invicem lambunt. id foedus. carcanum habetur quasi mutuo cruore sacratum. sed tunc qui ea vincla admovebat, decidisse simulans genua Mithridatis invadit ipsumque prosternit; simulque concursu plurium iniciuntur catenae. ac compede, quod dedecorum barbaris, trahebatur; mox quia vulgus duro imperio habitum, probra ac verbera intentabat. et eraut contra qui tantam fortunae commutationem miserarentur; secutaque cum parvis liberis cmiunx cuncta lamentatione complebat. diversis et contectis vehiculis abduntur, dum Pharasuanis iussa exquirerentur.

LATIN III.-GENERAL PAPER.
Vot more than six questions to be answered.
1. "The Government of the early Empire was divided between the Emperor and the Senate." Explain this statement.
2. Descrite the organisation of the Romau army by Augustus.
3. Compare the constitution of the equestrian order in the later Republic, and under Augustus, and explain how knights were employed in state offices by Augustus and by later principes
4. "Utterly unlike as Tiberius was to Augustus, yet, as the ruler of a great empire, he justified the latter's choice of a successor."--(Pelham).
Comment on this
5. Give an account of 'Trajan or Marcus Aurelius.
6. "The subjects of the early Roman empire were almost as heterogeneous in their political relations to their mistress as in race and language."
Explain this statement.
7. Describe the characteristics of the poetry of Catullus.
8. Compare Juvenal with Horace as a satirist.
9. "Terence was content with the praise of a successful copyist." Comment on this.

\section*{GREEK I.-HISTORY AND UNSEEN.}

\section*{A.}

Translate-














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B.

Not more than five questions to be answered.
1. Draw a sketch map, and describe briefly, but very clearly, any one of the following battles :-Marathon; Leuctra; Salamis; Mantineia.
2. What do you know of the following :-Aegospotami ; Koroneia; Aristagoras; Skione; Ephors ; Theoric Fund?
3. Write a short account of the career of Brasidas, so far as he appears in your history.
4. What were the most characteristic features of the developed Athenian democracy under Perikles?
5. Give a short description of the Spartan constitution.
6. A short account of the achievements of Alexander the Great from his first appearance in Asia.
7. Draw a sketch map either of Boeotia or of Thessaly, marking all the sites which possess importauce in your period.
8 Discuss the character of Kleon as a politician.
9. Distinguish the various Sacred Wars which occur in Greek. history.

GREEK I.-AUTHORS (Euripides and Herodotus.),
1. Translate-

Medea loquitur :
\[
\nu \hat{u} \nu \hat{b}^{\prime} \ddot{o} \lambda \omega \lambda \epsilon \hat{b} \dot{\eta}
\]
















2. Translate the following passages, and write notes on them, brief, but strictly to the point-








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3. Translate the following passages of Herodotus, and write appropriate notes on them. [N.B.-Six passages at least should be fully treated; but candidates are not restricted to that number.]










 \(\delta_{\iota}{ }^{\prime} \dot{\eta} \mu \epsilon \epsilon \rho \eta s\).
















































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GREEK II. and III.-DEMOSTHENES (Private Orations). PASE.
Translate, and comment on extracts from Demosthenes (Private orations).
A full commentary is expected on the legal and historical points in the passages selected.

GREEK II. AND III.-SOPHOCLES AND PLATO.
Translate, and comment on extracts from Sophocles, Electra; and Plato, Phaedo.

GREEK II AND III.-UNSEEN.
Translate-




























GREEK III.-HOMER.
Translate, and write comments on extracts from Homer, Odyssey V.-X.

ENGLISH I. A.
Not more than eioht questions to be attempied. Nos. I ant 2 are compulaory.
1. Explain,

A, the underlined words in-
(a) I have y-loved yow ful many a daye,

And alder-moste desired yow to see.
(b) Ye Troilus, now herkne, quod Pandare, Though I be nice!
(c)

Men maketh ofte a yerde With which the maker is himself ybeten.
(d) The whiche righte sore wolde athinken me.
(e) Till that deeth departe shal us tweyne.
( \(f\) ) But wikkidly he quytte her kyndenesse, And let her drenche in sorwe and distresse Nere that the goddys had of hir pite.
B, the metre of -
(g) He taketh hir in his honde, and forth gooth he.
( \(h\) ) But if that it the bet governed be.
(i) Hem liste nat to go to bedde sone.
2. Explain fully-
(a) This is a riddling merchant for the nonce.
(b) Now am I like that proud insulting ship Which Cæsar and his fortune bare at once.
(c) A statelier pyramis to her I'll rear Than Rhodope's or Memphis' ever was.
(d) Plan. Meantime your cheeks do counterfeit our roses:

For pale they look with fear, as witnessing
The truth on our side. Som.

No Plantagenet
'Tis not for fear but anger that thy cheeks
Blush for pure shame to counterfeit our roses
And yet thy tongue will not confess thy error
(e) Now where's the Bastard's braves and Charles his gleeks?
( \(f\) )All French and France exclaims on thee Doubting thy birth and lawful progeny.
(g) My angry guardant stood alone, Tendering my ruin, and assail'd of none
( \(h\) ) There Minotaurs and ugly treasons lurk.
3. "The life of Chaucer is a very dull record of very commonplace facts."
Show the interesting significance that the principal items in the record have when brought into relation with his art.
4. Write a brief appreciation of the Prologue to the Canterbury Tales; \(O R\), of any more dramatic scene in Troilus and Cressida; OR, of Chaucer's narrative style in the Legend of Ariadne.
5. "In Henry VI., Part 1, there are passages which appear beyond all controversy to be sealed with Shakespeare's signet."
Mention the passages presumably referred to, and give the impression you have formed of them in this regard.
6. Discuss Shakespeare's treatment of Hotspur in Henry IV., particularly with reference to the attractive side of the character, and its use for interpretation of the history.
7. "We have less sympathy with Falstaff as the second part of Henry \(I V\). draws towards a conclusion; and we approve his downfall."
Justify or criticise this statament.
8 Dr. Johnson said of Henry VIII., "The genius of Shakespeare comes in and goes out with Katharine." How far does more modern scholarship agree with him?
Or,
Examine the theory that Henry VIII. is iutended as a glorification of the new time.
9. If the Sonnets of Shakespeare have a biographical significance, what is their best interpretation?
10. What are the main results that follow from Shakespeare's inclusion of a serious element in his comedies?
11. Note the significance of the following passages-
(a) I shall be well content with any choice Tends to God's glory and my country's weal.
(b) If the young dace be a bait for the old pike, I. see no reason in the law of nature but I may snap at him.
(c) I know you all and will awhile uphold The unyok'd humour of your idleness

I'll so offend to make offence a skill, Redeeming time when men think least I will.
(d) Are these things then necessities?

Then let us meet them like necessities.
(e) By the Lord I' knew ye as well as He that made ye.... I was a coward on instinct.
(f)

I feel within me
A peace above all earthly dignities
A still and quiet conscience.
12. Discuss one of the following -
(a) "Chaucer lifted English literature out of its barbarous isolation and subserviency; and his successors let it slip back."
(b) "Shakespeare is the commanding peak of a vast group of mountains."

\section*{ENGLISH I. B.}

Not more than seven questions to be attempted. Nos. 1 and 2 are compulsory.
1. Explain fully the underlined expressions-
(a) All mightie men and dreadfull derring-dooers.
(b) Soon after did the brethren three advance, In brave array and goodly amenance.
(c) Lo ! faitour, there thy mede unto thee take, The meed of thy mischalenge and abet.
(d)

Clouds been
To darken all the hill, and smoke to roll
In dusky wreaths, reluctant flames, the sign Of wrath awak't.
(e)

Part incentive reed
Provide, pernicious with one touch to fire.
( \(f\) ) A sudden horror seized his giddy head, And his ears tinkled. and his colour fled.
(g) For when the fair in all their pride expire, . To their first elements their souls retire.
(h) A plump of fowl behold their foe on high;

They close their trembling troop; and all attend
On whom the sousing eagle will descend.
(i) That single act gives half the world the spleen.

The passage o'er
Was nice to find; the servant strode before; Long arms of oaks an open bridge supplied.
( \(k\) ) I twitch'd his dangling garter from his knee. Now mine I quickly doffed, of inkle blue.
(l) "I get these things often";--but that was a bounce.
(m) In their real forms appeared

The warlocks weird.
(n) Like the terrible trumpet shock

Of Regnarock.
(o) It elates me, thus reposed and safe, To void the stuffing of my travel-scrip.

Who has a like vow from their triple dun.
2. Paraphrase so as to bring out the full meaning of the passage -

Such as to set forth
Great things by small, if, Nature's concord broke, Among the constellations war were sprung, Two planets rushing from aspect malign Of fiercest opposition in mid sky, Should combat, and their jarring spheres confound, . 'Together both with next to almighty arme Uplifted imminent, one stroke they aim'd That might determine, and not need repeat, As not of power, at once ; nor odds appear'd In might or swift prevention.
(b) They which that piteous spectacle beheld, Were much amas'd the headlesse tronke to see Stand up so long, and weapon vaine to weld, Unweeting of the Fates divine decree For life's succession in those brethren three. For notwithstanding that one soule was reft, Yet, had the bodie not dismembred bee, It would have lived, and revived eft; But finding no fit seat, the lifelesse corse it left.
(c) He holds on firmly to some thread of life(It is the life to lead perforcedly)Which runs across some vast distracting orb Of glory on either side that meagre thread, Which, conscious of, he must not enter yetThe spiritual life around the earthly life:
The law of that is known to him as this, His heart and brain move there, his feet stay here. So is the man perplext with impulses Sudden to start off crosswise, not straight on, Proclaiming what is right and wrong across, And not aloug, this black thread through the blaze-"It should be," baulked by "here it cannot be."
3. Either, (a) discuss the statement "Goldsmith's humour ranges from the very boisterous to the very subtle, and at its best is hardly distinguishable from pathos."
Or,
(b) Appreciate Browning's use of the monologue form.
4. What circumstances determined the composition and character of Gray's Shepherd s Weel?
5. Discuss the legend of the father's slaughter of his long-lost son in any typical variants aud modern versions.
6. What does Pope mean in calling the Rape of the Lock "an Heroi-comical poem "? Show, by a running analysis of the piece, the quality that is emphasised.
7. "Milton is frankly authropomorphic in Paradise Lost." Explain the statement, with reference to Miltou's own caution about " measuring things in Heaven by things on Earth," and his account of the "wild work in Heaven."
8. Consider two of the following poems, and explain how their stories have been modified in being adapted to their present form:-Theonore and Honoria; The Hermit; The Proud King.
9. What is a Saga? Explain, with reference to Longfellow's Saga of King Olaf.
70. Sketch the character of King Olaf as he was in the original of Longfellow's story, and as Longfellow treats him.
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ENGLISH II. AND III. A. -
vot more than five questions from pait A , "r Fouk from part , B to be attempted.

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0 A.
1. Explain the significance of Kynge Johan,. Richardus Tertius, and Edward \(I\). in the development of the historical drama.
‥ "Edward II. reaches the high level of historical tragedy before Shakespeare."
Compare its merits with those of the pre-Shakespearian aud Shakespearian plays.
3. What objections are there to regarding either Henry VI. A or the Contentions as wholly Shakespearian?
4. How do you account for the comparatively unhistorical character of the play on King John?
5. Discuss the statement that the minor characters in Richard \(I I\). are "shifting and vaporous."
6. Burke says of 'the great bad men of the old stamp': " Though the virtues of such men were not to be taken as a balance to their crimes, yet they had long views,
and sanctified their ambition by aiming at the orderly rule, and not the destruction of their country."
Could this be said of Shakespeare's Henry IV.? View the character in relation to it.
7. How do you account for the popularity of Henry \(V\). in view of the disparaging criticism it has received?
:8. "The character of Wolsey in Henry VIII. is an unsolved eontradiction."
Discuss this.

\section*{B.}
9. Appreciate, both with regard to technique and poetic effect, any ode by Collins that you think entitled to be called great, or specially characteristic of his art.
10. Brielly note, with reference to the following passages, the various constituents in the dialect of "Scottish vernacular poetry," and explain the passages-
(a) The Lord forbid! Na, he lkens better things: But here comes aunt; her face some ferly brings.
(b) Content's the greatest bliss we can procure Frae boon the lift:-without it kings are poor.
(c) He'll no soon grein to tell his love to me.
(d) O Jenny! let my arms about thee twine And briss thy honny breast an' lips to mine.
(e) Nine braw nowt were smoor'd Three elf-shot were.
(f) O' plum-tree made, wi' iv'ry virles around.
\((g)\) Tempests may cease to jaw the rowan flood.
11. "Poor moaning, monotonous Macpherson."

Is that historically just, or adequate criticism of Ossian?
12. A Freuch lady wrote to Garrick about The Vicar of Wakefield, "It has little resemblance to real life . . . I'm not qualified to judge of the style, but the plot didn'tinterest me. The pathos Mr. Burke promised made no impression on me."
Appreciate the book with reference to these objections.
13. "In life there is ever more to be endured than enjoyed."

How does Rasselas enforce that view?
14. Explain the object and the quality of Swift's attack in the Battle of the Books.
15. Discuss the Essay on Man from the points of view suggested by the following passages-
(a) Laugh where we must, be candid where we can ; But vindicate the ways of God to Man.
(b) O master of the poet, and the song !

Thou \({ }_{\mathrm{c}}\) wert my guide, philosopher and friend.
(c) . . . . Whatever is, is right.
(d) Know then thyself, presume not God to scan, The proper study of mankind is Man.
16. The poet in the Castle of Indolence speaks of "my master Spenser." Discuss the relationship thus emphasised.

ENGLISH II. AND III. B.
Not mone than elght questions to be attempted. No. 1 is compulsory for Course III. Students.
1. "The chief poetical writers of the century all deviate more or less from Pope's peculiar model."
Illustrate this from any two of the following:-Parnell, Young, Gray, Goldsmith.
2. What were the purposes and what the main literary values of the Spectator?
3. "Heaven, that but once was prodigal before,

To Shakespeare gave as much; she could not give him more."
How far can Dryden's praise of Congreve be justified?
Or,
Explain the character and success of The Beggar's Opera.
4. Appreciate Pope as satirist.
5. "Swift is the most tragic figure in English literature." Discuss this statement.
6. Sketch the character of Boswell in relation to his achievement in biography, making particular reference to Macaulay's estimate of him.
\(O r\),
Account for the different judgments pronounced by men of genius on Sterne.
7. Lord Rosebery has called Johnson "Our greatest man of letters in a large sense of that vague term." Sketch a more precìse account of his greatness, particularly regarding his work as moralist and critic.
Or.
Comment on the statement: "In studying Gibbon's biography, we seem to see that all the circumstances of his career fitted him for his task."
8. Cuntrast Smollet and Fielding as novelists.
9. Discuss Collins from the point of view of the "return to nature."
Or,
'Thomson as a poet of nature.
10. "Politics and literature were too much entangled in the XVIII. Century." Discuss any outstanding literary result, proferably in the case of Burke.
\(O r\),
What is meant by the saying that Burke should be the Bible of statesmen?
11. "Our indispensable XVIII. Century." What is there in its literary history to justify the phrase?
72. Comment on three of the following contemporary references to literary work and conditions-
(a) "Richardson is as ignorant in morality as he is in anatomy."-Lady Mary Wortley Montagu.
(b) "A style may be excellent without grace-for example Swift's."-Horace Walpolo.
(c) "There are three distinct kiuds of judges upon all new authors or productions; the first are those who know no rules, but pronounce entirely from their natural taste and feelings ; the second are those who know and judge by the rules; and the third are those who know but are above the rules. These last are those that you should wish to satisty. Next to them rate the natural judges; but ever despise those opinions that are formed by the rules."-Dr. Johnson, reported by Miss Burney.
(d) Have hence for ancient rules a just esteem;

To copy nature is to copy them? Pope.
(e) "The Sciences, after a thousand indignities, retired from the palace of Patronage, and having long wandered over the world in grief and distress were led at last to the cottage of Independence, the daughter of Fortitude, where they were taught by Prudence and Parsimony to support themselves in diguity and quiet."-The Rambler.

\section*{FRENCH I. A.-COMPOSITION AND UNSEEN.}
1. Translate into French-

During a journey that I once made through the Netherlands, I had arrived one evening at the Pomme \(d^{\prime}\) Or, the principal inn of a small Flemish village. It was after the hour of the table d'hote, so that I was obliged to make \({ }^{\circ}\) a solitary supper from the relics of its ampler board. The weather was chilly; I was seated alone in one end of a great gloomy dining-room, and, my repast being over, I had the prospect before me of a long dull evening, without any visible means of enlivening it. I summoned mine host, and requested something to read; he brought. me the whole literary stock of his household, a Dutch family Bible, an almanac in the same language, and a number of old Paris newspapers. As I sat dozing over one of the latter, reading old news and stale criticisms, my ear was now and then struck with bursts of laughter which seemed to proceed from the kitchen. Every one who has travelled on the Continent must know how favourite a resort the kitchen of a country inn is to the middle and inferior order of travellers; particularly in that equivocal kind of weather, when a fire becomes agreeable toward evening. I threw aside the newspaper, and explored my way to the kitchen, to take a peep at the group that appeared to be so merry.
2. Translate-

Les Allemands se laissent discipliner par l'homme qui tient d'une paire d'épaulettes le droit de leur commander; mais ils se plient difficilement à la discipline des partis. Les chéfs ont peine à compter sur leur monde, qui n'accepte leur autorité que sous bénéfice d'inventaire; souvent, au moment où ils sonnent la charge, chacun tire de son côté. Aussi est-il malaisé de savoir ce que veulent les partis allemands; ils se fractionnent, se morcèlent à
l'infini: où l'on pensait ne trouver qu'un programme, on en trouve dix; le texte primitif et commun disparaît sous la diversité des commentaires. De mèmé qu'il est à la fois cosmopolite et homme de clocher, l'Allemand unit l'esprit de détail à l'esprit de système; telle vérité particulière qui l'a frappé lui est plus chère que la vie, il y voit le monde entier. N'est-ce pas l'Allemagne qui a inventé ce proverbe, que souvent les arbres empêchent d'apercevoir la forêt? Ajoutons que le Français ne veut pas toujours la mème chose. mais qu'il ne veut d'habitude qu'une chose à la fois. L'irrésolution de l'Allemand provient le plus souvent de ce qu'il a peine à rien sacrifier; il examine en conscience le pour et le contre de chaque question; la thèse lui plaît, l'antithèse a du bon.。 Ne lui demandez pas de choisir; sa langue est souple, elle a des complaisances que n'a pas le français: il saura trouver une formule qui dira tout, et qui mettra son cerveau en paix avec sa conscience. Cet Allemand qui voulait à la fois la liberté absolie de la presse et la censure, quiconque a voyagé au-delà du Rhin l'a connu. Il en est plus d'un purmi ses compatriotes qui se flatte de concilier la centralisation avec la pleine autonomie des communes, le militarisme avec le régime parlementaire, qui est à la fois conservateur et radical, et vit dans les contradictions comme le poisson dans l'eau; il n'est pas bien convaincu que, pour faire une omelette, il soit nécessaire de casser les coufs.
3. Transcribe phonetically-

Connaissez-vous une bête qu'on nomme bernard-l'ermite? C'est un très petit homard, gros comme une sauterelle, qui a une queue sans écailles. Il prend la coquille qui convient à sa queue, l'y fourre et se promène ainsi au bord de la mer. Hier, j'en à trouvé un dont j'ai cassé la coquille très proprement sans écraser l'animal, puis je l'ai mis dans un plat d'eau de mer.
4. Tell in French (not more than 150 words) the story of Sylvestre Bonnard's crinie.

\section*{FRENCH I. B.-AU̇THORS.}

Translate extracts from Molière, L'Avare, Voltaire, Mérope; Musset, On ne badine pas avec l'Amour and Fantasio;

Victor Hugo, Les Voix Interieures; Anatole Francer. Le Crime de Sylvestre Bonnard.

FRENCH II. AND III. A.-COMPOSITION AND UNSEEN.
1. Iranslate-

Il n'y a rien dans cette forêt qui ne fasse plaisir: une large plaine de genévriers épineux, rabougris, repliés par le vent, rabattus sur le tapis roux des bruyères; au milieu, un bouquet de jolis bouleaux blancs, effeuillés, qui laissent apercevoir entre leurs chereux la neige mouvante des nuages; à droite, unephalange de pins qui serrent leurs troncs, et poussent en avant leur batailion noir sur la campagne lumineuse; au fond, les grandes lignes cassées des collines tachées par la blancheur unie des sables, ou luisent des têtes de roc parmi les panaches des hêtres. Le vent d'automne siffle et s'enfle, il ronfle à travers les files immobiles des pins, et grésille dans les feuillages des bouleaux demi.dépouillés, pauvres enfants qui tremblent. Les feuilles dorées s'envolent une à une, comme l'aile d'un papillon mort, et tournoient en tombant dans la. lumière. On regarde ces entassements de rocs gris jetés. pêle-mêle, qui crénellent les hauteurs et bossellent les. pentes; et l'on pense aux furieux courants, à la bataille des eaux qui ont raviné, décharné, disloqué les crêtes. Ce pays-ci était le fonds d'une mer, et il y paraît encore; du sable partout, des écueils dévastés, des falaises. rongées, des rocs minés par la base; aux issues dégorgeantes, des traînées de blocs qui marquent le lit-des courants; l'eau retirée, il est restê un désert blanc, aride. Par degrés, le soleil a bruni les rochers; les mousses sont venues et se sont incrustées sur les parois du grès raboteux; après elles, les fougères, les tiges opiniâtres. du genévrier, puis les colonies envahissantes des arbres, et, dans les fonds humides, les chênes, qui, de siècle en siècle, aspirant l'air des solitudes, ont enfoncé leurs. troncs et élevé leurs coupoles.
2. Translate into French-

A certain sort of talent is almost indispensable for people who would spend years together and not bore themselves to death. But the talent must be for and about life.

To dwell happily together, they should be versed in the niceties of the heart, and born with a faculty for willing comprouise. The woman must be talented as a woman, and it will not much matter if she be talented in nothing else. She must know her woman's trade, and have a fine touch for the affections. And it is more important that a person should be a good gossip, and talk pleasantly and smartly of common friends and the thousand and one nothings of the day and the hour, than that she should speak with the tongues of men and angels; for a while together by the fire happens more frequently in marriage than the presence of a distinguished foreigner to dinner. That people should laugh over the same sort of jests and have many an old joke between them, which time cannot wither nor custom stale, is a better preparation for life, by your leave, than many other things higher and better sounding in the world's ears. You could read Kant by yourself, if you wanted; but you must share a joke with some one else. You can forgive people who do not follow you through a philosophical disquisition; but to find your wife laughing when you had tears in your eyes, or staring when you were in a fit of laughter, would go some way towards a dissolution of the marriage.

\section*{FRENCH II. AND III. B.-AUTHORS.}

> Translate extracts from Chateaubriand, Pages Choisies; Balzac, Eugénie Grandet; Victor Hugo, Hernani; Gautier, Pages Choisies; Musset, On ne badine pas avec l'Amour and Fantasio.

Additional for Third Year Students.-Sainte-Beure, Portraits de Femmes.

FRENCH II. AND III. C.-LITERATURE. Five questions only are to be atrempted, and these must include No. 1.
1. Show how Napoleon strove to influence literature during his reign. Write your answer in French.
2. What were the principal services that Mme de Staël rendered to French literature?
3. What was the real significance of the Romantic Movement in France? Show its relation to historic events.
4. In what sense was Lamartine an innovator in French poetry? Analyse any one of the following poems: L'Isolement, le Vallon, le Lac.
Or,
Sketch the plan of Lamartine's projected epic, and discuss. the parts he executed.
5. "C'est J-J. Rousseau qui introduisit le premier parmi nous. ces rêveries si désastreuses et si coupables . . . Le roman de Werther a développé depuis ce germe de poison." Explain these quotations from the preface to René. Was René the antidote that Chateaubriand intended it to be?
6. "Seul le silence est grand, tout le reste est faiblesse." Sketch the train of thought that led Vigny to this conclusion, and show how his earlier works represent phases. in the process.
7. Give an account of Victor Hugo's poetry from 1830 to 1840. In what does his greatness consist?
8. "Théophile Gautier a contribué à accréditer des idées fausses." "Il a rendu des services à la poésie." Explain.

GERMAN I. A.-COMPOSITION AND UNSLEN.
1. Translate into English-

Wie? Litteratur, Kunst und Poesie könnten ohne Vater-land sein? ohne dieses Grundgefühl, welches diesen Blüten erst Klima und Wärme verleihen muss? So leicht. wollte ich glauben, dasz dev starre Leichnam eines Greises wieder zur Jugendfrische und allen Leidenschaften belebt werden könnte. Man kann noch fragen, was wir verloren haben? Nicht dieses und jenes, sondern alles; uud dasz es Deutsche gibt, die so fragenkönnen, die mit sophistischer Ueberweisheit jene holen, eiuzig hohen Güter verkennen und verschmähen, dies ist das Eleud unserer Tage, daran sind wir zu Grunde gegangen. Geblendet vom Glanz ausländischer Herrlichkeit, strebten wir nach Dingen, die für uns nicht passen, die keine Güter, kein Glïck für uns sind, und lernten die Ǵaben, das wahre Glück, die einheimische

T'refflichkeit verschmähen, die uns ein gütiges Schicksal noch gegönnt und gelassen hatte. Wenn dieses Glück, diese Freiheit, die sich nicht in Zahlen, nichtin geschriebenen Paragraphen aufweisen lässt, einmal ganz verscherzt sein wird, dann werden wir an ihrem Grabmal. erst wissen, was wir besessen haben.
2. I'ranslate into German-

There dwell and toil, in the British village of Dumdrudge. (Tumplinecht), usually some five hundred souls. From these, by certain "Natural Enemies" of the French, there are successively selected, during the French war, say thirty able-bodied men; Dumdrudge, at her own expense, has suckled and nursed them; she has, not without difficulty and sorrow, fed them up to manhood, and even trained them to crafts, so that one can weave, another build, another hammer, and the weakest can. stand under 30 stone avoirdupois (vier centner). Nevertheless, amid much weeping and swearing, they areselected; all dressed in red; and shipped away; at the public charges, some two thousand miles, or say only tothe south of Spain; and fed there till wanted. And now to that same spot in the south of Spain, are thirty similar French artisans, from a French Dumdrudge, in like manner wending: till at length, after infinite effort, the two parties come into actual juxta-position; and Thirty stands fronting Thirty, each with a gun in his hand. straightway the word "Fire!" is given; and they blow the souis out of one another; and in place of sixty brisk useful craftsmen, the world has sixty dead carcasses, which it must bury, and anew shed tears for.

\section*{GERMAN I. B.-AUTHORS.}

Translate extràcts from De la Motte Fouqué, Undine; Goethe; Gedichte; Lessing, Nathan der Weise; Külgelgen, Jugenderinnerungen ; Herder, Der Cid.
german ir. and iir. a.-COMPOSITION and UNSEEN.
1. Translate into English-

Das Unbewusste ist wie eine Masse, die dem Menschen das nöthige Gewicht giebt, seinen Ballast, damit er nicht den

Winden und Wellen ein Spiel wird. Wenn es sich auflöst und wie ein berauschender. Wein in den Kopf steigt, verliert er das Gleichgewicht und den Halt, er haftet nicht mehr am Boden. Nun wirkt die Kraft der Natur nicht mehr in ihm, niemals fühlter ihren warmen, feuchten, fruchtbaren Hauch iu sich wehen, niemals ihren treibeuden, schwellenden Saft in sich aufsteigen. Ohne Zusammenhang mit der Erde ist er wie eine märchenhafte Fieberblume, die sich nur von Licht nährt, wie ein losgerissenes Blatt, das beweglich auf ewig bewegten Wellen schwankt. In dem Wabne ebenso gut das eine wie das andre thun zu können, ebenso gut ja wie nein sagen zu können, fühlt er sich charakterlos und scheint es. Darin liegt die Unmännlichkeit, die den meisten Romantikern eigen war. Sie haben nie eine feste Ueberzeugung; es ist ihnen niemals ganz Ernst; wenigstens scheint es so. Tieck erzählte in späteren Jahren seinem Freunde Solger, wie er sich in der Jugend mit "frevelhaftem Leichtsinn" in die verscheidensten Geistesstrümungen geworfen habe: "erinnere ich mich, durch welche tluth wechselnder Gtedanken und Ueberzeugungen ich gegangen bin, so erschrecke ich und mir fällt Hume's Behauptung ein, dass die Seele nur ein Etwas sei, an dem sich im Fluss der Zeit verschiedene Erscheinungen sichtbar machten."
2. 'Iranslate into German-

Let us be thoroughly on our guard against this tricky argument, lest, with its fair face of youth, it beguile us oldsters, and then leave us ridiculously in the lurch . . . Look now: suppose we three had to cross a river running strongly; and suppose that I, being the youngest and the most experienced in the matter of currents, were to take upon myself the duty of making the first attempt; that I then left you in safety and tried to find some passage fit for older men like yourselves, intending, if I found one, to call on you to follow and to guide you over with the help of my own experience, on the other hand, if I found none suitable for yon, to be quit of the matter for the risk that I alone had run-I think that would be a fair offer. Well, the enquiry that lies before us runs too stroug and, I fear, too deep for you: the rapid
current of questions might cause your heads to spin and make all before your eyes grow dark. You are not accustomed thus to answer on the spur of the moment and at the same time to watch every word you utter ;: and you might easily come to consider me an intolerably tedious and impertinent companion. Therefore I proposeto put the questions to myself and answer them myself, whilst you listen in safety, until I have completed the whole argument concerning the soul and furnished theproof of its priority to the body.

GERMAN II. AND III. B.-AUTHORS.
Translate extracts from Tieck, Bd. I.; Novalis and Fouqué; Kleist, Kätchen von Heilbronn; Heine, Romantische Schule.
Additional for Third Year Students.-Uhland, Gedichte.

\section*{GERMAN II. AND III. C.-LITERATURE.}
(FIve questions muly to be attempted, If no question in purt A is attempted, me question in part B must be treated in German. It is open to simients to treat a question in part \(B{ }^{-}\) in German in addition to rutempting one in mart A, ant likewise to group and treat connectedly two or more in part A.)

\section*{A.}
1. Explain and illustrate the terms Romantic Synthesis, Romantic Fallacy.
2. Explain and illustrate the term Romantic Triad.

What is Romantic Irony? Illustrate the varieties.
3. Trace the development of Fr. Schlegel's romantic theory down to 1802.
4. What ideas has Novalis expressed in the Hymnen an die Nacht and the Gesang der Toten? Characterise and discuss the form of their expression.
5. Discuss Heinrich von Ofterdingen with reference (a) to the leading ideas, (b) to the author's criticism of Wilhelm Meister.
6. "Das ist eben, was man niemals vergessen darf, dasz das. Bewusstsein des Romantikers mit dem Gehalte des Unbewussten erfüllt ist." (Ricarda Huch.) Discuss this. To what Romanticist would you particularly applyit? Give reasons.

\section*{B}
7. What are Tieck's chief characteristics?
xxxii. - FACULTY OF ARTS:
8. What are the jrincipal differences between the lyric poetry of the Friuhromantik and that of the Spätromantik?
9. Characterise Hoffmann with special reference to the romantic elements in his work.
10. Sketch the development of the German drama during the whole Romantic period.
11. Discuss the sources and justice of Heine's polemic against the Romantic School.
C.
12. What appear to you to be Fouqué's merits and defects? What influence did he have on German fiction?
13. What are the contributions of Romanticism to Germanic scholarship?
14. State and discuss Richard Wagner's theory of drama.
15. What Romantic elements are perceptible in Friedrich Nietzsche?

\section*{HISTORY I.}

PASS AND HONOURS.
You are recommended to answer seven questions, and no more.
1. Give some account of the travels of Marco Polo, and explain the importance of the part they played in the story of the discovery of America.
2. Write what you know about the following-Vasco de Gama, Affonso d'Albuquerque, Francisco Serrano.
3. Write an account of the Fourth (the last) Voyage of Columbus.
4. Why was America called America and not Columbia?
5. Write an account of the life of Vasco Nunez de Balboa.
6. Describe the treatment of the natives of the islands by the Spaniards.
7. Write an account of the life and character of Francisco Pizarro.
8. Write an account of the life of Menendez.
9. Write what you know about John and Sebastian Cabot.
10. Write an account of the "Third Voyage of Sir John Hawkins."

\section*{HISTORY I.}

\section*{HONOURS.}

Fou are recommended to answer sevin questions, and no more.
1. What were the chief difficulties of Oceanic exploration in the 15 th century? Give illustrations.
2. What were the geographical arguments which induced Columbus to make his "first voyage"?
3. Give a list of the most important of the writings of Columbus. State when and where they were written, and describe their general character.
4. Trace the development of the ideas of Las Casas on the subject of slavery.
5. Illustrate, from the story of the Spanish Conquest of America, the national characteristics of the Spaniards.
6. Iliustrate, from 16 th century maps, the various opinions held as to the geographical relations of America and Asia.
7. Compare the civilisations of Mexico and Peru.
8. Give some account of the condition of Spanish America about 1600.
9. Illustrate the growing importance of commerce as motive. of English enterprise in the 16th century.

\section*{HISTORY II. PASS AND HONOURS.}

You are recommended to answer seven questions, and no more.
1. Explain Drake's ideas as to the best way to wage war on Spain.
2. Write a short account of the views, the exploits, and the character of Sir Humphrey Gilbert.
3. What arguments did Raleigh urge in support of his proposal to conquer Guiana?
4. Describe the policy of Sir Edwin Sandys in respect to the affairs of Virginia.
5. What were the causes of the outbreak of Bacon's rebellion?
6. "From the days of Spotswood we become aware that our interest in things that happen in Virginia is mainly "determined by our knowledge of certain tremendous events in the near future, which concern not ouly Virginia, but the whole continent of America."
Discuss.
7. Write a short account of the ecclesiastical aspect of the History of Maryland to 1689 .
8. "In a two-fold sense Carolina was a frontier country." Explain.
9. Write an account of Oglethorpe's aims, and of the difficulties which he encountered and overcame.
10. Describe the character and the views of John Robinson.

11: "He who runs may read how the spirit of 1776 was foreshadowed in 1689."
Explain.
12. "The acquisition of New Netherland by the English was an event scarcely second in magnitude to the conquest of Canada in later days."
Explain the importance of the former event.
13. "Uppermost in Penn's mind was the hope of planting a free and self-governing community wherein his own ideal of a civil polity might be realised."
Show how the story of the foundation of Pennsylvania 'illustrates its founder's ideal.

\section*{HISTORY II.}

\section*{HONOURS.}

Fou are recommended to answer seven questions, and no more.
1. Write a critical account of the original sources of information for Drake's voyage round the world.
2. Discuss the causes of the naval superiority of the English in the war against Spain.
3. "A man of the very highest intellectual gifts, but whose moral nature was infinitely inferior to them."
Discuss this description of Raleigh's personality.
4. Explain the commercial arguments used in favour of colonisation.
5. Illustrate from contemporary literature the argument that men would better their condition by emigration to the Colonies.
6. What views were held as to the production of Tobacco in Virginia?
7. Describe a typical Virginian Tobacco. plantation about 1700.
8. Explain the distinctive teaching of Roger Williàms.
9. "Whatever else Cromwell-was, he was above all a great Imperial ruler."
Explain Cromwell's "Imperial" views, and policy.
10. The object of the Colonial policy of the Restoration Government has been described as "the maintenance of the Government of England over the Colonies, that the maximum of advantage for both, but especially for England, might be secured."
Describe and discuss the policy that is referred to
11. "In spite of the fact that Virginia, like New Netherland, started under the rule of a commercial company, there can be no doubt that English liberties flourished in Virginia as notably as Dutch liberties languished in New Netherland."
Explain this aspect of the history of New Netherland.

> PHILOSOPHY I.-LOGIC AND PSYCHOLOGY. PASS.

Select rour questions from each Section.
Section A.
1. Explain and illustrate what is meant by fusion, arrest. and complication of ideas.
2. "Education is the process by which facts become organised into faculty." Explain and illustrate.
3. What conditions must an hypothesis satisfy, in order to be admitted as a good scientific hypothesis?
4. Formulate the stages of the complete inductive method.
5. State and illustrate the main types of inductive fallacy.
6. Write an explanatory note on one of the following-
(a) Dogmatism, Scepticism, Criticism.
(b) Mechanism, Teleology.
(c) Determinism, Indeterminism.
(d) Atheism, Deism, Pantheism:

Section B.
7. Explain what is meant by quality of sensation, relativity of sen'sation, simultaneous and successive contrast.
8. Describe the factors involved in the formation of habit.
9. Distinguish between feeling, emotion, emotional mood, emotional disposition.
10. Distinguish between imagination and fantasy, illusion and - hallucination.
11. State briefly what you understand by impulse, desire, conflict of desire, deliberation, decision.
12. Analyse psychologically, doubt, belief, unbelief, and the state of mind which is " open to conviction."

\section*{PHILOSOPHY I.-LOGIC AND PSYCHOLOGY. HONOURS.}

Section A.
1. State and discuss the main views as to the import of propositions and judgments.
2. Analyse the conception of cause, with special reference to Mill's account:
3. Show that the method of Concomitant Variations is a quantitative application of more primary methods.
4. What are the general characteristics of reflective thinking? Illustrate by reference to a prolonged train of thought, e.g., a scientific discovery.
5. Classify the various views of what constitutes the summum bonum, and give a detailed account of one of them.

\section*{Section B.}
6. Explain and illustrate James' distinction between substantive and transitive states of mind.
7. State James' theory of emotions, and note the chief objections.
8. "Social feeling, moral feeling, and religious feeling all imply personality." Discuss this statement, and show how moral feeling developes out of social feeling.
9. Volition is a complex mental state, involving a considerable development of conation, cognition, and feeling. Explain and illustrate.

\author{
PHILOSOPHY II. AND III. \\ PASS.
}

Not more than seven questions to be attempted.
1. Illustrate from Oriental Philosophy, the tendencies known as Monism, Dualism, Mysticism, Pantheism.
2. What did Socrates mean by the statement that virtue is knowledge?
3. How did Plato and Aristotle conceive the relation of Ethics to Politics?
4. State and examine Aristotle's definition of virtue.
5. Contrast the ethical ideals of Stoicism and Epicureanism.
6. What are the main characteristics of Alexandrian philosophy?
7. "The Christian religion was, in its beginning, formless and undogmatic." Sketch briefly the process by which it became a system of faith and life
8. What was the nature of the controversy between Nominalists and Realists? What was the underlying theory of knowledge?
9. Discuss the possibility of a philosophy of Eclecticism.

PHILOSOPHY II. AND III. HONOURS.
Select FOUR questions, including Nos, 3 and 6.
1. Can you trace any law of development in the history of Greek philosophy?
2. State and discuss different views of the "state of nature" as a fact or an ideal.
3. Discuss the conception of the ethical end as "equilibrated conduct."
4. What are the constitutive elements of religion?
5. Write an explanatory and critical note on each of the following-
(a) "The sceptics made a dogma of doubt."
(b) "A dogma is a formulated mystery."
6. "As the influence of Aristotle uniting with traditional Christian doctrine, gives birth to medieval philosophy, the supremacy of the Church over the State is supported by Aristotelian thought applied to the Christian view of life."-(Sidgwick.) Explain and illustrate this statement.

MATHEMATICS I.—GEOMETRY AND MENSURATION. Two and a Half Hours.

PASS.
1. Prove that the medians of a triangle are concurrent in a point which trisects each median.
If the medians \(A D, B E, C F\) of the triangle \(A B C\) intersect in \(G\), prove that
\[
12\left(\mathrm{GD}^{2}+\mathrm{GE}^{2}+G \mathrm{~F}^{2}\right)=\mathrm{AB}^{2}+\mathrm{BC}^{2}+\mathrm{CA}^{2}
\]
2. Draw a circle touching the side BC of the triangle ABC and the other two sides produced.
If the sides of the triaugle are \(1 \cdot 3,2,2 \cdot 1\) inches in length
\(\because\). respectively, find the radius of the circle which touches the-side 2, and the other sides produced. Find also the distances of its points of contact from the angular points of the triangle.
3. If the vertical angle of a triangle is bisected internally or externally by a straight line, the bisector divides the base into segments whici have the same ratio as the other sides of the triangle.
From \(P\) any point on a circle of diameter \(A B\), straight lines \(P C, P D\) are drawn equally inclined to \(A P\) on opposite sides of it, and meeting \(A B\) at \(C\) and \(D\). Prove that \(A C\) is to \(C B\) as \(A D\) is to \(B D\).
4. \(\mathrm{AD}, \mathrm{BE}\) and CF are the three perpendiculars of a triangle ABC . Show that the triangles AEF, CDE, BDF are all similar to ABC .
Hence show that
\[
\mathrm{AB} \cdot \mathrm{AF}=\mathrm{AC} \cdot \mathrm{AE} .
\]
5. Prove that the areas of similar triangles are to one another as the squares on their corresponding sides. Extend this proposition to similar polygons of any number of sides.
6. Show how to find a mean proportional between two given straight lines. Draw a regular hexagon, and by the aid of the preceding proposition show how to draw another regular hexagon whose area is three times that of the one first drawn.
7: A canal cutting is 50 feet wide at the bottom and 20 feet deep, the sides being sloped at \(30^{\circ}\) degrees to the horizon. Find the area of the cross section, and the cost of excavating 100 yards of 'it at' 1 s .4 d . per cubic yard.
8. A pyramid stands on a square base of side 10 inches, and its faces are equiangular triangles." Find its height, its volume, and its slant surface. \(i\)

\section*{MATHEMATICS I.-ALGEBRA.'}

Two and a Hale Hours.
1. Find the numerical value that \(c\) must have in order that \(x^{5}+4 x^{4}-2 x^{3}-11 x+c\) should be exactly divisible by \(x+3\).
2. Draw the graph of the expression \(10+x-3 x^{2}\) for values of \(x\) between -3 and +4 .
Find for what range of values the expression is positive.
3. Prove that if an expression in \(x\) is divisible by \(x-k\), the expression must vanish when \(x\) is replaced by \(k\).
Find the factors of \(x^{3}-13 x+12\).
4. Solve the equations
(i.) \(\sqrt{3 x-5}+\sqrt{x+6}=\sqrt{8 x+1}\).
(ii.) \(\left.\begin{array}{l}x^{2}+x y+2 y^{2}+x=6 \\ 2 x^{2}+c y+y^{2}+\dot{y}=6\end{array}\right\}\)
verifying your solutions.
(iii.) \((1.045)^{x}=2.5\).
5. Find the product of
\[
a\left(x+\frac{b+\sqrt{ }\left(b^{2}-4 a c\right)}{2 a}\right)\left(x+\frac{b-\sqrt{ }\left(b^{2}-4 a c\right)}{2 a}\right)
\]

If \(a\) and \(\beta\) are the roots of the equation \(a x^{2}+b x+c=0\), prove that
\[
a \beta=\frac{c}{a}
\]
and \(a-\beta=\frac{\sqrt{\prime}^{\prime}\left(b^{2}-4 a c\right)}{a}\).
Write down an equation the sum of whose roots shall be the same as the sum of the roots of the equation
\[
2 x^{2}-7 x+11=0
\]
and the product equal to 7 .
6. Define \(a^{m}\) when \(m\) is a positive integer, and find a meaning for \(a^{-\frac{3}{4}}\), pointing out clearly why you give \(a^{-\frac{3}{4}}\) this meaning.
Divide \(a-b\) by \(a^{\frac{1}{6}}+b^{\frac{1}{6}}\).
7. Find the seventh root of 01456 , and the numerical value of
\[
\frac{.003768 \times(2 \cdot 007)^{\frac{2}{8}}}{\sqrt[3]{(\cdot 6667 \times \cdot 1138)}}
\]
8. What is a G.P.? Find the sum of \(n\) terms of such a series.
Insert 9 geometric means between 5 and 8, and find the product of these means.

\section*{MATHEMATICS I.-TRIGONOMETRY. \\ Two and a Half Hours. \\ logarifhm tables to be provided.}
1. Show how to construct the acute angle whose sine is \(\frac{1}{2}\), and the other angle less than four right angles with the same sine.
Find from the Tables the acute angle whose sine is 75.
Also write down the values of \(\cos 140^{\circ} 49^{\prime}, \sin 230^{\circ} 49^{\prime}, \sin 309^{\circ} 11^{\prime}\).
2. A man walks due East from a station A on a horizontal plane for 10 miles. He then walks N.E. for 5 miles to a station B. Find the distance of B from A, and its bearing from \(A\).
3. Prove geometrically that the sine of an angle is equal to the sine of its supplement, and that its cosine is equal to minus the cosine of its supplement.
Find the angles between \(0^{\circ}\) and \(360^{\circ}\). which satisfy the equation
\[
\cos \theta=2 \cos 100^{\circ} .
\]
4. Show how to find the height of an inaccessible mountain above a horizontal plane by measuring the distance between two points in a direct line to the point in which the perpendicular from the top of the mountain meets the plane, and the angles of elevation of its summit from these two points.
Put your result in a form suitable for logarithwic calculation.
5. Prove that \(\cos 15^{\circ}=\frac{\sqrt{ } 3+1}{2 \sqrt{ } 2}\), and that
\(\cos A+\cos \left(1 \cdot 20^{\circ}+A\right)+\cos \left(130^{\circ}-A\right)=0\)
\(\sin \mathrm{A}+\sin \left(120^{\circ}+\mathrm{A}\right)-\sin \left(120^{\circ}-\mathrm{A}\right)=0\)
\(2 \cos \left(30^{\circ}+A\right)+2 \cos \left(60^{\circ}+A\right)=\left(\sqrt{ }^{6}+\sqrt{2}^{2}\right) \sin \left(45^{\circ}-A\right)\).
6. What is the Sine Rule? Prove it geometrically.

Show that
\[
\frac{\sin 2 \mathrm{~A}}{\sin 2 \mathrm{~B}}=\frac{a^{2}\left(b^{2}+c^{2}-a^{2}\right)}{b^{2}\left(c^{2}+a^{2}-b^{2}\right)}
\]
7. Describe some ways in which the third side of a triangle can be found when the other two sides and the included angle are given. Explain the importance of this problem to the surveyor.
Find the base when the vertical angle is \(60^{\circ}\), and the sides are 1000 and 2000 feet.
8. Prove that the length of the radius of the inscribed circle of a triangle is given by
\[
r=\frac{\mathrm{S}}{\mathrm{~s}} \quad .
\]

Hence, or otherwise, find the smallest angle of the triangle whose sides are 135,160 and 250 feet.

\section*{MATHEMATIOS I.-ELEMENTARY DIFFERENTIAL AND INTEGRAL CALCULUS.}

Two and a Hale Hours.
First Paper.
1. Draw the curves
\[
\begin{aligned}
& \text { (i.) } y=x \\
& \text { (ii.) } y=\frac{1}{x}
\end{aligned}
\]
on the same diagram, and find the points at which they intersect. What do these two equations represent?
2. Find the equation of the line through the point ( 3,4 ), and the common point of the lines given by
\[
\begin{aligned}
& 5 x-y=9 \\
& x+6 y=8 .
\end{aligned}
\]
3. Write down-without proof-the conditions for parallelism and perpendicularity of the lines
\[
l x+m y+n=0
\]
\[
l^{\prime} x+m^{\prime} y+n^{\prime}=0
\]

Show that the loci of question-(1) cut at right angles.
4. What is meant by the gredient of a curve at a point? Show from your statement of the meaning of the term that the locus
\[
y=a x+b
\]
has the same gradient at every point, and the locus
\[
y=a x^{2}+2 b x+c
\]
has the gradient \(2(a x+b)\) at the point whose absoissa is \(r\).
5. Prove the rule for the differentiation of the product of two functions, and also that if \(y\) is a function of \(u\), and \(u\) a function of \(x\), the differential coefficient of \(y\) with respect to \(x\) is the product of the differential coefficients of \(y\) with respect to \(u\), and of \(u\) with respect to \(x\).
6. Differentiate the following algebraic expressions :-
(i.) \((x-1)^{2}(x-2)^{2}\).
(ii.) \(\frac{(x-1)^{2}}{(x-2)^{2}} \times \frac{(x+1)^{2}}{(x+2)^{2}}\).
(iii.) \(\frac{x^{2}-x+1}{x^{2}+x+1}\).
7. Prove geometrically that if \(\theta\) is the number of radians in an angle, for a very small increase \(\delta \theta\) in \(\theta\), the increase in \(\sin \theta\) is \(\cos \theta . \delta \theta\) very approximately
In the 7 figure Trigonometrical Tables we find
\[
\sin 44^{\circ}=6946584,
\]
\[
\cos 44^{\circ}=7193398
\]
and \(\sin 44^{\circ} \cdot 1^{\prime}={ }^{\prime} 6948676\).

\section*{'Assuming that}
\[
\pi=3 \cdot 1416
\]
compare the last mentioned tabulated result with that calculated by the method of this question.
8. Prove that \(\frac{d}{d x}(\tan x)=\sec ^{2} x\).

Alsö that:
(i.) \(\frac{d}{d x} \cdot\left(\frac{\sin 3 x}{4}+\sin ^{3} x\right)=\frac{3}{4} \cos x\).
(ii.) \() \frac{d}{d x}\left(\frac{\sec ^{2} x}{\sec 2 x}\right)=-\frac{2 \sin x}{\cos ^{3} x}\).
9. Write down the series which gives the number e.

Assuming that
\[
e^{x}=1+x+\frac{x^{2}}{2!}+\frac{x^{3}}{3!}+\cdots
\]

Show that \(e^{\frac{1}{10}}\) does not exceed \(1 \cdot 1\) by more than \(\frac{3}{580}\).

MATHEMATICS I.-ELEMENTARY DTFFERENTIAL AND INTEGRAL CALCULUS.

\section*{Two and a Half Hours.}

Second Paper.
1. What is meant by the symbols \(\sin ^{-1} x\) and \(\cos ^{-1} x\) ?

If \(y=\sin ^{-1} x\), prove that \(\frac{d y}{d x}=\frac{1}{\sqrt{1-x^{2}}}\).
Prove that
\[
\frac{d}{d x} \sin ^{-1}\left(\frac{x}{\sqrt{1+x^{2}}}\right)=\frac{1}{1+x^{2}} .
\]
2. Draw the curves
(i.) \(y=2^{x}\)
(ii.) \(y=e^{x}\)
(iii.) \(y=3^{x}\)
for values of \(x\) lying between 0 and 2 , on the same diagram, taking \(e=2.72\).
Write down the gradients of the three curves at the point at which they cut each other.
3. Show how the differential calculus can be applied to the evaluation of the maxima and minima of a given function of \(x\). Apply your reasoning to the function
\[
x+1+\frac{1}{x},
\]
and draw the hyperbola
\[
y=x+1+\frac{1}{x}
\]
4. Prove that the path of a particle projected from the origin with a velocity \(V\) at an inclination \(a\) to the horizon is a parabola.

Draw the curve when
\[
\begin{aligned}
& V=1000 \mathrm{ft} . \text { per sec. } \\
& a=60^{\circ}
\end{aligned}
\]
and read off the range on the plane which is inclined at \(45^{\circ}\) to the horizontal.
5. Prove that in the ellipse whose foci are \(S\) and \(S^{\prime}\)
\(S P+S^{\prime} P=\) the major axis.
6. What is meant by the expression-"the integral of a function?"
Write down the integrals of the following functions :-
\[
x^{2}, \frac{1}{x^{2}}, x+1, \frac{1}{x+1}, x^{2}+a^{2}, \frac{1}{x^{2}+a^{2}}, x^{2}-a^{2}, \text { and } \frac{1}{x^{2}-a^{2}} .
\]
7. Show that if \(A\) stands for the area included between the curve \(y=f(x)\), the axis of \(x\), and the ordinates at \(\left(x_{0}, y_{0}\right)\) and ( \(x, y\) )
(i.) \(\frac{d \mathrm{~A}}{d x}=f(x)\),
and (ii.) \(\mathrm{A}=\mathrm{F}(x)-\mathrm{F}\left(x_{0}\right)\), where \(\mathrm{F}(x)=f f(x) d x\).
8. Show how the volume of a solid whose cross section is known can be obtained by the Integral Calculus. Apply this method to the case of a pyramid.
9. Show that the fluid pressure on a plane surface held vertical, and completely covered, is equal to the product of the area and the pressure at the C.G. of the surface.
Hence, or otherwise, show that a vertical masonry dam, in the form of a rectangle of height 50 ft . and length 100 ft ., will have to withstand a pressure of nearly 3475 tons.
[The weight of a cub. ft . of water \(\left.=62 \frac{1}{4} \mathrm{lbs}.\right]\)

MATHEMATICS II.-DYNAMICS.
1. Define Simple Harmonic Motion, and prove that it is isochronous.
A small ring slides down a smooth wire in the shape of a cycloid with its axis vertical and coucavity upwards. Prove that its motion is simple harmonic.
2. Show that the accelerations of a particle along and perpendicular to the radius vector are respectively
\[
\frac{d^{2} r}{d t^{2}}-r\left(\frac{d \theta}{d t}\right)^{2} \text { and } \frac{1}{r} \frac{d}{d t}\left(r^{2} \frac{d \theta}{d t}\right) .
\]
3. Establish the differential equation of the path of a particle under a central force
\[
\frac{d^{2} u}{\sqrt{\theta^{2}}}+u=\frac{\mathrm{P}}{h^{2} u^{2}} .
\]
4. A particle describes the ellipse \(r=\frac{l}{1+e \cos \theta}\) under a centre of force at the focus. Show that the force \(=\frac{\mu}{r^{2}}\) and that the velocity \(\doteq \sqrt{\mu\left(\frac{2}{r}-\frac{1}{a}\right)}\), where \(2 a\) is the major axis.
5. A body is turning about a fixed axis. Prove that the equation of motion is \(M k^{2} \ddot{\theta}=\mathbf{L}\).
Find the time of a small oscillation of a circular disc about a horizontal axis in its plane which touches the disc.
6. A fly wheel whose radius is 2 feet, and radius of gyration 18 inches, weighs 3 tons. Find the horse-power required to produce in it a velocity of 1200 revolutions per minute in 10 seconds. Find also what constant force along its rim will reduce its revolutions from 1200 per minute to 800 per minute in 4 seconds.
7. Prove that the kinetic energy of a body moving in two dimensions \(=\frac{\mathrm{M} u^{2}+\mathrm{M} k^{2} w^{2}}{2}\), where \(u\) is the velocity of the centre of mass, and \(\omega\) the angular velocity of the body.
8. A solid sphere of radius \(a\) rolls down a rough inclined plane of angle \(a\), show that its centre moves with acceleration \(\frac{a^{2} g \sin a}{a^{2}+k^{2}}\).
If the solid sphere takes a minute to roll down the plane, and a hollow sphere of the same external dimensions rolls down the plane in 63 seconds; find the radius of gyration of the hollow sphere:
xlvi.

MATHEMATICS II.-DIFFERENTIAL AND INTEGRAL CALCULUS.

\section*{Two and a Half Hours.}

First Paper.
1. Prove the rule for differentiating a function of a function.

Differentiate with regard to \(x\)
(i.) \(\log \frac{a+b \tan \frac{x}{2}}{a-b \tan \frac{x}{2}}\)
(ii.) \(\tan ^{-1} \frac{2 a x}{a^{2}+x^{2}}\)
2. Show that the point \(x=a \cos ^{3} \theta, y=b \sin ^{3} \theta\) lies on the curve \(x^{\frac{2}{3}}+y^{\frac{2}{3}}=a^{\frac{2}{3}}\), for all values of \(\theta\).
Find the equation to the tangent to the curve at'any point \(r_{r}\) and show that the length of the part of the tangent intercepted between the axes is constant.
3. Explain what is meant by the radius of curvature at any: point of a curve, and prove that
\[
\rho=\frac{\left(1+\left(\frac{d y}{d x}\right)^{2}\right)^{\frac{3}{2}}}{\frac{d^{2} y}{d x^{2}}}
\]

In the case of the catenary
\[
y=\frac{c}{2}\left(e^{\frac{x}{c}}+e^{-\frac{x}{c}}\right),
\]
prove that \(y^{2}=c \rho\).
4. Show how to determine whether a curve is concave or convex upwards.
Examine the curve \(y=\frac{4}{x}+\frac{9}{2-x}\) for turning points and: points of inflection, and trace the curve.
5. What is meant by the envelope of a system of curves. whose, equation contains one arbitrary parameter?

Prove that the envelope of the straight lines, the sum of whose intercepts on the axes of coordinates is constant \((k)\), is the parabola \((x+y-k)^{2}=4 x y\).
Taking \(k=4\) inches, draw several positions of the line on squared paper, illustrating the curve as the locus of the intersection of consecutive members of the family.
6. Assuming that \(f(x)\) can be expanded in ascending \(\cdot\) powers of \(x\), prove that
\[
f(x)=f(0)+x f^{\prime}(0)+\frac{x^{2}}{2!} f^{\prime \prime}(0)+\ldots
\]

Expand \(\log \left(1+e^{x}\right)\) in ascending powers of \(x\) as far as the term involving \(x^{4}\).
7. Find the turning points and points of inflection on the curve \(y=4 \cos x+\cos 2 x-5\).
8. What is meant by Partial Differentiation?

Apply the equation
\[
d x=\frac{\partial u}{\partial x} d x+\frac{\partial u}{\partial y} d y
\]
to determine approximately the alteration per cent. in the volume of a cylinder caused by an increase of \(2 \%\) in the radius of its base and a decrease of \(3 \%\) in its height.
9. If \(u=\log r\), where \(r^{2}=(x-a)^{2}+(y-b)^{2}\), verify that
\[
\frac{\partial^{2} u}{\partial x \partial y}=\frac{\partial^{2} u}{\partial y \partial x},
\]
and prove that
\[
\frac{\partial^{2} u}{\partial^{2} x}+\frac{\partial^{2} u}{\partial^{2} y}=0
\]

\section*{MATHEMATICS II.-DIFFERENTIAL AND INTEGRAL CALCULUS.}

\section*{Two and a Half Hours. Second Paper.}
1. Integrate the following expressions
(i.) \(\frac{x+1}{\sqrt{(2-x)(2+x)}}\).
(ii.) \(\frac{x^{3}}{x^{2}-3 x+2}\).
(iii.) \(\sin ^{4} x \cos ^{3} x\).
2. Prove the formula for integration by parts, and integrate-
\[
\text { (i.) } \tan ^{-1} x \text {, (ii.) } e^{a x} \sin \beta x \text {, (iii.) } x^{2} e^{a x}
\]
3. Prove that
\[
\int \cos ^{q} \theta d \theta=\frac{\cos ^{q-2} \theta \sin \theta}{q}+\frac{q-1}{q} \int \cos ^{q-2} \theta d \theta .
\]

Write down the values of
\[
\int_{0}^{\frac{\pi}{2}} \cos ^{10} \theta d \theta, \int_{0}^{\frac{\pi}{2}} \sin ^{7} \theta d \theta, \int_{0}^{\pi} \cos ^{7} \theta d \theta, \int_{-\frac{\pi}{2}}^{-\frac{\pi}{2}} \sin ^{6} \theta d \theta
\]
4. Find a formula for the length of an arc of a curve.

In the case of the inverted cycloid \(x=a(\theta+\sin \theta)\)
\[
y=a(1-\cos \theta),
\]
if P is the tracing point, B the point of contact of thegenerating circle with the base, and BA a diameter of the generating circle, prove that the arc of the curve measured from the vertex=twice the chord AP.
5. Show how the Integral Calculus can be applied to find the C.G. of (1) a curve, (2) a plane area.

Find the C.G. of the area bounded by the arc of the parabola \(y^{2}=4 a x\), the axis of \(x\), and the latus rectum.
6. What is meant by (i.) the moment of inertia, (ii.) the radius. of gyration of a body about an axis?
Find the moment of inertia of a fly wheel whose radii are, \(\mathrm{R} \pm d\).
7. What is meant by the double integral \(\int f f(x, y) d x d y\) between. given limits?
Find the value of \(\int f x y d x d y\) taken over the part of the ellipse: \(\frac{x^{2}}{a^{2}}+\frac{y^{2}}{b^{2}}=1\), which lies in the first quadrant.
8. Show how to solve the differential equation
\[
\frac{d y}{d x}=\frac{f(x, y)}{F(x, y)}
\]
where \(f(x, y)\) and \(\mathrm{F}(x, y)\) are homogeneous expressiong of the same degree.
Solve the equation
\[
\left(x^{3}+3 x y^{2}\right) d x+\left(y^{3}+3 x^{2} y\right) d y=0
\]
9. Show how to solve the equation
\[
\frac{d y}{d x}+\mathrm{P} y=\mathrm{Q}
\]
where \(\mathrm{P}, \mathrm{Q}\) are functions of \(x\).
Hence solve the equation
\[
\frac{d y}{d x}+a y=\sin b x
\]

Or Show that \(\mathrm{Ce}^{\lambda x}\) is a solution of the equation
\[
\frac{d^{2} y}{d x^{2}}+a \frac{d y}{d x}+b=0
\]
where \(a\) and \(b\) are constants, provided that \(\lambda\) is a root of the equation \(\lambda^{2}+a \lambda+b=0\).
Solve the equations
(i.) \(10 \frac{d^{2} y}{d x^{2}}-11 \frac{d y}{d x}-6 y=0\).
(ii.) \(\frac{d^{2} x}{d t^{2}}=a-x\).

MATHEMATICS I.-MECHANICS.
To obtain a Pass candidates need not do all the paper.
PASS.
1. Establish the equations of uniformly accelerated motion, viz
\[
\begin{aligned}
& v=u+f t \\
& s=u t+\frac{f t^{2}}{2}, \\
& v^{2}=u^{2}+2 f s .
\end{aligned}
\]
2. \(\overbrace{2} \mathrm{~A}\) body of mass \(15 . \mathrm{lbs}\), acted on by a constant force, passet over 25 feet in the 7th second of its motion, and 42 fees in the 9th second. Find its acceleration and initial velocity, and the force.
3. What is meant by kinetic energy, work, potential energy and horse power?
If the greatest power that the motors of a car weighing 11 tons can develop is 40 horse-power, find the greatest speed with which the car can travel against a resistance of 25 lbs . per ton (1) on a horizoutal road, (2) up a slope of 1 in 50 .
4. Prove that if a body is describing a circle of radius \(r\) with uniform velocity \(v\), its acceleration is \(\frac{v^{2}}{r}\) towards the centre of the circle.
Explain why it is that on a railway the outer rail on a curve is elevated above the other.
.5. The outer rail of a pair of 4 feet \(8 \frac{1}{2}\) inches gauge is raised 2 inches above the other, and a train running at 30 miles per hour has no thrust on the flanges on either set of wheels What is the radius of the curve?
6. Define a couple, and prove that the sum of the moments of the forces constituting a couple about any point in the plane is coustant.
Forces 3,5 and \(4 \sqrt{ } 2\) act along the sides \(\mathrm{AB}, \mathrm{BC}\) and the hypothenuse CA of an isosceles right-angled triangle. Find the magnitude, direction and line of action of their resultant. Find also what extra force acting at B would reduce the system to a couple, and what is the moment of such couple.
7. Prove the formulæ
\[
\bar{x}=\frac{\Sigma(m x)}{\Sigma(m)}, \quad \bar{y}=\frac{\Sigma(m y)}{\Sigma(m)},
\]
giving the centre of gravity of a system of particles in one plane.
Find the centre of gravity of the figure formed by an isosceles right-angled triangle and the squares described externally on its sides.
8. Find expressions for the time of flight of a projectile, and its range upon a horizontal plane through the point of projection. If the velocity is given, for what angle is the range a maximum?
9. If the initial velocity is 500 feet per second, and the angle \(30^{\circ}\), find the time of flight and range and greatest height; find also the velocity and direction of motion of the projectile when it is 200 feet above the ground:
10. Write down the equations used in determining the velocities of two smooth spherical bodies after direct collision, and explain how those equations are obtained.
Two swooth spherical bodies \(A\) and \(B\), of masses 2 lbs . and 1 lb . respectively, are suspended by strings two feet long so as to just touch in their lowest positions. B is drawn aside so as to rise to the vertical height of one foot, and let go. Find (1) the velocitv of B just before collision with A, (2) the velocities of \(B\) and \(A\) just after the collision, (3) the heights to which B and A rise of the collision, the coefficient of restitution being \(\cdot \frac{1}{3}\).

\section*{DIFFERENTIAL EQUATIONS.}
(Third Year Engineering.)
Two Hours.
1. Find the differential equation of which
\[
\frac{x^{2}}{a^{2}}+\frac{y^{2}}{b^{2}}=1
\]
- is the complete primitive.
2. Describe the method of solution of the differential equation. of the first order and first degree when it is
(i.) homogeneous,
(ii.) linear.

Solve the equations
(i.) \(\frac{d y}{d x}=\tan x \cdot \tan y\),
(ii.) \(\frac{x+y \frac{d y}{d x}}{x-y \frac{d y}{d x}}=\frac{1}{x^{2}}\).
dii.
3. Solve the equations
(i.) \(\frac{d y}{d x}-f(x) y=0\),
(ii.) \(\left(1+x^{2}\right) \frac{d y}{d x}+x y=1\).
4. If the two plates of a condenser of capacity C are connected
by a wire of resistance R (and zero self-induction), the equation connecting the charge \(q\) with the electro-motive force E is
\[
\frac{q}{\mathrm{C}}+\mathrm{R} \frac{d q}{d t}=\mathrm{E}
\]

Integrate this equation
(i.) when \(\mathrm{E}=0\),
(ii.) when \(\mathrm{E}=\) const.,
(iii.) when \(\mathrm{E}=\mathrm{E}_{0} \cos (p t+\epsilon)\).
5. Solve the equations
(i.) \(p(p+x)=y(x+y)\).
(ii.) \(p^{2}\left(1-x^{2}\right)=1\).
6. The equation of simple harmonic motion
\[
\frac{d^{2} y}{d t^{2}}+\mu y=0
\]

Integrate this equation, and employ it to find the time of a complete vibration.
Also integrate the equation
\[
\frac{d^{2} y}{d t^{2}}+\mu y=c
\]
7. In the solution of the Linear Equation of the second order with constant coefficients
\[
f(\mathrm{D}) \cdot y=\phi(x),
\]
the complementary equation \(f(m)=0\), for solving the equation \(f(\mathrm{D}) \cdot y=0\), has a pair of equal roots.

Show how the corresponding part of the solution is found. Solve the equations
(i.) \(\frac{d^{2} y}{d x^{2}}-3 \frac{d y}{d x}+2 y=0\),
(ii. \(\frac{d^{3} y}{d x^{3}}+y=0\),
(iii.) \(\frac{d^{3} y}{d x^{3}}+y=e^{2 x}+2 x^{2}\).

SPHERICAL TRIGONOMETRY AND ASTRONOMY.
(Third Year Engineering.)
Two and a Halr Hovrs.
1. Define a spherical triangle and the polar triangle.

Prove that if \(\mathrm{A}^{\prime} \mathrm{B}^{\prime} \mathrm{C}^{\prime}\) is the polar triangle of ABC , then ABC is the polar of \(\mathrm{A}^{\prime} \mathrm{B}^{\prime} \mathrm{C}^{\prime}\); also that \(a+\mathrm{A}^{\prime}=\pi\).
If the difference between any two angles of a triangle is \(\frac{\pi}{2}\), the remaining angle must be iess than \(\frac{\pi}{2}\).
2. In any triangle prove that
(i:) \(\cos a=\cos b \cos c+\sin b \sin c \cos A\).
(ii.) \(\sin \frac{\mathbf{A}}{2}=\sqrt{\frac{\sin (s-b) \sin (s-c)}{\sin b \sin c}}\).
(iii.) \(\cot a \sin b=\cos b \cos \mathrm{C}+\sin \mathrm{C} \cot \mathrm{A}\).
(iv.) \(\cos m_{1}=\frac{\cos b+\cos c}{2 \cos \frac{a}{2}}, m_{1}\) being the A median.
3. In a triangle right angled at C , prove that
\(\tan a=\cos B \tan c\) \(\cos A=\sin B \cos a\)
and that if \(c\) is greater than \(\frac{\pi}{2}\), then \(a, b\) are of opposite affection.
4. Solve the triangle in which
\[
\begin{aligned}
& c=90^{\circ} \\
& a=46^{\circ} 45^{\prime} 30^{\prime \prime}, \\
& \mathrm{A}=59^{\circ} 12^{\prime} 0^{\prime \prime} .
\end{aligned}
\]
5. Describe how you would proceed to find the latitude of a place at sea, and what corrections you would apply to the observed altitude.
On 5th August, 1910, in longitude \(167^{\circ}\) E... the observed meridian altitude of the sun's upper limb was \(45^{\circ} 14^{\prime}\), the zenith being south of the sun The height of the eye above sea level was 26 ft . Find the latitude.
6. A ship in long. \(20^{\circ} \mathrm{E}\). and lat. \(35^{\circ} \mathrm{S}\). sets out for a place in long. \(140^{\circ} \mathrm{E}\). and lat. \(38^{\circ} \mathrm{S}\)., following a great circle course. Find the direction in which she must steam at the start, and the highest latitude she will reach.
7. Define the following terms-sidereal time, mean time, hour angle. right ascension, and prove the statement

Sidl. Time \(=\) Mean Time + Mean Sun's R.A.

\section*{EDUCATION II. AND III. \\ Attempt sux Questions.}
1. Compare as to the aim and method Plato's scheme of Higher Education with (a) contemporary practice at Athens, and (b) modern opinion.
2. Summarise Roebuck's speech of 1833, and point out when, and to what extent, his scheme was realised during the 19th century.
3. Give an account of the various types of lesson in which observation is the dominant mental process, and discuss in detail the procedure suited to any one of these types. Justify your suggested procedure psychologically.
4. Examine the nature and conditions of "illustration" in teacling, and apply your results to any one form of "illustration."
5. Outline the general method of procedure in lessons which , i: seek to develop wsthetic appreciation, and apply to one class of subject matter.
6. "The school curriculum which aims to serve the greatest. good of the greatest number will include courses suited to the concrete thinker and constructor,: Explain and illustrate.
7. Distinguish sympathy, suggestion, imitation, and give a more detailed account of the nature and conditions of any one of these tendencies.
8. Trace the growth of self-consciousness, and of the selfregarding sentiment, and show how moral development is connected with this growth.

\section*{ECONOMTCS AND COMMERCE I.}

> A.--ECONOMICS.
1. "Economic evolution is, in large measure, dependent upon the development of wants."
Illustrate this, and point out some of the characteristics of wants.
2. Explain and examine the following-
(a) "The value of a commodity is determined by the quantity of labour expended on its production."
(b) "Value is determined by final utility."
3. (a) What in your opinion is the industrial structure which permits the greatest increase of population?
(b) Explain why the population of Europe has increased so rapidly during the last hundred years.
4. (a) What is meant by Production?
(b) To what causes would you attribute differences in the amount of wealth produced per head in two communities. assuming that the natural resources at the disposal of each are equal? 。
5. (a) Define Capital, Circulating Capital, and Fixed Capital.,
(b) Classify Gapital Goods.
(c) Illustrate the statement that the characteristics of modern capitalistic production are mass-production, uniformity, and interchangeability.
6. (a) What factors determine the size of the unit in any industry?
(b) Sketch briefly the modern movement towards the consolidation of business units.
7. (a) Illustrate, from a colonial society, the evolution of specialisation in industry.
(b) Is there any danger of excessive specialisation in national industries?
8. (a) What is meant by Consumption?
(b) Can it be said that an act of consumption diminishes the capital of a community?
9. Ricardo wrote-
"Productions are always bought with productions or by services; money is ouly the medium by which exchanges are effected. Hence the increased production, being always accompanied by a correspondingly increased ability to get and consume, there is no possibility of over-production."
Discuss this doctrine.
B.-ACCOUNTANCY.
1. What useful purpose does the keeping of Account Books serve?
2. State in detail what information you would expect to find in the Trade Account of a manufacturing concern.
3. What meaning would attach to the statement that there was a debit balance in-
(a) A Customer's Account?
(b) Rent Account?
(c) Business Premises Account?
(d) Capital Account?
4. Give a short account of the evolution of the Journal, and state the limitations of its modern use.
5. What is the guiding principle as to the setting out of Reserves in a Balance Sheet, and what difficulty is there in its practical application?
6. Sales \& Company sell on account of W. Keen, of Angora. Station, the following-

'They pay railage, \(£ 18 \mathrm{~s} .5 \mathrm{~d}\). ; and carriage, 1 s .3 d .
Draw up Account Sales, charging 4\% commission.
7. (a) A business is worked in two departments, styled A and B. Past experience has been that about \(30 \%\) of the selling price has represented profit in A department, and about \(22 \frac{1}{2} \%\) in \(B\) department, and no reason is known for doubting that this still holds. The books represented the figures for the year 1909 as-
stock 1st Jan.
A. \(£ 12,501 \quad 0 \quad 4 \quad £ 50,00717 \quad 6 \quad £ 40,868 \quad 13 \quad 5\)
B. \(17,2931611 \quad 54,951 \quad 16 \cdot 8 \quad 38,295 \quad 410\)

Estimate the stock in each department ou 31st December, 1909.
(b) Stock was actually taken on this date, and the totals of the Stock Books were-
\[
\begin{array}{rrrrr}
\text { A. } & £ 15,274 & 3 & 5 \\
\text { B. } & 16,181 & 11 & 10
\end{array}
\]

What suggestion can you make as to the cause of the discrepancy between these figures and your estimates?
C.-BUSINESS PRINCIPLES AND PRACTICE.

Candidates to answer ten questions, but not more.
1. Describe (a) Commercial Trusts, (b) Trustee Companies, and (c) Co-operative Societies, in their usual modern forms.
2. Briefly define the principal functions of an Australian Bank.
3. What is the broad scheme of working of a Sydney Wholesale Importer-say Soft Goods?
4. Define the utilities of the modern Bill of Exchange, and explain why these are customarily drawn on London. from nearly all foreign trading centres.
5 Describe the methods and uses of the Sydney Stock Exchange; also, briefly, the types of stocks and shares sold there.
6. Define the general surroundings of a Partnership, the relations between partners, etc.
7. When Limited Liability Companies require additional capital, how do they usually raise such ?
8. Give the salient features, briefly, of (a) Fire Insurance; (b) Accident Insurance.
9. Marine Insurance.-What are the three types of risk usually covered; and what are the customary "implied" and " express" warranties?
10. Describe the various steps the Sydney consignee has to take, with his Bill of Lading, before he can obtain delivery of the relative goods from the ship's side.
11. Customs.-Briefly state the main surroundings of "sight," " imperfect," and "drawback" entries.
12. Lescribe the Joint and Several Guarantee, the uses to which it is ordinarily put, and the attendant risks.
13. C.i.f. Transactions.-Give the reasons for the desirability of a clear understanding, at the outset, regarding (a) Exchange, and (b) sea-damage in transit.

\section*{D.-COMMERCIAL GEOGRAPHY.}

Two Hours.
1. Explain, in general terms, the methods which may be employed for determining the latitude and longitude of a place:
2. Draw up a scheme for the classification of plains, from the point of view of their mode of origin. Explain how each type of plain influences the agricultural, mining, and manufacturing industries of its inhabitants.
3. Explain the relation which exists between the intrinsic value of merchandise, and the method of its transport. Comment specially upon the spacing of railway lines in developing a country.

ECONOMICS AND COMMERCE II. AND III.

\section*{A.-ACCOUNTANCY II.}
1. On lst February, 1910, A and B exchanged Accommodation Bills at four months for \(£ 100\). A's bill was dishonoured. On 29th August, 1910, B agreed to receive, and was paid \(£ 50\) in full settlement. Make entries in proper form in B's books to completely record the above and to . close A's account.
2 What are the different methods of providing for Depreciationof Machinery? Discuss briefly their respective advan-tages.
3. Give your views as to what is the test of a trader's financial stability
4. From the following information draw up Statements ofAffairs for the joint and the separate estates of Messrs.Flutter and Dash:-
Liabilities.
Bank of the Isles, Firm's Overdraft (secured by George-street property) ..... 4,012
Kite \& Company (loan to Firm secured by Min- ing Shares) ..... 874
Unsecured Creditors of the Firm ..... 12,272
Tradesmen's Accounts due by Flutter ..... 254
Do. do. Dash ..... 380
Preferential Creditors of the Firm ..... 676
Do. do. Flutter ..... 46
Do. do. Dash ..... 39
Private Loan by Flutter to Dash ..... 500
Assets. ..... £
George-street Property ..... 4,888
Mining Shares ..... 540
Other Assets of the Firm ..... 5,777
Flutter's Furniture ..... 526
Dash's Furniture ..... 215
5. The balances in the books of a Deceased Estate on 19thOctober, 1908, were:-
Corpus ..... 23,732
Wantalla Station Land Account ..... 19,375
", ", \(\quad\) Plant Account ..... 960 ..... 2,475
Cash ..... 1,960
Revenue Suspense Account ..... Cr 1,038
On 19th April, 1909, the station was sold for cash. Thefollowing were the transactions subsequent to 19thOctober, 1908 :-


The depreciation charged against revenue was \(£ 60\), but no other adjustment of Revenue Account was required.
Draw up Balance Sheet showing the position of the Estate as at 19th April, 1909.

\section*{B.-ACCOUNTANCY III.}
1. With regard to the business of a partnership as distinguished from that of a single owner, what matter requires special attention in the accounts in order that each partner may receive justice?
2. A dishonest Mine Manager, wishing to depreciate the market value of the Mine, determines so to handle the accounts during the coming half-year as to make the profits appear to have been less than really will have been the case.
State specifically how this could be attempted.
3. On the insolvency of Flutter \& Dash the following debts were disclosed :-
Bank of the Isles, Firm's Orerdraft (secured by \(£\)
George-street property). . \(\quad . \quad\) 4,012
\begin{tabular}{lccc} 
Kite \& Company (loan to Firm secured by Min- \\
ing Shares) & \(\ldots\) &.. &. \\
\hline
\end{tabular}
Unsecured Creditors of the Firm .. .. 12,272
Tradesmen's Accounts due by Flutter. . .. 254
Do. do. Dash . . .. 380
Preferential Creditors of the Firm .. .. 199
Private Loan by Flutter to Dash . . . 500
The Assets realised as follows :- •
George-street Property .. .. .. 4,888
Mining Shares .. .. .. .. 540
Other Assets of the Firm .. .. .. 5,777
Flutter's Furniture .. .. .. 526
Dash's Furniture .. .. .. .. 215
The Expenses were:-
Firm's Estate .. .. .. .. 477
Flutter's Estate .. .. .. .. 86
Dash's ," .. .. .. .. 39

Draw up Cash Accounts for the joint and separate estates, showing the whole of the realisations, and stating the rate of dividend paid in each case.
4. The estate of a squatter who died on 19th October, 1906, consisted of \(£ 3,195\) in cash and a station, valued for probate purposes as under:-
\begin{tabular}{lllr} 
& & & \multicolumn{1}{c}{} \\
Land & \(\ldots\) & \(\ldots\) & 20,000 \\
Plant & \(\ldots\) & \(\ldots\) & 1,200 \\
Sheep & \(\ldots\) & \(\ldots\) & 2,500
\end{tabular}

The cash transactions of the Executor were:-
\begin{tabular}{ccc} 
Year to \\
\(19-10-07\) & Year to & Half-year to \\
19-10-08 & \(19-4-09\) \\
\(£\) & \(£\) & \(£\)
\end{tabular}

Legacies and Expenses charge-
able to Corpus .. .. 3,061 Nil
Sheep, Wool, etc., sold .. i, \(\dot{2} 53 \quad 1,876 \quad 3,020\)
Current Expenses .. .. 716 693 . 431

Land sold .. .. .. 425 200 19,500
Plant sold .. .. .. Nil Nil 750
The station was. sold on 19th April, 1909, the proceeds being included above. Depreciation on plant was charged against revenue at the rate of 10 per cent. per annum on probate valuation. The movements in stock were, for the three periods, respectively :-
\begin{tabular}{lccc} 
Increase & \(\ldots\) & \(\ldots\) & 1,220 \\
Decrease & \(\ldots\) & \(\ldots\) & 1,245 \\
Decrease & \(\ldots\) &.. & 2,475
\end{tabular}

No other adjustments were found necessary. The Life Tenants were paid at the end of each period whatever was due to them, and the final balance in hand was invested in \(4 \%\) stock at 101. What was the future income of the Estate?
(Note.-In answering this question no formal accounts are required to be drawn up, but rough workings must be handed in.)
5. The following is the Trial Balance of Joseph Banks at 30th June, 1910:-
\begin{tabular}{|c|c|c|c|c|}
\hline & \multicolumn{4}{|l|}{- DR. \(\therefore\) : - - \(\mathbf{C R}\).} \\
\hline & \(\pm\) & 8. d. & \(\underline{1}\) & B. d \\
\hline Customers' Ledger Balances & 18,426 & \(5 \cdot 9\) & 27 & 54 \\
\hline Bought Ledger Balances & & & 4,458 & 136 \\
\hline Stock Ist Jany., 1910 & 6,743 & \(6 \quad 6\) & & \\
\hline Purchases & 56,229 & 175 & & \\
\hline Furniture and Fittings & 1,000 & 00 & & \\
\hline Sales & & & 74,927 & 1611 \\
\hline Bills Payable & 2131 & 1510 & & \\
\hline \multicolumn{3}{|l|}{General Expenses (including De-.} & & \\
\hline Cash at Bank . . .. & 2,518 & 115 & & \\
\hline Capital & & & 20,219 & \(3 \quad 3\) \\
\hline & 100,157 & 100 & 99,632 & 19.0 \\
\hline
\end{tabular}

Offer a definite suggestion as to the causes of the difference in balancing, correct the Trial Balance on the assumption that your suggestion is right, and draw Balance Sheet at 30th June, 1910. The value of stock on hand at that date was \(£ 7,2189 \mathrm{~s}\).

> C.-ECONOMICS II. AND III.

All Candidates are required to attempt 1 and 2 , and four other questions in Division \(A\).
A.
1. "Pure Political Economy is essentially the theory of the determination of prices under a hypothetical regulation of absolutely free competition."-(Walras).
Discuss the foregoing from the point of view of actual industrial society.
2. Describe and criticise the theory of marginal productivity as an explanation of the distributive process.
3. What is the origin, and what is the justification of differences in the wages of different grades of labour?
4. Discuss the effects (if any) upon wages, of -
(a) Abundance of chèap land.
(b) The standard of living.
(o) Abundance of capital available for investment.
(d) Technical education.
.5. (a) In what respect is land a kind of wealth sui generis?
(b) What causes tend to increase rent? What causes tend to arrest its increase?
(c) Examine carefully, and point out the fallacy of the statement that " property in land is legitimate, because all land has been bought, and therefore the rent of land is simply the interest on the money thus invested."
(d) On what grounds does Gide justify private property in land?
6. (a) What do you understand by "pure interest"?
(b) To what extent; if any, is saving affected by the rate of interest?
7. Describe the benevolent or mutual-help side of Trade Unionism.
8. Discuss the influence of Trade Unıon action upon the efficiency of industry.
9. (a) Describe the principal provisions of the N. Z. Industrial Conciliation and Arbitration Act of 1894.
(b) In what respect has it been modified by recent ansendments?
(c) Account for the varying attitude of employers and working men in New Zealand to compulsory arbitration as a means of settling labour disputes.
10. Discuss the various ways in which the modern State may intervene in industry with the result of effecting a more equitable distribution of wealth.

\section*{B.}

For Third Year Students only.
11. (a) Explain the operation of bills of exchange in settling indebtedness between traders in different countries.
(b) Define rate of exchange.

To what causes are fluctuations in the rate of exchange mainly due?
12. (a) Describe the modern machinery of investment.
(b) Distinguish the most important classes of investment, and point out the economic effects of each.
13. Discuss-"The problem of economic crises is not so much one of over-production or under-consumption, as of the capitalisation of estimated earnings."

For Second Year Students only.
14. Discuss the relative advantages in farming of-.
(a) Private ownership and management.
(b) Tenancy.

Ixiv.
15. Illustrate from recent German history the causes and character of the movement towards combination.
1.6. To what causes do you attribute the rapid rise of the iron and steel industry in the United States of America?

\section*{D.-LOCAL GOVERNMENT II. AND III.} INSTRUCTIONS.
(a) In answering the questions, study brevity and clear arrangement.
(b) Read the whole of the question before attempting to answer it.
(c) Answer ten (10) questions only.
1. What is Local Government? Contrast it with another system of Government.
2. What is the difference between a Shire and a Municipality (in New South Wales)?
3. (a) What is a Corporate Body?
(b) What is the Corporate Body in a Shire or Municipality?
4. What is meant by "Primary Functions"一what by "Additional Functions"-of Councils under the Local Government Acts of New South Wales?
5. What benefits do you a pprehend may accrue to the nation through the practice of Local rather than Centralised Government in addition to and apart from the immediate advantages of better roads and streets and services, and more careful administration of the finances?
6. (a) When will the Councillors and Aldermen in office in New South Wales at the present time retire under the provisions of the Local Government Acts? (b) For what term will their successors hold office?
7. If a landowner desires to subdivide a large estate in a Shire or Municipality, state generally what are the requirements of the Local Government Acts (New South Wales) as to any new roads which such landowner may desire to open in the subdivision.
8. The boundary line between a Municipality and a Shire passes along the line of private fences on one side of the road. Who has to bear the cost of maintaining that road? Give a general outline in brief of the provisions of the Local Government Act bearing on the point.
9. (a) What is a Mayor? (b) What are his powers?
10. Trace briefly the origin and development in British history of the management of local affairs by "Councils" acting for and representing the people of the locality.
11. From what do the local governing bodies of New South Wales derive their power and authority? Was there at any time in British history a different practice? If so, briefly describe that practice, and indicate in what the difference lay.
12. (a) What are the two methods by which the election of Shire Councils may be conducted under the New South Wales .law? (b) What are the principal points of difference between these two methods? (c) For what conditions is each method specially suitable?

\section*{ECONOMICS AND COMMERCE III. COMMERCIAL LAW. \\ Two Hours.}
1. (a) In what code do you find the law which at present regulates bills and cheques?
(b) Explain the doctrine of negotiability.
(c) A receives a cheque, crossed, and made payable to himself or order. He endorses it with his name only, and hands it to \(B\) (his clerk) for deposit with his bank. B loses the cheque in the street; \(\mathbf{X}\), who picks it up, gets a publican to change it for him, and the publican pays it into his own bank. Has A any claim good in law against (a) the publican, (b) the publican's banker? Does it, as against either of them, make any difference if the cheque is crossed "not negotiakle"? Give your reason very shortly in each case.
2. When, if ever, is a principal liable for the civil wrongs done to a third party by his agent? When is he not liable for his agent's contracts?
3. Write a short note on Brokers, Auctioneers, Factors.
4. Mention six statutes which operate to interfere with complete freedom of contract in case of contracts of employment.

Ixvi.
FACULTY OF ARTS.
5. Discuss the degree and nature of misconduct which will justify an employer in dismissal without notice of an employee.
6. Describe the position and liability of a director of a registered company with regard to costs of (a) extraordinary litigation, (b) declaration of dividend, (c) bonus to servants of a company over and above the agreed upon salary. (d) subscriptions to the Dreadnought Fund.
7. What acts, other than receipt of payment in full, by a secured creditor, would release one or two joint and several co-sureties in the absence of express arrangement.
8. Describe the liabilities of partners, during partnership, and after dissolution.
9. Describe five of the more important Acts of Bankruptcy.

\section*{FACULTY OF MEDICINE.}

\section*{FIRST DEGREE EXAMINATION.}

CHEMISTRY I. BIOLOGY. I. PHYSICS I.
As in the Faculty of Science.

\section*{SECOND DEGREE EXAMINATION.}

\section*{ANATOMY I. \\ Two Hours.}
1. Describe the cavity of the true pelvis (pelvis minor) as it appears in an osteoligamentous preparation. Indicate the differences observable in the two sexes.
2. Give an account of the lymphatic system of the ventral wall of the chest, stating-
(a) the paths of lymphatic drainage;
(b) the lymph-gland groups immediately involved.
3. Describe the naked eye anatomy of the thyroid gland, including its vascular and nerve supply.
4. Give a brief account of the various centres in the brain (neuronic groups or areas) which are directly concerned in vision.

ANATOMY II.
Two Hours.
1. Describe the dissection necessary to completely expose the right common carotid artery.
2. Give a description of the pericardium, and indicate its relations to neighbouring structures.
3. Describe the course of the left ureter in the female subject, indicating its relations.
4. (a) State what openings are found in the middle meatus of the nose, and indicate their relative positions.
(b) Give a general description of the lachrymal apparatus.

\section*{PHYSIOLOGY I.}
N.B.-In your answers give diagrams where possible.
1. Show how carbon is introduced into the organic world, and what are the first stages in the building up of organic substances?
2. Describe the general arrangements and the structure of synovial membranes.
3. Tell what you know as to carbonic oxide hæmoglobin.
4. What is the evidence in favour of the myogenic origin of the cardiac contraction and rhythm?
5. Show how the movements of respiration affect the intrapleural pressure and the blood pressure.
6. Describe the nervous mechanisms by which the secretion of gastric juice is controlled.
7. Describe the mechanism of sweat secretion.
8. Discuss the two principal hypotheses as to the origin of the differences of electrical potential in muscle and nerve fibres.
9. Describe the parts played by the nervous system in producing speech.
10. Discuss the two prevailing theories of colour vision.

\section*{PHYSIOLOGY II.}
N.B.-Two questions must be attempted in groups \(A\) and \(B\), but not more than two; while in group C all three must be attempted. Use diagrams where possible.
A.
1. Write notes of not more than ten lines each on the microscopical feâtures of (a) sudoriparous glands, (b) Fallopian tube, (c) nail bed, and ( \(d\) ) non-medullated nerve fibre.
2. (a) Describe the histological structure of the suprarenal glands.
(b) Describe in detail the appearances of the various kinds of leucocytes of human blood when they are stained in a film by Jenner's method.
3. (a) Describe the microscopical anatomy of the large intestine, say in the region of the transverse colon.
(b) How would you fix, harden, stain, and prepare sections of kidney for microscopical study?

\section*{B.}
1. Write notes on the detection in the human urine of (a) bile, (b) lactose, (c) nucleoprotein, and (d) pus.
2. (a) What fats occur in the human body? (b) How are they distributed? (c) Show the chemical relationships of fats, soaps, and fatty acids to each other.

\section*{lxx. \\ FACULTY OF MEDICINE.}
3. (a) Give the chemical composition of a fowl's egg; (b) discuss briefly, without detail, the methods adopted to determine its value as a food for man.
C.
1. Give an account of the action of Digitalis on-
(1) Muscle-nerve preparation;
(2) Isolated frog's heart;
(3) On the frog (injected) ;
(4) On the dog (ínjected);
drawing curves to illustrate your answer.
2. Give an account of the facts from which we draw the deduction that strychnine mainly acts on the spinal cord when injected into an animal.
3. Give a full account of the action of atropine on the dog. Give evidence showing what particular part of the neuromuscular mechanism the drug acts on.

\section*{PATHOLOGY.}
1. Discuss the aetiology of Fibrosis (chronic interstitial changes) in an organ, and describe the results of such processes in any one organ.
2. Describe in detail the findings (macroscopic and microscopic) at a post-mortem examination of a case of death from Cerebral Hæmorrhage, with rupture into the lateral ventricles.
3. Give a full account of the bacteriology and pathology of Diphtheria. How would you conduct the bacteriological diagnosis of a suspected case?
4. Give as full an account as you can of any two of the following conditions, and of the parasites concerned-
(a) Bilharziasis.
(b) Ankylostomirsis.
(c) Filariasis.

\section*{SURGICAL ANATOMY AND OPERATIVE SURGERY.}
1. Interscapulo-thoracic amputation. Give a description of the operation, and mention in detail the structures divided.
2. Give a description of the blood supply (arterial and venous) of the Thyroid Gland. Describe the ligation of its arterial supply.
3. Describe the anatomy of an area of the anterior abdominal wall in the Female, bounded above by a line drawn from the anterior superior spine of the ilium to the umbilicus, internally by the middle line and below by Poupart's ligament: Describe the operation you would adopt for the radical cure of inguinal hernia in the Female.
4. Give a simple method for marking out the course of the Fissure of Rolando. Describe the operation of trephining for ligature of the anterior branch of the middle meningeal artery.
5. Describe the soft parts covering the vault of the skull. Give their vascular and nerve supply. State what bearing their anatomy has on the surgery of these parts. Describe how you would ligature the occipital artery.

\title{
FINAL DEGREE EXAMINATION.
}

MEDICINE.
Four questions to be answered, of which the first must be one.
1. Give the causes, signs, symptoms, prognosis, and treatment of a case of Thrombosis of left middle cerebral artery.
2. Give the common sources of lead poisoning. Describe the signs, symptoms, and treatment.
3. Discuss the etiology, diagnosis and treatment of pericarditis with effusion.
4. Describe the different forms of uræmic poisoning. Give the differential diagnosis and treatment.
5. Give the symptoms, differential diagnosis, and treatment of hydatid of lung.

\section*{SURGERY.}

Only pour questions to be answered.
1. Complete division of a mixed nerve.

Describe (a) the changes which occur in the ends of the divided nerve; (b) the effects of complete division on the parts supplied by the nerve. Give an account of the process of repair when the parts are in contact.
2. Give an account of actinomycosis as seen in man. What is the histology? In what parts of the body has actinomycosis been found? Discuss the prognosis and treatment.
3. Describe the pathological effects produced by a stone in the common bile-duct on the bile passages, liver, and tissues of a patient. Give the probable symptoms and diagnosis of such a condition.
4. Describe the origin, symptoms, and treatment of urethral calculus.
5. Describe the symptoms, treatment, and complications special to fracture of the upper half of the shaft of the ulna.

\section*{MIDWIFERY.}

\section*{Two Hours.}
1. Describe the action and mode of application of the Forceps, and contrast their advantages and disadvantages-to mother and child-as compared with delivery by version.
2. Describe the conduct of a Twin delivery, and mention the complications and dangers incidental to such a case.
3. Enumerate the chief complications which affect the nervous system during pregnancy, and give their treatment.

GYNACOLOGY.
Two Hours.
Three questions only to be answered.
1. Describe in detail the method of making a gynæcological examination. Enumerate the pathological swellings within the pelvis, and give the differential diagnosis between them.
2. In regard to uterine fibromyomata, give-
(a) Pathology.
(b) Clinical features.
(c) Treatment.
3. Give the vascular and lymphatic supply of the pelvic contents and external genitals.
4. What is the difference between menorrhagia and metrorrhagia? Give the causes of each, and the appropriate treatment.

MEDICAL JURISPRUDENCE AND PUBLIC HEALTH.
Two Hours.
MEDICAL JURISPRUDENCE.
1. Describe the symptoms, signs, and post-mortem appearances caused by acute poisoning with Cyanide of Potassium ;
Or,
Name seven Metallic Irritant Poisions; and state generally the course of the symptoms in acute poisoning with a Metallic Irritant.
2. Explain the following terms-Privileged communication; Breslau's second life test; Deposition of a person dangerously ill; Hypostasis; Insolation; Allantiasis; Proximate cause of death; Sudden death ; and
(a) Describe the external and internal appearances in a dead body which would satisfy a medical jurist that death had been caused by "hanging"; or
b) Describe the mode of performing the Hydrostatic test of the lungs made with the object of ascertaining whether or not a child had breathed before its death. To what fallacies is this test subject?

\section*{PUBLIC HEALTH.}

Only \(\mathbf{T w o}\) questions to be attempted, of which No. 5 must be one.
3. Discuss the differential diagnosis of Chicken Pox and mild Small Pox.
4. Classify all foods. State the average quantity of each of the great food principles required daily by an adult engaged in moderate work, and briefly indicate the function of each class of food in the animal body.
5. What precautions are required by the Public Health Act and the Governor's Regulations thereunder in order to prevent the spread of infection from the bodies of persons dead of infectious disease.

\section*{CLINICAL MEDICINE.}

Two Hours.
Write a commentary upon the following case, discussing the differential diagnosis, the treatment; and, in the event of a fatal termination, describe the pathological conditions you would expect to find:-
T. B., male, aged 47, a publican, was admitted to hospital on September 7th. He states that he is a moderate drinker, but a heavy smoker. For a couple of years he has been troubled with "indigestion," which has lately become worse. Six months ago he had an acute attack of abdominal pain and vomiting, similar to, though less severe than the present attack. Two days ago, after a hearty midday meal of beefsteak pie and potatoes, he played bowls, and during the afternoon he was suddenly
seized with acute pain in the upper half of the abdomen, chiefly in the middle line, but extending towards the left side. There was frequent vomiting at first of greenish, sour material, later of dark, almost black, fluid. He has passed neither flatus nor fæeces for two days. Purgatives and enemata have been used without success. Examination shows the patient is urgently ill, although the facial aspect is not specially of the abdominal type. There is marked tenderness and rigidity over the whole epigastric and right and left hypochondriac regions. The tenderness extends in the midule line as far down as the umbilicus. There is also some tenderness in the right iliac region. The abdomen generally is distended and full, and everywhere resonant except over an area of comparative dulness between the umbilicus and the ensiform cartilage. No distinct tumour can be detected, although the sense of resistance suggests an undue fulness at and above the umbilical region. Notbing can be felt per rectum. There is a slight icteric tinge of the sclerotic. The urine is acid, scanty, dark coloured and contains a definite trace of albumen, many crystals of uric acid, and a few granular casts. Gmelin's test gives a somewhat indefinite reaction. The temperature is \(99^{\circ} .4 \mathrm{~F}\). ; pulse, 122 ; respirations, 28 . There is no leucocytosis. The heart is a little hypertrophied, the 2nd cardiac sound is accentuated. The arteries are thickened. There are a ferv moist râles at the bases of both lungs.

\title{
DEPARTMENT OF DENTISTRY.
}

\section*{FIRST YEAR EXAMINATION.}

INORGANIC CHEMISTRY AND PHYSICS.
As in the First Year of Science.

PRACTICAL CHEMISTRY AND METALLURGY.
A three hours' examination.

\section*{SECOND YEAR EXAMINATION.}

\section*{ANATOMY AND DENTAL ANATOMY.}

1 The sinus maxillae (antrum of Highmore).
Describe (a) its bony anatomy as seen in the articulated skull;
(b) its anatomy as modified by the presence of the soft parts;
(c) its vascular and nerve supply.
2. Describe the vascular and nerve supply of the upper incisors canines and premolars, and of the mucous membrane of the gums in the vicinity of these teeth.
3. Give an account of the typical characters of a mandibular molar tooth. What is the normal or usual relationship of the first to its maxillary opponent?
4.,\& 5. Two of the following questions :-
A. Give a brief account of the naked-eye anatomy of the trachea and main bronchi.
B. Enumerate the principal subdivisious of the alimentary canal, giving their exact location in the body.
C. Give an account of the naked-eye anatomy of the lachrymal apparatus.
D. Describe the arrangement of the great veins at the root of the neck and in the upper part of the thorax.

\section*{THIRD YEAR EXAMINATION.}

MATERLA MEDICA AND THERAPEUTICS.
1. Compare Nitrous Oxide and Ether as regards their effect on the heart's action and on respiration.
2. Describe carefully the more important precautions needful to be taken in making a hypodermic injection. Illustrate your answer in the case of Eucaine. Contrast the action of the latter with that of Morphine.
3. Write out a prescription containing Carbolic Acid as a mouth wash combined with some other suitable ingredient. Directions to the chemist to be in full in Latin, those to the patient in English. Explain the purpose aimed at by the ingredients.
Compare Glycerine, Glusidum and Syrup as sweetening agents, pointing out any relative advantages or drawbacks they may have.
4. Formic Aldehyde : Explain and describe the nature, also the actions and use of this in dentistry, especially noting any precautions needful.
5. Compare Tannic Acid, Alum, Adrenalin and Nitrate of Silver, applied locally, as astringents or constringents. Have any of these any value as antiseptics? If so, how?

\section*{PHYSIOLOGY.}
N.B.-In your answers give diagrams where possible.
1. Show how nitrogen is brought into the organic world, and tell why nitrogenous substances are so well adapted for the making of living matter.
2. Describe in detail the microscopical appearances presented by a vertical section of the alveolus of the jaw in the region of the incisors.
3. Coagulation of the blood-describe how it is effected, and tell what are its uses.
4. Show how the nerrous system regulates the action of the heart.
5. Describe in detail a movement of inspiration.
6. Describe the process of deglutition.
7. What relation exists between the functions of the skin and those of the kidney? Explain this fully.
8. Show how the voice is produced in the larynx, and how and where it becomes speech.
9. Tell what you know as to sensation in the regions of the - face, nose, mouth, and throat.
10. What is reflex action? Give a diagram, and describe what we know to be the simplest actual, not the simplest conceivable, reflex arc.

\section*{FOURTE YEAR EXAMINATION.}

SURGICAL ANATOMY AND OPERATIVE SURGERY.
1. Describe the course and branches of the Internal Pudic Artery, and its bearings on spurgical operations. Describe an operation for its ligature in any part of its course.
2. Describe in detail the most complete operation for the removal of cancer of the breast that you have seen performed, mentioning the structures divided in theorder of their division.
3. Describe the blood-supply and relations of the stomach, and the best method in your opinion of performing gastrostomy.
4. Describe the blood supply, and an operation for the complete remuval of the superior maxillary bone.

\section*{SURGERY AND SPECIAL DENTAL SURGERY.}
1. Mention the different conditions which may give rise to dry gangrene. Describe the appearance of the parts undergoing this morbid process. Discuss the treatment.
2. Describe the dislocations which may occur at the acromioclavicular joint. Give the differential diagnosis and treatment.
3. Write down all you know about traumatic aneurysm.
4. Describe the histology, symptoms, and treatment of nasopharyngeal polypus.

\section*{SURGICAL DENTISTRY.}
I. How would you diagnose a case of Acute Pulpitis from one of Acute Pericementitis?
2. Describe the appearance of a patient with unilateral dislocation of the mandible. What treatment would you adopt?
3. What effect may hereditary syphilis have upon the teeth? Discuss the question.
4. What are the functions of a bulb obturator in a case of cleft palate? Describe the relations of the obturator to the cleft and surrounding parts.
5. Give the diagnosis and treatment of a chronic apical abscess with fistula.
6. How may neuralgia, due to carious teeth, manifest itself? Explain the connection in each case.

\section*{MECHANICAL DENTISTRY. \\ PLATE WORK.}
1. How is a gold plate prepared for the attachment of artificial teeth with vulcanite, and what are the advantages of this type of plate denture?
2. Describe briefly the technique of the operation of "taking the bite" for an edentulous patient.
3. Describe the various methods that may be used to secure a die from an upper model with an overhanging alveolar ridge, particularly at the frontal portion.
4. In what cases is adhesion alone employed as a means of retention of full upper dentures, and what measures may be taken to increase the adhesion in a given case?
5. Describe briefly how you would obtain a plaster impression of an upper partial denture.

CROWN AND BRIDGE WORK.
1. Explain the advantages and disadvantages of a banded crown, and a pin-and-plate crown in the incisal region, and say what conditions would indicate the use of each.
2. Under what conditions is it advisable or permissable to place the crown on a tooth having a vital pulp?
3. Give the gauge and karat of gold used for the band and floor of a richmond crown, also for the outer and inner caps of a telescope crown.
4. Detail the construction of an all porcelain (baked) incisor crown.
5. Four upper incisors are missing, with considerable absorption of process.
What form of bridge would you employ to restore the contour? and give reasons for your choice.
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FACULTY OF MEDICINE.
PATHOLOGY.
1. Give an account of the bacteriology and pathology of Suppuration. How would you conduct a bacteriological examination of pus?
2. Name and describe the microscopic character of the pathogenic bacteria (not concerned in dental caries or suppuration) that may be found in the mouth.
3. Describe the tumours (new-growths) that may take origin from the structures of the jaw.

CLINICAL DENTISTRY AND ORTHODONTIA.
1. State the most suitable sites for the insertion of -
(a) Porcelain Inlays.
(b) Gold Inlays.
(c) Gold Fillings.
2. State methods of filling teeth with silicate cement, and the disadvantages, if any, of this material.
3. Give a short description of how to fill decidunus teeth.
4. Describe proper method of filling teeth with amalgam, and give two formulae of alloys.
5. State briefly, causes of irregularity of the teeth.
6. Give the main divisions of Angle's classification.

\section*{DEPARTMENT OF PHARMACY.}

> CHEMISTRY. BOTANY.
> As in First Year of Science.

MATERIA MEDICA.
1. How have attempts been made to secure uniformity of : strength in drugs? Illustrate your answer in the case of Opium and Red Cinchona Bark (B.P.), stating what the Pharmacopœia requires in each case.
2. What results when Phenazone is brought in contact with an aquéous solution of Nitrite of Sodium and Dilute Sulphuric Acid, also with Nitric Acid? Explain your answer. Describe and explain also the official test to secure absence of too much Phellandrene from Eucalyptus Oil.
3. How are the following prepared (B.P.): Red and Yellow Peroxide of Mercury, Ammoniated Mercury, Heavy Carbonate of Magnesia, and Toughened Caustic respectively? How does Oxalate of Calcium differ in appearance (microscopically) as seen in Squill, Rhubarb, and Belladonna Root respectively?
4. What are the sources respectively of Cassia Pulp, Witch Hazel Bark, Oil of Turpentine, Cochineal and Colocynth Pulp? State in each case the leading active principles.
5. To what substances are the terms Kino and Catechu applied in the Pharmacopœia (including addendum)? State their sources. How are they obtained? How does Scammony Resin differ from Jalap Resin as regards source and solubility?

\title{
FACULTY OF SCIENCE.
}

\author{
MATHEMATICS. \\ See under Faculty of Arts.
}

\section*{CHEMISTRY I.}

\section*{INSTRUOTIONS TO CANDIDATES.}
1. All Candidates (except Arts Students) sitting for examination in Chemistry \(\dot{\text { I. are }}\) io attempt at mosl etght questions, Time, THEEE hours. Engineering, Dentistry and Veterinary Science Studentsmay chose any questions they please, but Medical, Science, Agriculture: and Pharmacy Students must chose at least two of theirquestions from Section \(C\) (Organic).
II. Aits Students are to attempt at most six questions, chosen from any of the sections. Time, тwo hours.
III. All Students, who have permission to attempt ONE Section only, are to attempt three questions in the Section chosen. Time for one Section ons hour.
1V. Any Candidate exceeding the time allowed for his examination will be disqualified.
V. All Candidates must state their Faculty on their paper.

FI. Condidates who are being examined in a part of the subject only should state this on their paper.
FII. Equations to be given wherever possible. All questions have equal value.
Segtion A.-Non-Metals.
1. Describe how you would prepare and collect ammonia, starting from ammonium chloride. What action has ammonia on (a) hydrochloric acid; (b) chlorine?
2. What happens when water acts on each of the following substances-(a) sodium ; (b) sulphur dioxide; (c) nitrogen peroxide; (d) phosphorus pentoxide?
3. How is iodine prepared on the large scale? What action has chlorine on potassium iodide?

Section B.-Metals.
4. Describe what happens when each of the following substances is heated in air-silver, lead, copper, mercury, iron, lead nitrate, copper sulphate?
5. Describe the preparation of cast iron from iron ore. How does cast iron differ from chemically-pure iron?
6. Write down the chemical formula of each of the following substances-nickelous chloride, manganese sulphate, potassium thiosulphate, sodium bichromate, chromic sulphate. What is the action of sulphuretted hydrogen on ań aqueous solution of each of these?

Section C.-Organic.
7. What is the formula of methyl alcohol? Give any method of preparing it. What happens if it is oxidised?
8. What is the constitution of (a) acetamide; (b) urea? How may the amount of urea in a solution be determined?
9. How is common ether prepared? Give the properties of ether.
10. Benzene is acted on by chlorine. What is formed? What happens if the resultant substance or substances are treated with (a) potassium hydrate; (b) nitric acid?

Section D.-General.
11. Ten grams of phosphorus are set fire to in a bell-jar containing air. What weight of oxide is obtained ? Also, what amount of phosphoric acid would be obtained if the oxide were treated with water?
\[
[\mathrm{H}=1, \quad \mathrm{O}=16, \mathrm{P}=31 .]
\]
12. Ammonia is allowed to act on each of the following substances - hydrochloric acid, propyl iodide, magnesium sulphate solution. What action takes place in each case?

\section*{CHEMISTRY II.}

Equations to be given wherever possible.
1. Show, by meaus of constitutional formulæ the relationship between- (a) pyrrol and pyrrolidene; (b) cyclobutane and cyclobutone; (c) anthracene and anthraquinone; (d) tropine and ecgonine ; (e) purine and uric acid.
2. Give a constitutional formula for naphthalene, and show how this formula may be arrived at by a study of the properties and decomposition products of naphthalene.
3. What compounds are formed by the action of-(a) water on Grignard's reagent; (b) nitric acid on phenol ; (c) acetylchloride on aniline? Give constitutional formulæ where possible.
4. Describe the preparation on the large ecale of sodium ferrocyanide. How may sodium cyanide be prepared from this?
5. What action has water on each of the following substancessodium carbonate, aluminium chloride, chlorine peroxide, nitrogen peroxide, silicon tetrachloride, phosphorus pentachloride?
6. What is meant by the order of a chemical reaction? What would you expect to be the order of these reactions? -
\[
\begin{gathered}
2 \mathrm{H}_{2}+\mathrm{O}_{2}=2 \mathrm{H}_{2} \mathrm{O} . \\
3 \mathrm{HNCO}=\mathrm{H}_{3} \mathrm{C}_{3} \mathrm{~N}_{3} \mathrm{O}_{3} .
\end{gathered}
\]
7. Define the terms-Specific Volume, Molecular Rotation, Absolute Viscosity, Molecular Surface Energy.
How has this last-named property been applied to show the molecular condition of liquids?

\section*{CHEMISTRY III.}

Only six questions to be attempted. Equations to be given wherever possible.
1. Explain why the dissociation of a salt in aqueous solution increases with dilution. A \(\frac{1}{2}\)-normal solution of a salt is found to be dissociated \(80 \%\); what will be the dissociation in a \(\frac{1}{4}\)-normal solution?
2. What is meant by the "order" of a chemical reaction? Show how this can be determined.
3. A complex organic base is treated with acid so as to form a crystalline salt. Show how it is possible to determine the amount of free acid existing in an aqueous solution of the salt.
4. State what you know of the relations between the valency of elements and the crystalline forms of elements and compounds.
5. Write down the constitutions of each of the following sub-stances-sodium sulphite, calcium thiosulphate, sodium bichromate, red lead, pyridine, isatin, aceto-acetic ether.
6. What action has potassium hydrate on each of the following substances-chlorbenzene, benzylchloride, ethylchloride, benzene sulphonic acid, potassium propionate, phosphoric acid, nitrogen peroxide, zinc sulphate?
7. A substance containing carbon, hydrogen, and oxygen only, gives the following results in a combustion- \(\mathrm{C}=37.3 \%\), \(\mathrm{H}=12.8 \%\). The vapour density of the substance is 16 . What is the formula of the substance?
8. What is the action of potassium permanganate (a) in acid solution, (b) in alkaline solution, on sulphur dioxide?

PHYSICS I .

\section*{PASS, DISTINCTION, AND SCHOLARSHIPS.}
1. Give the dimensions of force and work, and tind an expression for the potential energy of a body of mass \(m\) when its centre of mass is at a height \(h\) above the earth's surface. Show, by reference to some simple case, that when in a position of stable equilibrium the potential energy of a body is a minimum, and explain, from an energy point of view, how it is that, when \(O\) and \(C\) atoms combine to form \(\mathrm{CO}_{2}\), there is an evolution of heat.
2. In a Boyle's law experiment the volume of gas under compression is 100 cubic centimetres when the difference of levels of the mercury in the two tubes is 76 centimetres; what will be the volume when the difference in the levels is 152 centimetres? Deduce from Boyle's law the modulus of incompressibility of a gas.
3. Give an explanation of the apparent attractions between floating bodies wet by the liquid. Find an expression for the excess of pressure inside a spherical bubble, and deduce an equation containing the new and original radii when two bubbles of the same radius coalesce, without loss of air, to form a single one.
4. The velocity with which a transverse disturbance travels along a stretched string is equal to \(\sqrt{ } \mathrm{T} / \sqrt{ } m\), where T is the tension and \(n\) the mass of the string per unit length; show how the pitch of the note given by the transverse vibration of a string depends on the length, the diameter, the tension, and the density of the material of which the string is made. Prove the statement given above for the velocity of a transverse disturbance.
5. According to the kinetic theory of gases the pressure is given by the expression \(p=\rho u^{2} / 3\), where \(\rho\) is the density, and \(u^{2}\) the mean of the squares of the speeds of the molecules;
calculate the value of \(u\) and the average number of collisions which a molecule makes per second in the case of air at \(0^{\circ} \mathrm{C}\). and under a pressure equal to that due to a column of mercury 76 centimetres high, under these conditions the density being 0.00129 , and the average distance which a molecule travels between successive collisions with other molecules, \(8 \times 10^{-6}\) centimetres. Prove the formula given above for the pressure.
6. Describe, with essential optical detail, the construction of the compound microscope, and find an approximate expression for the magnifying power. What is meant hy the longitudinal chromatic aberration of a lens? Explain how it is reduced in the case of the lens systems of optical instruments.
7. Give the definition of the difference of potential between two points, and deduce an expression for the rate at which heat is developed in a wire carrying a current. An iron wire and a copper one of the same length and diameter are joined in series, and a similar pair in parallel ; a current whose strength can be altered is sent through each pair, state for each case which wire will be the first to fuse as the current is increased, giving the theoretical explanation.
8. Describe the construction and give the theory of the Bell telephone.

\section*{PHYSICS II.}

\section*{FIRST PAPER.}

PASS.
1. Assuming that the time of vibration of a liquid drop, free from the action of gravity, may be represented by a single term involving only the radius, density, and surface tension, find by the method of dimensions the form of the expression. Show by the same method that if the resistance to the motion of a solid through a fluid may, in general, be given by a term involving only area, density, viscosity, and velocity, when the speed is such that the resistance is proportional to the square of the velocity the resistance is then independent of the viscosity.
2. Find an expression for the energy per unit volume stored in a twisted cylindrical wire in terms of the rigidity, radius, and angle of twist per unit length, proving any formulæ used.
3. What is meant by the statement that at \(0^{\circ} \mathrm{C}\). the viscosity of water is 0.018 ? Couette found the viscosity of water by determining the couple which had to be applied to a cylinder to keep it fixed while a coaxial cylinder rotated with constant speed, the space between the cylinders being filled with the water ; give in detail the theory of the method.
4. Find an expression for the change in the temperature of a wire due to a sudden pull, and show that the adiabatic Young's modulus of iron at \(10^{\circ} \mathrm{C}\). exceeds the isothermal modulus by about \(1 / 4 \%\), given that at \(10^{\circ}\) the isothermal modulus is \(1.96 \times 10^{12}\), the coefficient of linear expansion, 0.0000122 , the specific heat \(0 \cdot 109\), and the density 7.7 .
5. Find an expression for the effusion of a gas through a small orifice into a vacuum. Show how the times of efflux of equal volumes are related in the case of different gases, and explain any modifications that occur when the gases escape into a space containing another gas instead of into a vacuum.
6. From a consideration of the porous plug experiment find an expression for the absolute temperature in terms of the gas thermometer temperature. Given from the experiment that, if \(p_{1}\) and \(p_{2}\) denote the pressures expressed in atmospheres on the first and second sides of the plug, and \(\theta_{1}\) and \(\theta_{2}\) the corresponding absolute temperatures, \(\theta_{1}-\theta_{2} / p_{1}-p_{2}=0.285 \quad \theta_{0}{ }^{2} / \theta_{1}{ }^{2}\),
where \(\theta_{0}\) is the absolute temperature of melting ice, show that this latter temperatura does not differ from the air thermometer temperature by as much as \(1^{\circ} \mathrm{O}\). The thermal capacity of air at constant pressure is 0.2389 and the density at \(0^{\circ} \mathrm{C}\). and 760 mm ., \(1 / 773\).

\section*{PHYSICS II. SECOND PAPER. PASS.}
1. Find the dimensions of a quantity of electricity both in electrostatic and in electromagnetic measure, and show
that, if \(s\) and \(m\) are the numerical values of the same charge in electrostatic and electromagnetic measure respectively, \(1 / \sqrt{\bar{K}} \mu=s / m\) centimetres per second. Explain how the value of \(s / m\) can be practically found.
2. Find an expression for the capacity of the compound condenser formed from a series of insulated Leyden jars, (1) when all the similar coatings are connected together, (2) when the outside coating of the first jar is connected to the inside coating of the second, and so on.
3. An iron ring, with an air gap which subtends a small angle \(\theta\) at the centre, is wound with a solenoid and secondary coil for the purpose of the determination of the relation between B and H by the ballistic method; find an expression from which H can be calculated at each step in the experiment.
4. A wire whose mass is \(n\) grammes is bent into the form of a circle of radius \(a\), and is suspended by a thread, the time of vibration of the coil round the vertical suspension being \(t\) seconds; the plane of the circle is coincident with that of the magnetic, meridian and at the centre of the circle is placed a small compass needle. A current \(i\) is sent through the coil, which is kept in its original position by twisting the suspension through an angle \(\theta\), the magnet being then deflected through an angle \(\phi\); find expressions for \(i\) and \(H\) in terms of the given quantities, H being the horizontal intensity of the earth's magnetic field.
5. Show that a displacement of a circuit, carrying a current in a magnetic field, will be assisted or resisted according to whetier it increases or decreases the number of tubes of magnetic induction which pass through the circuit in the positive direction. Supposing the circuit is moving with the current constant, find a general expression for the work done during any displacement.
A line of induction is said to pass through the circuit in the positive direction when the direction of the tube is related to the direction of the current as is the longitudinal to the rotational motion of a right-handed screv.
1. Write a general account of the Infusoria.
2. Briefly describe the life-history of (a) the hydatid tapeworm (Taenia echinococcus), and (b) the Guinea worm (Filaria medinensis).
3. Describe the development of a starfish.
4. Describe the appendages of the head and thorax in a cockroach, and compare them with the corresponding structures in Palinurus and in a scorpion.
5. Give an account of the development of the chondro-cranium and describe the typical cartilage bones which may become formed in its walls.
6. What are the characteristic features of the fore- and mid-brain in an Elasmobranch, a Bird, and a Mammal ?

\section*{BIOLOGY I. B.-(Botany.) \\ Tlustrate your answers with drawings.}
1. Write a general account of the Cyanophyceæ, with a more particular description of Nostoc.
2. Compare the sexual organs and mode of reproduction in the Red Seaweeds with those in Penicilium or Eurotiun.
3. Describe the structure and life-history of Equisetum.
4. Describe the structure of the leaf of Pinus, and point out in *what respects it differs from that of an ordinary bifacial leaf. How do you explain the meaning of those differences in structure?
5. What is a racemose inflorescence? Describe the various types, with an example of each.
6. Give an account of the process of respiration in plants.

\section*{BIOLOGY II.}

FIRST PAPER.
1. Write an account of the life-history of Coccidium.
2. Describe the development of Clathrina (Calcarea) or Oscarella (Myxospongiæ).
3. Compare the structure of a Monozoan Cestode (e.g., Amphilina) with that of the Heterocotylea.
4. Give a short account of the structure of (a) the Chaetognatha, (b) Stratiodrilus.
5. Write an account of the digestive system of the Echinoderms:
6. Describe the organs of respiration in the Pelecypoda and the Gastropoda.

> BIOLOGY II.
> SECOND PAPER.
1.. Describe the structure of the foot in the dibranchiate and tetrabranchiate Cephalopoda.
2. Describe the development of a Scorpion.
3. Give a short account of (a) the Cladocera, (b) the Anaspidacea, (c) the Mysidacea.
4. Write a brief account of the products of metabolism in plants.
5. Describe three experiments which you have yourself performed or seen performed showing the action of external forces on the direction of growth of a growing organ.
6. Write short notes on (a) any changes in form and structure which accompany etiolation; (b) the assimilation of sugar by plants; (c) the effect of heat on the movements of protoplasm in the cell.

\section*{GEOLOGY I.}

Six questions only to be attempted.
1. Describe the mode of origin of various types of lakes. Give Australian examples where possible.
Explain how a large Swiss lake has probably been formed by the " diffluence" of ice masses.
2. What was Gondwana Land? Explain the nature of the evidence which has enabled geologists to approximately reconstruct the palæogeography of a large portion of the world during Gondwana time.
3. Show by means of a sketch map the positions of the chie artesian and sub-artesian basins of Australia, mentioning their respective geological ages. State what you know about artesian water in regard to-(1) the minerals
dissolved in it; (2) the theories as to the cause of its rise through (a) gas pressure; (b) rock pressure; (c) hydrostatic pressure; (d) hydraulic pressure.
4. Draw typical longitudinal and transverse sections of (a) a valley eroded by glacial action, and (b) one formed by stream action. Account for the difference.
5. What sedimentary rocks (a) of mechanical, and (b) of chemical origin may result from the disintegration and decomposition, due to weathering, of a two-mica granite containing both orthoclose and oligoclose?
6. If the sedimentary rocks, formed under the conditions mentioned in Question 5, were subjected to intense regional metamorphism, what new rock varieties and mineral species are likely to become developed?
Explain why felspars rarely form again in such metamorphosed sediments.
7. Explain and illustrate how river valleys may be modified as the results of (a) competition with other rivers; (b) warping. (flexing) of the earth's crust; (c) faulting; (d) invasions by flows of lava. Quote Australian examples where possible.
8. Describe the following, mentioning in each case the geological horizons of which they are characteristic, and any other fossil forms likely to be associated with them-Salterella, Diprotodon, Bronteus, Gangamopteris, Turritella, Stenopora, Trigonia, Halysites, Belemnites, Lepidodendron Australe, Orthoceras, Iguanodon.
9. What traces have been found respectively of (a) Palæolithic, and (b) Neolithic men in the Northern Hemisphere? What is known as to the probable original home of the men of the above geological epochs? ing the development of rivers and lakes between Mount Kosciusko and Moss Vale. What is the significance of disharmonic topography?
2. Describe the chief peneplains of Australia, and mention any evidence, physical or palæontological, by means of which the geological age of the peneplains can be approximately calculated.
3. Explain carefully, and illustrate with sketches, the topography of a region that has been heavily glaciated as compared with that of a region which has been subjected only to river and subaerial erosion. Account for the frequent occurrence of fragments of undecomposed minerals like felspar in glacial deposits.
4. Describe brielly the classification of the Radiolaria, mentioning the chief types of rock, to the formation of which they contribute. Give an account of the chief horizons of radiolarian rock in Australia.
5. Describe the chief structural characteristics and biological affinities of the Archaocyathince. Explain their geographical distribution and its significance.
6. Describe the Trias-Jura rocks of Australia and Tasmania, mentioning their most characteristic fossils. Indicate on the outline map supplied the areas occupied by this formation, and show any important faults traversing these rocks.
7. To what oscillatory movements has Australia been subjected, from the Gulf of Carpentaria southwards to Tasmania since the beginning of Cretaceous time: and in what way have those movements controlled river development?
8. In what parts of Australasia have red beds been developed in the past, or at present, and what is the climatological significance of the red beds?

GEOLOGY III. A.-PRINCIPLES AND PROBI.EMS OF GEOLOGY.

Six questions only to be attempted.
1. Describe the pneumatolytic theory of Volcanic Eruptions. How far does the vertical sequence of ores in veins agree with the phases of gaseous emanations during a volcanic cycle? Quote examples from Australia or elsewhere.
2. Explain and illustrate Nussbaum's views as to the origin of cirques, corrie lakes, and trogtäler.
3. Describe and mark on the accompanying outline map of Central and South America the chief tectonic units and trend lines. Compare the West Indian area with that of the area between Graham Land and Patagonia.
4. Explain any relations petrographic, palæontological or tectonic which have been proved to exist between Antarctica and Australia.
5. Explain and illustrate with sketches (1) Recumbent folds;
(2) Back folds; (3) Rotated folds; (4) Rolled out folds;
(5) Back-thrust of a broken yoke, as applied to an overthrust area of the earth's crust ; (6) Listric surfaces.
6. Discuss the theory of isostasy as applied to the earth's crust. To what extent has "Compensation" been reached as the result of the readjustment of the earth's crust under gravity in India, North America, and in deglaciated regions formerly covered with thick ice?
7. Mark on the map of the world the positions of the chief areas
- where the earth's crust has been (a) in tension, and (b) in compression respectively. What are Becke's and Suess' views as to the respective petrographic products of such regions? Give examples.
8. What evidence, in historic or geographical time, does inland Asia afford as to its past changes of (a) climate, and (b) topography? Explain the importance of the evidence of the Asiatic lakes, and lakes in general, as to changes of climate and topography.

\section*{GEOLOGY III. B.-PALEONTOLOGY.}

Six questions only need be attempted, but Nos. 6 and 7 must be included
1. Give a general account of the exoskeleton of the Trilobita.

Explain the close connection between the development and the scheme of classification.
2. Contrast the Nautiloidea and the Ammonoidea in (a) form of the conch, ( \(b\) ) geological range.
3. Give a brief account of the Telotrematous Brachiopoda. State their points of resemblance to other Brachiopoda types.
Illustrate your answer by drawings of five typical genera.
4. Trace the development of the hinge structure in the Pelecypoda. What is the value from (a) a geological, and (b) a biological standpoínt?

Illustrate your answer.
5. Describe fully the various types of shell developed in the Gastropoda. Give sketches of typical genera to illustrate answers.
6. What are the following fossils, their horizon, and characters of particular interest?

Receptaculites, Uncites, Keeneia, Naccoyella, 'Turrilites, Purisiphonia,

Deltopecten, Agnostus, Brachymetopus, Spirula.
7. In what connection is each of the following terms used?-

Chondrophore, acanthopore, hydrospire, palpebral lobe, syrinx, varix, pallial sinus, doublure, hyponome, madreporite.

GEOLOGY III. C. (Mineralogical).-OPTICAL MINERALOGY AND PETROLOGY.
1. What are the optic binormals (primary optic axes)? What are their properties, and how do these properties follow from the conception of the optical indicatrix.
2. Summarize very briefly the relationship between crystal form and thermal properties of crystals.
3. Describe Wright's modification of Becke's method for measurement of optic axial angle by means of curvature of the brushes.
4. Describe some of the modern methods of determination of the melting points and specific heats of minerals, and point out their importance in connection with the formation of igneous rocks.
5. Discuss the isomorphism of the plagioclases. Or discuss the part played by mineralizers in rock genesis.
6. Illustrate the use of variation: diagrams in the study of a petrographical province.
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\section*{DEPARTMENT OF VETERINARY SCIENCE.}

\section*{CHEMISTRY I. PHYSICS I. BIOLOGY I.}

As in First Year Science.

VETERINARY ANATOMY.
SIX questions only to be answered.
7. Describe generally the Lumbar Vertebræ of the Horse.
2. Describe the Semi-lunar of the Horse and name the bones with which it articulates.
3. Describe the upper extremity of the Femur of the Borse.
4. Describe the Turbinated bones of the Horse.
5. Compare the Scapula of the Ox, Pig and Dog respectively with that of the Horse.
6. Compare the Frontal Sinus of the Ox and Dog respectively with that of the Horse.
7. Name the different classes of joints and give an example of each.
8. Describe the ligaments of the Hip Joint of the Ox.

\section*{DEPARTMENT OF ENGINEERING.}

\author{
FIRST YEAR EXAMINATION.
}

CHEMISTRY I. PHYSICS I. MATHEMATICS I. GEOLOGY I. As in the Faculty of Science.

DESCRIPTIVE GEOMETRY AND DRAWING.
No written description of any kind is required. Accurrate draughtsmanship is absolutely essential.
1. A circle, 2 inches in diameter, rolls ( \(a\) ) on the outside, ( \(b\) ) on the inside, of the circumference of another circle 4 inches. in diameter.
Draw the path of a point on the circumference of the smaller circle in each of these cases.
2. A circular hoop, 5 inches in diameter, makes two completerevolutions at uniform angular velocity, about a vertical diameter, while a bead rolls uniformly down the half circumference of the hoop from its highest to its lowest. point.
Draw the plan and elevation of the path of the bead.
3. A bar of iron, \(\frac{1}{2}\)-inch square in section, is made into a spiral of 4 inches internal diameter, and \(1 \frac{1}{2}\) inches pitch. Draw two complete turns of the spiral in elevation.
4. Draw a quadrilateral from the following dimensions-
\(a b=2\) inches.
\[
\begin{array}{ll}
b c=2 \frac{1}{2} & , " \\
c d=3 & ", \\
d a=3 \frac{1}{2} & ",
\end{array}
\]

Mark the corners \(a, b\), and \(c\) with the numbers, 2, 1, and 3 respectively.

Assume this diagram as the "figured plan" of a quadrilateral ABCD. Find the number that should be written opposite the corner \(d\), and draw an elevation of the quadrilateral.
5. Obtain the projections of three spheres resting on the ground, each one of which touches the other two. The respective diameters are \(2 \frac{1}{4} \mathrm{in}\)., \(1 \frac{1}{2}\) in., and 1 in .
Show the projections of the points of contact.
6. Obtain the plan, elevation, and end view of a cube, the lengith of whose sides is 3 inches. The plane of the base is inclined at an angle of 60 degrees to the horizontal, and one edge of that base is inclined at 30 degrees.
7. Assume the vertical and horizontal traces, \(v t\) and \(t h\), of an oblique plane, and determine the following-(a) the real angle between the traces, vth; (b) the inclination of the given plane to the vertical plane.
8. Obtain the isometric projection of a rectangular stone slab with an elliptical hole cut symmetrically through it.
Assume all necessary data.

\section*{DEPARTMENT OF ENGINEERING.}

\section*{SECOND YEAR EXAMINATION.}

\section*{CHEMISTRY.}
1. What is an alloy? State the general rules for making alloys. Name, giving approximate compositions, the chief alloys in which copper is a main constituent.
2. Describe how one kind of artificial gaseous fuel is made, and state how you would take and analyse a sample of flue gas.
3. What are the chief impurities found in natural waters, and how are they harmful? Describe briefly how water could be treated to make it suitable for boiler purposes.
4. What is an explosive? Give the names and constituents of the common nitro-explosives, and describe the manufacture of one of them.
5. The following curve represents the melting points of the series of alloys formed by two metals. What do you learn from the curve, and what would be the appearance under the microscope of prepared specimens of the compositions marked \(A, B\) and \(C\) ?


\section*{PART A.}

All the designs jor the following questions are to be to a scale suitable for the cartridge paper you are working on. You are in each case to describe your method of procedure, giving calculations necessary, and showing how you proceed with the design in detail, giving sletches as reouired.
1. A small hoisting crab is required for lifting work in and out of a machine. It is carried on a wall crane, the lower member of which is formed from a 12 in . I-beam, weigh ing 40 lbs . per foot. The flanges of the I-beam are \(5 \frac{1}{4} \mathrm{in}\). wide, \(\frac{7}{8}\) in. thick at the centre, \(\frac{7}{8}\) in. thick at the edges, and the web is \(\frac{1}{2}\) in. thick. The crab is to run on the bottom flange of the I-beam, is to be capable of handling a load of \(4,000 \mathrm{lbs}\). and to be worked from the floor level by means of a chain. Design a suitable crab and hoisting gear. The height from the floor to the under-side of the I-beam is 14 ft .

2. Design a friction clutch (suitable for a motor car) to transmit \(16 \mathrm{~h} . \mathrm{p}\)., at 1,000 revolutions per minute; the co-efficient of friction between leather and cast iron may be taken at
oii.
\(0 \cdot 3\), and the angle between the axis and the side of cone may be from \(10^{\circ}\) to \(15^{\circ}\). The clutch is to be kept in operation by means of a spring, and you must muke suitable provision for carrying the end thrust.
3. Design a screw jack to take a load of ten tons, allowing that 40 lbs . can be exerted on the handle. A total lift of 15 in., and a transverse motion of 18 in . is to be provided for.

PART B.
The drawings for the following are to be made to such scales as are suitable for the paper provided, and are to be fully detailed. All calculations, dc., are to be given.
1. A bearing and pedestal are required for a \(4 \frac{1}{2}\) in. shaft running at 350 revolutions per minute. The centre of the bearing is 2 ft . above floor level. A load of \(8,000 \mathrm{lbs}\). may be applied to the bearing in any direction except end-wise. Provision for continuous oiling must be inade either by chain, ring, or forced lubrication. Design the bearing and pedestal.
2. A steam engine cylinder is carried on four steel columns, the centres of which lie on a circle of \(5 \frac{3}{4} \mathrm{in}\). radius from the centre of the cylinder. The conditions governing the design of the cylinder are as follow-Steam pressure, 160 lbs . per sq. in. ; diameter of cylinder, 5 in . ; stroke, 4 in.; mean cut-off, '65; revolutions per minute, 750. A slide valve of either the piston or flat \(D\) type may be used.
3. Design a \(2 \frac{1}{3}\) in. screw-down non-return valve suitable for a pressure of 250 lbs . to the sq. in.

> PHYSICS II.
> As in the Faculty of Science.

INTRODUCTORY COURSE IN CIVIL ENGINEERING.
Only five questions to le attempted.
1. Make sketches illustrating the method of constructing a timber viaduct to carry a railway over a small stream or river. Show also how you would determine the area of the water-way necessary to discharge the flood water. What data would you require?
2. How do you determine the resistance due to grades, curves, and the acceleration of the train? Explain the method of adjusting or compensating for grades when they occur on a curve so that the total resistance is equal to that on thie ruling grade.
3. Explain the terms: cylinder power, adhesion, tractive force, and boiler power, as applied to the locomotive engine, and express them by means of equations.
An engine having two cylinders 20 inches in diameter by 24 inches stroke, a mean pressure of 120 pounds per square inch, and driving wheels 4 ft .6 in . in diameter. is nsed to haul a train up a grade of 1 in 110 . What is the maximnm load that can be hauled, and what is the weight on the driving wheels, if the coefficient of adhesion is \(\frac{1}{4}\) ?
4. Make sketches illustrating the method of timbering a tunnel driven through stiff clay, previous to lining it with brickwork. Describe the method of driving a tunnel through hard rock.
5. Make sketches illustrating the construction of au earthen dam for a storage reservoir, showing the method of drawing the water off from the reservoir. Show also the waste weir and bye wash, and the method of constructing these works, assuming all necessary data.
6. Calculate the velocity and the discharge in cubic feet per second of the following works :-
(a) A circular sewer, lined with cement mortar rendering, 4 feet in diameter, grade 1 in 2,000 , when runining half full.
(b) A pipe, in good condition, 2 feet in diameter, on a grade of 1 in 1,000 .
(c) A weir of rectangular cross-section, 100 feet wide, depth of crest below still water 1 foot.
7. Describe the method of constructing ordinary sand filters, settling and clean water reservoirs or tanks, and illustrate your remarks by means of sketches.

\section*{MECHANICAL ENGINEERING I.}
1. (i) A rope brake wraps right round a 4 ft . fly-wheel, as is done on the experimental engine in the laboratory, and a weight of 200 lbs . hangs vertically at the lower end,
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while a spring balance to which the upper end of the brake is attached reads 20 lbs. Neglecting the weight of the rope, find the tension in the rope at the highest and lowest point of the periphery of the wheel.
(b) A locomotive, of weight 60 tons, runs round a curve of \(1,000 \mathrm{ft}\). radius at 30 miles an hour; what is its centrifugal force? What should be the super-elevation of the outer rail?
(i) A chain 300 ft . long (and weighing 20 lbs . per foot) hangs vertically down a shaft. What amount of work is done in winding in 70 ft . of the chain, thus leaving 230 ft . hanging in the shaft?
2. "For any train of spur-wheels, whatever wheels it may actually consist of, there may always be supposed substituted, for kinematic or mechanical purposes, one pair of wheels of known radii and centres, these wheels corresponding to the centrodes of the first and last wheels of the train."
Explain and discuss this statement, illustrating your remarks by neat sketches.
3. The following are the dimensions of the links of a levercrank mechanism, of which \(a\) is the fixed link-
\[
\begin{aligned}
& a=10 \text { inches. } \\
& b=30 \quad, \\
& c=20 \quad \text { ", } \\
& d=25 \quad \text { ", }
\end{aligned}
\]

If \(b\) moves at the uniform rate of 50 revolutions per minute, find, at the moment when \(b\) is at right angles to \(a\) -
(i.) 'Ihe linear velocities in feet per second of the middle points of \(b, c\), and \(d\).
(ii.) The angular velocity of \(d\) in revolutions per minute.
4. What is the relationship between the pressure, volume, and absolute temperature of 1 lb . of air? Find the volume of 1 lb . of air at two atmospheres pressure, and 50 deg . F . It receives heat energy equivalent to \(1,000 \mathrm{ft}\). lbs., its volume remaining constant. Find its new pressure and temperature. The specific heat of air at constant pressure is 0.238 .
5. Describe, with the aid of sketches, Savery's engine of 1698 , and its modern representative, the pulsometer. Give any particulars you may be acquainted with as to the efficiency of the latter, and state under what circumstances you would recommend its use.

\section*{MATERIALS AND STRUCTURES.}

Only four questions to be attempted.
1. Make a sketch of a Pratt truss 175 feet span, and 3.5 feet deep, suitable for a thorough railway bridge, carrying a single line of way.
Leugth of panels, 25 feet; dead load, assumed to act at the bottom panel points, 30,000 pounds ; live load, 80,000 pounds, also acting at the bottom panel points. Calculate the maximum stresses in the centre panel for the horizontal, vertical and diagonal members, also the stresses in the end panels.
2. Referring to Question 1, calculate the maximum deflections at the centre.
3. Show how you would determine the maximum stresses in a parabolic or bow-string truss, loaded at the panel points with 2 and 12 tons dead and live loads respectively. Only one member of each kind need be dealt with.
4. Establish the equations for slope and deflection for a beam supported at each end, and loaded with a uniformly distributed load-
(a) Neglecting shearing stresses.
(b) Considering shearing stresses.
5. Write down the equation of three moments, and apply it to a continuous girder of two spans loaded uniformly \(l=100\) feet, \(w=2\) tons per foot lineal. Determine the maxima momeuts and shears. and pressure on the central pier.
6. Investigate the stresses in a short column of masonry under an eccentric load, and explain the use of straight line formulæ for calculating the safe working stress in the design of long columns, stating their limitations.
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DEPARTMENT OF ENGINEERING.

\title{
THIRD YEAR EXAMINATION.
}

MATHEMATICS.
See under Faculty of Arts.
SURVEYING I.
Candidates require scale, compasses, and logarithm tables.
1. Describe, and illustrate by diagrams, five well-known methods of fixing a point.
2. Name and quote the signs of the coördinates in the eight octants of space, and illustrate by diagram.
3. Write a short treatise on hypothenensal chaining with long steel ribands, noting the errors to which such work is liable, how they are to be avoided, or eliminated, or compensated, quoting the various formulæ in full.
4. A steel tape, 300 ft . in length, is one inch longer than standard at a temperature of \(60^{\circ} \mathrm{Fahr}\). when subject to a tension of 30 lbs . At what temperature would it be standard length when subject to a tension of 15 lbs ., the weight of the tape being 005 lbs. per lineal foot?
5. Give a diagrammatic illustration of the sextant. Describe the principles of its construction, and the adjustments. Show how it can be used for taking an altitude of the sun on land.
6. Show how you would obtain the distance between two points on opposite sides of a river with the chain only, and alternatively with theodolite and chain.
7. Write what you know about the declination of the magnetic needle, its secular, annual, and daily variation, stating which of the former mostly affects the work of the surveyor, and why?
8. Give the adjustments of the transit theodolite in the order in which you would perform them, stating your reasons for so doing.
Explain what errors can be eliminated, and how, when observing horizontal angles, and running straight lines, with the theodolite.

\section*{SURVEYING II.}
1. Describe the process of determining (a) the error of centring. of a graduated circle of an altazimuth, (b) the error of position of micrometers, and (c) the graduation errors.
Given the following circle readings, find the amount and direction of the eccentricity, and also the angle between the micrometers-
\begin{tabular}{ccr}
\multicolumn{4}{c}{ Micrometer A. } \\
\(0^{\circ}\) & \(0^{\prime}\) & \(4 \cdot 0^{\prime \prime}\) \\
\(90^{\circ}\) & \(0^{\prime}\) & \(6 \cdot 9^{\prime \prime}\) \\
\(180^{\circ}\) & \(0^{\prime}\) & \(3 \cdot 3^{\prime \prime}\) \\
\(269^{\circ}\) & \(59^{\prime}\) & \(59 \cdot 4^{\prime \prime}\)
\end{tabular}

Micrometer B.
\(179^{\circ} \quad 59^{\prime} \quad 53 \cdot 3^{\prime \prime}\)
\(269^{\circ} \quad 59^{\prime} \quad 45 \cdot 0^{\prime \prime}\)
\(359^{\circ} \quad 59^{\prime} \quad 43 \cdot 5^{\prime \prime}\)
\(89^{\circ} \quad 59^{\prime} \quad 58 \cdot 4^{\prime \prime}\)
2. If the mean value of an angle from the observations be, say, \(30^{\circ} 41^{\prime} 10 \cdot 5^{\prime \prime}\), and the residuals regardless of sign be \(1 \cdot 3^{\prime \prime}, 1 \cdot 2^{\prime \prime}, 0 \cdot 2^{\prime \prime}, 0 \cdot 6^{\prime \prime}, 0 \cdot 9^{\prime \prime}, 1 \cdot 6^{\prime \prime}, 1 \cdot 0^{\prime \prime}, 1 \cdot 1^{\prime \prime}, 0 \cdot 2^{\prime \prime}\), and \(0 \cdot 5^{\prime \prime}\), what is the "probable error" of a single observation, and what is that of the mean?
3. What are the principal advantages to be obtained by the use of invar in the measurement of base lines? Why is it not a suitable material for primary standards of length?
4. How does irregular distribution of the surrounding hill masses affect astronomical observations of, say, latitude and longitude? Give instances, where such effects have been observed, and of similar effects leading to the supposition of variations of sub-surface density.
5. Write a short article on the determination of heights by thermometric levelling, aud the mercurial barometer
6. Give the derivation of the barometrical modulus in the formula \(h=60158 \log \frac{p_{0}}{p}\).
State any abbreviated formula you may know for the difference of height of two stations at which the barometer readings have been taken.
7. Write a short article descriptive of the method you would adopt for gauging a stream by means of rod Hoats.
8. Describe the field operation you would undertake in the surveys preliminary to a study of river improvement.
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DEPARTMENT OF ENGLNEERLNG.
CIVIL ENGINEERING II. A.
Only five questions to be attempted.
1. Write down the equations for Tractive Effort in a locomotive, as developed in the cylinders, the boilers, and adhesion due to load on driving wheels.
Give the proportions of grate area to heating surface in some modern locomotives, and explain why it is not possible for the boilers to produce enough steam to utilize the available tractive force when the speed exceeds 15 miles per hour.
2. Write a brief account of the resistance to be overcome by a locomotive, and quote formulæ for train, curve, grade and acceleration resistances.
3. Describe briefly the Westinghouse Automatic Brake for railways, and illustrate your remarks by means of sketches.
What are the essential points to be observed in regard to the stopping and regulating the speed of trains? A train, with 60 per cent. of its weight braked, descends a grade of 1 in 100 at a speed of 40 miles an hour. What distance will be travelled after the brakes have been fully applied, if the efficiency of the brake is 14 per cent.?
4. Make sketches showing the cross-section of a permanent way for fast traffic. Sketch also the rail joint, and specify the tests for the manufacture of the rails.
Make an outline sketch of the points and crossings in an ordinary cross-over road, also the special arrangements at terminal stations in regard to facing points.
5. Write a brief account of railway construction in mountainous countries, and discuss the Fell and the Rack systems, also the special features of the locomotives used in each case. What are the main advantages of such locomotives as the Mallet and the Shay?
6. Write an essay on one of the following subjects :-
(a) The Block system, and interlocking of points and signals.
(b) The modern compound locomotive engine.
(c) The design of culverts and openings through embankments in regard to the flood discharge of the various streams.
(d) The balancing of the revolving and reciprocating parts in a locomotive.
7. State the various items which make up the total of "Rise and Fall." Compare two lengths of railway, one level, and another rising and falling 1,000 feet in 20 miles, the maximum height being at the centre, having given the following data :-
Weight of engine and train \(=400\) tons.
Mean speed over the 20 miles \(=18\) miles per hour.
Minimum speed on up grade \(=12\) miles per hour.
Coal consumption, 4 lbs. per effective horse power.
Cost of coal, 12/- per ton.
Cost of water, 30 per cent. that of coal.
Train resistance, 9 lbs. per ton.
8. Describe the main features of the locomotive suitable for the following purposes:-
(a) For hauling freight trains weighing 500 tons, on grades of 1 in 40 , at 12 miles an hour.
(b) For passenger service, at 50 miles an hour, on grades of 1 in 60 .
(c) For suburban passenger service, such as between Sydney and Parramatta.

\author{
CIVIL ENGINEERING II. B.
}

Only six questions to be attempted.
1. Describe the methods in use for the construction of large earthwork dams, and compare their advantages and disadvantages. State the precautions necessary to ensure water-tightness, and show how to design the "waste weir," "bye wash," and the outlet works for the supply of a town.
2. Make a sketch showing the cross-section of a water channel on a grade of 1 in 1000 to discharge " 15 cnsecs"(a) when constructed with concrete; (b) when constructed in porous earth in embankment.
3. Make sketches showing how you would construct a cofferdam for building a bridge pier in a river with a moderate current and depth of water. Describe the method of driving the piles.
4. Describe, and illustrate by means of sketches, the Worthington High Duty Pumping Engine, and explain how it is able to work economically.
5. Write a description of the various types of breakwaters which have been built in various parts of the world, illustrating your remarks by means of sketches.
6. Write au essay on one of the following subjects-
(a) Improvements of the Entrances of Tidal Rivers.
(b) Sewage Farms, Septic Tanks, and Filter Beds for Sewage.
(c) The separate and partially separate systems as applied. to the Sewerage of Country Towns.
(d) Ship Canals.
7. Explain the following terms-Duty of Water in an Irriga-tion System; Inuadation and Perennial Canals. Make a sketch showing a weir under sluices and canal head regular, in any irrigation eystem with which you are acquainted. Explain fully how the river channel is regulated, and silt excluded from the canal.
8. Make a diagram sketch illustrating the construction of Stoney's sluice gate, and sketch also the methods adopted in India for raising and lowering the gates in the river under-sluices and the canal regulator.
9. What considerations would influence you in the design of an escape on a canal, a syphon under a canal, and a superpassage to carry a mountain torrent over a canal, or a canal over a river? Illustrate your remarks by means of sketches of some well-known example:
10. Write a short description of the Barren Jack Irrigation Scheme, and the various works for regulating the supply and distributing the water.
11. What are the principal sources of loss of water in an irrigation system? Discuss each separately, and state its probable amount, and the methods adopted for reducingthe loss of water in India. Sketch the cross-sections of a main canal, a distributary, and show how you would lead the latter from the former, also the outlets to the field water courses.
12 Make cross-sections showing the design of Indian weirs, in fine sand foundations. Show also a needle weir.

\section*{CIVIL ENGINEERING III. A.}

Only five questions to be attempted.
1. Show how you arrive at the following equations in regard to the slope and deflection of a beam :-
\[
\begin{aligned}
& i=\int \frac{\mathrm{M}}{\mathrm{EI}} d x \\
& v=\iint \frac{\mathrm{M}}{\mathrm{EI}} d x_{2}
\end{aligned}
\]

Find an expression for the deflection of a rectangular beam when loaded at two points, dividing the span into three equal parts.
2. Make an outline sketch of a Pratt truss suitable for a through bridge, to carry a single line of railway, and show how to calculate the stresses for the live and dead loads, assumed to be 80 and 20 units respectively acting at the bottom panel points.
Span \(=175\) feet. Depth \(=30\) feet. 7 panel lengths each \(=25\) feet 1 unit= 1000 pounds.
3. Referring to question 2, calculate the deflection at the centre.
4. Write an essay on the various methods proposed for calculating the safe working stresses in long .columns, and show how you would design. a column in a bridge, 60 feet long between pins, to carry 300,000 pounds equivalent dead load.
.5. State the manner in which you would provide for wind pressure in a Pratt truss bridge, and show how to calculate the stresses in the top and bottom lateral systems, also the sway and portal bracing.
6. Design by means of sketches, giving all necessary dimensions, a retaining wall 50 feet high when the slope of the earth at the top of the wall is horizontal, having given angle of repose of earth 45 degrees, safe pressure on foundations 4 tons per square foot.
7. Show how to design a masonry dam for a large storage reserroir. Give all the necessary equations for the determination of the thicknesses at various levels, and illustrate how you would apply them by working out a few examples. Assume all necessary data.
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DEPARTMENT OF ENGINEERING.
8. Write an essay on the properties of reinforced concrete as shown by tests in tension, compression, and crossbreaking.

Develope the equations for the design of a rectangular beam, stating the various assumptions involved.
Design a beam 12 inches wide to carry safely a dead load of 300 pounds per lineal foot on a span of 20 feet, having-given:-
\[
\begin{aligned}
& \sigma_{c}=500 \text { pounds per sq. in. } \\
& \sigma_{s}=1500: ", \quad " \\
& \overline{\mathrm{E} \delta}=m=10 . \\
& \overline{\mathrm{E} c}=m=1
\end{aligned}
\]
CIVIL ENGINEERING III. B.

1. The truss shown in sketch indicates a span of a railway bridge carrying a single line of way and Cooper's \(\mathrm{E}_{50}\) Standard loading. Establish the criterea-
\[
\begin{gathered}
\frac{l_{1}}{l}=\frac{\mathrm{P}}{\mathrm{~W}} \\
\mathrm{~W}-n \mathrm{P}\left(\frac{l+g}{g}\right)=\text { a minimnm } .
\end{gathered}
\]

Calculate the live load stresses in the members \(\mathrm{U}_{2} \mathrm{U}_{3}, \mathrm{U}_{2} \mathrm{~L}_{3}\), \(\mathrm{U}_{3} \mathrm{~L}_{9}\), and \(\mathrm{L}_{2} \mathrm{~L}_{3}\).
2. Show how to determine the value of the horizontal thrust in a parabolic arch rib, hinged at the springing, when. loaded with a single concentrated load. Show also how todetermine points in the reaction locus curve. How would; you determine the horizontal thrust due to a change in. temperature?
Or,
Make an outline sketch of a three-hinged braced arch, and: show how you would determine the stresses in the four members of any panel for live and dead loads. Assume all necessary data.
3. Write a description of the method of designing a masonry dam, giving full information in regard to the determina-tion of the maxima stresses.
4. Show how you would determine the stresses in the stiffening truss of a suspénsion bridge under partial loading(a) when hinged at the centre; (b) when continuous.
5. A continuous girder consists of three spans of 100,150 , and 100 feet respectively. - Determine the curves of bending moments and shearing stresses, when the middle span is loaded with a uniformly distributed load of one ton perfoot, and each side span with a concentrated load of 50 tons at points 60 feet from the ends of the first and third spans respectively.
Or,
Write a description of the design of modern swing bridges, and the method of calculating the stresses in a partially continuous bridge.

\section*{MECHANICAL ENGINEERING II. \\ FİRST PAPER.}

Good answers (not necessarily long ones), are expected to four questions.
1. (a) Prove the following proposition-

The disturbing force on the frame of an engine due to the reciprocation of a mass \(M\); is equal to the disturbance which would be produced by the component of the centrifugal force in the line of stroke, due to an equal mass \(M\), supposed concentrated at the crank pin of theengine.
(b) Explain how you would determine the balancing mass. for either of the large gas engines in the laboratory.
cxiv.
2. Determine the balance weights necessary for an inside cylinder locomotive with the following data-
Stroke . . . . . . . 26 inches.
Distance centre to centre of cylinders 2 feet.
Distance between the planes containing the mass centres of the balance weights .. .. .. ..
Mass of unbalanced revolving parts per crank-pin reduced to 13 inches radius .. .. .. .. 640 pounds.
Mass of reciprocating parts per cylinder at crank radius.. .. . . 560 pounds.
Proportion of reciprocating parts to be balanced .. .. .. .. two-thirds.
3. (a) Describe briefly the equipment necessary for compressing air, and transmitting it to various air motors.
(b) Explain in detail, with accurate diagrams, the use of inter-coolers and pre-heaters.
(c) Describe briefly any system of pumping water by means of compressed air.
4. (a) Show that the efficiency of a Pelton wheel is a maximum -neglecting frictional and other losses-when the velocity of the cups equals half the velocity of the jet.
25 cubic feet of water are supplied per second to a Pelton wheel through a nozzle, the area of which is 44 square inches. The velocity of the cups is 41 feet per second. Determine the horse-power of the wheel, assuming an efficiency of 75 per cent.
(b) Hot water escapes into a sump at a temperature of 140 deg. F., and has to be lifted vertically 21 feet. Determine if this could be done with a suction pump in the locality of Sydney.
5. (a) Describe by means of accurate sketches the construction of any type of direct-acting steam pump.
(b) Describe by means of sketches and diagrams the construction and principles of operation of the Worthington "high duty attachment" for steam pumps.
(Written descriptions are not required).
6. (a) Write a brief account of the different classes of water turbines in common use.
(b) Explain the principle of the suction or draught tube.
(c) Draw a neat diagrammatic section to illustrate the operation of an hydraulic ram using dirty water from one source to pump clean water from another.

\section*{MECHANICAL ENGINEERING II. SECOND PAPER.}
1. (a) "Dry steam which expands adiabatically becomes wetterunless it is very wet to commence with, when it becomes. dryer." Explain this statement carefully by means of an entropy temperature diagram.
(b) Explain precisely why it has been proposed to use binary vapour engines.
(c) Compare'air, water, ammonia, carbon-dioxide, and sulphurdiowide as working substances in a refrigerating machine.
2. What steps would you take in the design of a fly-wheel for a specified fluctuation of speed in the case of --
(a) A simple steam engine.
(b). An Otto gas engine.
3. A gas engine using the Otto cycle has 25 per cent. clearance, and takes in its charge at 14.7 Ibs. per square inch, and at 60 deg . F. Determine the pressure and temperature at the end of compression.
If the charge consists of one part of gas to nine parts of air, and the heat of combustion of the gas is 600 B.T.U. per cubic foot, find the temperature and pressure at the end of explosion, and at the end of the expansion period.
What is the efficiency of the cycle?
If the cylinder diameter is 18 inches, and the stroke \(24^{\prime}\) inches, what is the indicated horse power at a speed of: 150 revolutions per minute.
4. (a) Draw a neat section,-approximately to scale, through the National Company's suction gas producer.
(b) Describe very precisely the various chemical reactions. taking place in the producer when working under normal circumstances.
5. Describe the construction and operation of-
(a) The Diesel oil engine.
(b) A refrigerating machine using ammonia as the working substance.

\section*{ELECTRICAL ENGINEERING I.-DIRECT CURRENT.}

Eight questions ondy to be attempted.
1. Give a concise account, with sketches, of the requirements of fuses and switches for voltages as higb as 300 .
2. Explain the theory of the storage battery.

Draw up a set of working instructions for a battery attendant of an isolated plant; give also a statement of the records and test of the battery which you would require.
3. Several lifts, as well as general lighting, being supplied from a small generating plant, discuss the. advisability of installing a battery and booster set, giving a neat diagramatic sketch of necessary switchboard and instruments.
4. Derive from first principles an expression for the E.M.F. of a direct current generator. Explain the action of inter-poles, showing by a diagram how they are excited relatively to the main poles.
5. Explain the advantages of the three-wire system, and the general arrangements of switch and distribution boards, also the connection of supply meters, in a warehouse using lifts, motors and general lighting.
6. Give an account of the insulation of cables, and explain the detail of tests which are usually specified.
7. Define the terms: Mean Spherical and Hemispherical - Candle-power, and explain how their values would be determined for a lamp.
Compare the distribution of light from the usual forms of incandescent and arc lamps.
8. Explain the theory of a method by which the insulation resistance of a two-wire system may be determined by means of a high-resistance voltmeter.
9. Give an account of the methods which are in use for controlling the speed of one or more motors.
10. Explain the method you would use to determine the efficiency of a motor, giving full experimental details.

ELECTRICAL ENGINEERING I.-ALTERNATING CURRENT.
Erght questions only to be attempted.
1. An alternating current of sine shape is passed through a coil of known resistance and self-induction. From first principles, using sine curves, show how to determine the E.M.F. Explain the corresponding representation by vector diagrams.
2. Define and explain the terms power-factor, equivalent resistance and self-induction, wattless-current. Describe the experimental detail of the manner in which you would determine these quantities for a coil at a given periodicity.
3. Determine the self-induction of two parallel wires of given length, with given distance between wires. With a constant load of varying power-factor at the receiving end, show how to determine the necessary voltage at the generator end of the line, to maintain constant voltage at the receiving end.
4. Explain the theory of the constant-potential transformer ; what is the effect of magnetic leakage, and how is it reduced?
5. Show that a synchronous motor will run at no other than synchronous speed. Explain the effect of varying the excitation of the motor.
6. Explain the theory of the Thomson Watt-hour Meter when used for A.C., and describe how the instrument could be calibrated for a load of given power-factor, without supplying full power.
7. Explain the action of a constant current transformer, also a boosting transformer.
8. Compare the advantage of a three phase over a single phase transmission. Deduce the relations between the line currents and E.M.F.'s, and the similar quantities in a star and a mesh load.
9. Give the general methods of power measurement in a three phase system.
10. Explain the action of a three phase induction motor, and describe the methods for starting such motors.
exviii.

Six questions only to be attempted.
1. Describe and sketch the system of shoring trenches on excavations in (a) firm, (b) loose, and (c) very wet soil.
2. Describe the materials, mixing and laying of cement concrete in foundations.
3. Describe and sketch the best bond for (a) 9 in. brick wall of house; (b) 18 in . brick wall of factory.
4. Describe shortly the characteristics of good building stones.
5. Sketch and describe the different varieties of stone walling.
6. Name six of the principal hardwood timbers of Australia, and six soft or imported woods in general use, and give. their characteristics and uses.
7. Sketch a single floor to an upper room 18 ft . \(x 14 \mathrm{ft}\), with projecting chimuey breast and fire-place therein. Figure sizes of timbers, and sketch details of joints.
8. Describe the materials generally available for covering roofs. in Australia, how they are laid, and the advantages and defects of each.

\section*{BUILDING CONSTRUCTION II. \\ Threse questions only to be attempted.}
1. Describe and illustrate by sketches how rising, falling, ordriving wet may be kept out of brick buildings.
2. Sketch the construction of a roof to an engine shed of 40 ft . span, figure the sizes of timbers, give enlarged sketches. of joints, and describe any special points requiring attention in the construction.
3. Describe and sketch the formation of a wooden dog-legged staircase, of two flights, rising 11 ft . in height, and fitted into a space 7 ft . wide. Figure thicknesses of parts.
4. Describe the materials needed for, and the usual mode of: plastering ceilings and walls inside a house.

\section*{HISTORY OF ARCHITECTURE.}

There auestions only to be attempted.
1. The Romans used both domes and vaults. . Where and how were they subsequently developed, and with what. results?
2. Describe and sketch a typical Greek temple.
3. What are the essential features of mediaeval architecture?
4. What are the principal differences between the Renaissance architecture of Italy, France, and England?

\section*{MINERALOGY.}
1. Describe three methods for determining the specific gravity of minerals. What special precautions would you adopt -(a) if the mineral were soluble in water; (b) if the mineral were powdered?
2. What is meant by the following terms-pyroelectric, oscillatory combination, paramorphism, hemimorphic crystals.
3. What metals occur in moderate abundance in the free state as minerals? Group them in isomorphous lines, and state the system of crystallization in each case.
4. Enumerate and describe the principal minerals in which silver is an essential constituent.
5, Give the composition, colour, lustre, and specific gravity of the following minerals-atacamite, stannite, selenite, rhodonite, bóurnonite, bauxite, willemite.
6. Give an account of the isomorphism which prevails amongst the sulphur-arsenic-antimony compounds of iron, nickel, and cobalt.

\section*{\(\dot{G} E O L O G Y\) II. A.-(ECONOMIC).}
1. Describe the chief interruptions in the continuity of coal seams in New South Wales.
2. What information can microscopic examination of thin sections afford as to the suitability of a given rock for use as a building stone?
Discuss the characteristics of the principal rock-forming minerals from the point of view of their effect on building stones.
3. For what purposes are gypsum and soda nitre, respectively, used? Where and how do they occur in economically. important amounts?
4. Describe the effect of descending water in the secondary enrichment of ore deposits.
exx. : DEPARTMENT OF ENGINEERING.
5. Describe the mode of occurrence of gold in the Kalgoorlie region, and account for the presence of methane and deep-seated carbonates in that area.
6. Describe the structure of the Gympie goldfield, mentioning any factors which control the distribution of rich parts there, and at Ballarat.
7. Write a brief account of the Broken Hill ore deposits. To what extent can the deposit be classed as a saddle-reef?

\section*{FOURTH YEAR EXAMINATION.}

ELECTRICAL ENGINEERING II. A.-DIRECT CURRENT.
Eight questions only to be attempted. Diagrams to be supplied where possible.
1. Derive an expression for the speed of a shunt-wound motor, subjected to a constant retarding torque, in terms of its. induction factor and other necessary constants.
Hence explain the usual practices for obtaining speed control.
2. Explain and discuss the theory of armature reaction, in thecase of a compound-wound machine with inter-poles. Explain what changes are necessary in the connections. if direction of rotation is to be reversed or polarity changed.
3. Explain the theory and describe the details of the Hopkinson test applied to a pair of similar compound-wound machines, and discuss the assumptions which are frequently made in reducing observations.
4. In the design of a \(100 \mathrm{k} . w .440 \mathrm{v}\). shunt-dynamo running at a speed of 200 r.p.m., explain how the general dimensions. of the field-magnet system are arrived at, and show how you would derive the magnetization curve for the machine.
5. An isolated plant of about \(100 \mathrm{k} . \mathrm{w}\). capacity supplies a mixed load of lights and motors. In providing suitable battery, what considerations would help to fix the size of battery? How would you arrange to operate such a. plant, and what type of boosting gear would you use?
6. Compare the three following cases of a pair of mains loaded uniformly-
(a) Mains fed at the same ends.
(b) Mains fed at opposite ends.
(c) Mains fed at middle points.
7. Give the detail of the specification to which a modern welldesigned motor, capable of developing 50 h.p. continuously, should conform.
Discuss also the question of the rating of motors for intermittent service.
8. Given the magnetisation curve for a shunt-machine, explain how you would proceed to determine the probable external characteristic of the machine, assuming all necessary data.
9. Give an account of the modern processes of lighting with direct current, comparing the different classes of lamp with regard to efficiency, distribution of light, cost of up-keep, renewal, \&c.

ELECTRICAL ENGINEERING II. B.-ALTERNATING CURRENT.
Eioht questions only to be attempted
1. Assuming the armature reaction of a single-phase generator as equivalent to an internal resistance and self-induction, show how the total induced e.m.f. must be varied so as to maintain constant voltage at the terminals of an induction motor for which efficiency and power-factor are given at auy brake load.
2. Derive a graphical construction to represent the power developed by a synchronous motor in terms of corresponding electrical relations, and explain the action of a synchronous motor of which the e.m.f. is greater than that of the generator'which drives it.
3. In the general case of a three-phase three-wire system, show that two watt-meters are necessary, and sufficient to measure the true power, but that such is not the case for a four-wire system.
4. Show that a three-phase transmission line, with three wires equi-distant from each other, may be treated as a combination of three single-phase circuits. Explain clearly
cxxii. DEPARTMENT OF ENGINEERING.
the effect of the mutual inductance of three such circuits, and find the conditions which hold in a single-phase line equivalent to the three-phase in so far as voltage drop and power transmitted are concerned.
5. Explain one method of design for a constant potential transformer, and state the usual values of efficiency, regula.
- tion, \&c., which are obtained in modern commercial transformers, pointing out the factors upon which each depends.
6. Explain in detail the action of one form of three-phase synchronizing gear, which shows whether the incoming machine is running too fast or slow.
7. Explain the theory of one form of service meter for threephase circuits, and show how such a meter could be calibrated at any given power-factor without requiring full-load.
8. Two similar three-phase transformers are connected, mesh and star respectively, on primary and secondary; the primaries of each are connected to a three-phase supply. What possibilities are there that the secondaries can not be paralleled?
9. Show that a three-phase induction motor may be treated as a transformer, paying special attention to the fact that the rotor currents are of different period to the stator currents.
10. Give a brief account of the methods in use for insulating and carrying extra high-tension transmission lines.

MINING I.
1. Mention the purposes for which core drills are used in connection with mining. Cite cases in which they may lead to erroneous conclusions.
2. How would you proceed to cut out and timber a plat off a vertical shaft-
(a) When you knew beforehand where you wanted the plat to be.
(b) When you did not know at what point to open out till the spot was passed.
Give illustrations.
3. Under what circumstances is a drop shaft used? Describe some method of sinking with one. Give illustrations.
4. Describe three distinct methods employed for removing large quantities of overburden from the top of a flat deposit.
5. Describe how you would lay a track underground for hand trucking, mentioning the grade you would give it, the gauge, the weight of rail per yard, distance apart of the sleepers, how the rails are fastened, provision for getting the trucks around corners, etc.

\section*{MINING II.}
1. Describe the means you would take to prevent cage accidents in a mine.
2. Compare the advaintages and disadvantages of Cornish plunger and steam pumps for unwatering a mine.
3. Name the main causes of underground fires, and describe the usual methods of combating them.
4 State how economies in counection with labour might be effected in a mine without reducing the wages earned by the men.
5. Draw up a scheme for dressing copper pyrites that occurs as streaks of various widths in a slaty matrix, assaying \(2 \%\) copper, the plant to deal with 400 tons of run-of-mine ore per 24 hours. What might be considered a fair percentage of the copper to save, and what grade of concentrates would you try to obtain?

\section*{METALLURGY I.}
1. Describe a typical coke making plant and the process of coke manufacture as carried out in the South Coast district of New South Wales. Criticise the practice, and explain what improvements in oven design and cokeing practice you consider warranted by existing conditions.
2. Describe the methods of sampling consignments of ore and concentrates at smelting works when a first and second sample are taken.
Explain the advautages of this method of sampling.
cxxiv. DEPARTMENT, OF ENGINEERING.
3. Point out and compare the characteristics of the following roasting processes-
(a) Huntington-Heberlein process.
(b) Bradford-Carmichael process.
(c) Savelsberg process.
4. Describe the electrolytic method of lead refining.
5. Describe how you would separate sands from slimes and fill treatment vats with sauds when dealing with pulp. coming direct from a battery.

\section*{METALLURGY II.}
1. Describe the reverberatory method of matte smelting of copper sulphide ores.
Explain under what conditions you would instal this process in preference to any other process of matte smelting.
2. Give the reasons for, and explain the method of smelting for copper bottoms.
3. Define and describe the chemical history of the Basic open hearth steel-making process. What conditions would justify your opinion that this will be the most important steel-making process adopted in New South Wales?
4. Describe the reactions upon which the production of zinc by smelting from zinc sulphide ores is based, and discuss the peculiarities and difficulties attendiug the reduction. of the zinc.
5. Describe briefly the reduction of bismuth from bismuth ores.

\section*{THEORY OF ASSAYING.}

The reactions incolced should be represented by equations.
1. How would you determine the total Carbon and Chromiun in a sample of steel, or how would you investigate the effect of varying quantities of these elements on the structure of steel?
2. What method would you use for analysing the gas entangled in the float from an oil separation process?
3. How would you estimate the Arsenic and Tin in a sample - containing Arsenic, Antimony, and Tin?

4 How would you determine the amounts of deleterious. impurities such as Iron, Calcium, and Alkalies in a sample of acid refractory material?
5. Briefly describe the methods you would use for the completerapid analysis of a quenched low silica slag.
6. What results may be obtained by fusing one pure metal with another? Describe one type of pyrometer, and show how it may be used to investigate the properties of alloys.

\title{
DEPARTMENT OF MILITARY SCIENCE.
}

\author{
MILITARY SCIENCE I... MILITARY HISTORY. CAMPAIGN OF WATERLOO. \\ N.B.-lllustrate answers by rough sketches where possible.
}
1. It is generally considered that allied armies cannot carry on a campaign as effectively as an equal force under one commander. Why? How is this borne out in this war?
2. Under what head of strategic manœuvre would you class Napoleon's plan of campaign? Describe it, with a diagram.
3. At the close of the 15 th June, how far did the situation conform to the above plan?
4. Describe instances of failure in carrying out staff duties in Napoleon's army in this campaign.

> CAMPAIGNS IN VIRGINLA.
5. Describe briefly the military situation after the battle of Bull Run, as it was about November, 1861.
6. State the alternative plans, with their respective merits, which were suggested for the operations of McClellan's army when ready to leave Washington, as it did in March, 1862.
7. When Banks was at Strasburg, May 22nd, 1862, under what head of strategical manoeuvre would you class Jackson's movement to attack him?
8. Which of the alternative modes of meeting such an attack did Banks adopt?
9. Discuss the effect of Jackson's victory at Winchester, and his pursuit to the Potomac, on Lincoln's distribution of his armies.
10. Describe the plan of Lee and Jackson to overwhelm Pope, when on the 24th August he lay on the north bank of the Rappahanock facing Lee's army. A statement of the plan with a rough sketch is required, and not the story of its execution.

MILITARY SCIENCE I.-STRATEGY.
The answers should be illustrated by single diagrama, when possible.
1. To what main points should the statesmen of a nation direct their attention in making their country prepared for war?
2. What is the sone of strategic deployment, and why is it soimportant to decide on its position wisely?
3. Explain the meaning of the terms Lines of Comnunication, and Base?
4. What movements can the force, whose Line of Communication is endangered by the enemy's advance, adopt tomeet the danger?
5. Mention two of the main principles or axioms of strategy, and explain by a diagram what you mean by them.
6. Describe the effect on operations, of an unfordable river, with few bridges, flowing generally at right angles to the lines of operation of two armies-
(a) With regard to the army on the defensive behind the river.
(b) With regard to the army taking the offensive towards. it, an enemy behind the river.
7. What do you mean by the expressions-Front and flanks of an army?
8. What are converging lines of operations, and how can thesituation arise so as to cruse an army to act on such lines?
9. In case of a successful front attack breaking the enemy's. strategic front, what should be the next action of the victorious force?
10. Name the changes in the world which have taken place in the last half-century, bearing on the conduct of stategy. Military changes, such as the invention of the long range rifle, shrapnel, smokeless powder, etc., etc., are not: alluded to.

MILITARY SCIENCE II.-IMPERLAL DEFENCE.
PART I.
1. Name the portions of the Empire where the white population is the main one.
2. Name the chief products of Australia, underlining those of use in war.
3. Mention the three main Trade Routes over the ocean, i.e., excluding those between Great Britain and Europe.
4. Enumerate the naval stations on the Trade Route between England and China through the Mediterranean.
5. State the primary object of the British Navy at the commencement of a great war, also the secondary object to be simultaneously undertaken.
What class of war vessels would be employed for each?
-6. Where is coal for use in war found in the Empire?
PART II.
1. When command of the sea has been attained, what description of operations are possible for the Imperial Forces?
2. On which frontiers of the Empire are Land Operations likely? Which of the Dominions could best co-operate in each of them?
3. Among the possible wars the Empire might engage in, which are those in which Australia might best co-operate? (Those of which the theatre is Asia may be omitted).
-4. Describe the main feature of Lord Kitchener's scheme, the system of training the citizen forces by areas.
-5. What can ships without a military force effect against territory?
6. What are the reasons for considering the danger of bombardment overrated?
7. Mention the five classes of Forces which an ideal system of Imperial Defence would provide.

> MILITARY SCIENCE II-MILITARY HISTORY.
> WAR OF 1866.
1. Show in a sketch the situation early on June 27 th, when the armies first met.

2 What would you term Benekek's situation from a strategical aspect? What would have been his better strategic plan at that date?
3. Show his position of concentration on June 30th. What made him give it up that night?
4. Where did he rétire his army to? Was there a better course? If so, what?
5. Why was there no pursuit after the battle, July 3rd? Describe the situation during the next three days.
\[
\text { WAR OF } 1870 .
\]
1. Describe the two alternative localities for the "strategic deployment" of the German armies at the outbreak of the war, showing the reasons for the selection of the one adopted.
2. What errors in the distribution of the French right wing, under MacMahon, were committed up to August 4th, with what result?
3. Describe the action of the 1st Army, under Steinmetz, on the 14th August, which led to the battle of Borny that -afternoon. Give the result of that battle.
4. Describe shortly the action which led to the battle of Vionville on August 16 th , and its result, stating briefly what should have been Bazaine's course that day.
5. What caused MacMahon to begin the movement on the 22nd August, which led to the disaster of Sedan? What would have been preferable movements?

\section*{TOPOGRAPHY-THEORETICAL.}

\section*{Four Hours.}
1. Suppose Diagram I. to be part of a Russian map. Its scale shows the distance from \(A\) to \(B\) to be \(1 \frac{1}{3}\) versts (l verst \(=1167 \mathrm{yds}\).). Construct a scale of yards. All work to be shown. R.F. to be given.
2. The sides of Diagram I. are true north and south, the magnetic bearing from the point \(B\) to letter \(E\) in PURLEY HILL is found to be \(48^{\circ}\). What is the variation of the compass, and how is it shown?

\section*{cxxx.}

DEPARTMENT OF MILITARY SCIENCE.
Diagram \(I\).

3. Plot and contour a piece of ground from the following dataScale \(8^{\prime \prime}\) to a mile ; V.I. 10 ft ; A and B are two hill-tops 700 yds a apart, and each 450 ft . above sea level. The bearing of B from A is \(100^{\circ}\). Midway between A and B is a col. C, 425 ft . abore the sea. D is a stone bridge spanning a stream which flows approximately from west to east, through the point E. At E a minor stream, flowing from the direction of the col. C, enters the main stream DE. The bearing of D from A is \(350^{\circ}\), and from \(\mathrm{B}, 305^{\circ}\). From E the bearing of A is \(230^{\circ}\), and the bearing of B is \(160^{\circ}\). The angle of elevation from D to A is \(2^{\circ}\). The angle of depression from B to E is \(22^{\circ}{ }^{\circ}\).
4. What do you understand by form lines? Why is the system of representing hill features by means of contours the best?
5. Construct a scale of horizontal equivalents (H.E.). Scale 6 in. to a mile. Contours 10 ft ., V.I.
6. Imagine yourself seated on the top of Brock's Hill, near point 395, and looking eastward. Draw a panorama of the country in front of you, stretching from Purley Hill to Badstock Wood, both inclusive.
Use the scale worked out in Question 1.
The following questions refer to Diagram II. :-
7. (a) Mark the watercourse by blue lines.
(b) Figure in the margin, all the contours which run off the map. Lowest contour is 100 ft . above sea level.
(c) Mark with red line the main watershed on each side of the principal valley.
8. (a) Describe any features of ground which strike you as being unusual.
(b) Which point do you think would command the most complete view of the whole of the ground?
9. (a) Blacken with pencil any portion of the road A-B which you think would be invisible from A .
(b) Do you think it would be possible to signal direct from \(A\) to \(C\) and D. Give reasons for your answer.
Sections are not to be drawn.
10. How would you find North by means of the Southern Cross?
exxxii. DEPARTMENT OF MILITARY SCIENCE.
Diagram 11 .
Scale, 2 inches to a mile. 20 ft . V.I.


TOPOGRAPHY—PRACTICAL.
SITUATION.
A ned force, consisting of 1 Battery Field Artillery, 1 Squadron Light Horse, 2 Battalions of Infantry, is holding a line represented by the four trig. stations in the diagram.
J3lue force has been re-inforced, and hed receives orders to retire on Parramatta.

exxsiv.

\section*{TASK.}
1. Make a sketch, with millboard and ordinary pocket compass, of the country enclosed by the five flags. Scale, 6 inches to a mile, contours 20 ft . Time allowed, 4 hours.
2. Make a panorama sketch of the country south-east from the flag at cross roads. Time, 30 minutes.
3. Write a report on the suitability or otherwise of the country enclosed by the flags, for rear guard actions. Time allowed, 30 minutes.

\section*{MILITARY ENGINEERING.}

\section*{Three and a Half Hours.}

Note.-The answers to the following questions should be brief and strictly to the point, and should be illustrated wherever possible by accurate shetches.
1. Explain the meanings of the following terms-
\begin{tabular}{ll} 
Relief, & Riband, \\
Trace, & Head Cover, \\
Gyn, & Redoubt, \\
Crib Yier, & Field Company, \\
Revetment, & Field Troop.
\end{tabular}
2. In the construction of earthworks in the field, the following points require consideration-(a) the siting for trenches; (b) communications; (c) the question of invisibility; (d) drainage. Discuss these points, and state how they are most effectively dealt with in practice.
3. (a) What considerations affect the position of the firing line in defending the front of a wood?
(b) Under what conditions, if any, do you consider that villages would have a defensive value?
4. (a) Sketch a low wire entanglement. Under what circumstances would it be used?
(b) A belt of low wire entanglement, 300 yards long and 10 yards broad, is to be made. The working party consists of 50 men. State the amount of wire, the tools, and time required.
5. Describe by means of sketches-
(a) A square lashing.
(b) How to sling a large barrel (i) horizontally, (ii) vertically.
(c) The construction of a hold-fast.
6. (a) Explain by means of diagrams the various types of military bridges.
(b) A raft is to be made with two piers of five 72-gallon casks in each; the superstructure used weighs altogether 600 lbs.
Allowing five men at 160 lbs . each as a crew, what additional weight may be placed on the ralt, so as to utilize twothirds of its available buoyancy?
7. (a) What are the valuable properties of gun-cotton for purposes of hasty military demolitions?
(b) How do wet and dry gun-cotton differ in their action as regards ignition and detonation?
(c) Explain how you would damage railway rolling stock \({ }^{80}\) as to make it unserviceable to the enemy.

\title{
EXAMINATION PAPERS* NARCH, \(191!\).
}

\section*{FACULTY OF ARTS.}

LATIN I.-PROSE COMPOSITION AND UNSEEN TRANSLATION. DISTINCTION.
1. Translate into Latin-

In every Greek state there existed these two parties, ranged against each other in open or covert hostility. The dernocratical faction was strong in numbers and enthusiasm. The oligarchical faction held its own by diut of wealth; energy, and an excellent organisation. When the popular spirit was excited by hope, or resentment, or panic, the onward rush of the masses was irresistible; but at ordinary times the aristocrats, ever on the alert for an opportunity, gradually recovered their lost ground. Cooped up within the ramparts of a single town, and brought into daily collision throughout all the departments of municipal administration, these factions hated each other with a ferocity which very seldom for long together confined itself to words and looks. Mutual suspicions, mutual injuries, mutual treacheries soon brought about such a state of feeling that men began to believe in the necessity for mutual butchery. Then came riots in the public places, nocturnal murders of the leading demagogues, arson, and every manifestation of rancour and anarchy. Moderate politicians went to the wall, and were lucky if they did not go to the gallows.
2. Translate-
(a) Hic Caesar, rabies populis stimulusque furorum ne qua parte sui pereat scelus, agmina circum it uagus atque animis ignes flagrantibus addit; inspicit et gladios, qui toti sanguine manent,

\footnotetext{
\({ }^{\bullet}\) The time allowed for each paper is three hours, excfpt where otherwise stated.
}
qui niteant primo tantum mucrone cruenti, quae presso tremat ense manus, quis languida tela, quis contenta ferat, quis praestet bella iubenti, quem pugnare iuuet, quis uoltum ciue perempto mutet; obit latis proiecta cadauera campis; uolnera multorum totum fusura cruorem opposita premit ipse manu. quacumque uagatur, sanguinoum ueluti quatiens Bellona flagellum, Bistonas aut Manors agitans si uerbere saeuo Palladia stimulet turbatos aegide currus, nox ingens scelerum est ; caedes oriuntur, et instar inmensae uocis gemitus, et pondere lapsi
pectoris arma sonant confractique ensibus enses.
ipse manu subicit gladios ac tela ministrat, aduorsosque iubet ferro confundere uoltus. promouet ipse acies; impellit terga suorum : uerbere conuersae cessantis excitat hastae. in plebem uetat ire manus monstratque senatum.
(b) Hoc sibi illi veteres persuaserant, ad hoc efficiendum intellegebant opus esse, non ut in rhetorum scholis declamarent, nec ut fictis nec ullo modo ad veritatem accedentibus controversiis linguam modo et vocem exercerent, sed ut iis artibus pectus implerent, in quibus de bonis et malis, de honesto et turpi; de iusto et iniusto disputatur; haec enim est oratori subiecta ad dicendum materia nam in iudicis fere de aequitate, in deliberationibus de utilitate, in laudationibus de honestate disserimus, ita tamen ut plerumque haec ipsa in vicem misceantur: de quibus copiose et varie et ornate nemo dicere potest, nisi qui cognovit naturam humanam et vim virtutum pravitatemque vitiorum et intellectum eorum, quae nec in virtutibus nec in vitiis numcrantur. ex his fontibus etiam illa profluunt, ut facilius iram iudicis vel instiget vel leniat, qui scit quid ira, promptius ad miserationem impellat, qui scit quid sit misericordia et quibus animi motibus concitetur. iu his artibus exercitationibusque versatus orator, sive apud infestos sive apud cupidos sive apud invidentis sive apud tristis sive apud timentis dicendum habuerit, tenebit venas animorum, et prout cuiusque natura postulabit, adhibebit manum et temperabit orationem, parato omui instrumento et ad omnem usum reposito.
exxxviii.
FACULTY OF ARTS.

\section*{LATIN I.-AUTHORS. \\ DISTINCTION.}
1. Translate and comment on extracts from Quintilian X.; Virgil, 居neid VII.-X.
2. Scan, with whatever comments you think called for, the third line of question I., (a); the first, fifth, and seventh lines of question I., (b); and the sixth line of (d).

> LATIN I.-ROMAN HISTORY. DISTINCTION.
> Not more than piva questions to be answered
1. "There is no satisfactory evidence that any one of the communities which combined to form Rome was Etruscan or that there was any important Etruscan strain in the Roman blood." (Pelham.) Comment on this statement.
2. Criticise Taylor's statement that the Kingship at Rome was originally elective, the first King being chosen by the burgesses.
3. "To the plebs belonged all who were not members of some gens, whether they were independent freemen or clients." Comment on this.
4. Compare the position of the Senate in the Government of the Roman State in the fifth and in the second century b.c.
5. "In the older days of Roman history, the fighting forces had been a 'citizen army,' called out for so long as it was needed, and levied from full and true Roman citizens." (Tucker.) Discuss this statement.
6. Describe the influence of Hellenism on Rome in the second century b.c.
7. "The rule of Rome over Italy, like her wider rule over the Mediterranean coasts, was not an absolute dominion over conquered subjects." Explain this.

LATIN II. \& III.--PROSE COMPOSITION.
DISTINOTION AND HONOURS.
Translate into Latin-
To any man a year is a considerable period, seeing that the number of our years is but few at the best. To the primitive savage, with his short memory and imperfect
means of marking the flight of time, a year may well have been so long that he failed to recognise it as a cycle at all, and watched the changing aspects of earth and heaven with a perpetual wonder, alternately delighted and alarmed, elated and cast down according as the vicissitudes of light and heat, of plant and animal life, ministered to his comfort or threatened his existence. In autumn when the yellow leaves were whirled about the forest by the nipping blast, and he looked up at the bare boughs, could he feel sure that they would ever be green again? As day by day the sun sank lower and lower in the sky, could he be certain that the luminary would ever retrace his heavenly road? Even the waning moon, whose pale sickle rose thinner and thinner every night over the rim of the eastern horizon, may have excited in his mind a fear lest, when it had wholly vanished, there should be moens no more. These and a thousand such misgivings may have thronged the fancy and troubled the peace of the man who first began to reflect on the mysteries of the world he lived in, and to take thought for a more distant future than the morrow.

\section*{LATIN II. \& LII.-UNSEEN TRANSLATION. HONOURS AND DISTINCTION.}

Translate-
1. Ergo utrimque pari procurrunt agmina motu irarum; metus hos regni, spes excitat illos. hae facient dextrae, quidquid non expleat aetas ulla nec humanum reparet genus; omnibus annis ut uacet a ferro. gentes Mars iste futuras obruet, et populos aeui uenientis in orbem erepto natale feret. tunc oune Latinum fubula nomen erit: Gabios Veiosque Curamque Albanosque lares Laurentinosque penates puluere uix tectae poterunt monstrare ruinae, rus uacuum, quod non habitet, misi nocte coacta, inuitus questusque Numam iussisse senator. non aetas haec carpsit edax monimentaque rerum putria destituit: crimen ciuile uidemus tot uacuas urbes. generis quo turbib redacta est humani? toto populi qui nascimur orbe,
nec muros inplere uiris nec possumus agros; urbs nos una capit. uincto fossore coluntur Hesperiae segetes; stat tectis putris auitis in nullos ruitura domus; nulloque frequentém ciue suo Romam sed mundi faece repletam cladis eo dedimus, ne tanto in corpore bellum iam posset ciuile geri. Pharsalia tanti causa mali.
2. O piger, o duro non mollior axe, Lycota, qui ueteres fagos noua quam spectacula mauis cernere, quae patula inuenis deus edit harena. uidimus in caelum trabibus spectacula textis surgere, Tarpeium prope despectantia culmen; emensique gradus et cliuos lene iacentes uenimus ad sedes, ubi pulla sordida ueste inter femineas spectabat turba cathedras. nam quaecumque patent sub aperto libera caelo, aut eques ant niuei loca densauere tribuni. qualiter haec patulum concedit uallis in orbem et sinuata latus resupinis undique siluis inter continuos curuatur concaua montes, sic ibi planitiem curuae sinus ambit harenae et geminis medium se molibus alligat ourm. quid tibi nunc referam, quae uix suffecimus ipsi per partes spectare suas? sic undique fulgor percussit. stabam defixus et ore patenti cunctaque mirabar necdum bona singula noram, cum mihi iam senior, lateri qui forte sinistro iunctus erat, "Quid te stupefactum, rustice," dixit, "ad tantas miraris opes, qui nescius auri sordida tecta, casas, et sola mapalia nosti? en ego iam tremulus et uertice canus et ista factus in urbe senex stupeo tamen omnia.
3. Honestum igitur id intellegimus, quod tale est ut, detracta omni utilitate, sine ullis praemiis fructibusve per se ipsum possit iure laudari. Quod quale sit, non tam definitione, qua sum usus, intellegi potest (quamquam aliquantum potest) quam communi omnium iudicio et optimi cuiusque studiis atque factis. qui permulta ob eam unam causam faciunt, quia decet, quia rectuin, quia honestum est, etsi nullum consecuturum emolumentum vident. Homines enim, etsi aliis multis,
tamen hoc uno plurimum a bestiis differunt, quod rationem habent a natura datam mentemque acrem et vigentem celerrimeque multa simul agitantem et, ut ita dicam, sagacem, quae et causas rerum et consecutiones videat et similitudines transferat et disuincta coniungat et cum praesentibus futura copulet omnemque complectatur vitae consequentis statum. Eademque ratio fecit bominem hominum appetentem cumque iis natura et sermone et usu congruentem, ut profectus a caritate domesticorum ac suorum serpat longius et se implicet primum civium deinde omnium mortalium societate atque, ut ad Archytam scripsit Plato, non sibi se soli natum meminerit, sed patriae, sed suis, ut pererigua pars ipsi relinquatur. Et quoniam eadem natura cupiditatem ingenuit homini veri videndi, quod facillime apparet, cum vacui curis etiam quid in caelo fiat scire avemus, his initiis inducti omnia vera diligimus.
4. Ne hoc quidem negaverim, sequi plerumque hanc opinionem, ut fortius dicere videantur indocti; primum vitio male iudicantium, qui maiorem habere vim credunt ea, quae non habent artem, ut effringere quam aperire, rumpere quam solvere, trahere quam ducere putant robustius. Nam et gladiator, qui armorum inscius in rixam ruit, et luctator, qui totius corporis nisu in id, quod semel invasit, incumbit, fortior ab his vocatur; cum interim et hic frequenter suis viribus ipse prosternitur, et illum vehementis impetus excipit adversarii mollis articulus. Sed sunt in hac parte, quae imperitos etiam naturaliter fallant; nam et divisio, cum plurimum valeat in causis, speciem virium minuit, et rudia politis maiora et sparsa compositis numérosiora creduntur. Est praeterea quaedam virtutum vitiorumque vicinia, qua maledicus pro libero, temerarius pro forti, effusus pro copioso accipitur. Maledicit autem ineruditus apertius et saepius vel cum periculo suscepti litigatoris frequenter etiam suo. Affert et ista res opinionem, quia libentissime homines audiunt ea, quae dicere ipsi noluissent. Illud quoque alterum, quod est in elocutione ipsa, periculum, minus vitat conaturque perdite, unde evenit nonnunquam, ut aliquid. grande inveniat, qui semper quaerit, quod nimium est; verum id et raro provenit, et certa vitia non pensat.
cxlii. FACULTY OF ARTS.

LATIN II.-AUTHORS.
DISTINCTION.
1. Translate and comment on extracts from Cicero's Letters, Catullus, and Terence's Phormio.
4. Scan, with brief comments, the tenth and eleventh lines of question \(2(a)\); the fifth line of question \(2(b)\); the last two lines of question \(3(a)\); and of question \(3(c)\).

\section*{LATIN ITI.-AUTHORS.}

HONOURS.
1. Translate and comment on extracts from Lucretius and Tacitus Annals II., III., IT.

\section*{LATIN III.-ROMAN LITERATURE. HONOURS.}

Not more than five questions to be answered.
1. Compare the management of the hexameter by Lucretius, Virgil, and Horace.
2. "The poetical style of Lucretius is, more than that of any other Latin poet, the immediate creation of his own genius." Comment on this statement.
3. Compare Tibullus and Propertius as elegiac poets.
4. "Unable to express itself in practical oratory, rhetoric, under the Empire. took possession of literature." Comment on this.
5. Discuss the justice of Horace's criticism of the older Roman. poets.
6. "The long continued popularity of Roman tragedy implies that it was something more than an inartistic copy of the masterpieces of Athenian genius." (Sellar.) Comment on this statement.
7. Describe the characteristics of Ovid's poetry.

GREEK I.-PROSE COMPOSITION \& UNSEEN TRANSLATION. DISTINCTION.

\section*{1. Translate into Greek-}

A prince, named Teres, who reigned in the more northern or western regions of Thrace, and who had been his ally in his war with Athens, had, it seems, now become
hostile to Philip; having perhaps been induced by a sense of their common interest to unite with Kersobleptes. Philip was thus led to carry the war into the heart of Thrace, where he is said to have defeated the barbarians in several battles. But his views were not now confined to victories, ravages, and plunder. He meditated a permanent conquest, and for this purpose not only imposed a tribute of a tenth of the produce of the conquered territory, but also founded a number of new towns, or military colonies, in the interior. These conquests, and still more the measures taken to secure them, could not but alarm both the Athenians, and tbe Greek cities on the coast, especially Byzantium, which lay not very far from the borders of the conquered territory.

\section*{-2. Translate-}



 тà \(\tau \hat{\omega} \nu\) ' \(\mathrm{A} \theta \eta \nu a i ́ \omega \nu\) є่ єа












 \({ }_{i} \mu \hat{\imath} \nu\). -(Demosthenes.)
(b) Polynices loquitur-






 \(\dot{\epsilon} \xi \hat{\eta} \lambda \theta 0 \nu \epsilon^{\prime} \xi \omega\) т \(\bar{\eta} \sigma \delta^{\prime} \dot{\epsilon} \kappa \dot{\omega} \nu\) à̀тòs \(\chi\) Өovós,











 \(\pi \dot{v} \rho \gamma о \iota \iota \iota \eta \kappa \tau \bar{\omega} \nu \kappa \lambda \iota \mu a \dot{\kappa} \omega \nu \quad \pi \rho о \sigma а \mu \beta a ́ \sigma \epsilon \iota \varsigma\),





GREEK I.
DISTINCTION
1. Translate and comment on passages from Aristophanes, The Knights.
3. In what relation did Aristophanes stand to the political parties of his time?
4. Estimate the value of the judgment of Aristophanes upon Kleon and his policy.





\section*{GREEK I.}

DISTINCTION.
1. Translate with full commentary, passages from Thucydides, Book IV.

GREEK II.-GREEK PROSE COMPOSITION. DISTINCTION.
Translate into Greek-
For a few years after the battle of Mantineia Greece remained tranquil. The Aetolians were fully occupied
with their domestic concerns. The long series of wars in which they had been engaged had, it seems, enriched none, but while it impoverished the state had ruined most private fortunes; for whatever gain it yielded to successful adventurers was consumed by the growing prodigality of their mode of living. The two chiefs who, to gratify their own avarice and ambition, had plunged the nation into these wasteful wars, Dorimachos and Skopas, were themselves deeply involved in dêbt; and when by the peace they were thrown upon their own encumbered patrimonies, they appear to have resorted to a new kind of spoliation which they carried on under the forms of law. Through the intrigues of a party, which comprehended all who were in like embarassment with themselves, they were invested with an extraordinary commission to revise the laws.

\section*{GREEK II. \& III -UNSEEN TRANSLATION. DISTINCTION AND HONOURS.}

Translate the following passages-





























nov́pous＇Iaón就
Kpŋтєкò тúpve тє́̀ауоs．



кमígev тє Mívшї кє́ap
інєрव́رитикоя өєаия





ө白para Mavóionos
 \(\mu \dot{\epsilon} \lambda a \nu \delta^{\prime} \dot{\nu} \pi^{\prime} \dot{\partial} \not \supset \rho \dot{v} \omega \nu\)




\(\stackrel{\prime}{\epsilon} \sigma \omega \kappa v \beta \epsilon \rho \nu a ̆ s, \phi \rho \epsilon \nu \hat{\omega} \nu\)



入аитои，\(\pi \in \pi \rho \ldots \mu\) дй


\(\chi \in \mu \bar{\eta} \tau \boldsymbol{\prime} . \quad \epsilon i\) каí \(\sigma \in \kappa \epsilon \delta \nu \dot{a}\)


ти́vvpos кópa ßpoтй̀



Побєєठàve，रои́бєou

GREEK•II. AND III. DISTINUTION AND HONOURS.
1. Translate and comment on extracts from Aristophanes, Birds.

GREEK II. AND III. DISTINCTION AND HONOURS.
1. Translate, and write full notes upon passages from Homer Odyssey V.-X.
2. "Except with Helen, there is little in Homer of any feeling for women that we shall call romantic, or even chival-rous."-(Mackail).
Comment on this.
3. "This unmatched power to express the sense of human greatness is what above all else makes Homer, in the phrase applied to him by a later Greek poet,_-_' the ageless mouth of the world.' "-(Mackail).
Comment on this.

GREEK II. AND III.-HISTORY AND ORGANISATION OF THE ATHENIAN EMPIRE.
SECOND YEAR:-DISTINCTION.
THIRD YEAR:-HONOURS.
N.B.-Not more than six questions should be attempted.
1. Under what various heads are certain cities of the Empire classified in the stone records? Examine the significance of the headings in their bearing upon the question of the mode of assessment of Tribute.
2. Describe the nature of the extant records of the Athenian Empire.
3. "It was, however, unusual for Athens to garrison the cities of her Elupire, and it seems only to have been done when, as at Samos. in 439 b.c., it was thonght necessary to secure the allegiance of the State."-(Greenidge).
Criticise this statement, and show what light is thrown upon the question by extant Inscriptions.
t. Translate, identify, and comment on the following extract from an Inscription-




 oùié érós.
5. What various designations are applied in our authorities to the members of the Athenian Empire?
Clearly distinguish their connotation.

 (Thucydides.)
Translate this passage, and discuss its bearing upon the question of the nature of the contributions claimed from members of the Delian Confederacy.
7. What do you know about the composition and competence of the General Synod of the Delian Confederacy? Indicate the elements of weakness within it, and show to what results they led.
8. "If we regard the bare fact of her Empire as a political crime, we must remember that a crime of this sort is to be judged by the political conscience of the age in which it is committed."-(Greenidge).
Criticise this.





Comment on the above extract from an Inscription, exhibiting its bearing upon the question of the financial administration of the Empire.
10. Extract from the Tá \(\xi \neq \Phi \Phi_{o j o u}\) [Kirchhoff's restoration] -


 Karian cities follows.
Explain the above extract.
11. Extract from Inscription-




Translate the above, and explain its bearing upon the question of the relations of Athens to her subject cities.
12. To what extent did Athens interiere with the political constitution of her subjects?
13. I. G. i. 266 [Kirchhoff's restoration].


How has our knowledge of this rubric receutly been improved?




Examine this statement with reference to the transference of the League Chest to Athens. When did the transference take place, and under what circumstances?
15. Give some historical illustration of the stages by which the Delian Confederacy was gradually converted into the Athenian Empire, and exhibit the significance of the episodes to which you refer.
16. Quota-list of 443 b.c. is thus dated-
 oíveos. At the end is added-


Quota-list of 442 в.c. is thus dated-



What inferences from the above data does E. Meyer make respecting the organisation of the Athenian Empire?

及ápßapov кui às vầs.
Discuss the precise significance of the above.
 What criticisin has been directed against the ahove statement? Assuming its truth, how must it be interpreted?

> GREEK III.-GENERAL PAPER. HONOURS.
> Not more than FIVE questions should be attempted.
1. "Notwithstanding many differences, the English and the Romans essentially resemble one another."-(Froude).
2. "There is a real difference of ethical level between some vocations and others, though amidst the growing industrialism of our own day we may sometimes be tempted to forget this."-(Newman).
3. The Eleusinian Mysteries.
4. Trace the development in the art of war among the Greeks down to the time of Alexander the Great.
5. Cuius nunc consilium Themistocleum est; existimat enim, qui mare teneat, eum necesse esse rerum potiri. (Said of Pompeius by Cicero.)
Discuss with reference to Greek history.
6. Institute a comparison between the geographical and physical features of Greece and those of Italy, and trace their influence in the history of the two peninsulas.
7. Estimate the value of Xenophon as an historian.
8. Discuss the problem of the authorship of the recently discovered historical fragment known as Hellenica Oxyrrhynchia.
9. Draw a sketch map of Boeotia in some detail, and exhibit the influence of its physical characteristics upon the history of the canton.
10. "Egypt may have been the foster-mother to classical Greece, but the mother, never forgotten by her child, was Crete." -(Hawes).
Explain and justify.
11. "There is no personal character in true Greek Art."(Ruskin).
Criticise this dictum.
12. Give some account of the Rosetta Stone.
13. "No modern reader can have failed to be struck by the curiously unreasonable rules-so they appear to us-to which Greek tragedy as a whole conforms."-(Norwood).
14. "War never leaves a country as it found it; whether a nation fails or wins, its whole future is profoundly modified."(Maguire).
Apply this to Greek history.
15. "For the age and country in which they came into being, the Iliad and Odyssey represent not sunrise but sunset, though to us, further toward the darkening west, they appear to be coloured with morning glories, to lie far off towards the sunrise and the dawn."-(Mackail).
16. "The doctrine of punishment as the only deterrent from crime is gradually being reconstructed. On the one hand are reformers who push the theory of the humane treatment of prisoners beyond the verge of sentimentality. On the other hand is the rigid school of the old past, which sees in crime a menace to civilisation that must be beaten down by sheer strength of authority.-(Sydney Morning Herald, Feb. 18th, 1911).



 iii., 45).

\section*{Discuss.}

FRENCH I. A.
DISTINCTION.
1. Translate into French-

If a Frenchman is pleased with every thing, Johñ Bull is pleased with nothing, and that is a fault. He is, to be sure, fond of having his own way, till you let him have it. He is a very headstrong animal, who mistakes the spirit of contradiction for the love of independence, and proves himself to be in the right by the obstinacy with which he stickles for the wrong. You cannot put him so much out of his way, as by agreeing with him. He is never in such good hnmour as with what gives him the spleen, and is most satisfied when he is sulky. If you find fault with him, he is in a rage; and if you
praise him, suspects you have a design upon him. He recommends himself to another by affronting him, and if that will not do, knocks him down to convince him of his sincerity. He gives himself such airs as no mortal ever did, and wonders at the rest of the world for not thinking him the most amiable person breathing. John means well too, but he has an odd way of shewing it, by a total disregard of other people's feelings and opinions. He is sincere, for he tells you at the first word he does not like you; and never deceives, for he never offers to serve you.
2. Translate (at sight) -
(a) Il n'y a rien de plus agréable qu'un jardin après la pluie, et non aprés une de ces bouffonneries de pluies d'une heure qui ne font que narguer la terre, mais je veux dire après une bonne, longue et robuste pluie qui a duré plusieurs jours, à flots pressés, tombant dru comme des bâtons de verre qui se brisent... La nature abreuvée outre mesure est heureuse. Et quoique la pluie, déjà lampée et séchée, ne soit plus là, on la sent encore, elle a laissé de son brutal et honnête passage des traces si claires! Elle a balayé à larges nappes les toits de bure dont les spongieuses tuiles sont encore un pen molles comme des tartes refroidies: elle a lavé, nettoyé, fait dans tous les coins sa lessive, rincé les feuilles et les carreaux, la pierre et le bois, rajeuni la muraille. Les arbres ont un air débarbouillé, mais les animaux et les insectes ne paraissent même pas se douter des cataractes qu'ils ont reçues. Le pigeon n'a pas gardé en équilibre sur son dos lisse une seule goutte irisée, et cette grosse chenille rougeâtre, immobile au milieu du chemin, si attrayante dans sa fourrure lustrée qu'elle me donne presque envie de la prendre pour l'allonger en bas du glube de ma pendule, n'a pas non plus retenu dans ses poils un seul éclat du liquide diamant. Seuls, quelques rameaux balancent encore ces perles du ciel qui, dès qu'on y touche, comme si se rompait le fil où elles sont passées, s'égrènent et vous restent dans la main où elles fondent.
(b) Au village, en juillet. Un soleil accablant. Ses lunettes au nez, le vieux charron tout blanc Répare prés du seuil un timon de charrue.

Le curé tout à l'heure a traversé La rue, Nu-tête. Les.trois quarts out sonné, puis plus rien, Sauf monsieur le marquis, un gros richard terrien, Qui passe, en berlingot et la pipè à la bouche, Et qui, pour délivrer sa jument d'une mouche, Lance des claquements de fouets très campagnards Et fait fuir, effarés, coqs, poules et canards.
3. (i.) Explain any peculiarities in the form or pronunciation of the words oignon, pied, temps, femme, langue, volonté.
(ii.) State the phonetic laws governing the development of lit from lectum and of toit from tectum. Indicate any intermediate stages in spelling and pronunciation.
(iii.) Account 'exactly for the vowel-change in mourir-je meurs. Why do we say je trouve instead of je treuve, and pleurer instead of plourer?
(iv.) Prove that the \(t\) in \(a\)-t-on does not come from the \(t\) in habet. Account in full and precise detail for the forms on and homme.
(v.) Why is taire, from facere, spelled with a final e? And why does this \(e\) not appear in vouloir, of which the Low Latin form is volere?

\section*{FRENCH I. B.-AUTTHORS. DISTINCTION.}
1. Translate into modern French prose'Amis Reynaut, j’ai jà véu cel jor Se passisoiz selon mon pere tor, Dolane fussiez se ne parlasse à vos. -Jal mesfaïstes, filles d'empercor. Autrui amastes, si obliastes nos.
-E! Reynaut amis!
Give the Latin for Amis Reynaut and decline in the French of this date : the good friend.
2. Translate into English, extracts from the Oxford Book of French Verse and Diderot.
3. Describe in French any one of the following poems:

La Vigne et la maison, A Villequier, La nuit de mai.

\author{
FRENCH II. AND III. A. DISTINCTION AND HONOURS. Two Hours.
}
1. Translate (at sight)-
(a) Dans ces esquisses, où nous tâchons de nous prendre à des ceuvres d'hier et à des auteurs vivants; où la biographie de l'homme empiète, aussi loin qu'elle le peut, sur le jugement litteraire; où ce jugement toutefois s'entremêle et supplée au besoin à une biographie nécessairement inachevée ; dans cette espèce de genre intermédiaire, qui, en allant au delà du livre, touche aussitôt à des sensibilités mystérieuses, inégales, non encore sondées, et s'arrête de toutes parts à mille difficultés de morale et de convenance, nous reconnaissons aussi vivement que personne, et avec bien du regret, combien notre travail se produit incomplet et fautif, lors même que notre pensée en possède par devers elle les plus exacts éléments. Le premier devoir, en effet, la première vérité à observer en ces sortes d'études, c'est la mesure et la nuance de ton, la' discrétion de détails, le sentiment toujours attentif et. un peu mitigé, qui règnent dans le commerce du critique avec les contemporains qu'il honore et qu'il admire.
(b) Je suis puni. Je vis dans le fond d'une tour Où des barreaux croisés emprisonnent le jour ;
L'araignée à mon lit suspend sa toile frêle Où la chauve-souris embarrasse son aile; Du sépulcre la nuit j'entends sourdre le ver ; J'ai taim; j'ai soif; l'été, j'ai chaud; j'ai froid, l'hiver. C'est bien fait, je me courbe, et je donne l'exemple. Mais toi, Noll, de quel droit viens-tu toucher au temple? En dois-tu seulement déranger un pilier? Ce qu'ont lié les saints, le peux-tu délier? D'ailleurs efface-t-on les traces de la foudre?
Ies saints m'ont condamné, nul n'a droit de m'absoudre;
Et dans ce peuple vil je marche avec fierté, Seul vestige vivant de leur autorité.
Pin foudroyé, \(j\) étale au fond du précipice Je mon front abattu l'auguste cicatrice. Tu veux briser mes fers de force !-Anglais, voyez Quel effréné tyran vous foule suus ses pieds ! Va, je préfère encor, moi Carr, moi qui te brave, Le carcan du captif au collier de l'esclave.
2. Translate into French-

There are individuals who make themselves and everyone else uncomfortable by trying to be agreeable, and who are only to be endured in their natural character of blunt, plain-spoken people. Many a man would have turned rogue, if he had known how. The modest man cannot be impudent if he would. 'Ihe man of sense cannot play the fool to advantage. It is not the mere resolution to act a part that will enable us to do it, without a natural genius and fitness for it. Some men are born to be valets, as others are to be courtiers. There is the climbing genus in man as well as in plants. It is sometimes made a wonder how men of " no mark or likelihood" frequently rise to court-preferment, and make their way against all competition. That is the very reason. They present no tangible point; they offend no feeling of self-importance. They are a perfect unresisting medium of patronage and favour. They aspire through servility; they repose in insignificance. A man of talent or pretension would be kicked out in a week. A look that implied a doubt, a hint that suggested a difference of opinion, would be fatal. It is of no use, in parleying with absolute power, to dissemble, to suppress. There must be no feelings or opinions to dissemble or suppress. The artifice of the dependant is not a match for the jealousy of the patron. "The soul must be subdued to the very quality of its lord." Where all is annihilated in the presence of the Sovereign, is it astonishing that nothings should succeed?

\section*{FRENCH II. AND III. B.} DISTINCTION AND HONOURS,
Students of the Second Fear to omit all question 2. Students of the Thirl Year to omit sections ( \(f\) ), (g), ( \(h\) ), ( \(k\) ), of question 1.
1. Translate, with comments where necessary, extracts from Chefs-d'ouvre Poétiques de Marot, Ronsard, \&c., Rabelais, Pages choisies.

FRENCH II. \& III. C.-LITERATURE OF THE SIXTEENTH CENTURY.
DISTINCTIUN AND HONOURS.
Two Hours. Only five questions are to be attempted, and these must include No. 6.
1. Discuss and illustrate what Boileau calls l'élégant badinage de Marot. What did Marot lack in order to become a great poet?
clvi.
2. Give an account of the Deffense et illustration de la langue françoise.
3. In 1828 Sainte-Beuve wrote: "L'école nouvelle en France a continué l'école du xvI \({ }^{\mathrm{e}}\) Siècle." Discuss this statement.
4. La Bruyère says of Rabelais: "Où il est mauvais, il spasse bien loin au delà du pire, c'est le charme de la canaille; où il est bon, il va jusques à l'exquis et à l'excellent, il peut être le mets des plus délicats." Explain and illustrate.
5. In what relation does Réguier stand to Ronsard and to Malherbe :
6. Set forth in French Montaigne's "philosophy of life."
7. Give an account of the satiric poetry of the 16 th century.
8. "L'école de Ronsard a été totalement dépourvue du sens dramatique." Discuss.

GERMAN I. A.-COMPOSITION, UNSEEN TRANSLATION, HISTORICAL GRAMMAR.

DISTINCTION.
1. Translate into German-

A student of vegetation may "wake, and learn the world, and sleep again," not lying in wait for changes, but confident of that repetition which makes nature old and mystical to memory, and of that renewal which makes her young and simple to hope-a mother to the spirit and a child to the eye. The painter of mountains will not be defrauded by years of the ancient line upon the sky. The linked memories of all generations are not long enough, in all, to outwatch and to record a change in a little hill. He may be blind, or mad, or absent, but the shape of a bay will await his light, his reason, or his return. Not so with the student of ancient buildings, who would arrest the action of time, and who therefore must make his own hour of labour elastic with application and with vigilance; albeit mere time, Ruskin tells us, unbuilds so slowly that if men took pains, they might repair his action-not by the futile effort of "restorations" but by honest proppings that should confess their own date and purpose and make no confusions in the history of construction. It is not the unbuilding of time,
therefore, that presses the student, but the destruction wrought with violence by man, contemptuous and impatient of the work of the past, or confident that he can do something better with the stones unset and set up in another fashion.-(Alice Meynell.)
2. Translate (at sight)-

Die antike und die moderne Bildung sind in durchgängigem Streit. Der Neuere würde nur dadurch sich jene zueignen können, ohne diese aufzuopfern, dass er seine Eigentümlichkeit dem höhern allgemeingültigen Gesetz der mienschlichen Natur, in allen Urteilen, Ansichten und Gefühlen, unterordnete.-Eine Höhe, welche nur sehr wenige erreichen können: dio meisten Freunde der Alten erkaufen nur ihre Kenntnis derselben mit einer völligen Unkenntnis und blinden Geringscuätzung der Neuern: sie sehen in ihrem Zeitalter nichts als die Ruinen der zerstörten Menschheit, ilur gavzes Leben ist wie eine Elegie an der Urne der Vergangenheit. Statt sich die Harmonie, die Vollständigkeit der Alten zuzueiguen, verdoppeln sie nur ihre eigne Zerrïttung: ihr Herz verliert alle Schnellkraft, sie vergessen, dass die Bestimmung des Menschen mehr sei, als eine untätige Sehnsucht, sie ahnen nicht mehr die höhere Einheit, zu der die Verwirrung so mächtig hinstrebt.-Ueberhaupt ist unsre ganze alte Gelehrsamkeit eine äusserst zusammengesetzte, verworrene und buntscheckige Masse, im souderbareu Zusammenfluss streitender Ursachen, unter den ungleichartigsten Einfüssen erzeugt und gebildet, ohne Einheit des Plans, ja ohne Gleichartigkeit des Tons. (Fr. Schlegel, Vom Wert des Studiums der Griechen and Römer, 1796.)
3. Historical Grammar (only five questions to be attempted)-
(i.) Illustrate the relationship of Teutonic to the IndoEuropean group of languages, and state the laws involved in your examples.
(ii.) State and illustrate laws goveruing differences between \(H G\) and other Teutonic languages.
(iii.) Explain and illustrate the nature of Umlaut.
(iv.) Give the declension of Lote in \(O H G\) and \(N H G\), and comment on the difference of flexion-endings.
olviii.
FACULTY OF ARTS.
(v.) Explain the nature of the person-endings of verbs in Indo-European, and illustrate by present tense of tragen in \(O H G\) and \(M H G\).
(vi.) Comment on the following words and forms:-Alsbald, vielleicht, sween, Sucht, auserkiest, wird, worden, männiglieh, immer, nunmehr, Jemand, Leid, tät.
(vii.) State shortly the nature of \(O H G\) and \(M H G\) prosody.

GERMAN I. B.
DISTINCTION.
Short comments may be given, where thought necessary, on (1), (2), (3).
1. Translate, with comments, extracts from Heine, Lieder und Gedichte; Uhland, Hertzog von Schwaben; Kotzebue, Menschenhass und Reue.

> GERMAN II. AND III. A. DISTINCTION AND HONOURS.
> Two Houns.
1. Trauslate (at sight)-

Sapeling, Der int (begenjab in Fidte mo feiner reinen Jd)= tebre die dunfle giaturfeite des (beites beraufebute und Die Whiloiopgie wie die תunft mo Religion auf Der genialen \(\mathfrak{B i f i o n}\), der fogenamien intelleftuellem \(\mathfrak{A n i d}\) auntg, begriut= Dete, Gatte die freie gitlfuir in feinem Srmip, in Srgin feiner \(\mathcal{G}\) ebre, jette \(\mathfrak{B i f f f u ̈ r , ~ w e l d ) e ~ D e r ~ f i e r n ~ D e r ~ \Re o m a n t i f ~}\) ift. Sdon in feinem, "Brumo" (1802) Gatte ei Das fpäter fo Debeutime Stidywort,,dyriftide BShilofophie" cingeflod = ten, obidjon er nod) bebauptete, oné die Bibel an edjt religiöfen (3jebalte nidyt entfernt mit Den beiligen Büdjern ber Jnoer ju vergleiden jei, ein Stanopunft, welden fogar (burres im 2tufange feiner Sdriftitlerlaufbabn verfidt.
 Bägme und dic übrigen mpytifer vertiefte, begam er myitiod über "obie Matur in (3ott" jut phitopophieren, ein Uusbruff, den die fpefulative ©ogmatif, wie befamut, (päterbin fid) angeeignet gat; als er jebod furs nadyber
〔ifden Bayern jum (Jeneraljefretär, fpäter jum ねraifioenten Der enfabemie oer simifuidaften umo zum 2 Birfliden (3)egeimen \(\mathfrak{R a t}\) emannt umb in Den \(\mathfrak{F}\) deffand crgoben murbe,

Da begam die nadmalg io viel beprodene,, Differbarunge= philofopgie" in feiner Seele ju feimen. Wald war Die tumbanblung volljogen. Gus่ סem Sruergeifte war ein Syfling, aus bem gropbeten cin charlatan geworben, ber Durd) (Gebeimnisfrämerci, burd) feltame grogramme von
 Durd) Den lumfand, Dág er nie jeme Melsbeit brugen laffen, fonbent fie mar mündid) mitteilen ano nic ganz mitteilen wollte, fid) witroig madte, cinige Зeit mad) dem Tode Segels nad) Bertim berufon ju weroen, um der Stants:
 ftane biffre id) Sand zu leiften mo cine Etantenbitojoplie zu
 als (Shriftologie jein wulte. Bei Diejer (belegrnueit geidaab eg, daf die junge bemeration, die sinfe der Segelfaen
 tament jeben jertig.
2. Trạnslate into German-

It is said that those living in the midst of revolutions which. are changing the face of the world round them are frequently ignorant of the significance of what is taking place. And we know from history that this has often been the fact, and that men have had to pay a very heavy and sometimes a terrible penalty for their insensibility and unintelligence. But this is not likely to be the case with us. We are living in the midst of a revolution which is probably the most momentous, as assuredly it is one of the most silent, in the history of humanity. "Too full for sound or foam " is the mighty flood tide which is in very truth lifting mankind amain. But the silence with which this revolution is fulfilling itself does not disguise from us its tremendous significance, or lure us into conflict with the irresistible; depth and volume have, we know, other criteria than chafing surf and a tossing surface, and the fact that these are absent is not likely to tempt even an unwise man to emulate Mrs. Partington. 'I'he signs of our time are indeed writ large and visible everywhere. On all sides change: on all sides progress is manifest both within and without: within in newly a wakened sympathies and interests, in newly kindled desires and aspirations, in newly defined needs; without in grêat movements, and institutions and
reforms which are the expression of all this in fact. Some of us may be dissatisfied with much that is taking place, may regard this with dislike and that with suspicion, nay even with alarm, but no one can doubt that every tendency, every movement of our age is making towards emancipation, equalization, expansion. Err and stumble we may, but our errors are the generous errors of precipitation, and, if we stumble, we are at any rate stumbling along the right path.

\section*{GERMAN II. AND III. B. \\ DISTINCTION AND HONOURS.}

Condidates taking Course III. to mmit 1 (b) and 2 (a) and (d) with comments.
1. Extracts from Brant, Sachs, Fischart; Gryphius (for Third Year students only).

> GERMAN II. AND III. C.
> HONOURS AND DISTINCTION.
> Two Hours.
1. Write, in German, a short characterisation of the poetry and genius of Hans Sachs.
2. Describe the occasion and character of the Epistolae Obscurorum Firorum.
3. What are the main peculiarities of the 1 st and 2nd Silesian schools?
4. Characterise shortly the following writers:- Fischart, Rollenhagen, Fleming, Von Spee, Schubart, Grimmelshausen, Logau.
5. Compare and contrast Luther's Bible with the Engiish. authorised service of 1611 .

ENGLISH I. A. HONOURS AND DISTINCTION.
1. Translate, with notes on words underlined, passages from Cook's First Book in Old English.
2. Translate other passages from the same.
3. 'I'ranslate (at sight)-
pa pa Publius Cornelius ond Scipa Publius ond Sempronius Longus, pa hie wæron consulas, Hannibal abræc mid gefeohte ofer pa beorgas pe mon hæt Perenei, pa sindon betux Galleum ond Ispaneum, ond sibpan he gefor ofer
pa monegan peoda op he com to Alpis pem muntum, ond feer esc ofer abrec, peh him mon oftredlice mid gefeohtum witsto e, ond bune weg geworhte ofer munt lof. Swa poune he to \(\begin{aligned} & \text { そom } \\ & \text { syndrigum stane com, ponne het he }\end{aligned}\) hiene mid fyre onhretan ond sibpan mid mattucun heawan; ond mid bæm mæstan geswince pa muntas oferfor. His heres wæs an m fe \(\begin{gathered}\text { ena on } \\ x x\end{gathered}\) a gehorsedra.
4. (a) Give the principal parts of the verbs underlined in the passage above.
(b) "In general the chief distinction between the declension of masculines and that of neuters is in the plur. nom. acc."
Explain this, and give examples.
(c) When are Old English adjectives declined weak? Give typical examples, using the masculine, feminine, and neuter forms of the Acc. Sing. and the Gen. Pl. in each case.
5. Re-write in Old English-One day the bishop was in the church, and the brother who worked with his hands was outside at his labour. Suddenly the brother heard sounds of the most beatiful voices descending from heaven to earth. 'They entered the church and filled it all. When they had departed, the bishop gave a sign that the brother should go in, and he went. The bishop then said: "I have been summoned from this world, and after seven days angelic spirits will lead me to those heavenly joys promised to the servants of God."

ENGLISH I. B. DISTINCTION AND HONOURS.
1. Make a Modern English version of the passages from English Miracle Plays, ed. Pollard, and add notes on underlined expressions.
2. Explain fully, passages from the same.
3. Explain the grammatical form of passages from the same.
4. What stages in the development of the religious drama are represented by the Mysterium Resurrectionis D. N. Jhesu Christi, The Harrowing of Hell, and Secunda Pastorum of the Towneley Plays?
5. Sketch the rise and widest scope of the Miracle Play Cycle.
6. "There are great differences between the earlier moral dramas and their later and in every way inferior successors."
Show these differences in a contrast of any two or more typical specimens.
7. (a) Describe what is, historically, the particular distinction of the play on Mary Magdalen, or of Bale's King John; Or,
(b) Appreciate the element of characterisatiou in the older English drama, religious and secular.

> ENGLISH II. AND III. A. DISTINOTION AND HONOURS.

Section \({ }^{A}\) is.for Second Year Siudents only; Section 9 for Third Yiar Students only. Section © is common to both classes.

Section A.
1. Discuss the grammar of passages from the Crist, of Cynewulf.
2. What do you find to be the most distinguishing qualities of the Crist as literature?
3. Translate and explain a runic passage from the Crist.

\section*{Section}
4. Discuss the readings underlined in passages from the Crist.
5. "It seems that the Crist is an Anglian poem, written before the beginning of the ninth century, and critics are at one in placing the 'Floruit' of its poet during the second half of the eighth century."
Review this statement so as to reveal its grounds and those upon which any important alteration in it or reservation upon it might be made.
6. Translate a runic passage from the Crist.
7. Translate passages from the Crist.
8. Translate passages from the Grist, adding notes of other interpretations elsewhere suggested, but not accepted by you.

ENGLISH II. AND III. B.
HONOURS AND DISTINCTION.
Section 8 is for Third Year Students only; Section 8 is for both classes, but Question 5 may be omitted by Third Year Sludents. Section \(\begin{gathered}\text { al }\end{gathered}\)
1. Re-write, passages from Maclean's Old and Middle English Reader in E.W.S. (the normal literary dialect), and in regular manner ; also discuss the underlined forms.
2. Translate passages from the same.
3. Briefly appreciate the literary style of EITHER Flfred's prose, or The Havelok on The Bruce.

Section 盟.
4. Translate (at sight) -
(a) Hit gelamp on sumne sc̄l pret hī sāton ætgædere, Oswold and Aidān, on pām hālgan ēasterdæge; pā bær man pām cyninge cynelice pēnunga on ānum sylfrenan disce; and sōna pà inn ēode ān pres cyninges pegna pe his
 pā strēt gehwauon cumene tō pæs cyninges relmyssan. jā sęnde sē cyning sōna pâm pearfum pone sylfrenan disc mid sande mid ealle, and hēt tōceorfan pone disc and syllan pām pearfum heora \(\overline{\text { elc }}\) cum his dexl; and man
 cyninges swyypran hand mid swīlicre blysse, and clypode mid gelēafan, pus cweftende him tō, 'Ne forrotige on brosnuuge pēos geblētsode swy̆łre hand.' And him éac swā geēode, swā swā Aidānus him bæd, 弓æt his swīðre hand is gesundful of pis.
(b)

Hexlend hergar and Heofoncyninges
meahte merrsiaf, singað Metude lof.
Swīnsað sibgedryht swēga mēste -
hēdre ymb peet hālge hẽahseld Godes;

ēadge mid ęnglum efenhlēo \(\begin{gathered}\text { re } \\ \text { pus: }\end{gathered}\)
"Sib sī pē, sō \(\bar{\gamma}\) God and snyttrucreft, and pē ponc sy prymsittendum geongra gyfena, gōda gehwylces! Micel unnǣte mægnes stręngðu hēah and hālig! Heofonas sindon fegre gefylled, Fædөr ælmihtig, ealra brymma brym, pines wuldres ūppe mid eqnglum and on eorðan semod!"
5. Re-write in Old English prose-

The suu and moon, heaven's candles, shine for all men in the world. Dew and rain descend; they call forth plenty for the nourishment of man, and increase the riches of the earth. For all this, therefore, we ought to give thanks, remembering the abundance we have beneath the shelter of the sky.
clxiv.

FACULTY OF ARTS.
6. Discuss one of the following-
(a) "We represent our modern pronunciation by means of symbols imperfectly adapted to an Elizabethan pronunciation."
(b) "The use of \(e e\) for the sound which it at present has in see dates back to the fifteenth century, and is the most momentous change which our pronunciation has ever undergone."
(c) "Jespersen's analphabetic notation has one great advantage over Bell's in being based on a more advanced phonetic analysis."
7. Re-write, in your own pronunciation, a phonetically printed passage from Shakespeare, and add a description of the underlined sounds.

MATHEDIATICS I.-GEOMETRY AND CONICS. HONOURS.
1. ABCD is a cyclic quadrilateral, prove that \(\sin A: \sin B=B D: A C\), and that
\[
\mathrm{AB} \cdot \mathrm{BC}+\mathrm{AD} \cdot \mathrm{VC}: \mathrm{BA} \cdot \mathrm{Al}+\mathrm{BC} \cdot \mathrm{CD}=\mathrm{BD}: \mathrm{AC} .
\]
2. Define the anharmonic ratio of a range of four points, and of a pencil of four rays, and show that the ratio of a pencil is equal to the ratio of the four points made by any transversal
Show that the A.R. of a pencil of four rays is equal to that of the range formed by the poles of these rays with respect to any coplanar conic.
3. If a sphere can be drawn touching all the six edges of a tetrahedron, prove that the sum of each pair of opposite edges is the same.
4. In a parabola prove that \(Q V^{2}=4\) SP. PV .

If PG is the normal to a parabola, show that the length of the chord through \(G\), parallel to the tangent at \(P\), is \(4 \sqrt{ } 2 S P\).
5. If the normal to a conic at \(P\) meets the major axis in \(G\), prove that \(\mathrm{SG}=e . \mathrm{SP}\).
The tangent at \(P\) meets the latus rectum in \(D\) and \(S Y, S Z\) are drawn perpendicular to GD and the tangent; show that \(\mathrm{SY}=e . \mathrm{SZ}\).
6. The intercept made by the asymptotes on any tangent to a hyperbola is bisected at the point of contact.
\%. Find the equation of a straight line passing through the intersection of two given lines
If \(y=m(x+a)\) and \(y=n(x-a)\) are the sides AB and AC of a triangle ABC , whose hase BC or \(\stackrel{2}{ } a\) is given on the axis of \(x\), and \(y=l(x+h)\) a transversal cutting \(\mathrm{AB}, \mathrm{AC}\) in \(Q\) and \(R\), show that the equation of \(Q C\) is
\[
\operatorname{lm}(a-h)(x-a)=\{2 m a-l(a+h)\} y .
\]
8. Prove that \(y=m x+\sqrt{ }\left(m^{2} a^{2}+b^{2}\right)\) always touches the ellipse \(x^{2} / a^{2}+y^{2} / b^{2}=1\).
Find the locus of the point of intersection of two perpendicular tangents.
9. In the equation to a straight line in the form
\[
\frac{x-\xi}{\cos \theta}=\frac{y-\eta}{\sin \theta}=r,
\]
explain the geometrical meanings of \((\xi, \eta)\), of \(\theta\) and of \(r\).
Prove that the locus of the middle points of chords of constant length \(2 d\) of the hyperbola \(x y=a^{2}\) is
\[
\left(a^{2}-x y\right)\left(x^{2}+y^{2}\right)+d^{2} x y=0
\]
10. Find the angle between the two lines represented by
\[
a x^{2}+2 h x y+b y^{2}=0
\]
and find the condition these lines should be perpendicular. Also find the equation of the two lines through the point \((\xi, \eta)\) perpendicular to \(a x^{2}+2 h x y+b y^{2}=0\).

\section*{MATHEMATICS I.-ALGEBRA AND TRIGONOMETRY.} squarrd paper and logarithm tables to be provided.

\section*{HONOURS.}
1. Show that the cubic equation
\[
a_{0} x^{3}+3 a_{1} x^{2}+3 a_{2} x+a_{3}=0
\]
can be changed into the form
\[
x^{3}+3 p x+q=0
\]
and find the condition that the roots of the second equation are all real.
2. Show that the equation
\[
x^{3}-4 x+2=0
\]
has a root between -3 and -2 , another between 0 and 1 , and a third between 1 and 2. Also find the third root correct to two decimals.
clavi.
FACULTY OF ARTS.
3. State the Exponential Theorem, and show that a limit can be given to the error made in stopping at any term of the series.
Prove that \(\theta^{\frac{1}{1}}\) correct to four decimals is \(1 \cdot 1052\).
4. Prove that
\[
\log ^{1+x}=2\left(x+\frac{x^{3}}{3}+\frac{x^{5}}{5}+\ldots\right)
\]

Calculate \(\log \frac{3}{2}\) from this series, putting \(x=\frac{1}{5}\), and show that correct to 6 decimal places its value is 405465 .
5. State, without proof, the range of values of \(x\) for which the series
\[
\frac{1}{1^{x}}+\frac{1}{2^{x}}+\frac{1}{3^{x}}+\ldots
\]
is convergent.
Show that if convergent, it lies between the numbers
\[
\frac{2^{x}-1}{2^{x}-2} \text { and } \frac{2^{x}}{2^{x}-2}
\]
6. Prove that the perimeter of the pedal triangle is
\(4 R \sin A \sin B \sin C\),
and that its area is
\(\frac{1}{2} \mathrm{R}^{2} \sin 2 \mathrm{~A} \sin 2 \mathrm{~B} \sin 2 \mathrm{C}\).
7. Prove that when \(n\) is any integer,
\[
\cos n \theta=\cos ^{n} \theta-\frac{n(n-1)}{1 \cdot 2} \cos ^{n-2} \theta \sin ^{2} \theta+\ldots
\]
and that when the sines are eliminated the term in \(\cos ^{2} \theta\) becomes \(2^{n-1} \cos ^{n} \theta\).
Deduce that \(\frac{\cos n \theta}{\cos \theta}\)
\(=2^{n-1}\left(\sin ^{2} \frac{\pi}{2 n}-\sin ^{2} \theta\right)\left(\sin ^{2} \frac{3 \pi}{2 n}-\sin ^{2} \theta\right) \ldots\left(\sin ^{2} \frac{(n-2)}{2 n} \pi-\sin ^{2} \theta\right)\), when \(n\) is odd.
And that \(\cos n \theta\)
\(=2^{n-1}\left(\sin ^{2} \frac{\pi}{2 n}-\sin ^{2} \theta\right)\left(\sin ^{2} \frac{3 \pi}{2 n}-\sin ^{2} \theta\right) \ldots\left(\sin ^{2} \frac{(n-1)}{2 n} \pi-\sin ^{3} \theta\right)\) when \(n\) is even.
8. Show how the equation \(a x=\tan . b x\) can be solved graphically.
Verify from your Tables that the smallest positive root of the equation \(\tan x=2 x\) lies between \(1 \cdot 1\) and \(1 \cdot 2\).
9. Define \(\sin h x\) and \(\cos h x\).

Prove, from your definitions, that
\[
\sin h(x+y)=\sin h x \cos h y+\cos h x \sin h y,
\]
\(\cos h(x+y)=\cos h x \cos h y+\sin h x \sin h y\).
10. Show that
\(\tan x-24 \tan \frac{x}{2}\)
and \(4 \sin x-15 x\)
differ only by quantities of higher order than the sixth.

> MATHEMATICS I.-ELEMENTARY CALCULUS AND MECHANICS. HONOURS.
1. Show how the Differential Calculus can be used to find the equations of the tangent and normal at any point of a plane curve \(y=f(x)\).
2. Find the equations of the tangent and normal at each of the points on the curve \(y^{2}=x^{3}\) where \(x=4\). Draw a diagram of the curve.
3. Differentiate the following expressions
(i.) \(\frac{x}{a^{2}+x^{2}}\),
(ii.) \(\left(a^{2}+x^{2}\right) \tan ^{-1} x-x^{2} \sin ^{-1} \frac{x}{\sqrt{x^{2}+1}}\),
(iii.) \(\left(\frac{x^{2}-x+1}{x^{2}+x+1}\right)^{2}\).
4. Since \(\frac{d y}{d x}=\frac{\delta y}{\delta x}\) approximately, when \(\delta x\) is very small, the value of the differential coefficient can be used in finding the small increase in a function for a small increase in the variable. Apply this method to the following cases :
(i.) Find approximately the value of
\[
2 x^{3}-9 x^{2}+12 x-3
\]
for \(x=2 \cdot 005\).
clxviii.

FACULTY OF ARTS.
(ii.) Without using your tables, find approximately the value of \(\sin 20^{\circ} 6^{\prime}\), given
\(\sin 20^{\circ}=3420\),
\(\cos 20^{\circ}=9397\).
Check your answer from the tables.
5. Find by integration
(i.) The area of the parabola \(4 y=x^{2}\) from the origin to the latus rectum ;
(ii.) The centre of gravity of the portion of the parabola \(4 y=x^{2}\) cut off by the latus rectum;
(iii.) The volume generated by the same portion of the same parabola revolving round its axis.
6. A mass of 10 lbs . rests on a smooth horizontal table. A string tied to it passes over a pulley \(A\) on the edge of the table and under another 13 , and is fixed at C so that the strings between the pulleys are vertical. From B is suspended a mass of 8 lbs. Find the acceleration of each mass, and the tension of the string.
7. A particle moves in a straight line \(O x\), so that its distance from \(O\) at time \(t\) is given by \(a \cos \omega t\). Find its velocity and acceleration, and discuss the nature of its motion.
A weight 10 lbs. is suspended by an elastic string of unstretched length 1 ft ., of which the coefficient of elasticity is 112 lbs . Find the position of equilibrium and the time of a small vertical oscillation.
8. Find the conditions of equilibrium of a body acted on by coplanar forces.
9. Four equal rods each of weight \(W\) are jointed so as to form a square \(A B C D\), the opposite corners \(A, C\) being joined by a rod whose weight may be neglected. The square rests on a horizontal plane with AC vertical. Find the thrust on AC.
10. A particle is projected with velocity \(u\) at an inclination \(a\) to the horizon, find its range on a plane, inclined at \(\beta\) to the horizon, which passes through the point of projection.
If the particle strikes the plane at right angles, prove that \(\tan \alpha=2 \tan \beta+\cot \beta\).

\section*{MATHEMATICS II.-STATICS AND DYNAMICS. HONOURS.}
1. Prove that two like couples of equal moment in the same plane are equivalent to one another.

Forces are completely represented by the edges \(\mathrm{AB}, \mathrm{BC}\), OD, and DA of a tetrahedron ABCD. Prove that they are equivalent to a couple in the plane which bisects: these four edges, and whose moment is represented by four times the area of the section of the tetrahedron made by that plane.
2. A uniform cylinder is placed on a rough inclined plane with its axis horizontal, and kept from rolling down by a string wrapped round its middle and fastened to a point in the plane above the cylinder. . Show that equilibrium is limiting if
\[
\sin (a-\lambda)=\sin \lambda \cos \theta,
\]
where \(\lambda\) is the augle of friction and \(a, \theta\) the inclinations of the plane and string to the horizontal.
3. Prove that the C.G. of a solid hemisphere is in the principal radius, and distant \(\frac{3 r}{8}\) from the centre.
A solid hemisphere rests on a horizontal plane rough enough to prevent slipping; find the time of a small oscillation about the position of equilibrium.
If the plane is gradually tilted about one end till the hemisphere is on the point of capsizing and slipping simultaneously, shew that the inclination of the plane is equal to the angle of friction and to \(\tan ^{-1} \frac{3}{8}\).
4. Show that the components of the velocity of a moving particle are \(\frac{d r}{d t}\) and \(\frac{r d \theta}{d t}\) radially and at right angles to the radius.
A particle P has two constant velocities \(u, v, u\) being in a fixed direction, and \(v\) perpendicular to the radius joining the fixed origin \(O\) to the position of the particle \(P\). Prove that the orbit of \(P\) is a conic of eccentricity \(\stackrel{u}{v}\).
5. A particle describes a conic under a force \(\frac{\mu}{r^{2}}\), prove that its orbit is an ellipse, parabola or hyperbola according as \(v^{2}<=\) or \(>\frac{2 \mu}{r}, v\) being its velocity when at a distance \(r\). from the focus.
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If the orbit is an ellipse, show that the periodic time is
\[
\frac{2 \pi}{\sqrt{\mu}}\left(\frac{2}{r}-\frac{v^{2}}{\mu}\right)-\frac{3}{4}
\]
6. Integrate the equation \(\frac{d^{2} x}{d t^{2}}=-\mu x\); if this represents the motion of a weight at the end of a vibrating spring, state the physical interpretation of the two constants that arise in the integration.
A spring stretches 01 feet when a weight of 10 lbs . is hanging in equilibrium from it; an additional pound is attached to the 10 lbs. , and at once set free to move. Find the maximum elongation, the time of an oscillation, and the position of ultimate rest.
7. Show how to find the equations of motion of a Rigid Body moving so that all the particles move parallel to a fixed plane. Prove that the centre of gravity of the body moves as if all the mass were collected at that point, and all the applied forces were acting on it in directions parallel to those in which they act, and that the motion of the body relative to the centre of gravity is the same as if this centre were fixed, and the same forces acted.
8. What is meant by the equation of energy ?

Prove the truth of this equation in the case of a Rigid Body moving in two dimensions under gravity, wheu the constraining forces do no work. The motion of the body is to be specified by the velocity of the centre of gravity and the angular velocity.
A uniform rod (2a) is placed in a vertical position, with one end resting on a smooth horizontal plane, and slightly disturbed, show that it strikes the plane with an angular velocity \(\sqrt{\frac{3 g}{2 a}}\).

\section*{MATHEMATICS II.-DLFFERENTIAL AND INTEGRAL CALCULUS. HONOURS.}
1. Show how the differential calculus can be used in finding the equations of the tangent and normal at any point on a curve whose equation is given.

Find the equations of the tangent and the normal of the curve
\[
x^{5}=a^{3} y^{2}
\]
at the point distinct from the origin in which it is cut by the line
\[
y=x .
\]
2. Show that the expression
\[
8 \cos ^{4} x-16 \cos ^{2} x+5
\]
is equal to
\(\cos 4 x-4 \cos 2 x\).
Also that its minimum value, -3 , occurs for \(x=n \pi\), and its maximum value, 5 , for
\[
x=(2 n+1) \frac{\pi}{2}
\]
\(n\) being zero, or any positive or negative integer.
3. Prove that the curve \(y=f(x)\) is concave upwards when
\[
\frac{d^{2} u}{u x^{2}}>0
\]
and convex upwards when
\[
\frac{d^{2} y}{d x^{2}}<0 .
\]

Also that a necessary condition for a point of inflection is
\[
\frac{d y}{d x^{2}}=0 .
\]

Prove that the curve
\(y=5 \sin x-4 \sin 2 x+\sin 3 x\)
has a point of inflection when
\[
9 \cos x=-1 .
\]
4. Prove that
\[
\frac{d}{d x} \sin ^{-x} \cdot x= \pm \frac{1}{\sqrt{1-x^{2}}},
\]
and point out the ranges of values of \(\sin ^{-1} x\) for which the positive sign, and the ranges for which the negative sign, must be taken.
Also show that
\[
\frac{d}{d x} \sinh ^{-1} x=\frac{1}{\sqrt{x^{2}+1}}
\]
without ambiguity of sign:

Illustrate your answer from the curves
\[
\begin{aligned}
& y=\sin ^{-1} x \\
& y=\sinh ^{-1} x
\end{aligned}
\]
5. Prove that
\[
\frac{1}{p^{2}}=u^{2}+\left(\frac{d u}{d \theta}\right)^{2} .
\]

Hence show that in the conic
\[
\frac{l}{r}=1+e \cos \theta
\]
the perpendicular SY from the focus is given by
\[
\mathrm{SY}^{2}=\frac{l^{2}}{1+2 e \cos \theta+e^{2}}
\]
6. Prove that
\[
\left(\frac{d s}{d x}\right)^{2}=1+\left(\frac{d y}{d x}\right)^{2}
\]

Show that the length of the are of the parabola \(y^{\prime \prime}=4 a x\) intercepted between the points of intersection of the parabola and the line \(3 y=8 x\) is
\[
a\left[\log 2+\frac{15}{16}\right]
\]
7. Obtain the equations of the cycloid with its vertex turned upwards, viz
\[
\begin{aligned}
& x=a(\theta-\sin \theta) \\
& y=a(1-\cos \theta) .
\end{aligned}
\]

Also find
(i.) the area between the cycloid and its base;
(ii.) the volume of the solid of revolution whose axis is this base and meridian curve this cycloid.
8. Evaluate the following definite integrals
(i.) \(\int_{0}^{a} \sqrt{a^{2}-x^{2}} d x\).
(ii.) \(\int_{0}^{\frac{\pi}{2}} \frac{d \theta}{a^{2} \sin ^{2} \theta+b^{2} \cos ^{2} \theta}\).
(iii) \(\int_{0}^{\frac{\pi}{2}} \sin ^{n} \theta d \theta\),
when \(n\) is (a) an even or (b) an odd positive integer.
9. Prove that
\(\int_{0}^{\frac{\pi}{2}} \frac{\sin ^{2} \theta d \theta}{a^{2}+b^{2} \sin ^{2} \theta}=\frac{1}{b^{2}} \int_{0}^{\frac{\pi}{2}}\left(1-\frac{a^{2}}{a^{2}+b^{2} \sin ^{2} \theta}\right) d \theta\),
and hence evaluate the integral.
10. Expand
\[
\log \frac{\sin x}{x} \text { and } \log \cos x
\]
by MacLaurin's Theorem, or otherwise, to the fourth power of \(x\), and hence show that
\(\log \sin x=\log x-\frac{1}{45} \log \cos x+\frac{64}{45} \log \cos \frac{x}{2}\),
neglecting terms higher than \(x^{4}\).
MATHEMATICS II.-SPHERICAL TRIGONOMETRY AND .
DIFFERENTIAL EQUATIONS.
HONOURS.
1. Prove the formulæ
(i.) \(\cos a=\cos b \cos c+\sin b \sin c \cos A\).
(ii.) \(\frac{\sin A}{\sin a}=\frac{\sin B}{\sin b}=\frac{\sin C}{\sin c}\).

Investigate what these formule become when the triangle becomes plane owing to the radius of the sphere becoming infinite.
2. Explain what is meant by the polar triangle of a spherical triangle, and prove that if \(\mathrm{A}^{\prime} \mathrm{B}^{\prime} \mathrm{C}^{\prime}\) is the polar triangle of ABC , then \(\mathrm{A}^{\prime}=180^{\circ}-a\).
If \(A\) denotes an angle of an equilateral triangle, and \(A^{\prime}\) an angle of the polar triangle, prove that
\[
\cos \mathrm{A} \cos ^{2} \mathrm{~A}^{\prime}=\cos \mathrm{A}+\cos \mathrm{A}^{\prime} .
\]
3. Investigate three formulæ connecting the sides and angles of a right-angled triangle.
Assuming that the earth is a sphere of 8000 miles diameter, find how much shorter it is to sail by a great circle than by a parallel of latitude from a place in lat. \(34^{\circ} \mathrm{S}\)., long. \(154^{\circ} \mathrm{E}\), to a place in lat. \(34^{\circ} \mathrm{S}\) long. \(75^{\circ} \mathrm{W}\).
4. Prove that the area of a spherical triangle \(=(\mathrm{A}+\mathrm{B}+\mathrm{C}-\pi) r^{2}\) where \(r\) is the radius of the \(s p h e r e=r^{2} E\) where \(\mathrm{E}=\mathrm{A}+\mathrm{B}+\mathrm{C}-\pi\) is called the spherical excess.
5. If \(A B C\) is a spherical triangle, and \(X, Y\) are the middle points of BC, CA, prove that the great circle joining XY meets the base of the triangle at two points each \(90^{\circ}\) from its middle point.
If \(O\) is the pole of the circle XY remote from C, prove that the angle \(\mathrm{OAB}=\) one half the spherical excess of the triangle ABC.
6. Show how to solve the equation
\[
\mathrm{M}+\mathrm{N} \frac{d y}{d x}=0,
\]
where M, N are homogeneous functions of \(a\) and \(y\) of the same degree.
Solve the equation
\[
\left(1+\frac{y^{2}}{x^{2}}\right) d x-\frac{2 y d y}{x}=0
\]
7. What is a singular solution of a differential equation? Investigate the geometrical relation between the complete integral and the singular solution of a differential equation.
Find the complete primitive and singular solution of the equation
\[
y=(x-1) p-p^{2} .
\]
8. What is meant by an orthogonal trajectory of a system of curves?
If the differential equation of a system of curves is
\[
\mathrm{F}(x, y, p)=0,
\]
prove that the differential equation of the orthogonal trajectory of the system is
\[
\mathrm{F}\left(x, y,-\frac{1}{p}\right)=0 .
\]

Find the orthogoual trajectory of a system of circles touching the axis of \(x\) at the origin.
9. Discuss the general solution of linear equations with constant coefficients, distinguishing the cases where the auxiliary equation has (i.) a pair of real repeated roots, (ii.) a pair of imaginary roots.
Solve the equations
(i.) \((\mathrm{D}-1)^{2}(\mathrm{D}+1) y=e^{2 x}+\sin 2 x\),
(ii) \(\left(\mathrm{D}^{2}+1\right)(\mathrm{D}-3) y=\cos m x\),
(iii.) \(\left.\begin{array}{r}\frac{d: e}{d t}+4 x+\frac{y}{4}=0, \\ \frac{d y}{d t}+3 y--x=0 .\end{array}\right\}\)

\section*{MATHEMATICS III.-SOLID GEOMETRY.}
HONOURS.
1. Find the angle between two straight lines whose direction cosines are given.
2. Find the equation to the plane through the line
\[
\frac{x-a}{l}=\frac{y-\beta}{m}=\frac{z-q}{n}
\]
parallel to the line
\[
\frac{x}{l^{\prime}}=\frac{y}{m^{\prime}}=\frac{s}{n^{\prime}}
\]

Find also the length of, and the equation to, the shortest distance between the two lines.
3. Show that the equations of any two straight lines can be put in the form
\[
y=m x, z=c, \text { and } y=-m x, s=-c .
\]

Find the surface generated by a straight line that intersects two given lines and makes a right angle with one of them.
4. Find the equation of the right circular cone which has its vertex at the point ( \(a, \beta, \eta\) ), and for its base the circle \(s=0, x^{2}+y^{2}-2 a x-2 \beta y+c=0\).
5. Describe briefly the nature of the surfaces
\[
\frac{x^{2}}{a^{2}}+\frac{y^{2}}{b^{2}}+\frac{s^{2}}{c}=1, \cdot \frac{x^{2}}{a^{2}}+\frac{y^{2}}{b^{2}}-\frac{\mathrm{s}^{2}}{c^{2}}=1, \quad \frac{x^{2}}{a^{2}}-\frac{y^{2}}{b^{2}}-\frac{x^{2}}{c^{2}}=1
\]
illustrating your description with diagrams.
6. What is meant by the discriminating cubic? Why is it so called? In the case of the conicoid \(a x^{2}+b y^{2}+c z^{2}+2 f y z+2 g z x+2 h x y+2 u x+2 v y+2 u s+d=0\), find the equation of the discriminating cubic.
Find the nature of the surface
\[
x^{2}+y^{2}+s^{2}-2 y s+2 x x-2 x y-2 x-4 y-2 z+3=0
\] and the equation to its determinate principal plane.
7. Prove that a hyperboloid of one sheet can be generated by straight lines belonging to either of two systems which are such that (1) no line of either system intersects any other line of that system, (2) every line of one system intersects every line of the other system.
Find the generating lines of
\[
\begin{aligned}
& \frac{x^{2}}{4}+\frac{y^{2}}{9}-\frac{\mathrm{s}^{2}}{16}=1 \\
& \text { at }(2,3,-4) .
\end{aligned}
\]
8. Show how to find the envelope of a system of surfaces whose equation contains one parameter, and show that each surface touches the envelope at all points of a curve. Find the envelope of the planes \(l x+m y+n z=0\), where \(a z^{2}+b m^{2}+c a^{2}=0\).
9. What is meant by the osculating plane at any point of a tortuous curve? Find its equation where the coordinates \(x, y, z\) are given functions of some quantity \(t\).
Show that the condition that four consecutive points of a. curve shall be coplanar is
\[
\left|\begin{array}{ccc}
x^{\prime} & y^{\prime} & s^{\prime} \\
x^{\prime \prime} & y^{\prime \prime} & s^{\prime \prime} \\
x^{\prime \prime \prime} & y^{\prime \prime \prime} & s^{\prime \prime \prime}
\end{array}\right|=0
\]
10. Prove that if \(\rho_{1}, \rho_{2}\) are the radii of curvature of the principal sections at any point on a surface, and \(\rho\) is the radius of curvature of a normal section making an angle \(\theta\) with the normal section whose radius of curvature is \(\rho_{1}\) then
\[
\frac{1}{\rho}=\frac{\cos ^{2} \theta}{\rho_{1}}+\frac{\sin ^{2} \theta}{\rho_{2}}
\]

MATHEMATICS III.-DYNAMICS.
HONOURS.
1. A uniform rod, hinged at its lower end, rests at an angle \(60^{\circ}\) to the horizontal, against a rough sphere resting on a horizontal plane passing through the hinge, and the centre of the sphere is in the vertical plane containing the rod. 'The length of the rod is three times the diameter of the sphere, and their weights are equal. Shew that the coefficient of friction between the sphere and rod cannot be less than \(\tan 30^{\circ}\), and between the sphere and plane cannot he less than \(\tan 15^{\circ}\).
2. Write donn the equation of motion for rectilinear motion under the action of an attracting force varying inversely as the square of the distance, and integrate it.
If the acceleration at the earth's surface is \(g\), and the radius of the earth, assumed a sphere, is \(\alpha\), show that the time of falling through a small height \(h\) is
\[
\sqrt{\frac{2 h}{g}}\left(1+\frac{5 h}{6 a}\right)
\]
the resistance of the air being ignored.
3. In a parabolic orbit described about the focus as the centre of force, prove that
\[
r^{2} \frac{d \theta}{d t}=\sqrt{2 a \mu}
\]
\(4 a\) being the latus rectum of the parabola.
Hence show that the interval from perihelion to position \(\theta\) is given by
\[
\sqrt{\frac{2 a^{3}}{\mu}} \cdot\left(\tan \frac{\theta}{2}+\frac{1}{3} \tan ^{3} \frac{\theta}{2}\right)
\]
4. A comet is moving in a parabolic orbit in the plane of the ecliptic. Show that the maximum time it can be within the earth's orbit, considered as a circle, is \(\frac{2}{3 \pi}\) years.
6. The axes of reference, \(\mathrm{O} x, \mathrm{O} y\), are revolving with constant angular velocity \(w\) about the origin. Ubtain expressions for the space-velocities along the axes with which the moving axes temporarily coincide.
If these velocities are
\[
\frac{a^{2}-b^{2}}{a^{2}+b^{2}} \omega y \text { and } \frac{a^{2}-b^{2}}{a^{2}+b^{2}} \omega x
\]
respectively, show that the particle describes an ellipse relative to the moving axes in the periodic time
\[
\frac{\pi\left(a^{2}+b^{2}\right)}{\omega a b}
\]
6. Prove that the centre of gravity of a body moves as if all the mass were collected at it, and all the applied forces were acting on it in directions parallel to those in which they act, and that the motion of the body relative to the centre of cravity is the same as if this centre were fixed, and the same forces acted.
7. A particle \(m\) on a smooth horizontal table is joined by a fine striug passing through a hole in the table to an equal mass hanging freely. Find the velocity with which the particle on the table must revolve in a circle of radius \(a\), so that the hanging particle may remain at rest. If this motion be slightly disturbed, prove that the period of the resulting oscillation is
\[
2 \pi \sqrt{\frac{2 a}{3 g}} .
\]
8. Prove Lagrange's equations-
\[
\frac{d}{d t}\left(\frac{\partial \mathrm{~T}}{\partial \dot{\theta}}\right)-\frac{\partial \mathrm{T}}{\partial \theta}=\frac{\partial \mathrm{V}}{\partial \theta} \text { and similar equations, }
\]
where T is the kinetic energy of the system, V the work function, and \(\theta, \phi \& c\)., the co-ordinates.
A uniform rod of mass \(3 m\), and length \(2 l\), can revolve about its middle point, which is fixed. A mass \(m\) is placed at one end, and the rod when in a horizontal position is set revolving about a vertical axis with angular velocity \(\sqrt{\frac{2 g}{l}}\). Show that the loaded end will fall till the inclination of the rod to the vertical is \(\cos ^{-1}(\sqrt{ } 2-1)\) and then rise again.
9. Use Euler's equations-
\[
\mathrm{A} \frac{d \omega_{1}}{d t}-(\mathrm{B}-\mathrm{C}) \omega_{2} \omega_{3}=\mathrm{L}
\]
and two corresponding equations, to show that in the case of a rigid body, symmetrical about an axis, and acted on by forces all passing through its centre of gravity, the axis of rotation will describe a cone about the axis of symmetry.

MATHEMATICS III.-SFHERICAL TRIGONOMETRY AND ASTRONOMY.

HONOURS.
a. Two sides, \(a, b\), and the included angle \(C\) of a spherical triangle being given, the third side may be found thus-
\[
\cos c=\frac{\cos b}{\cos \phi} \cos (a-\phi)
\]
where \(\tan \phi=\cos \mathrm{C} \tan b\).

Prove this and give a geometrical construction for the angle \(\phi\).
2. Prove geometrically the two formule for expressing an angle of a right angled spherical triangle in terms of (i.) the hypotenuse and the opposite side, (ii.) the two sides.
If \(a, \cdot A\) are a side and angle of an equilateral and equiangular quadrilateral, prove that the diagonals bisect one another at right angles, and that
\[
\cos \dot{A}=\tan ^{2} \frac{a}{2} \text { and } \cos a=\tan ^{2} \frac{A}{2}
\]
3. If \(D, E, F\) are the middle points of the sides \(B C, C A, A B\) of a spherical triangle, show that EF meets BC at two points distant \(\frac{\pi}{2}\) from D.
If the triangle is equilateral, each angie being A and each side \(a\), show that
\[
2 \cos \frac{a}{2} \sin \frac{A}{2}=1,
\]
and that if EF is \(a_{1}\), then \(2 \sin \frac{a_{1}}{2}=\tan \frac{a}{2}\).
4. Being given the R.A. and N.P.D. of a star show how to find its altitude and azimuth at a given time and place.
Find the azimuth of a star of declination \(\delta\) when its altitude at a place in latitude \(\lambda\) is \(\sin ^{-1}(\sin \delta \operatorname{cosec} \lambda)\).
5. On what grounds is it inferred that the earth and planets move round the sun, and not as formerly supposed that the sun and planets move round the earth?
6. What are the causes of the Equation of lime?

Prove that the maximum value of the equation of time due to the obliquity \((\omega)\) of the ecliptic is \(\frac{720}{\pi} \sin ^{-1}\left(\tan ^{2} \frac{\omega}{2}\right.\) minutes. If this is 10 minutes, prove that the declination of the sun then is \(\cos ^{-1} \cdot 957\) nearly.
7. Show that the minimum distance apart of the sun's and moon's centres at a solar eclipse is \(\beta \cos \mathrm{I}^{\prime}\) where \(\beta\) is the moon's latitude at conjunction in right ascension and \(\tan I^{\prime}=\frac{\lambda}{\lambda-1} \tan I, \lambda\) being the ratio of the moon's motion
in longitude to the sun's, and I the inclination of the moon's orbit to the ecliptic.
8. Show also that an eclipse is impossible or possible according as \(\beta \cos \mathrm{I}^{\prime}>\) or \(<\) sun's rad. + moon's rad. + sun's parallax - moon's parallax.

MATHEMATICS LII.-HIGHER INTEGRAL CALCULUS AND ELASTICITY.
HONOURS.
Fot more than Eight guestinns to be anstcered.
1. Prove that
\[
\int_{b}^{\infty} \frac{d x}{(x+a) \sqrt{x-b}}=\frac{\pi}{\sqrt{a+b}},
\]
and explain the meaning of the expression on the left hand side.
With the aid of the Second Theorem of Mean Value, or otherwise, prove that the infinite integral
\[
\int_{a}^{\infty} x^{-n} e^{\sin x} \sin 2 x d x
\]
is convergent when \(n\) and \(a\) are both positive.
2. By expansion in powers of a prove that if \(|a|<1\)
\[
\begin{aligned}
& \int_{0}^{\infty} e^{-x}\left(1-e^{-a x}\right) \frac{d x}{x}=\log (1+a) \\
& \int_{0}^{\frac{\pi}{2}} \operatorname{tai}^{-1}(a \sin x) \frac{d x}{\sin x}=\frac{\pi}{2} \sinh ^{-1} a
\end{aligned}
\]
and discuss the legitimacy of term by term integration in each case.
3. Obtain the value of the integral
\[
\int_{0}^{\frac{\pi}{2}} \sin ^{p} \theta \cos ^{q} \theta d \theta \quad(p>0, q>0)
\]
in terms of Gamma Functions.
Prove that
\[
\int_{0}^{1} \frac{d x}{\sqrt{1-x^{4}}}=\sqrt{\frac{8}{\pi}}\left[\Gamma\left(\frac{5}{4}\right)\right]^{2} .
\]
4. Show that
(i.) \(\int_{0}^{\infty} \frac{x^{\dot{a}-1}}{x+1} d x=\frac{\pi}{\sin a \pi}, \quad(0<a<1)\).
(ii.) \(\int_{0}^{\infty} \frac{\cos a x}{1+x^{2}} d x=\frac{\pi}{2} e^{-a}\),
(iii.) \(\int_{0}^{\infty} \frac{\cos a x-\cos b x}{x^{2}} d x=\frac{\pi}{2}(b-a),(a>0, b>0)\).

5 If a function \(f(x)\) can be expressed by a series
\[
a_{0}+a_{1} \sin x+a_{2} \sin 2 x+\ldots
\]
when \(x\) is in the interval 0 to \(\pi\), find expressions for the coefficients.
Prove that
\(x^{2}=\frac{2}{\pi}\left[\left(\frac{\pi^{2}}{2}-\frac{4}{1^{3}}\right) \sin x-\frac{\pi^{2}}{2} \sin 2 x+\left(\frac{\pi^{2}}{3}-\frac{4}{3^{3}}\right) \sin 3 x-\& \mathrm{c}.\right]\).
6. A body is strained so that the component displacements can be expressed as linear functions. of the coordinates. Prove some of the characteristics of this form of strain, called homogeneous strain.
7. Prove that if the strain quadric
\[
e_{x x} x^{2}+e_{y y}^{1} y^{2}+e_{z z} z^{2}+e_{y z} y z+e_{z z} z x+e_{x y} x y=\text { constant }
\]
is transformed by the substitution
\[
\begin{aligned}
& x=l_{1} x^{\prime}+l_{2} y^{\prime}+l_{3} z^{\prime} \\
& y=m_{1} x^{\prime}+m_{2} y^{\prime}+m_{3} z^{\prime} . \\
& s=n_{1} x^{\prime}+n_{2} y^{\prime}+n_{3} z^{\prime},
\end{aligned}
\]
it becomes
\(e_{x^{\prime} x^{\prime}} x^{\prime 2}+e_{y^{\prime} y^{\prime}} y^{\prime 2}+e_{z^{\prime} z^{\prime} z^{\prime 2}}+e_{y^{\prime} z^{\prime}} y^{\prime} z^{\prime}+e_{z^{\prime} x^{\prime} z^{\prime}} x^{\prime}+e_{x^{\prime} y^{\prime}} x^{\prime} y^{\prime}=\) constant, where the coefficients are the components of strain referred to the second system of axes.
8. What is meant by the term "components of stress" at a point in a body? Obtain the equations
\[
\begin{aligned}
& \mathbf{X}_{\nu}=\mathbf{X}_{x} \cos (x, \nu)+\mathbf{X}_{y} \cos (y, v)+\mathbf{X}_{z} \cos (z, \nu) \\
& \mathbf{Y}_{\nu}=\mathbf{Y}_{x} \cos (x, \nu)+\mathbf{Y}_{y} \cos (y, \nu)+\mathbf{Y}_{z} \cos (z, \nu) \\
& \mathbf{Z}_{\nu}=\mathbf{Z}_{x} \cos (x, \nu)+Z_{y} \cos (y, v)+Z_{z} \cos (z, \nu),
\end{aligned}
\]
connecting the rectangular components \(X_{\nu}, Y_{\nu}, Z_{\nu}\) of the - traction across a plane, the normal to which is given by the direction \(\nu\), with the six components of stress.

Show that the equations of equilibrium are
\[
\begin{aligned}
& \frac{\partial \mathrm{X}_{x}}{\partial x}+\frac{\partial \mathrm{X}_{y}}{\partial y}+\frac{\partial \mathrm{Z}_{x}}{\partial z}+\rho \mathrm{X}=0 . \\
& \frac{\partial \mathrm{X}_{y}}{\partial x}+\frac{\partial \mathbf{Y}_{y}}{\partial y}+\frac{\partial \mathrm{Y}_{z}}{\partial z}+\rho \mathrm{Y}=0 . \\
& \frac{\partial Z_{x}}{\partial x}+\frac{\partial \mathrm{Y}_{z}}{\partial y}+\frac{\partial Z_{z}}{\partial z}+\rho \mathrm{Z}=\mathbf{0}
\end{aligned}
\]
9. Discuss the case in which the stress component \(Z_{z}\) is equal to \(-\mathrm{ER}^{-1} x\), where R is a constant, and the remaining stress components vanish; and show that this case corresponds to the bending of a bar by terminal couples of moment EI/R.
10. Prove that when a uniform beam of length \(l\) is supported at its ends, the position of equilibrium is given by .
\[
\mathrm{B} y=\frac{1}{2+} w x(l-x)\left(l^{2}+x(l-x)\right),
\]
and that if the ends are built in, this is replaced by \(\mathrm{B} y=\frac{1}{2+} l v x^{2}(l-x)^{2}\).

\section*{MATHEMATICS III.-BOOKWORK PAPER. \\ HONOURS.}

\section*{Not more than Folls questions to be answered.}
1. Write a short essay on the constructions which are possible by Euclid's Methods-referring particularly to the case of the regular polygons.
2. In the Hyperbolic System of Non-Euclidean Geometry, Euclid's Parallel Postulate is replaced by the assumption that through a point outside a given straight line two parallels can be drawn, which are asymptotic to the line, one towards the right and the other towards the left: and that, further, there are any number of lines through that point which do not intersect the given line. Describe some method by means of which it can be shown that the geometry built upon this assumption is perfectly consistent and can lead to no contradiction.
3. Write a short essay on Algebra as a generalisation of Arithmetic, describing the gradual extension of the number system from the positive integers to the domain of the Real Numbers, and then to the domain of the Imaginary.
4. What is a transcendental number?

Show that the number \(e\) is a transcendental number, and give the outline of the argument by means of which it can be proved that the number \(\pi\) is also transcendental. What bearing has this result upon the problem of the squaring of the circle?
5. What is meant by the integral of \(f(x)\) along a path in the plane of the complex variable s? Show that under certain circumstances
\[
\int f(z) d s
\]
round a closed contour in the \(z\) plane, is zero.
By integrating
\[
\int \frac{e^{i z}}{z} d \tilde{z}
\]
round the contour formed of (i.) a semicircle whose centre is at the origin, and whose radius is very large; (ii.) a semicircle whose centre is also at the origin, and whose radius is very small; and (iii:) the portions of the real axis intercepted between the ares of the semicircles, show that
\[
\int_{0}^{\infty} \frac{\sin x}{x} d x=\frac{\pi}{2}
\]
6. By the transformation
\[
w=f(\mathrm{z}),
\]
the points in the \(z\) plane are transformed to the \(w\) plane. Show that curves in the \(z\) plane are transformed into curves cutting at the same angle, and that an element of area in the \(z\) plane transforms into a similar element of area in the \(w\) plane.
Discuss the cases
\[
\begin{aligned}
w & =s+a \\
w & =\frac{1}{s} ; \\
w & =\frac{a z+b}{c z+d} .
\end{aligned}
\]
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FACULTY OF ARTS.

\section*{PHILOSOPHY I.-LOGIC AND PSYCHOLOGY. HONOURS.}

Select three questions from each section.

\section*{Section A.}
1. Illustrate the correspondence between the typical forms of judgrnent, and the progressive nature of knowledge.
2. Analyse the nature of negative judgments, with special reference to the distinction between contrary and contradictory opposition.
3. Judgment is always the analysis and synthesis of elements in some one thing or ideal content. Explain and illustrate.
4. Illustrate the complexity of social causation, by reference to some event like the Newcastle coal strike.
5. Describe and illustrate the main methods of explanation made use of in the social sciences.
6. How does Mill classify fallacies? Give an illustration of each class from the social or political sphere.

\section*{Section B.}
7. "The perception of \(a\) solid object depends on processes which do not involve as their necessary condition the operation on the organ of vision of that solid object itself." Explain by reference to stereoscopic vision.
8. Describe the process of learning by experience, making it clear how objects acquire meaning.
9. "It is largely through imitation that the results of the experience of one generation are transmitted to the next." Discuss, and show that the impulse to imitate is an affair of atteutive consciousness.
10. "It is the function of ideational consciousness to connect in a continuous whole the detached data of sense perception occurring in the course of individual experience." Tllusstrate the manner in which ideation fills up the gaps in the perceptual process
11. State the conditions of Feeling-Tone (a) in ideal revival; (b) in ideational activity itself.
12. "The earliest communication could only take place between minds capable of a certain kind of mental process." In this connection, discuss the relation of language to conception.
13. "What is called sustained voluntary attention is a ropetition of successive efforts which bring back the topic to the mind." Comment on this statement. What considerations follow from it, important for practice?

\section*{PHILOSOPHY II. AND III.-METAPHYSIC. HONOURS.}

An expository or critical discussion is required of five of the following statements:-
1. To be free and to will are ultimately the same thing.
2. The self is an ideal construction.
3. The Absolute caunot be a person,
4. A teleological and a mechanical series cannot ultimately be parallel.
5. Evolution is incompatible with the view that Reality consists of a plurality of ultimately independent finite individuals.
6. Cause must be and yet cannot be prior in time to effect.
7. A perfect systematic whole can neither be an aggregate, nor a mechanical whole of parts, nor an organism.
8. In estimating the worth of the ontological proof, we must distinguish between the general principle implied in it, and the particular form in which it presents that principle.

\section*{EDUCATION. HONOURS.}

Attempt foun questions.
1. State and examine the value of the classification of school subjects suggested by Münsterberg.
2. Examine the present tendencies of the High School curriculum with special reference to the relative merits of a fixed and an elective course of study.
3. State what you know of the results of recent investigation of individual differences, and outline the method you would adopt in studying some specific mental quality. State the quality selected.
4. "The high repute of Rhetoric, and its important place in the curciculum, is perhaps to the modern reader the most striking feature of the school work of the first half of the 17th century." Discuss the reasons for this, and give some account of how the teaching was carried out.
5. Give some account of the causes which led to the inclusion of modern subjects in English education.
6. Give a careful account of the history of the introduction of any one modern subject into English Education.

\section*{HISTORY I. HONOURS.}

Fou are recommended to answer seven questions, and no more.
1. Write a short account of the character and motive of Hakluyt's, "Principal Voyages of the English Nation."
2. Write a critical account of the original sources of information for Drake's Voyage of Circumnavigation.
3. Write an account of Drake's Voyage of 1585-6.
4. "The Lord will put into Her Majesty and her people courage and boldness not to fear any invasion, but to seek God's enemies, and Her Majesty's where they may be found." Explain Drake's meaning.
5. "The true ralue of the great ship lay in its broadside fire." Explain and illustrate.
6. Trace the growth of the Spanish navy under Philip II.
7. "Spain entered upon the contest at a techuical disadvantage that no height of chivalry or courage or devotion could countervail" Explain.
8. Describe the contemporary authorities for the Story of the Armada.
9. "Her Majesty did all things by halves." Explain Raleigh's criticism.
10. What were the causes of the failure of attempts to colonise Virgiuia in the 16th century?
11. What were the chief arguments used, during the reign of Elizabeth, in favour of colonisation?

> HISTORY II. AND III. HONOURS. You are recommended to answer Seven questions, and no more.
1. Discuss the influence of the Physical Geography of the country on early Canadian History.
2. Describe the characteristics of the Troquois.
3. Discuss the influence of Commerce in the story of French colonisation in Canada.
4. Describe the part taken by the Jesuits in early Canadian History.
5. Write an account of the character, the ideas, and the life of Bishop Laval.
6. Describe the Feudalism of Canada.
7. Why were the French colonists, compared with the English colonists, so few in number?
8. Count Frontenac has been described as "the most remarkable man who ever represented the Crown of France in the New World." Discuss his character, methods, and exploits.
9. Explain and illustrate the relations of the Governor and the Intendant in Canada
10. Explain the interest and the importance of the exploits of La Salle:
11. Discuss the part taken by the Colonies in the Seven Years' War.
12. "That Canada must be conquered when England made her effort was inevitable." Discuss.

\section*{*FACULTY OF LAW.}

\section*{INTERMEDIATE EXAMINATION FOR THE DEGREE OF LL.B.}

ROMAN LAW.
Candilates are not to attempt more than seven questoons, but these should include Nos. I., X. and XIT.
I. Translate, and comment briefly on, each of the following passages-
(1) Quodcumque igitur imporator per epistulam constituit vel cognoscens decrevit vel edicto praecepit, legem esse constat: haec sunt, quae constitutiones appellantur. (I.2.6.)
(2) Videamus itaque de his (personis) quae alieno juri subjectae sunt; nam si cognoverimus, quae istae personae sint, simul intellegemus, quae sui juris sunt. (I.8.pr.)
(3) Singulorum autem hominum multis modis res fiunt: quarundam enim rerum dominium nanciscinur jure naturali, quod, sicut diximus, appellatur jus gentium, quarundam jure curili. (II.1.11.)
(4) Recte quoque mandatum contractum, si, dum adhuc integra res sit, revocatum fuerit, evanescit. (III.26.9.)..sciendum: sst mandatum, nisi gratuitum sit, in aliam formam negotii cadere. (III.26.13.)
(5) Atroe injuria aestimatur vel ex facto...vel ex loco ...vel ex persona....nonnumquam et locus vulneris atrocem injurian facit. (IV.4.9.)
II. Summarize the main stages in an action under the formulary system of procedure, and describe briefly the various. parts of which the formula might consist.
III. Explain the object and the modes of adoption under the earlier Roman law. What was the effect of adoption, in the time of Justinian, on the relation of a son to his. natural father?
* The time allowed for each paper is three hours, except where otherwise stated.
IV. Discuss the maxim "omne quod inaedificatur solo, solo cedit." In what cases and upon what principles might compensation be obtained by an owner deprived of his property through the operation of this rule?
V. What were the main provisions of (a) the Senatusconsultum Trbbellianum, and (b) the Senatusconsultum Pegasianum?
Explain the nature of the mischief which they were intended to remedy. How did Justinian combine the provisions of the two enactments?
VI. (1) Distinguish carefully between the position of an heir and a legatee in Roman law. (2) How were the following persons able (if at all) to protect themselves from loss by reason of the fusion of the legal personalities of the heir and the deceased-(a) the heir himself; (b) the creditors of the heir; and ( \(c\) ) the creditors of the deceased?
VII. (1) Enumerate and distinguish between the various kinds of partnership mentioned in the Institutes, and (2) compare the rules of Roman and English law with respect to contracts made by a partner with third parties.
VIII. Examine and illustrate the doctrine of (i) Error, and (2) Mora in relation to the Roman contract of sale.
IX. How was the original scope of the Lex Aquilia extended in regard to (1) the persons who could bring the action; (2) the wrongful acts for which an action lay; and (3) the measure of damages?
X. Discuss the following cases in the light of the Roman law as finally settled by Justinian-
(1) A's will contains the following legacies-(a) bequest to \(B\) of a slave belonging to \(C\); \((b)\) bequest to \(B\) of a slave whom the testator sold before his death ; and (c) bequest to B of a sum of money owed him by the testator.
(2) A agrees to let \(B\) have the use of a team of oxen for two days either (a) for whatever sum may be fixed as fair and reasonable, or (b) in consideration of \(\mathbf{B}\) promising to lend him a similar team next \(w \in e k\).
(3) A, a freeman, incites B , a slave belonging to C , to commit a theft in the house of D. B thereupon carries off a silver bowl belonging to D , and also a gold ring which had
been lent to D by E . B is subsequently caught by D wearing the ring, and confesses that he gave the bowl to A, in whose possession it is found.
XI. Write a very short explanatory note on each of the follow-ing-(1) Quinquaginta decisiones: (3) Co-emptio furuciae causa; (3) Existimatio; (4) Negative urban servitude: (5) Beneficium divisionis; (6) Depositum miserabile; (7) Acceptilatio; (8) Laesio enormis; (y) Condictio furtiva; and (10) Actio de pauperie.

\section*{CONSTITUTIONAL LAW I.}

Candidates are not to attempt more than seves questions, but these sheutd include No. IV., and at least Two questions in Sectinn C.

\section*{Seorion A.}
I. Explain and illustrate, with reference to (1) the prerogative of the Crown, and (2) the relations between the House of Commons and the House of Lords, \((a)\) the nature and aim of constitutional conventions, and (b) the character of the sanctions by which obedience to them is ultimately enforced.
II. Discuss briefly (1) the logical and historical reasons, why the British Parliament has never succeeded in passing immutable laws; and (2) the extent to which the working of a constitution is affected by the rate at which the will of the political sovereign can make itself felt. Compare, in the latter respect, the constitutions of ( \(a\) ) the United States, and (b) the United Kingdom.
III. What is the nature of (1) the right to personal freedom, and (2) the right to freedom of discussion, as understood in English law? State and illustrate briefly the legal methods by which the exercise (a) of the former right is secured, and (b) of the latter right is regulated.
IV. With a short note on each of the following points:-(1) the rights of the Crown or its servants in dealing with an unlawful assembly; (2) the merits and defects of droit administratif; (3) the methods by which Parliamentary control over the collection and expenditure of the revenue of the United Kingdom is maintained; and (4) the cases in which a soldier acting in obedience to the order of his military superior may be criminally liable.

\section*{Section B.}
V. (1) Explain briefly-(a) the distinction between the Cabinet and the Ministry under the British system; and (b) the advantages of having a department of State administered by a political head and a staff of permanent officers.
(2) Describe shortly the different forms in which the acts of the Crown are officially signified.
VI. Mention the more important provisions of the Act of Union between Great Britain and Ireland. Examine the present constitutional position of Ireland, in the matter of legislation, administration, and judicature.
VII. (1) What was the nature of the jurisdiction exercised by the Court of Chancery in England prior to the Judicature Acts, 1873 and 1875? To what Courts did an appeal from its decisions lie? How far did those Acts effect a "fusion of law and equity?"
(2) By what means was an equitable jurisdiction conferred on the Supreme Court of New South Wales, and how is such jurisdiction now exercised?
VIII. Write a short explanatory note on each of the following : -(1) the appropriate remedy in the United Kingdom where a subject has a cause of action against the Crown; (2) the limits within which a right of expatriation is recognized in English law ; (3) the extent to which the House of Lords and the Privy Council respectively hold themselves bound by their own previous decisions; and (4) the importance of the prerogative of the Crown in relation to colonial government.

Section C.
IX. Explain briefly-(1) the different senses in which the term common law is used; (2) the nature-according to legal theory, and in fact-of common law proper; and (3) the development of the law merchant and its incorporation in common law.
X. (1) How would you determine, as a matter of construction, whether a statute passed by this State in 1910 (a) affected a contract ıuade in Sydney iu 1909 ; (b) applied to an offence committed in New Zealand in 1911 ; and (c) prevented the Supreme Court of New South Wales from granting a writ of prohibition?
(2) In what respect does the decision in The King \(v\). Sutton, (5 C.L.R. 789) qualify the rule that the Crown is not bound by a statute except by express words or necessary implication?
(3) What provision is made (a) by the Interpretation Act, 1897, (N.S.W), with respect to the commencement of an Act; and (b) by the Acts Interpretation Act, 1901, (Federal) with respect to the headings of divisions of an Act?
XI. Write a brief account of the various sources from which the law now in force in New South Wales is derived, giving an illustration of a rule or institution of law derived from each source, and pointing out how far the State Legislature can alter or repeal such rule or institution.

CONSTITUTIONAL LAW II.
Gandidates are not to attempt more than sevex questions, but these must include at least thref from uach section.
Section A.-The Connonwealtit.
I. What provision is made by the Constitution with respect to-(1) the proportional representation of States in the House of Representatives; (2) the exclusive porers of the Parliament of the Commonwealth; (3) the rules as to voting in the Senate and the House of Representatives respectively; and (4) the alteration of the Constitution?
II. Explain briefly (1) the doctrine of the immunity of instrumentalities, and (2) the doctrine of the implied reservation of State powers. Illustrate your answer by one of the principal cases on each of these matters.
III. (1) To what extent, and subject to what express prohibitions, is legislative power with respect to trade and commerce conferred by the Constitution upon the Federal Parliament?
(2) How far is it competent to the Federal Parliament to forbid preferences or discriminations by a State in relation to its railways:
IV. (1) Describe briefly the provisions contained in the Constitution, and the machinery created by subsequent legislation, for securing the due collection and expenditure of the revenues of the Commonrealth.
(2) State what was decided in any twa of the following cases:-(1) Holmes v. Angwin (4 C.L.R. 297); (2) Robtelmes \(v\). Brenan (4 C.L.R. 395); (3) Vardon v. O‘Loghlin (5 C.L R. 201); (4) Potter v. Minahan (7 C.L.R. 277).
V. (1) In what cases is the jurisdiction of the High Court exclusive of that of the Supreme Courts of the States?
(2) What provision is made by the Constitution or by Statute with respect to (a) a division of opinion on the part of the Justices of the High Court, (b) the trial on indictment of criminal offeuces, and (c) the removal of causes into the High Court?

\section*{Section B.-New South Wales.}
VI. (1) State shortly, in relation to the Legislative Council(a) the qualifications and disqualifications for membership, and (b) the sources from which authority to summon members to the Council is derived.
(2) Discuss briefly the conventions of the Constitution with respect to (a) the limits within which appointments to the Legislative Council may be made, and (b) the principles on which the Governor should grant or refuse a dissolution of the Legislative Assembly.
VII. (1) What provision is made by the electoral system of New South Wales with respect to-(a) the constitution of the tribunal for determining disputed elections, and (b.) the circumstances in which a second ballot is necessary?
(2) Write a short note on parliamentary privilege in New South Wales, distinguishing between (a) the corporate privileges of either House, and (b) the personal privileges of individual members.
VIII. Explain shortly, in relation to the State legislature-(1) the modes of communication between the Legislative Assembly and the Legislative Council; (2) the respective powers of the two Houses in regard to money bills; (3) the procedure followed on the re-assembly of Parliament after a general election; and (4) the steps by which a private bill develops into law.
IX. (1) Describe briefly (a) the organization of the Supreme Court for the exercise of civil jurisdiction at comuon law; and (b) the nature and uses of the high prerogative writs of Mfandamus and Que varranto.
(2) When will an appeal lie from the Supreme Court to \({ }^{-}\) the Crown in Council (a) as of right, and (b) as of grace?
X. State very briefly the constitution and jurisdiction of (1) the Vice-Admiralty Court; (2) the Land Boards; (3) the Small Debts Courts; and (4) the Wages Boards.

\section*{JURISPRUDENCE.}

Candidates are not to attempt more than saves questions, but these should include Nos. II., V., and VIII.
I. "The term Sovereignty is used in two senses, Legal Supremacy and Practical Mastery." (Bryce, Studies in History and Jurisprudence, Vol. II., p. 69.) Explain and discuss the nature and relations of these two types of sovereiguty.
II. Discuss and criticize Austin's account of Positive Law, with special reference to-(1) its nature; (2) its sanctions; and (3) the methods by which it comes into existence.
III. Explain and illustrate from the study of early institutions -(1) the importance of the family in the history of Law; and (2) the agencies by which in progressive communities Law is brought into harmony with the needs of society.
IV. Analyze the essential meaning of the following terms:(1) right; (2) obligation; (3) fact; and (4) person.
V. "The possible modes of classifying rights are almost infinite, but four only are of first-rate importance." (Holland, p. 120.) Enumerate, and distinguish briefly between, the four modes referred to. In what respects do you consider Holland's classification preferable to Austin's?
VI. Within what limits (if at all) and upon what principles would you regard-(1) insanity; (2) infancy; (3) ignorance of law ; and (4) duress- as grounds of non-liability in Criminal Law?
VII. Distinguish carefully between-(1) a contract and a conveyance; (2) a contract and a trust; (3) prescription and limitation of actions; (4) a servitude and a license; and (5) a corporation aggregate and a corporation sole.
VIII. Write a short explanatory note on each of the following: -(1) the distinction between Historical Jurisprudence and Legai History; (2) the doctrine of Nationality ; (3) the extent to which Case Law can be regarded as a science; (4) the meanings of the terms (a) source of law, and ( \(b\) ) property; and (5) the nature of Administrative Law.

\section*{THE ELEMENTS OF POLITICS. \\ Two and a Half Hours. \\ Candidates are not to attempt more than six questions.}
I. Explain briefly the nature of Political Science, indicating (a) its main heads, \((b)\) its methods, and ( \(c)\) its value to the lawyer and the citizen respectively.
II. State and illustrate, briefly, Bentham's Theory of Utility in relation to politics and legislation. What estimate have you formed of its value in this connection?
III. What arguments may be adduced for and against-(1) a graduated land tax; (2) the adoption by this State of a system of leasehold, as agrinst freehold, tenures; and (3) legislation conferring upon lessees, who hold from private owners under long leases, an option of compulsorily acquiring the freehold?
IV. State shortly the general nature of the more important restrictions on freedom of testamentary disposition, which have been imposed or suggested in modern states, and discuss their expediency.
V. What do you consider to be the distinguishing characteristics of undertakings which tend to become monopolies? Uiscuss briefly (a) the methods by which an attempt may be made to counteract their evils; and \((b)\) the arguments for and against government or public management.
VI. State the general purport of the legislation now in force in this State with respect to-(1) the employment of women and young persons in factories; (2) the relief of persons injured or bereaved by mining accidents; (3) the early closing of shops and holidays therein ; and (4) the treatment of juvenile offenders.
VII. (1) By what tests, according to Bentham, should the goodness or badness of different forms of punishment be determined?
(2) Discuss briefly (a) the more important matters to be considered in inflicting punishment; (b) the extent to which the various "theories of punishment" may be combined in practice; and (c) the advantages and difficulties of a scheme for the employment of prisoners on afforestation.
VIII. Summarize briefly (1) the distinctive features in which patriarchal society differed from modern or political society; and (2) the more important stages in the evolution of property in land.
IX. Write a short note on the meanings, in the domain of politics, of the following terms:-(1) The State; (2) Local Government; (3) 'I'he Betterment Principle; (4) Liberty; (5) Democracy ; and (6) Socialism.

\section*{PUBLIC INTERNATIONAL LAW.}

Candidates are not to attempt more than seven questions, Iut these must include Nos. VI. and . T.
I. (1) Give a brief account of the sources of modern international law in the sense of the modes or agencies by which its rules are formulated.
(2) What importance do the Courts of Great Britain and the United States attach, in this connection, to (a) textwriters of authority, and (b) treaties? Illustrate by reference to decided cases.
II. (1) Describe shortly the organization and functions of the various tribunals for the exercise of international jurisdiction which were either provided for or proposed by the Hague Conference, 1907.
(2) Do you consider that a system of compulsory arbitration is capable of being put into practical operation? Give reasons for your answer.
III. (1) How far is the principle of prescription applicable as between States (a) in relation to pecuniary claims, and (b) in relation to the acquisition of territory?
(2) Discuss shortly the importance of (a) the Final Act of the Congress of Vienna, 1815; (b) the General Act of the Berlin Conference, 1885; and (c) the Treaty of London, 1871.
IV. "The principle that jurisdiction and law are primarily territorial has both a positive and negative aspect... but the principle is subject to a number of exceptions, both on its positive and negative side."
(1) Explain this statement, mentioning the more important of the exceptions referred to.
(2) Discuss more particularly the application of the principle in criminal cases, enumerating the chief instances in which extra-territorial jurisdiction is exercisable under English law. How do you distinguish Macleodv. A.G. for N.S.TV. ([1891] A.C. 455) from Earl Russell's Case (1901] A.C. 446)?
V. (1) Contrast briefly the functions, privileges, and immunities of (a) Ambassadors, and (b) Consuls.
(2) Discuss shortly, in relation to treaties, (a) the modern practice with respect to ratification ; (b) the circumstances in which a treaty may be annulled by one of the contracting parties; and (c) the rules as to conflict of treaties
VI. Discuss the following cases, stating the principles involved:-
(1) A newspaper issued in the Commonwealth of Australia publishes an article containing a gross attack on the private life of the ruler of a friendly State.
(2) A brawl occurs amongst the crew of a French merchantman, lying at anchor in Port Jackson, in the course of which A (a member of the crew) is mortally wounded, and \(B\) (another member of the crew) and \(C\) (a visitor from the city) are slightly injured.
(3) In the course of a war to which Great Britain is a party, D, a British subject, residing in an East Indian island belonging to the enemy, commences an action against \(E\) in the Supreme Court of New South Wales to recover money lent before the outbreak of war.
(4) In a war in which Great Britain is neutral, a belligerent cruiser escorting prize of war, asks leave to enter Port Jackson to refit.
VII. (1) State briefly the main provisions of the Declaration of London, 1909, with respect to (a) the determination of enemy character, (b) blockade, and (c) unneutral service.
(2) In what respects do the rules of the Declaration relating to blockade differ from those hitherto followed by Great Britain?
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FACULTY OF LAW.
VIII. What provision is now made by international convention with respect to-(1) levées en masse; (2) the treatment by a belligerent of the population of occupied enemy territory; (3) the rights and obligations of a neutral State in regard to belligerent troops and wounded received into the neutral territory; (4) the use by belligerents of wireless telegraphy stations on neutral territory; and (5) restrictions on the right of seizure and capture in maritime war?
IX. (1) Describe shortly the circumstances which led to the Geneva Arbitration, 1871-1872.
(2) State the substance of the rules of neutral duty adopted by the Treaty of Washington, 1871. In what respects do the corresponding rules of the Hague Convention, 1907, differ from those of the Treaty?
X. Write a short note on each of the following:-(1) Retorsion; (2) the Suez Canal Convention, 1888; the restrictions on the use of balloons for belligerent purposes; (4) the Rule of the War of 1756 ; ( 5 ) the Right of Visit and Search; and (6) the case of the Costa Rica Packet.

\title{
FINAL EXAMINATION FOR THE DEGREE OF LL.B.
}

\section*{THE LAW OF CONTRACT AND MERCANTILE LAW.}

Candidates are not to attempt more than esont questions, but these should include Nos. II. and VI.
I. To what extent is the conception of quasi contract recognised by English law? Give examples.
II. A subdivided a block of land and put it in the hands of M for sale, with a plan upen which were printed the price of each allotment and the conditions upon which the sales were to be made. One of the conditions was that every purchaser should execute a written contract embodying the conditions. B inspected the plan with a view to buying an allotment and was told by \(M\) that no sale would be made excent on the printed conditions. B then made a verbal offer to M of \(£ 100\) for allotment No. 5 marked \(£ 120\) on the plan. M promised to lay the offer before " the owner," without naming him, and subsequently wrote to B-" the owner has agreed to accept your offer of \(£ 100\) for allotment No. 5 on the plan, subject to the printed conditions thereon." He added that the owner in reducing the price was influenced by the fact that \(B\) intended to build on the land at once. There was nothing in the couditions requiring purchasers to build. B replied that he had not definitely decided to build and that his offer must be considered withdrawn unless the question of building could be left open. M replied that the acceptance of B's offer was unconditional. and that he was free to build or not as he chose. A's solicitor then sent B a formal agreement for signature. B refused to sign or proceed with the purchase. In an action by \(A\) for breach of contract B raised the defences (1) that there was no concluded agreement on the correspondence, (2) that the agreement was not binding until it was embodied in the formal contract required by the conditions, and (3) that the use of the term "the owner" instead of A's name prevented the document from constituting a sufficient memorandum within the Statute of Frauds. Discuss these questions of law.
III. A has a cargo of rice to arrive by the ss. Indus and another by the ss. India. He instructs B to sell the Indus rice. B misreads his instructions and makes a contract with C in A's name for the sale of the India rice. Discuss the rights and liabilities of \(\mathrm{A}, \mathrm{B}\) and C (1) where the market has risen on the arrival of the India, and \(A\) refuses to deliver to \(C\); and (2) where the market has fallen, and A tenders the India cargo to C, who refuses to accept it.
IV. (1) In what circumstances is a party to a contract excused when performance has become impossible after the making of the contract?
(2) Discuss the following case:-In October A engages B at a salary of \(£ 500\) to manage his business, the engagement to commence on January lst. On November 8th A writes to B informing him that he bas made other arrangements and will not be able to employ him. C then offers B an engagement of a similar kind at the same salary, which B refuses. On January 1st B notifies A that he is prepared to enter upon his duties; Areplies referring him to his previous letter. B then applies to C for employment, and C engages him from April 1st; B sues A claiming damages amounting to three months' salary. On the trial A contends that B is entitled only to nominal damages.
V. (1) What exceptions are there to the rule that no damages can be recovered for innocent misrepresentation?
(2) What are the rights ex contractu of a person who has been induced by fraud to enter into a contract?
VI. Discuss the following cases, showing the rights of the parties, and stating the legal principles involved:-
(1) A agrees to build a house for B for \(£ 1000\). He completes everything except the roof, and is then obliged to abandon the contract for want of funds. B thereupon employs C at a cost of \(£ 200\) to put on the roof. A sues B , claiming \(£ 800\) for work and labour done.
(2) The promoters of a company before its formation contract with a firm of architects for plans for a warehouse. The company on its formation ratifies the contract. Subsequently the company goes into liquidation without paying the architects' fees, and they sue the promoters personally.
(3) A writes to a broker instructing him to buy 1000 shares in a mining company. Before posting the letter he changes his mind, and leaves the letter stamped and addressed on his desk: B, a friend, without authority from A, picks up the letter and posts it. The broker buys the shares, which next day become valueless. A refuses to accept or pay for the shares.
VII. (1) What is meant by the "holder in due course" of a bill of exchange? What are his rights?
(2) Discuss the following case:-A owes B \(£ 8\). B presents to him for signature a promissory note for that amount, and after it is signed altors the amount to \(£ 80\). B then indorses the note for value to C .
VIII. (I) Explain and illustrate briefly the doctrine of subrogation in relation to a contract of insurance.
(2) A steamer goes aground on a sand bar. Part of the cargo, owned by A, is put ashore in lighters to assure its safety, the ship at that time not being in danger. Afterwards a storm arises, and in order to save the ship from becoming a total wreck B's cargo is jettisoned; and he suffers damage to the extent of \(£ 1000\). The ship is then floated off and safely berthed.
IX. (1) What are the rights of a surety against (a) the principal debtor, (b) the creditor, and (c) co-sureties?
(2) Discuss the following case :-A guarantees the bank account of \(B\), a squatter. When B's overdraft has reached \(£ 5000\) the Bank calls on B to pay it'; but at B's request agrees to allow the matter to stand over till \(B\) has disposed of his wool clip. This realises £3000, which B pays into his account. The Bank then makes demand for the balance, and default being made calls upon A to pay the amount.
X. State briefly the more important provisions of the Money Lenders and Intants Loans Act, 1905, with respect to contracts entered into by an infant.

\section*{THE LAW OF PROPERTY AND THE PRINCIPLES OF} CONVEYANCING.
Candidates are not to attempt more than EIGHT questions, but these should include Nos. TI., III., IV., and TX.
I. (1) Explain briefly, in relation to settled estates-(a) the way in which the rent under a coal lease should be dealt with; and (b) the purposes to which the proceeds of a sale of the fee simple may be applied.
(2) A, tenant for life of Blackacre, granted a lease for twenty years, at a rent payable quarterly, and died between two reut days. What are the rights of his executor with respect to accruing rent-(a) where A granted the lease under an express power, and (b) where A had no power of leasing?
II. Discuss the effect of the following limitations and dispositions, stating the principles involved :-
(1) Devise of Blackacre-" to A and his children." At the date of the will A had two children. A survived, but A's children predeceased, the testator.
(2) Gift of Whiteacre by deed executed in 1890_-" to J. S. and his heirs to the use of A for life, and after his death to the use of the first son of A who shall attain the age of 25 years." A died in 1911, leaving a son aged 26 .
(3) Devise of Greenacre-" to A for life, and after his death to the first son of A who shall attain the age of 21 years." 'The testator died in 1899. A died in 1911, loaving a son aged 20.
(4) Gift of land (a) by deed, and (b) by will-"unto and to the use of A, and in the event of A's death without issue, then unto and to the use of B."
III. Discuss shortly the effect of registration in the appropriate manner of-(1) a Sheriff's deed of bargain and sale of land under common law title, where the judgment debtor had' previously disposed of his interest by an unregistered conveyance; (2) a memorandum of transfer, in consideration of natural love and affection, of land under the Real Property Act, 1900, (a) where the transferor was in embarrassed circumstances, and (b) where the transferor wishes to transfer to a subsequent purchaser ; (3) an acknowledgment by a mortgagee of land under common law title that the mortgage has been satisfied; (4) a lien on crops, where the lienor is a leaseholder; and (5) a mortgage of sheep, where the mortgagor subsequently becomes bankrupt.
IV. (1) What express exceptions are there to the provision in the Real Property Act, 1900, that the estate of the registered proprietor is paramount? Mention also and give an illustration of two types of charges or interests which, notwithstanding the above provision, may affect land under the Act.
(2) Advise B and D in the following cases, stating the principles involved :-
(a) A brought Blackacre under the Act. Blackacre was accurately described in A's application, and in the certificate of title issued to him, but in fact Blackacre belonged: to B , who had a good common law title.
(b) In 1909 C , the registered proprietor under the Act, granted an unregistered lease for five years of Greenacre to D, and in \(19: 1\) sold Greenacre to E, representing that D was only a weekly tenant. E was subsequertly informed by \(D\) that the latter held under a lease for five years, but after an interview with C, who adhered to his previous representation, E paid the purchase money and lodged the memorandum of transfer from B for registration.
V. What provision is made by the Real Property Act, 1900, with respect to-(1) the conditious under which a person who has contracted to purchase land may apply to bring it under the Act; (2) the procedure for obtaining the removal of a caveat against an original application, where the applicant decides to state a case ; (3) the protection of a trust affecting land under the Act; (4) the effect of a transfer of mortgage; (5) the implied powers of a lessor; and (6) the steps which should be taken by a judgment creditor in order to bind the land of his judgment debtor?
VI. (1) Discuss, in relation to a sale of land under common law title, the effect of (a) a condition-"No error or misdescription of the property shall annul the sale, but compensation shall be made or given as the case may require"; and (b) a condition-"If the vendor shall be unable or unwilling to remove any objection which the purchaser shall be entitled to make, the vendor shall be at liberty to rescind the contract."
(2) Explain, with respect to personal property; (a) the circumstances in which a purchaser is entitled to an abstract of title; and (b) the method by which an owner may assign to himself and anothcr.
VII. (1) How would you determine-(a) whether an arrangement for the occupation of land is a lease or an agreement for a lease; (b) what covenants in a lease are
binding on an assignee; and (c) whether a proposed mortgage of a leasehold property should. be by assignment or underlease?
(2) Discuss shortly the operation of the Statute of Limitations with respect to land in New South Wales under common law title-( \(a\) ) where the claimant was in England at the time when the intruder went into possession; and (b) where the land was acquired from a trustee.
VIII. Discuss the following cases, stating the principles in-volved:-
(1) A, who was domiciled in New South Wales, died in 1910 intestate, leaving ( a a fixed deposit in a Queensland bank, and (b) lands in New South Wales. He left him surviving-(i.) a mother ; (ii.) a brother ; (iii.) a grandson, the child of a deceased daughter; and (iv.) two granddaughters, the children of a deceased son.
(2) B executed a Bill of Sale over his furniture (worth £100) in favour of C, and subsequently another Bill of Sale over the same furniture in favour of D. C's Bill of Sale has not been registered. D duly registered his Bill of Sale in the Supreme Court. E has recently issued execution against the furniture on a judgment for \(£ 10\) obtained against B in a Small Debts Court.
(3) F insured buildings in Sydney, and afterwards sold them to \(G\) under a contract in which F agreed that the policy should be kept alive for the benefit of \(G\) until the conveyance of the buildings should be executed. After the purchase money had been paid, but before conveyance, the buildings were destroyed by fire.
IX. Write a short note on each of the following :-(1) the method by which a married woman, married in 1887, should convey land devised to her in 1888 ; (2) the effect of a deed of release under the Conveyancing and Law of Property Act, 1898; (3) the form of bequest by which (a) a special, and (b) a general power of appointment may be exercised; (4) the extent to which the equitable doctrine of vendor's lien applies to personalty; (5) the meaning of the statement-"Every right to claim in rem does not give rise to a maritime lien"; (6) the more important grounds on which the grant of a
patent under the Patents Act 1903-1909 (Federal) may be opposed; (7) the remedies, if any, of the owner of a copyright under the Copyright Act 1905 with respect to infringements committed before registration; and (8) the right, if any, of a person who has sold the goodwill of a business-(a) to commence a similar business, and (b) to solicit his former customers.

\section*{LAW OF TORTS AND CRIMES.}

Candidates are not to attempt more than EIGHT questions, but these should include Nos. IV. and VII.
Section I.-Torts.
I. (1) Explain briefly the nature of (a) a public, and (b) a private nuisance.
(2) Advise A as to the proceedings, if any, which may be taken against B in the following cases, stating the principles involved:-
(a) B unlawfully begins to dig a trench across a street along which A is in the habit of driving.
(b) B moors a punt on a river in such a way that customers are unable to enter A's hotel.
II. (1) In what circumstances may an action ex delicto be brought by a purchaser of goods in respect of untrue statements made by the seller in the course of the negotiations between them?
(2) Discuss the following case, stating the principles involved:-
The promoters of a company issued a prospectus containing statements which they knew to be untrue. A and B received copies of the prospectus. A applied for and was allotted 200 shares, of which he sold 100 to B . Subsequently \(A\) and \(B\) bring separate actions against the promoters, claiming damages in respect of the untrue statements in the prospectus.
III. (1) What is the nature and extent of the duty imposed by law on occupants with respect to the safe condition of buildings?
(2) A tramway company, using electric power under statutory authority, caused electric disturbances in the wires of a telephone company and so interfered with the transmission of messages.
Advise the telephone company.
IV. Discuss the following cases, stating the rights and liabilities of the parties and the principles involved :-
(1) A municipal council entered into a contract with \(A\) to construct a sewer. In consequence of A's negligence in not shoring up gas mains under which the sewer passed, an escape of gas took place and caused an explosion, seriously injuring B's house.
(2) A municipal council entered into a contract with C , under which he was to supply a driver and horse for a watering cart belonging to the council, and the council's inspector was to point out to the driver the streets which were to be watered from time to time. Owing to the driver's negligence the cart collided with D's carriage, seriously injuring D .
(3) At the annual meeting of a trading company \(E\), a member, charged \(F\), the manager, with misappropriating the company's funds. G, a newspaper proprietor, published a fair and accurate account of the meeting, including E's charge against \(F\).
(4) \(H\), a subscriber to a trade protection society, asked for information with respect to the reputation and financial standing of \(J\), who wished to obtain credit from \(H\). The society supplied inaccurate information to \(H\), who thereupon refused \(J\) credit.
\(\nabla\). Write a short explanatory note on each of the following, giving illustrations from decided cases:-(1) Res ipsa loquitur; (2) exemplary damages; (3) '‘a man is presumed to intend the matural consequences of his acts"; and (4) the defence of common employment.

\section*{Section II.-Crimes.}
VI. (1) Distinguish between larceny by a trick and obtaining goods by false pretences.
(2) Discuss shortly, in relation to a prosecution for larceny, the extent, if any, to which (i.) an intention to return an equivalent amount of money, and (ii.) a claim of right, may be a defence.
VII. Discuss the following cases, stating the principles in-volved:-
(1) A shot at B's racehorse, which was galloping on a training track, intending to kill it. He missed the horse, but killed the jockey by whom it was being ridden.
(2) C, a solicitor, was instructed by \(D\) to draw a will, leaving all his property to D's wife. C drew a will leaving the property to D's wife for life, and after her death to C's son. D, who was a marksman, executed the will without being aware that it did not carry out his instructions.
(3) Bushrangers, who had captured E and F, threatened to murder \(E\) unless he gave them \(£ 1000\) before noon next day, and allowed \(F\) to \(g o\) to \(E\) 's father in order to obtain the money. Fraturned in time, and handed the money to the bushrangers, who thereupon rode away, leaving \(E\) and \(F\) at liberty.
(4) In 1910 G , whose wife was alive, went through a ceremony of marriage with H in New Zealand, and in 1911 was prosecuted in Sydney on a charge of bigamy. At the trial J gave false evidence. J is now charged with perjury.
VIII. What provision is made by the Crimes Act, 1900, with respect to:-(1) the trial of (a) an accessory after the fact to a felony, and (b) an abettor in a misdemeanour; (2) the abduction of a girl under the age of 16 years; (3) the sequestration of an offender's property; and (4) the support of a wife, whose husband has been convicted of an aggravated assault upon her?
IX. Explain briefly (1) the extent to which a wife who assists her husband in the commission of a crime is excused;
(2) what is necessary to constitute a criminal attempt (3) the nature of constructive breaking with respect. to burglary; and (4) the circumstances in which a constable may arrest without warrant.

\section*{THE RULES OF LEGAL INTERPRETATION.} One Hour. Candidates are not to attempt more than three questions.
I. "No judge objects more than I do to referring to authorities merely for the purpose of ascertaining the construction of a document."-Aspden v. Seddon, L.R., 10 Ch. 394, at 397, Jessel, M.R.
Discuss this statement, pointing out what you consider to be (1) the real question in a problem of interpretation, and (2) the purposes for which decisions in previous cases may be usefully referred to.
II. Explain and illustrate, briefly (1) the sense in which the object of interpretation is to ascertain the meaning of the parties, and (2) the more important rules with respect to the interpretation of (a) general words, (b) technical words, and (c) the same words used in different parts of the same instrument.
III. (1) How far is the Court entitled, in construing a contract, to look at (a) the original draft, (b) facts existing at the date of the contract, and (c) subsequent acts of the parties?
(2) Discuss shortly the effect of recitals upon the construction of the operative words (a) in a conveyance, and. (b) in a release.
IV. State shortly, in relation to the interpretation of statutes(1) the extent, if any, to which resort may be had to (a) the preamble, (b) marginal notes, (c) statutes in pari materia, and (d) pre-existing law which has been dealt with by a codifying statute; and (2) the general rules (a) as to retrospective operation, and. (b) as to taxing Acts. .
V. (1) What general principles would you apply in construing a clause in a will, (a) where a suggested construction. would involve partial intestacy, and (b) where it would involve an inconsistency with an earlier clause?
(2) Write a short note on each of the following :-(a) the distinction between a rule of law and a rule of construction; (b) "Lord Wensleydale's Golden Rule"; and (c) the provisions of (i.) the Acts Interpretation Act 1901 (Federal) with respect to the effect of the repeal of an Act, and (ii.) the Interpretation Act, 1897 (N.S.W.), with respect to the computation of distance and reckoning of time.

\section*{BANKRUPTCY, PROBATE AND DIVORCE.}

Candidates are not to attempt more than eIGUT questions, but these should include three questions in Section I., two questions in Section II., and two questions in Section III.

Siftion I.-Bankruptcy.
I. (1) What do you understand by an available act of bankruptcy? Mention, and briefly explain the nature of, any three acts of bankruptcy.
(2) Discuss shortly, giving reasons, whether A may be made bankrupt- (a) where he has issued a circular to his creditors, stating that he is unable to meet his engagements as they fall due, and calling a meeting to consider a statement of his position; and (b) where a bankruptcy notice has been issued upon a judgment against him for
- the costs of an action in which he was nonsuited.
II. How far and in what circumstances may a sequestration order affect-(a) an action at law previously commenced by the bankrupt; (b) the rights of a secured creditor; (c) the rights of a landlord in respect of arrears of rent; (d) the goods of a third party in the possession of the bankrupt; and (e) the payment of an instalment, after notice of an available act of bankruptcy, by a purchaser of land who bought and paid a deposit without notice of such act?
III. (i.) Explain briefly the nature and effect of-(a) a certificate of discharge, and (b) a release of a bankrupt's estate.
(2) Discuss shortly the circumstances, if any-(a) in which a valid security may be given by an uncertificated bankrupt over a policy of life insurance effected by him after the sequestration of his estate; and (b) in which a cestui que trust may bring a suit, after the termination of his trustee's bankruptcy, for a breach of trust committed before such bankruptcy.
IV. What provision is made by the Bankruptcy Act, 1898, with respect to-(1) antedating the commencement of a bankruptcy; (2) the conditions under which a creditor may present a petition against a debtor who has made an assignment to a trustee for the benefit of his creditors generally; and (3) the circumstances in which an Official Assignee may disclaim a lease comprised in a bankrupt's estate, and the extent to which such disclaimer may affect the position of an under-lessee?

\section*{Section II.-Probate.}
V. Discuss the following cases, stating the principles involved : (1) A, who died in 1910 intestate, had contracted to sell Blackacre to B. Shortly after A's death and before the
contract was completed, \(C\), the administrator of \(A\) 's estate died leaving a will by which he appointed \(D\) his executor. In 1911 probate of C's will was granted to D, and letters of administration de bonis non of A's estate were granted to E .
To whom should \(B\) pay the purchase money, and from whom should he obtain a conveyance?
(2) \(F\) died in 1910 , leaving a will, dated 1905 , whereby he appointed \(G\) his executor, and directed him to distribute all F's property "in accordance with any written directions concerning the same which may be found amougst my papers, which directions are to be regarded as part of my will." At F's death " written directions," dated 1909, for distributing his property between certain charities were found amongst his papers. F's sole next of kin is \(H\). \(G\) has applied for probate of the will together with the written directions. Advise H .
VI. What provision is made-(1) by the Wills Probate and Administration Act, 1898, with respect to (a) the protection of an executor, who is distributing assets, against liability under a lease comprised in the testator's estate ; and (b) the circumstances in which the Court may allow commission to an administrator ; (2) by the Administration Ameuding Act, 1906, with respect to the expenditure in the maintenance and education of an infunt of his share under an intestacy; and (3) by the Rules of Court, with respect to the defences which may be pleaded in a suit for probate without the leave of the Court?
VII. Explain briefly (1) the grounds on which a surety to an administration bond may be relieved from his obligations; (2) the effect of a grant of letters of administration in respect of the estate of a living person erroneously believed to be dead; (3) the effect, upon payments made by or to an executor, of revocation of probate; (4) the presumption which arises where a will traced to the testator's custody is not forthcoming at his death; and (5) the operation of a will made by a soldier who had not attained the age of 21 years.

Section III.-Divorce.
VIII. Explain, in relation to the grounds on which a wife may petition for dissolution of marriage, (1) the importance
of domicil; (2) the nature of constructive desertion; and (3) the meanings of (a) habitual drunkard and (b) cruelty.
IX. (I) Distinguish between (a) connivance and collusion ; and (b) the functions of the Court and jury respectively in regard to (i.) the defence of connivance, and (ii.) the defence that the petitioner has been guilty of such wilful neglect as has conduced to the adultery.
(2) Discuss the following case, stating the principles involved:-
A, a husband, petitions for dissolution of his marriage with \(B\), on the ground that she has during three years and upwards been an habitual drunkard and -habitually neglected her domestic duties. Many years
- ago A committed an isolated act of adultery, but this was condoned by B , and followed by cohabitation and the birth of children.
X. Write a short note on each of the following (1) the distinction between void and voidable marriages; (2) the powers of the Court with respect to the custody and maintenance of children; (3) intervention by the Crown Solicitor; (4) the extent to which the answer to a petition should be verified ; (5) the cases in which a wife may obtain relief against her husband in the suit in which she is respondent ; and (6) the provisions of the Matrimonial Causes Act, 1899, with respect to the recovery and application of damages.

\section*{EQUITY AND COMPANY LAW.}

Candilates are not to attempt mnre than SEVEN questions, but these should include Nos. \(I V ., V\). and VI. or VII.
I. (1).Explain briefly the maxims-(a) "Equality is equity," and (b) "He who seeks equity must do equity."
(2) Discuss the following cases, stating the principles involved:-
(a) Blackacre was mortgaged to \(A\) and \(B\) äs joint tenants to secure \(£ 1000\), advanced by them in equal shares. On A's death, B claims to be solely entitled to the security.
(b) C , who was married in 1890 , was entitled at the date of her marriage to a reversionary interest, expectant on the death of \(D\), in a sum of \(£ 1000\) vested in the trustees of E's will. D died in 1910 . C's husband claims the \(£ 1000\) from the trustees.
II. (1) What exceptions are there to the rule that a trust of land must be in writing?
(2) Give an illustration only of-(a) an implied trust; (b) a constructive trust; (c) a resulting trust; (d) an executed trust; and (e) a mandate (as distinguished from an equitable assignment).
III. (1) In what cases may an express trustee (a) receive an advantage, and (b) be entitled to recoupment for expenditure, in respect of the trust property?
(2) Discuss briefly (a) the jurisdiction of the Equity Court to sanction a departure from the strict terms of a trust; and (b) the rule in Howe v. Lord Dartmouth.
IV. Discuss the following cases, stating the principles in-volved:-
(1) During an illness and shortly before his death \(A\) handed to B-(a) A's Sarings Bank Book, (b) a promissory note made by \(C\) in favour of \(A\) or order, but not endorsed by \(A\), and (c) a cheque drawn by \(A\) in favour of B or bearer; and said to B-"If I do not recover, these are yours."
(2) In 1902 A let Blackacre to B for 10 years with an option of purchase at \(£ 2500\). By his will made in 1907, A, who died in 1910, devised his real estate to \(C\) and his personal estate to L . In 1911 B exercised his option. C and D both claim the purchase money.
(3) By his will A, who was seised in fee tail of Blackacre and in fee simple of Whiteacre, and had three daughters, \(\mathrm{B}, \mathrm{C}\), and D , and no other children, devised (a) Blackacre to \(B\), and (b) Whiteacre to C and D. C and \(D\) claim a share in Blackacre.
(4) A, B, C, and D jointly and severally guaranteed E's overdraft, which was also secured by a mortgage of E's station, with the X Bank. During the currency of the guarantee A died, and B became bankrupt. Subsequently
the Bank claimed and obtained payment from C of the whole amount due on the overdraft. Cwishes to be advised as to his rights (a) against A's estate ; and (b) with respect to the mortgage.
(5) A orally agreed to sell a leasehold farm, with a term of eight years still current, to B, who thereupon paid a deposit and went into possession. Shortly afterwards A refused to assign the lease, and alleged that the arrangement was for a sub-lease from year to year.
(6) In 1907 A , the lessee of a hotel under a lease expiring in 1915, mortgaged it to B and Co., brewers, to secure \(£ 1000\) repayable on the 6th March, 1911, and covenanted in the mortgage that during the term of the lease he would not sell any beer in the hotel except such as should be purchased from B and Co. On the 6th March, 1911, A tendered B and Co. the amount due under the mortgage, and demanded its discharge together with a release from the covenant.
V. (1) State shortly the appropriate procedure, and the nature of the evidence required, for obtaining:-(a) an interlocutory injunction; (b) an order allowing maintenance for an infant; \((c)\) authority to sell a settled estate, where the teuant for life is an infant; and ( \(d\) ) leave to raise money for the erection of a new building on trust property.
(2) Write a short explanatory note on:-(a) substituted service; (b) decree in default of pleading; (c) appeal from Master's certificate; and (d) notice of decree.
VI. (1) In what respects does a limited company under the Companies Act, 1899, differ from a partnership?
(2) Explain briefly-(a) the nature of a floating security ; (b) the extent to which a company may be estopped by issuing shares purporting to be fully paid up; and (c) the effect of registration in New South Wales of a foreign company.
VII. What steps should be taken by a limited company incorporated under the Companies' Act, 1899, in order- (a) to increase its capital; (b) to wind up voluntarily; (c) to obtain power to engage in a business beyond the scope of its memorandum of association; and (d) to sell its undertaking for shares?
cexiv.
VIII. Write a short explanatory note on each of the following : -(1) Marshalling as between creditors; (2) the extent to which an executor's powers are affected by a decree for general administration; (3) the chief points of difference between specific and demonstrative legacies; and (4) the circumstances under which the right of a cestui a abe trust to follow trust assets may be defeated.

THE LAW OF PROCEDURE.
Oandidates are not to attempt more than TEN questions.
I. (1) Advise the plaintiff as to the steps to be taken by him(a) where the defendant does not appear to a writ not specially indorsed: (b) where one only of two defendants appears to a specially indorsed writ; and (c) where the defendant, without leave of a Judge, pleads several pleas to the same count of the declaration.
(2) What course is open to the defendant where the plaintiff delays setting a case down for trial after issue joined?
II. Discuss the following cases:-(1) A obtains a verdict against \(B\) in an action for assault. Before judgment is signed B dies.
(2) A obtains a verdict against \(B\) for a farthing in an action for slander. A applies for a certificate for costs.
(3) A obtains a verdict against \(B\) in an action of deceit. B moves to arrest judgment on the ground that the declaration does not allege that he knew of the falsity of the representation charged. A contends that B's knowledge was in fact prored at the trial.
III. (1) In what circumstances and how may a discovery order be obtained?
(2) What is the effect of an omission to give notice to produce a document?
IV. Write a short explanatory note on each of the following :(a) change of venue, (b) execution in an action of detinue, (c) garnishee order, ( \(d\) ) verifying pleas.
V. What is mandamus? Under what conditions can it be obtained?
VI. A obtains a judgment against B. B has on his premises \(£ 50\) in cash, \(£ 100\) in bank-notes, a promissory-note not yet due made by Cin B's favour, and scrip for shares in
the Sydney Steamship Co, Ltd. B's trustee, M, has in his hands trust money to which B is entitled. Advise A as to his rights and remedies with respect to each of these classes of property.
VIL. (1) What is the scope of the jurisdiction of the District Courts?
(2) A sues B in the Supreme Court for \(£ 500\) for defamation, and lays the venue in Sydney. Advise B, who wishes to have the action tried in the District Court at Bathurst where be resides.
VIII. What are the provisions of the District Courts Acts with reference to-(1) payment of judgments by instalments, (2) ca. sa., (3) examinations de bene esse?
IX. (1) In what cases may the High Court grant (a) leave, (b) special leave, to appeal from a decision of the Supreme Court?
(2) What is the effect of the Judiciary Act, 1907, with respect to constitutional questions arising in actions in the Supreme Court?
X. Enumerate the methods of reviewing an order for the payment of money made by justices exercising summary jurisdiction, and give a brief outline of the procedure in any one of them.
XI. What are the provisions of the Crimes Act, 1900, with respect to the following matters:-(1) The prosecution of accessories, (2) prisoner standing mute on arraignment, (3) reserving questions of law, (4) enquiries subsequent to conviction?

\section*{PLEADING AND EVIDENCE.}

Candidates are not to attempt more than might questions, but these should include Nos. IV. and VII.
I. A sues B for goods sold and delivered. B's defence is a denial of the delivery. A calls O , who gives evidence that he delivered the goods to B . The following are extracts from B's cross-examination of C:-(1) Did you not tell D that you got drunk and lost the goods? No. (2) Were you not drunk on that day? No. (3) Were you not convicted of being drunk on that day? No.
cexvi.
Did you not tell the plaintiff that you expected a tip if he won the case? No. B tenders evidence in contradiction of each of these answers. Discuss its admissibility,
II. What provision has be n made by statute with respect to(1) dying declarations; (2) questions tending to show adultery ; (3) actions for breach of promise of marriage; and (4) machine copies?
III. With a brief explanatory note on each of the following :: -(1) subpoena duces tecum, (2) refreshing memory, (3). presumption of death, and (4) evidence of accomplices.
IV. Discuss the admissibility of the evidence tendered in thefollowing cases:-
(1) B buys chaff from A on A's oral warranty that it is prime lucerne chaff. A gives a receipt as follows: "Received from B £400 for 100 tons of chaff." B sues A for breach of warranty on the ground that the chaff is not prime, and tenders evidence of the warranty.
(2) A prosecutes B for stealing A's horse. B is acquitted, and then sues A for malicious prosecution. A tenders. evidence that before the prosecution C told him that he stw B take the horse.
(3) On the trial of \(A\) for the murder of \(B\) it is proved that B's death was caused by poison administered by \(A\). Evidence is tendered for the prosecution-(1) that B was. the life tenant of an estate to which \(A\) was entitled in. remainder; and (2) that A had previously administered poison to other people.
(4) A petitions for divorce from \(B\) on the ground of his. adultery with C . A's counsel tenders a certificate of B's couviction for bigamy with C.
V. Explain and illustrate the meaning of departure in pleading.
VI. (1) What is the general issue in-(a) an action for negligence ; (b) an action for malicious prosecution; and (c). an action for goods sold and delivered?
(2) What must the plaintiff prove in the above actions. where the general issue only is pleaded?
VII. Draw the pleadings to issue in the following cases. Formal headings need not be repeated.
(1) A sues \(B\) complaining that \(B\) has in his possession A's watch and refuses to restore it. B wishes to set up that the watch was left with him by \(A\) for repairs and that five shillings is due thereon to \(B\).
(2) A sues \(B\) on a promissory note drawn by B payable to bearer. B's defence is that he was induced to sign it by A's fraudulent misrepresentation that the document was an order for admission to a hospital.
VIII. (1) What is a plea in abatement?
(2) When may a plea in abatement for non-joinder of a defendant be pleaded, and what is necessary to be done by a defendant who wishes to file such a plea?
IX. (1) Distinguish between a plea of set off and a plea of cross-action.
(2) A sues his employer B for wages. B desires to set up (1) that A had obtained from him a sum equal to the amount of the wages by a fraudulent representation that another employee had been killed and the money was required for funeral expenses, and (2) that A's employment consisted in driving a steam engine, and that he had by carelessness allowed the boiler to become damaged and useless. May these matters or either of them be pleaded by way of cross-action? Give reasons for your answer.

\section*{PRIVATE INTERNATIONAL LAW. Two Hours. \\ Candilates are not to altempt more than five questions.}
I. "The law of England, taken in its most extended and most proper sense, may in common with the law of every civilized country, e.g., of Italy or of France, be divided into two branches."
"Whenever a case containing any foreign element calls for decision, the judge before whom it is tried must, either expressly or tacitly, find an answer to, at least, two preliminary questions."
Explain and illustrate, briefly, the above extracts from Dicey's Conflict of Laws, pointing out (1) how far they apply to New South Wales, and (2) how the subject matter of Private International Law may be classified with respect to such preliminary questions.
II. (1) State generally (a) how you would ascertain the domicil of (i.) an individual, and (ii.) a corporation; and (b) the modes in which (i.) a domicil of origin, and (ii.) a domicil of choice may be changed.
(2) In 1911 A and B , who were born and grew to manhood in Sydney and Loudon respectively, were both domiciled in this State. They left together with a view to settling in New Zealand, but both perished on the voyage.
Advise as to the domicil of \(A\) and \(B\) respectively at the date of their death.
III. (1) What law should be applied by a Court of this State in determining ( \(a\) ) whether property situated in France was movable or immovable; and (b) whether an assignment was valid or invalid, (i.) where cattle depasturing in Queensland were assigned in this State, and (ii.) where a debt due by a debtor resident in this State was assigned in Queensland?
(2) In 1909, D, domiciled in New York, assigned in New York to W, his wife, a reversionary interest in a New South Wales trust fund. Under the law of New York notice is not required in order to complete the assignment. In 1910, D, being in Sydney, assigned the said interest to A by way of mortgage. "Notice of the latter assignment was given to the trustees of the fund. In 1911, in an administration suit in \(N \in \mathbb{N}\) South Wales, W claims to be entitled to the said interest.
Advise A, giving your reasons.
IV. (1) By what rules would you be guided in advising as to (a) the formal, and (b) the essential validity of a contract made in Germany, and sued on in New South Wales?
(2) Discuss the following: A, in Noumea, orally engaged \(B\) to serve him as a clerk for more than a year. The agreement, though not in writing, is valid by the law of Noumea. B sues A in New South Wales for breach of the agreement.
V. A, resident in Sydney, wishes to bring an action for breach of contract against B, resident in Perth. What information would you require, and what considerations would you bear in mind, in advising A (1) whether he should bring the action in New South Wales or in Western

Australie, and (2) whether, if the action is brought in Supreme Court of New South Wales, he should proceed under the Service and Execution of Process Act 1901 (Federal), or under the Common Law Procedure Act, 1899 (N.S.W.)?
VI. Discuss the following cases, stating the principles in-volved:-
(1) H, a French citizen domiciled in France, married at Paris W, a Frenchwoman also domiciled in France. They were married without any express contract or settlement, so that, according to French law, their rights inter se as to property were subject to the system of community of groods. Subsequently they became domiciled in New South Wales, and H was naturalized under the Naturalization Act 1903 (Federal). H acquired a valuable shop in Sydney and shares in companies carrying on business in New South Wales. He died in 1911 domiciled in New South Wales, having made a will here by which he purported to leave the shop and shares to his duughter. W claims half the property under the law of France as to community of goods.
(2) A foreign ship, through negligence of the master and crew, came into collision with and damaged a British ship, owned by A, about five miles from the New South Wales coast. B is the owner of the foreign ship, and under the law of its flag he is not liable for damage caused by the negligence of the master and crew of his ship. Botb ships put into Sydney Harbour, and thereupon A sues B in this State for the damage caused by the collision.
VII. Explain briefly the effect in New South Wales of (1) a judgiment obtained by \(A\) against \(B\) in a French Court for a debt due from B to A ; (2) a discharge under the English Bankruptcy Act, 1883 ; and (3) a divorce granted in New Zealand in the case of a marriage contracted in New South Wales.

\section*{FACULTY OF SCIENCE.}

\section*{PHYSICS II.}

\section*{First Paper.}

PASS, DISTINCTION, AND SCHOLARSHIP.
1. Convert, by the method of dimensions, a Young's modulus given as 13,000 tons per square inch to e.g.s. measure, given that there are \(453 \cdot 59\) grammes in a pound and 2.54 centimetres in an inch.

Give the theory, without corrections, of the Cavendish experiment for finding the mean density of the earth.
2. Find an expression for Poisson's ratio in terms of the Young's modulus and rigidity.
Describe, with theoretical and practical detail, a method of determining the compressibility of a liquid.
3. Given that the velocity of a disturbance of wave length \(\lambda\) on the surface of water is given by
\[
v=\sqrt{\frac{\lambda}{2 \pi}\left(g+\frac{4 \pi^{2} \mathrm{~T}}{\lambda^{2} \rho}\right)}
\]
draw a distinction between waves and ripples, and explainthe formation of a stationary ripple pattern on the upstream side of an obstacle in running water.
Given that the rate at which momentum is transmitted across unit axea of a plane parallel to the direction of flow in a stream of gas is equal to \(0.35 \mathrm{~V}_{\rho} \lambda d v / d x\) where V is the velocity of mean square, \(\rho\) the density, \(\lambda\) the mean free path, and \(d v / d x\) the velocity gradient, show that the viscosity is independent of the pressure within the limits for which the formula holds, and calculate the mean free path at \(0^{\circ}\) and 750 mm ., the viscosity being \(1.7 \times 10^{-4}\) and. \(\rho, 1.26 \times 10^{-3}\).
4. What is usually represented in the theory of heat by \(\gamma\) ? State with an explanation, and deduce in as many cases as you can, the more important formule in which thesymbol appears.
Show how Van der Waals' equation may be deduced from. the principles of the kinetic theory.
5. Let water and steam exist in equilibrium in a cylinder; the total mass of the contents being one gramme and the ratio of the mass of the steam to that of the water being as \(e\) to \(1-e ; c_{1}\) being the suecific heat of the water, \(c_{2}\) that of the saturated vapour, deduce the consequences. of a slight adiabatic compression when \(\left(c_{1}-c_{2}\right) e\) is less. than, equal to, and greater than. \(c_{1}\).

PHYSICS II.

\section*{- Second Paper.}

PASS, DISTINCTION, AND SCHOLARSHIP.
1. Find the electric intensity \(R\) at a point distant \(r\) from the axis of two charged coaxial cylinders separated by air and also the capacity per unit length, and show that \(\mathrm{R}=\mathrm{V} \div r \log (b / a)\), where V is the P.D. and \(a\) and \(b\) the inner and outer radii respectively. At what part of the field is R a maximum?
When the maximum electric intensity just exceeds 127 electrostatic units a luminous sheath of air which has become conducting, called the corona, surrounds the inner cylinder. Assuming that the effect of the corona on the field is the same as that due to a slight increase in the radius of the inner conductor, show that if a corona is formed it will develop into a discharge between the cylinders if \(a\) is greater than \(b / \epsilon\), but may be stable if \(a\) is less than this value, \(\in\) being the base of Naperian logarithms.
2. Give the formule from which \(H\) and \(B\) are calculated in an investigation of the magnetic properties of a sample of iron by the ballistic method, stating, in proper units, the meaning of each symbol and explaining precisely how each of the quantities represented is determined.
An iron ring with a small air gap is covered with a closed solenoid uniformly wound, H being the true magnetising
force within the metal and \(\mathrm{H}^{1}\) that part of the magnetising force due to the coil alone. Considering the ring as a perfect magnetic circuit of constant cross section, show that \(\mathrm{H}=\mathrm{H}^{1}-4 \pi \delta l \mathrm{I} / l\), where \(l\) is the mean length of the circuit, \(\delta l\) the mean thickness of the air gap, and I the intensity of magnetisation.
3. Show that the magnetic force at the central point on the axis of a Helmholtz tangent galvanometer (two equal ooils placed a radius apart), is equal to \(16 \mathrm{~N} i \pi / 5 \sqrt{ } 5 a\), where N is number of turns on both coils. \(i\) the current and \(a\) the radius of the coils.
Find the magnetic force at a point on the axis a short distance from the central point, and show the superiority of the Helmholtz arrangement over the single coil galvanometer.
4. Prove some general statement for the mechanical force on a circuit, or portion of a circuit, carrying a current in a magnetic field, giving the direction of the force, and apply the statement to the solution of some particular case.
When the attraction between currents is to be used as a measure of their intensities the currents ought to be placed in particular positions relative to one another; give, by reference to some special case, two reasons for this statement.
5. Define the co-efficient of self and of mutual induction and show that with two circuits wound closely together, so that all the lines which go through one circuit also thread the other, \(M=\sqrt{\bar{L}_{1} L_{2}}, M\) being the co-efficient of mutual and \(\mathrm{L}_{1}\) and \(\mathrm{L}_{2}\) those of self induction.
Show that the current induced in a circuit by a sudden alteration of the magnetic field in which the circuit lies, is such as to keep the number of tubes of magnetic induction which pass through the circuit unaltered.

\section*{DEPARTMENT OF ENGINEERING.}

\author{
SECOND YEAR EXAMINATION.
}

\section*{ENGINEEERING CONSTRUCTION I. DISTINCTION.}
1. A floor has to carry a load of 336 pounds per square foot. The timber joists are 12 inches deep, by \(4 \frac{1}{2}\) inches wide, and have a span of 14 feet. How. far apart may the centre lines be spaced if the extreme fibre stress due to bending is not to exceed 1,000 pounds per square inch?
2. Prove the formula for the deflection of a beam, supported at each end, and loaded uniformly over its length -
\[
\mathrm{V}_{o}=\frac{5 f l^{2}}{48 \mathrm{E} y}
\]

Apply this to the case of a beam of 6 inches wide and 12 inches deep, on a span of 15 feet, if \(f=2,000 \mathrm{lbs}\). per square inch, and \(\mathrm{E}=300,000 \mathrm{lbs}\). per square inch.
3. Describe the characteristic features of brittle and soft materials when subjected to tension, compression and transverse stresses, and give numerical results for concrete and structural steel in regard to elastic limit, coefficient of elasticity, ultimate strength, method of failure and deformation.
4. Make an outline sketch of a Pratt truss suitable for a through bridge of 125 feet span, having panel lengths of 25 feet, and 25 feet depth of truss. Calculate the stresses in the various members for the following loads-
Dead load at top panel points \(=7,000 \mathrm{lbs}\).
Dead load at bottom panel points \(=18,000 \mathrm{lbs}\).
Live load at bottom panel points \(=80,000 \mathrm{lbs}\).
Obtain also the sectional area of the various members.
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5. Prove the following equation for the deflection of a truss-
\[
\mathrm{V}=\frac{1}{w \mathrm{E}} \Sigma \frac{\delta \sigma l}{\mathrm{~A}}
\]
and apply it to find the deflection of the truss described in question 4, if the bottom panel points are each loaded with 40 tons.
6. Write a brief account of the theory of long columns, and show how to obtain the straight line formulæ for the determination of the working stresses in columns of structural steel.
What are the limits within which these straight line equations are approximately correct? Give reasons for your answer.

\section*{ENGINEERING CONSTRUCTION II. DISTINCTION.}
1. Make sketches showing the cross-sections of the following: types of permanent way-
(a) For a pioneer line where ballast is omitted.
(b) For a first-class trunk railway.
(c) For a city tramway

Give all necessary dimensions and sizes of materials used, weight of rails, and tests of quality.
2. Write an essay on curve resistance on railways, and show how to derive the equation for a truck of 5 ft . wheel base\(\mathrm{Re}=0.4+0.385 \mathrm{D}\).
Explain how you would compensate for curves occurring on grades in order to render the total resistance uniform.
3. Write down the equations for tractive effort on railways for the following cases-
(a) Developed in the cylinders of the locomotives.
(b) Boiler tractive effort.
(c) Adhesion.

Write down also the equations of train resistance for empty and loaded trucks, also the resistance due to acceleration and grades.
4. Write an essay on the filtration of water, describing the British and American systems.
5. Make sketches showing the method of construction for the dam of a storage reservoir. What precautions would you take to ensure water-tightness?
Describe the waste weir, bye-wash, and the method of drawing off the supply for domestic service.
6. Write down some of the formulae, and explain the methods of calculating the velocity and the volume of flow over weirs, through pipes and channels
7. Write an essay on one of the following subjects-
(a) The construction of tunnels by means of a shield.
(b) The rack system as applied to mountain railways.
(c) The testing of timber.
(d) The determination of the sizes of waterways in railway embankments to pass the maximum floods.
cexxvi.

\title{
THIRD YEAR EXAMINATION.
}

\section*{CIVIL ENGINEERING II. HONOURS.}
1. Describe the principal modern types of the compound locomotive, and discuss their advantages and suitability. Describe also any type of superheater used on modern locomotives.
2. Explain the method of balancing as adopted in locomotive engines having ( \(a\) ) inside and (b) outside cylinders, and discuss the question of balancing in regard to modern compound engines.
3. Describe the method of constructicn adopted in any two modern graving docks with which you are acquainted.
4. Describe the method you would adopt in constructing a road across swampy flats, and along steep sidelong ground in a densely timbered country subjected to heavy rainfall, the sum available for the work being small. Give an outline specification of the works you would suggest.
5. Write an essay on the following problem in railway loca-tion:-"A high range separates two fertile and productive valleys." Compare the advantages of making a low level line with a tunnel 3 milus long with those of another line ascending projecting spurs, having grades of 1 in 50 , and crossing the range without a tuanel 500 feet higher. Assume all necessary data for comparison.
6. Show how to prepare drawings of a concrete weir with crest 120 feet long, about 20 feet above the bed of the stream.
The-material above the bed-rock consists of large masses of gneiss disintegrated near the surface.
Provide for floods rising 2 feet above the crest of the weir, and give rough calculations to determine approximately the stress in the material at and above the creek bed level.
7. Take out the quantities of concrete and excavation in the last question, and describe briefly how you would carry on the work of constiuction, and how you would provide against damage during the progress of the work, and in the event of fissures being met with, how yu would deal with them.

\section*{CIVIL ENGINEERING III. HONOURS.}
1. At a point in strained material the principal stresses are 0.5 tons per square inch tensile, and 3 tons per square inch compressive. Find the resultant stress in intensity and direction on a plane inclined \(60^{\circ}\) to the axis of the 0.5 ton stress, and perpendicular to the plane which has no stress. What is the maximum intensity of the shearing stress in the material?
2. Show that the resistance due to direct and shearing stresses in a beam of rectangular cross-section loaded uniformly is:-
\[
\mathrm{W}^{2}\left(\frac{l^{3}}{240 \mathrm{EI}}+\frac{l}{10 b d \mathrm{C}}\right)
\]

Explain the method of obtaining the combined bending and direct stress in a compression member of a bridge truss.
3. Write an essay on the theory of long columns, giving the reasons for the employment of the straight line equations for the practical design of structures. Give Moncrieff's equations for structural steel, and show how you would determine the stresses in the lacing of built columns.
4. Explain fully the methods of deriving the equations for the rigid arch without hinges, and the use of influence lines and tables for reducing the labour in the calculations. What precautions would you take in the erection of a rigid arched bridge in order to ensure that the actual stresses in the structure would correspond with those calculated.
5. Write an essay on the design of high masonry dams across wide rivers, as in India, giving full particulars in regard to the calculation of the maxima stresses, and the determination of the ellipses of stress on any horizontal section.
6. Give all the necessary equations and intensities of working stresses in materials in connection with the design of reinforced coucrete leams, columus and arches.

\title{
FOUR'RH YEAR LXAMINATION.
}

\section*{MECHANICAL ENGINEERING III. PASS AND HONOURS. Six Hours.}

Candidates are required to answer questions Nos. 1 and \(\frac{2}{\text {, together with not less than }}\) There nor more thuth five of the remainder.
The attention of all candudates is particulerty dratcy to the fact that brief answers, tealing specifically with the matter indicuted in the question, and illustrated by accuratediagrams, are what is required.
I. (a) A bucket, weighing 2 lbs , hangs by a rope wound around a wheel and axle (mass 8 lbs.), whose radius of gyration may be taken as 15 inches. If the diameter of the axle is 6 inches, find the angular mowentum of the wheel and axle after the bucket has attained a velocity of 20 feet per \(s \in c o n d\). What is the angular velocity of the wheel when 25 feet of rope have been unwound, and how long has the unwinding taken?
(b) The moment of inertia of a heavy wheel about its axle is \(15,000 \mathrm{lb} .-\mathrm{ft} .{ }^{2}\) If it is making \(3,00 \mathrm{c}\) revolutions per minute, what will be the velucity of precession when a couple of 12,000 foot-poundals is applied to the axle of the wheel?
(c) Describe briefly, with carefully drawn diagrams, the gyroscopic principles made use of in 'l'he Brennan Monorail Railway.
2. Discuss the question of Engine Friction, and, in particular, gire a full account, accompanied by the necessary analytical investigation, of a method of determining Engine Friction by retardation tests.
3. (a) Write a brief account, illustrated by sketches and diagrams, of -
(i.) A Venturi Meter.
(ii.) A Lea Recorder.

Explain carefully the principles involved in each apparatus; discuss their relative merits, and give some examples illustrating the circumstances under which you would recommend the use of one or the other.
(b) A Venturi meter has a diameter of 4 feet in the large part and 1.25 feet in the throat. With water flowing through it, the pressure head is 100 feet in the large part and 97 feet at the throat. Find the velocity in the small part and the discharge through the meter. Coefficient of meter taken as unity.
4. (a) A gas engiue, using the Otto (ycle, has 25 per cent. clearance, and takes in its charge at 14.7 lbs . per square inch, and at \(60^{\circ} \mathrm{F}\). The charge consists of one part of gas and nine parts of air; and the heat of combustion of the gas is 600 B.T.U. per cubic foot. The cylinder diameter is 18 inches; the stroke 24 iuches; and the engine makes 150 revolutions per minute.
Find (i.) the pressure and temperature at the end of compression; (ii.) the pressure and temperature at the end of explosion ; (iii.) the pressure and temperature at the end of expansion; (iv.) the efficiency of the cycle; (v.) the I.H.P.
(b) Summarise the present state of cur knowledge of the question of the chemical reactions in suction gas producers.
5. (a) Describe, in few words, the essential reasons why it is desirable to use a higher vacuun with steam turbines than with reciprocating stean engines.
(b) Make a detailed sketch of a modern barometric condenser, showing it attached to an actual plant. Discuss its advantages and disadvantages, and state the conditions under which you would recommend its use.
6. (a) Describe the most recent furtu of pulsometer, and quote any figures as to its performance with which you may be acquainted.
(b) With the aid of neat diagrams, describe the "Humphrey" gas pump, and its method of operation.
7. (a) What are the special characteristics of modern surface condensers, designed to obtain a very high degree of vacuum? Give the details of their construction where they differ from the condenser of, say, ten years ago.
(b) Discuss the question of air in the condenser, and of its influence upon the vacuum produced, quoting the results of any recent work on the subject with which you may be acquainted.
8. (a) Describe briefly the general design of
(i.) The Brennan Mono-rail Car.
(ii.) The Schlick apparatus for steadying vessels at sea.
(b) When a paddle boat is steaming ahead, what is the gyroscopic effect of the paddle wheels when a wave strikes the ship and gives it a list to starboard, and what is the effect of steering to starboard?
9. Describe, with the aid of neai sketches and diagrams-
(i.) Any form of multi-stage turbine pump for very high lifts.
(ii.) The Michell "Motor-'Turbine" pump as ustd by the Victorian Irrigation Department.
10. (a) Discuss briefly the question of exhaust steam turlines.
(b) Describe in detail, with sketches; the construction and operation of any form of steam regenesator with which you are acquainted.
11. Write an essay dealing with recent work on either of the following subjects:-
(i.) Investigations of the efficiency of boiler pipe laggings, aud similar insulating material.
Or,
(ii.) The corrosion of boiler tubes.

\section*{ENGINEERING DESIGN AND DRAWING. HONOURS:}

Coudidates are required to aftempt one only of the following designs.
The designs are to be shetch lay-outs to such a scale as may be jound comvenient, but sufficient detail is to be given to show eqartly what is meant by the candidate, and the method of uttack is to be clearly explained.
1. An overhead traveller is required to deal with a load of \(5,000 \mathrm{lbs}\). on a span of 35 feet. The runway is carried on buttresses 12 ft . apart, and the clear distance between top of buttress and underside of floor girder is 30 inches.
The gear is to be hand-driven for all motions from the floor of the shop. Design the traveller.
2. Design a crane for use in a foundry capable of dealing with a load of 15 tons at any radius from 15 to 25 feet. The available head room is 27 feet from floor to underside of
roof principals. The crane is to be attached to a steel column of the frame of building, which may be assumed strong enough to carry the loads imposed.
Hand gear to be used for all motions.
3. A steam boiler is required of the return tube marine type for a small tug-boat. It is to supply steam to a vertical compound engine developing 120 horse-power at 160 r.p.m., steam pressure, 130 lbs . per sq. in. at the boiler. The fuel available is low grade coal of about 11,000 B.'T'U. per lb. Design boiler, furnace fittings and uptake to satisfy B.O.'T. requirements.
4. Design a three-throw pump to deliver 10,000 galls. per hoúr against a head of 350 feet. Pump to be motor-driven from motor on same base-plate. size of motor to be specified. lump is placed 10 feet above level of water in well.
-5. Design a double-ended punching and shearing machine driven by a steam engine, capable of punching 1 inch holes through 1 inch plate, of shearing 1 inch plate and \(5^{\prime \prime} \times 5^{\prime \prime}\) angles.

\section*{ELECTRICAL ENGINEERING II. A. HONOURS.}

Six questions only to be attempted.
1. Derive a graphic construction for the accelesation of a car operated by a series motor and regulating resistance, the latter being always adjusted so as to maintain constant current while it is in circuit.
Assume all necessary data.
2. Give an account of the methods you would adopt for a complete investigation of the various losses in a compound wound generator with inter-poles.
3. Describe the detail of one good form of automatic reversible booster, and explain under what circumstances such a machine would be used in place of a hand-regulated booster.
4. Explain the theory of the rotary converter, and show how the output of the machine is influenced by the number of phases for which it is used.
cexrexin. DEPARTMENT OF ENGINEERLNG.
5. Give an account, and compare the relative advantages of the methods in general use for conversion from alternating to direct current.
6. It is proposed to light a country town by electricity. Make a statement of the data which you would deem it necessary to obtain, and the considerations which would enable you to decide upon the electrical system to be adopted, the type of prime mover, also the size of station and of units.
7. Give an account of the more usual forms of direct current armature windings.

\section*{ELECTRICAL ENGINEERING II. B.}

HONOURS.
SIX questions only to be attempted.
1. By considering a Y-connected load, show that the voltage drop along a balanced three-phase line with symmetrically arranged conductors is the same as that along a single-phase line conveying one-third of the power of the three-phase line operating at the same power factor, and at a voltage equal to the \(Y\)-voltage of the threephase system, and having a resistance and self-inductance. equal to half those of the loop formed by any two conductors of the three-phase system.
2. What is generally understood by the term "capacity of a three-core lisad-sheathed cable," and how may this quantity be experimentally determined? What effect has wave form upon the capacity current?
3. Discuss the question of abnormal voltage rise on suddenly switching in a cable. What precaution may in practice be taken against this effect?
4. Derive a graphical solution for the case of currents in a branched circuit when mutual inductance is taken into account.
5. Explain the Heyland diagram for a three-phase motor, and show how this diagram may be rationally derived.
6. Explain the nature of the excitation characteristic of a synchronous motor, and show how to derive an equation for the curves.
7. Explain the effect of negative reactance in an over-excited synchronous motor, and describe the practical applications.

\section*{*MATRICULATION EXAMINATION.}

ENGLISH.
[The answers, which are to be maried clearly \(A\) and \(B\), are to be given up in two sepaiate bundles, which are also to be marked I. and II. Answers given up in the wrong. bundte will recsive no marks. Each shett must be clearly marked with the letter A or \(B\) and the numeral 1. or II.]

> Division A (Lower Standard).
> Two and a Half Hours.
> Segtion I.
Diession R.)
1. Explain the meaning of the following passages(a) I needs must break

These bonds that so defame me : not without
She wills it: would I, if she will'd it? nay, Who knows? but if I would not, then may God, I pray him, send a sudden Angel down
To seize me by the hair and bear me far,
And fling me deep in that forgotten mere, Among the tumbled fragments of the hills.

Bid call the ghostly man
Hither, and let me shrive me clean, and die.
(c) His battle-writhen arms and mighty hands

Lay naked on the wolfskin.
There is many a youth
Now crescent, who will come to all I am And overcome it.
(e) However much he yearn'd to make complete The tale of diamonds for his destined boon.
2. Explain how the following quotations impress you as pariicularly apt or beantiful where they occur. If they do not so impress you, say why you do not like them. (a) The myriad cricket of the mead,
And every voice is nothing.

\footnotetext{
*The time allowed for each paper is three hours, except where otherwise stated.
}
(b) . . . . . our Lady's Head, Carved of one emerald center'd in a sun Of silver rays, that lightened as he breathed.
(c) [Then he] all wearied of the quest Leapt on his horse, and carolling as he went A true-love ballad, lightly rode away.
(d) [She] sorrowing Lancelot should have stoop'd so low,' Marr'd her friend's aim with pale tranquillity.
(c) Sea was her wrath, yet working after storm.
3. A. "The English of the Idylls of the King is often oldfashioned."
Apply this to the following passages so as to show that you understand the old forrus and usages-
(a) Rathe she rose, half-cheated in the thought She needs must bid farewell to sweet Lavaine.
(b) But an ye will it, let me see the shield.
(c) Most

Predoom'd her as unworthy.
B. Point out the metrical construction of the lines below, and note any particular effect they have for you-
(d) Down the long tower-stairs hesitating.
(e) Of every dint a sword had beaten in it.
(f) He up the side sweating with agony got.
4. Give some noteworthy examples from Quentin Durward of Louis XI.'s "natural firmness and sagacity of character."

\section*{Section II.}
5. Analyse the following sentence into its clauses, and show their mutual relations-
"When Harriet was seated in the chaise, Sindall took notice of the flutter into which the accident had thrown her, while she confessed that she had been a good deal alarmed lest there should have been a quarrel on her account; and begged him, if he had any regard for her ever in mind, to think no more of any vengeance he might take upon the other gentleman."
6. Parse the underlined words in-

Were an office to be opened for the insurance of literary reputations, no critic at all likely to be in the society's service would refuse the life of a poet who could write like Crabbe. Cardinal Newman, Mr. Leslie Stephen, Mr. Swinburne, are not always of the same way of thinking, but all three hold the one true faith about Crabbe.

\section*{Difision B (Higher Standard). \\ Threz Hours.}

Section I.
1. Explain the meaning of the following quotations-
(a) (Among the books of the Bodleian) I seem to inhale learning, walking amid their foliage; and the odour of their old moth-scented coverings is fragrant as the first bloom of those sciential apples which grew amid the happy orchard.
(b) What near approaches doth (your borrower) make to the primitive community, - to the extent of one-half of the principle at least!
(c) The pen of Yorick, and none since his, could have drawn J. E. entire-those fine Shandean lights and shades, which make up his story.
(d) How would it sound-in song, that a great monarch had declined his affections upon the daughter of a baker.
(e) Barbecue your whole hogs to your palate, steep them in shalots, stuff them out with plantations of the rank and guilty garlic.
2. Explain the humour of the following passage -
(a) See (the pig) in the dish, his second cradle, how meek he lieth! Would'st thou have had this innocent grow up to the grossness and indocility which too often accom. pany maturer swinehood?
(b) My night fancies have long ceased to be afflictive. I confess an occasional nightmare; but I do not, as in early youth; keep a stud of them.
(c) The mighty artillery of sauces, which the cook-fiend conjures up, is out of proportion to the simple wants and plain hunger of the guest.
(d) 0 ! shake not the castles of his pride-endure yet for a season, bright moments of confidence-"stand still, ye watches of the element," that Malvolio may be still in fancy fair Olivia's lord!
3. Discuss the antiquarianism in the following expressions-
(a) No rascally comparative insults a beggar.
(b) The weary and all-forspent twopenny postman.
(c) The slight vacuum in the left-hand case was whilom the commodious resting-place of Browne.
And the literary allusions in the following :
(d) The high and rushing tide of greasy citizenry.
(e) Like a better man than myself. (I) have "small Latin and less Greek.!'
( \(f\) ) He that meets me in the forest to-day, shall meet with no wise-acre.
4. Illustrate Lamb's delicacy of feeling from the two of the following essays:-Mackery End, Modern Gallantry, Dream Children.

Section II.
5. Explain the following quotations-
(a) He doth nothing but talk of his horse; and he makes it a great appropriation of his own good parts that he can shoe him himself.
(b) Methought you said you neither lend nor borrow upon advantage.
(c) Thou wilt say anon he is some kin to thee, Thou spend'st such high-day wit in praising him.
(d) How many cowards, whose hearts are all as false As stairs of sand, wear yet upon their chins The beards of Hercules and frowning Mars, Who inward search'd have livers white as milk, And these assume but valour's excrement To render them redoubted.
(e) How many things by season season'd are To their right praise and true perfection.
6. Explain the significance of the following quotations for the story and characterisation-
(a) Nerissa. Do you not remember, lady, in your father's time, a Venetian, a scholar and a soldier, that came hither in the compray of the Marquis of Montferrat?
Portia. Yes, yes, it was Bassanio.
(b) Alack, what heinous sin is it in me To be ashamed to be my father's child ! But though I am a daughter to his blood, I am not to his manners.
(c) Commend me to your honourable wife, Tell her the process of Antonio's end; Say how I loved you, speak me fair in death; And, when the tale is told, bid her be judge Whether Bassanio had not once a love.
(d) I will not choose what many men desire Because I will not jump with common spirits And rank me with the barbarous multitudes.
7. Comment on the metre of the following-
(a) Not in love neither? Then let us say you are sad.
(b) I love your company: therefore forbear awhile.
(c) His rigorou3 course; but since he stands obdurate.

And the grammar of the following-
(d) 'Tis vile, unless it may be quaintly order'd And better in my mind not undertook.
(e) That "many" may be meant By the fool multitude, that choose by show.
( \(f\) ) I, for my part, knew the tailor that made the wings she flew withal.
8. "The sentence on Shylock, besides being unjust, rests on a quibble."
Does this statement seem to you correct?
LATIN.

\section*{Division A (Lower Standard). Two and a Halp Hours.}
1. Translate-

Tum Calgacus, inter duces virtute et genere prasestans, apud multitudinem proelium poscentem in hunc modum locutus est. "Quandocumque causas belli et necessitatem nostram intueor, magnus mihi animus est hunc diem initium libertatis toti Britanniae fore. Omnia nobis sunt victoriae incitamenta, Nullae enim coniuges Romanos accendunt, nulli parentes fugam exprobaturi sunt. Paucos numero, ignorantia locorum trepidos, clausos quodam modo ac
vinctos di nobis tradiderunt. In ipsa hostium acie nostros inveniemus; Britanni suam causam agnoscent, Galli Germanique Romanos deserent, ut nuper Usipii eos reliquerunt. Nec quicquam ultra métuendum est: vacua castella, milites qui male parent, duces qui iniuste imperant. Primo statim congressu ostendamus quos Caledonia viros habeat."
2. Translate into Latin-
(a) There are some who think that Cæsar was concerned in the conspiracy of Catiline.
(b) If the army had advanced another fifteen miles it would have been quite safe.
(c) Tell me why you are unwilling to consult your friend about a choice of studies.
(d) The conspirators, having made all their preparations, set out at midnight for the consul's house. When they arrived, a slave whose help they had bought with bribes opened the door and admitted them, and it seemed now that nothing could prevent the execution of their dreadful design. But as they passed through the atriun, suddenly a great shout arose, and armed men sprang out upon them. Panic-stricken, they turned to flee, only to find that the slave had harred the door behind them. A furious fight ensued, and all the conspirators were killed or captured. The slave, whose noble treachery had saved his master, was set free.
(Instead of the following passages from Cicero, Candidates may take the passages from Cicero or from Horace in Division B.)

\section*{3. Translate-}
(a) Hos, quos video volitare in foro, quos stare ad curiam, quos etiam in seuatum venire, qui nitent unguentis, qui fulgent purpura, mallem secum eduxisset: qui si hic permanent, mementote non tam exercitum illum esse nobis quam hos, qui exercitum deseruerunt, pertimescendos. Atque hoc etiam sunt timendi magis, quod quid cogitent me scire sentiunt, neque tamen permoventur. Video cui sit Apulia attributa, quis habeat Etruriam, quis agrum Picenum, quis Gallicum, quis sibi has urbanas insidias caedis atque incendiorum depoposcerit;
omnia superioris noctis consilia ad me perlata esse sentiunt; patefeci in senatu hesterno die; Catilina ipse pertimuit, profugit: hi quid exspectant?
(b) Ibi vehementissime perturbatus Lentulus tamen et signum et manum suam cognovit. Erant autem sine nomine, sed ita: ' Quis sim, scies ex eo, quem ad te misi. Cura ut vir sis et cogita quem in locum sis progressus: vide, ecquid tibi iam sit necesse, et cura ut omnium tibi auxilia adiungas, etiam infimorum.' Gabinius deinde introductus, cum primo impudenter respondere coepisset, ad extremum nihil ex iis, quae Galli insimulabant, negavit. Ac mihi quidem, Quirites, cum illa certissima visa sunt argumenta atque indicia sceleris, tabellae, signa, manus, denique unius cuiusque confessio, tum multo certiora illa, color, oculi, vultus, taciturnitas. Sic enim obstupuerant, sic terram intuebantur, sic furtim nonnumquam inter sese aspiciebant, ut non iam ab aliis indicari, sed indicare se ipsi viderentur.
4. Translate, with brief comments-
(a) An P. Scipio, pontifex maximus, Ti. Gracchum, mediocriter labefactantem statum rei publicae, privatus interfecit: Catilinam, orbem terrae caede atque incendiis vastare cupientem, nos consules perferemus?
(b) Etenim, credo, Manlius iste centurio, qui in agro Faesulano castra posuit, bellum populo Romano suo nomine indixit, et illa castra nunc non Catilinam ducem exspectant.

> Division B (Higher Standard).
1. Translate-

Tum Alexander, 'Ubi,' inquit, 'est ille clamor, alacritatis vestrae index? ubi ille meorum Macedonum vultus? Non agnosco vos, milites, nec agnosci videor a vobis.' Cumque illi, in terram demissis capitibus, tacere perseverarent, 'Nescio quid,' inquit, 'in vos imprudens deliqui, quod me ne intueri quidem vultis. In solitudine mihi videor esse. Nemo respondet, nemo saltem negat. Quos alloquor? quid autem postulo? Vestram gloriam et magnitudinem vindicamus. Ubi sunt illi, quorum certamen paulo ante vidi contendentium, qui potissimum vulnerati regis corpus exciperent? Desertus, destitutus sum, hostibus deditus. Sed solus quoque ire perseverabo.

Obicite me fluminibus et beluis et illis gentibus, quarum nomina horretis. Inveniam, qui desertum a vobis sequantur. Scythae Bactrianique erunt mecum, hostes paulo ante, nunc milites nostri. Mori praestat, quam precario imperatorem esse.'
2. Translate into Latin-

At last a Greek offered to show Flamininus a path by which the Romans could get round behind the enemy, and Flamininus forthwith dispatched 4,000 picked infantry and 300 horsemen. Tro days passed. Then, early in the morning, Flamininus's sentries saw smoke rising behind the Macedonian army. This was the signal; and the Roman general at once gave the order for battle. Philippus was delighted, for he thought that the enemy were marching into a trap. But suddenly he found his men attacked from behind and in front at once. A panic seized them, and they tried to flee. Great numbers were cut down where they stood, for in the pass escape was not easy; but pursuit was equally difficult, and Philippus, after reaching a place of safety, found that he still had an army.
3. Iranslate-

Bis consul fuerat \(P\) Africanus et duos terrores huius imperii, Karthaginem Numantiamque, deleverat, cum accusavit L Cottam. Erat in eo summa eloguentia, summa fides, summa integritas, auctoritas tanta quanta in imperio populi Romani, quod illius opera tenebatur. Saepe hoc maiores natu dicere audivi hanc accusatoris eximiam vim plurimum L Cottae profuisse. Noluerunt sapientissimi homines, qui tum rem illam iudicabant, ita quemquam cadere in iudicio, ut nimiis adversarii viribus abiectus videretur. Quid? Ser Galbam-nam traditum memoriae est-nonne proavo tuo, fortissimo atque florentissimo viro, M Catoni incumbenti ad eius perniciem populus Romanus eripuit? Semper in hac civitate nimis magnis accusatorum opibus et populus universus et sapientes ac multum in posterum prospicientes iudices restiterunt. Nolo accusator in iudicium potentiam adferat, non vim maiorem aliquam, non auctoritatem excellentem, non nimiam gratiam: valeant haec omnia ad salutem innocentium, ad opem impotentium, ad auxilium calamitos. orum, in periculo vero et in pernicie civium repudientur.
coxlii.
4. Translate, and comment on -
(a) Ego quod facio, iudices, cum amicitiae dignitatisque \(L\). Murenae gratia facio, tum me pacis, otii, concordiae, libertatis, salutis, vitae denique omnium nostrum causa facere clamo atque testor.
(b) Negat fuisse rectum Cato me et consulem et legis ambitus latorem et tam severe gesto consulatu causam L Murenae attingere.
(c) Posset agi lege necne, pauci quondam sciebant; fastos enim vulgo non habebant; erant in magna potentia qui consulebantur, a quibus etiam dies tamquam a Chaldaeis petebatur.

\section*{5. Translate-}

Virtutem incolumem odimus,
Sublatam ex oculis quaerimus invidi.
Quid tristes querimoniae,
Si non supplicio culpa reciditur, Quid leges sine moribus

Vanae proficiunt, si neque fervidis
Pars inclusa caloribus
Mundi nec Boreae finitimum latus
Durataeque solo nives
Mercatorem abigunt, horrida callidi
Vincunt aequora navitae,
Magnum pauperies opprobrium iubet
Quidvis et facere et pati
Virtutisque viam deserit arduae?
Vel nos in Capitolium,
Quo clamor vocat et turba faventium,
Vel nos in mare proximum
Gemmas et lapides, aurum et inutile,
Summi materiem mali,
Mittamus, scelerum si bene paenitet.
Eradenda cupidinis
Pravi sunt elementa et tenerae nimis
Mentes asperioribus
Formandae studiis.
6. Translate, and comment on-
(a) Delicta maiorum immeritus lues, Romane, donec templa refeceris.
(b) Cur valle permutem Sabina

Divitias operosiores?
(c) I, pete unguentum, puer, et coronas

Et cadum Marsi memorem duelli,
Spartacum si qua potuit vagantem Fallere testa.

GREEK. -
Division A (Lower Standard).
Two and a Half Hours.
Skr Boor.-Xenophon, Hellerica, Book II.
1. Translate into Greek-
(a) If you had done as I told you, you would now be one of the richest men in the world.
(b) He said that he was ready to go with me wherever I wished.
(c) He went away before I saw him.
(d) It is necessary to have money in order to become powerful.
(e) I wish I were dead!
2. Translate into English-












[N.B.-Instead of the following passages from Xenophon, Hedlenica, Book II., candidates may take either the passages from Plato, Apology and Crito, or those from Homer, Odyssey, Books X. and XI. in Division B.]
3. Translate-


cexliv











4. Translate, with short notes on the underlined words-




 \(\pi \rho \dot{o s} \tau \hat{\eta} \gamma \hat{\eta}\).







\section*{Division B (Higifer Standard).}

Ser Books.-Plato, Apology and Crito, and Homer, Odyssey, Books \(X\). and \(X I\).
1. Translate into Greek-

Meanwhile the Athenian commanders were informed of their movements, and deliberated on their own plan of action. Most of them were desirous of waiting for the enemy, and giving him battle; but Phrynichus declared that he would never consent to expose the commonwealth to such a risk. They could always find opportunities enough of fighting when they had ascertained the enemy's strength, and had taken every precaution to ensure a victory.. After the disasters they had experienced it would be prudent to avoid a battle, if they could, under
any but the most favotirable circumstances; but it would be madness, for a point of honour, to rush into a voluntary danger, the extent of which they could not estimate.

\section*{2. Translate into English-}














 غoúvac číкךข.
\[
\sigma v \mu \beta o \dot{\lambda c t a} \text { " matters of business." }
\]
3. Translate, with comments on the underlined words-
























4. Translate, with notes on the underlined words-







































FRENCH.
TThe answers which are to be marked clearly \(A\) amb \(B\), are to be given up, in two separate bundles, which are also to be marked clearly I. and II. Auswers given up in the wrong bundle will receive mo marks. Einch sheet wust be clearly marliod with the letter \(A\) or B, and the I. or 11.]

Division A (Lower Standard).
Section I.
For Question 1 (o) and (b) Oandilates may substitute Question 1 and Question of Division \(B\).
1. Translate (at sight) -
(a) Quand la vieille mère reçut le corips de son enfant, que des passants lui rapportèrent, elle ne pleura pas, mais ellẹ demeura longtemps immobile à le regarder: puis, étendant sa main ridée sur le cadavre, elle lui promit de le venger. Flle ne voulut point qu'on restât avec elle, et elle s'enfermn auprès du corps avec la chienne, qui hurlait. Elle hurlait, cette bête, d'une façon continue, debout au pied du lit, la tête tendue vers son maître et la queue serrée entre les pattes. Elle ne bougeait pas plus que la mère, qui, penchée maintenant sur le corps, l'œil fixe, pleurait de grosses larmes muettes on le contemplant. Enfin, la vieille mère se mit à parler. Au bruit de cette voix, la chienne se tut.
-Va, va, tu seras vengé, mon petit, mon garçon, mon paurre enfant. C'est la mère qui le promet.
(b) Les bètes, chevaux, vaches, porcs et moutons, étaient grasses, soignées et propres; et le maître, un grand homme qui prenait du ventre, faisait sa ronde trois fois par jour, veillant sur tout et pensant à tout. On conservait, par charité, dans le fond de l'écurie, un très vieux cheval blanc que la maîtresse voulait nourrir jusqu'à sa mort naturelle parce qu'elle l'avait élevé, gardé toujours,
et qu'il lui rappelait des souvenirs. Un garçon de quinze ans prenait soin de cet invalide, lui donnait, pendant l'hiver, sa mesure d'avoine et son fourrage, et devait aller, quatre fois par jour, en été, le déplacer dans le champ où on l'attachait, afin qu'il eût en abondance de l'herbe fraiche.
(c) Il y avait deux chemins pour monter à la Côte Verte. Le plus long s'élevait insensiblement entre de beaux arbres; l'autre grimpait à l'arrière de la colline. J'en préférais la brusquerie abrupte et même, l'été, la chaleur pierreuse entre les ronces qui le bordaient de buissons poussiéreux. Il s'en exhalait une odeur de terre sèche et de feuilles chaudes. Nous montions. Je me retournais vers le vieux François qui me suivait en soufflant. Sa courte pipe expirait des fumées bleuàtres. Il avait une face usée, comme verdie du reflet des eaux maritimes, comme ridée aux brises du large. Deux annelets d'or scintillaieut à ses oreilles poilues. Le chemin roidissait sa pente ou déroulaient des cailloux et on se trouvait sur le plateau.
2. (a) Write down (in the Third Person Singular) the Past Definite Indicative, the Conditional, and the Imperfect Subjunctive of the following verbs-roidir, suivre, grimper, devoir, vouloir, faire, mettre, percevoir.
(b) Form nouns from the following verbs-éclaiver, monter, conserver, hurler; and adverbs from the following adjec-tives-continu, fixe, gras, pesant.
(c) Explain and illustrate the meaning of--alors, donc, puis.

\section*{Sbetion II.}
3. Translate into French-
(a) So you are thinking of leaving town?
(b) Yes; I find it altogether too hot at this time of year.
(c) When are you going to leave?
(d) Next Thursday, the 16 th of the month.
(e) Might I ask at what particular hour?
(f) Since you are so bent on knowing, I will tell you: by the 10.45 train for Canberra.
4. Translate into French-

But on reaching La Roche Guyon we found a city of the dead. A long deserted street led past dwellings of impenetrable repose. For an instant our spirits failed
us. We walked forward more slowly; the white dust about our feet no longer seemed the dust of stars. Our knees ached-but a distant light revived us We pressed eagerly, if at last a little heavily, on. The distant light, we found, was shining forth from a bake-shop. Within, the good baker, stripped to the waist, was shovelling to-morrow's loaves into a glowing oven. We called to him from the window. He turned and came toward us without embarrassment or surprise. We greeted him with set phrases, and he leaned to us from his window-ledge and pointed our way with a firmly modelled arm. We thanked him: he bade is good night and turned back to his task. Oh, France, thou true gentle land of democracy, when all is said! I know little of thy laws, but thy people are the pattern democrats of this earth.

\section*{Division B (Higuer Standard).}

\section*{Section I.}
1. Translate passages from Hugo, Select Poems.
2. Translate passages from Orators of the Revolution; La Bruyère, Les Caractères; and E. an J. Goncourt, Marie Antoinette.

\section*{Section II}
3. Translate into French-

We must never forget, in reading these orators, that we are dealing with an impetuous Southern nation in the agony of its last struggle. The politenesses and small generosities of politics are not there. There is no ornamental duelling. The men fight with naked swords, and fight iu earnest. Demosthenes thought of his opponents, not as statesmen who made bad blunders, but as perjured traitors who were selling Greece to a barbarian. They thought him, not, indeed, a traitor-that was impossible -but a malignant and insane person who prevented a peaceful settlement of any issue. The words "treason" and "bribe" were bandied freely about; but there is hardly any proved case of treason, and none of bribery. The wide suspicion of bribery was caused chielly by the bewilderment of the Athenians at finding themselves in the presence of an enemy far. their superior both in material force and in diplomacy. Why were they so
incomprehensibly worsted in wars, where they won most of the battles? Why were their acutest statesmen invariably outwitted by a semi-barbarous king? Somebody must be betraying them.

\section*{4. Translate (at sight)-}

Les pensées de M. de La Boulerie n'étaient point toujours celles qu'on lui eût supposer. Elles étaient souvent anxieuses et désespérées. Il vivait dans un sentiment profond, sérieux et certain du danger qu'il y a à vivre. L'homme a beaucoup à redouter tant de lui-même que d'autrui. Il est exposé à de fâcheuses eurprises. M. de La Boulerie s'aląruait de toutes les maladies en général et même des plus rares, des contagieuses non moins que des endémiques et des chroniques, et il se croyait continuellement sur le point d'ètre atteint par l'une d'elles. Aussi considérait-il avec effroi son propre corps. Composé, comme il l'est, de tant d'organes, de parties et de fonctions, comment espérer que tout s'y comportera dans l'ordre qu'il faut? Ne sommes-nous point à la merci de la plus petite imperfection et du moindre dérangement de notre machine, tet il n'est pas de grain de sable qui n'ait raison des rouages les mitux réglés? - Si sa sauté personnelle le préoccupait, celle des autres ne le rassurait pas davantage, et il augurait à chacun les maux dont il Jui semblait apercevoir sur les visages les marques probables. Et comme ịl arrivait que ces pronostics se réalisassent quelquefois, il en tirait, pour ceux qu'il se faisait à lui-même, et qui u'étaient point bons, de justes sujets de craintes.

GERMAN.
For Question 1 (a) ând 1 (b) of Division A, caudidates may stbstifut, fither Question 1 or Question 2 of Division \(1 /\).

\section*{Division A (Lower Standard).}

Two and a Half Hours.
1. Translate into English-
(a) Jdy erwadte, als mir ber Ting ing (3flid)t idnien. Wor mir war ein fteifer gelfen, id) fletterte in ber 500 fimurg
 und vielleid) פBobnuigen voer Mlenfden gewabr ju werben.

reidete, eben fo, wic unt mid) ber, nlles war mit cinem neblideten Dufte überzogen, ter \(\mathfrak{T}\) ag war grau und trïbe,

 cimiam und hetribt in rugen Gerfentigen empor gefodifa warell. (Fs ift mberdyreiblid), welde ©erbufudt id) rmpfant,
 id midy vor ifm gatte fürdtetu miifien.

 tefudte. Gr wimidate burd) irgend eimen gremid die teeve int feimer Gerle angzufillen, mid wem or bam wirber an Baltber juriuf badte, fo criduraf er vor dem (bebanfen,
 ungliifflid) mit jebweden gremor fein fëme. (er batte fo





(c) Sd) Yebue auf ber Brüfe am \(\mathfrak{E x}\) iberdamme, win den
 Fremogewordencr, betrete. Nber gand will der füße griede
 Matur! 2ber an bicier Stätte famit tu allein mir nid)t alles jdenfen, wonad) mid) Düntet. Du affein föfeft meine Secte nid)t... श(d)! शBambe id) bier nid)t niberall anf cingefuntenen (brälem? 1ho in ber Srimat fapt mid) das Seimwel. \(\mathcal{E}\) ber wie idy fo, tranmertoren, melor füble als denfe, zieht ber 3ug ber lieben Zeritrenten uno Toten an mit woriber, wie binter cincm Edjeier, im rimochen. unflar, umbittert wem. (beiferbander ter 尺imbergeit.
2. (a) Write down the sccond person plural of the imperfect indicative, present imperative, and 1 ast subjunctive of the verbs kiletterte, überzogen, fürchten, ausfullen, übenzengt, dürsten, umuittern.
(b) Mlustrate, by means of short sentences, the meaunings of 'übersiehen, über'ziehon; 'umgehen, um'gehen; 'durchucachsen, durch'wachsen.
(c) Explain and illustrate the uses of wohl, um, num, firr, erst.
celii.

\section*{3. Translate into German-}
(a) (i.) What did you mean by telling him about it?
(ii.) Why, I didn't know there was any harm in doing so.
(iii.) Besides, you didn't tell me not to do so.
(iv.) Anyhow, you shculdn't have done it; gou have caused me a great deal of annoyance.
(v.) I cannot say more than that I am very sorry.
(vi.) And I'll think twice before 1 trust you with a secret again.
(b) Mr. Davies mentioned my name and respectfully introduced me to him. I was much agitated ; and recollecting his prejudice against the Scotch, of which I had heard much, I said to Daries, "Don't tell where I come from." -" From Scotland," cried Davies, roguishly. "Mr. Johnson, (said I) I do indeed come from Scotland, but I cannot belp it." With that quickness of wit for which he was so remarkable, he seized the expression "come from Scotland," which I used in the sense of being of that country; and, as if I had said that I had come away from it, or left it, retorted, "That, sir, I find, is what a great many of your countrymen cannot help."

\section*{Diviston B (Higher Standard).}
1. Translate passages from Schiller, Jungfrau von Crleans.
2. Translate Passages from Fouqué, Sintram, and Heine, Select Ballads.
3. Translate into German-

Such was the general character of the Teutonic religion, disposed to the dark, the awful, the mysterious, with a profound belief in prophetic revelations, and a priesthood accustomed to act in a judicial, as well as in a religious capacity. And with such religious conceptions, and habits of thought and feeling, the Northern tribes, first on the frontiers, afterwards within the frontiers, and gradually in the heart of the Roman Empire, came into the presence of Christianity. The Teutonic conqueror, already expatriated, by the thirst for conquest or the aggression of more martial tribes, by his migration had broken off all local associations of sanctity; he had left far behind his hallowed grove, and his bloodstained
altar ; even the awe of his primeval forests must have gradually worn away as he advanced into the southern sunshine, and took possession of the regular towns or the cultivated farms of his Roman subjects.
4. Translate (at sight)-

Die raubenden Sirten, die Gajar mbs vorfigyt, werben in Diejer Beit febbafte Banert. Das beutide Durf eltftebt, citt Spiegel beutiden SBriens: ber (Sicoulte, ber eß griumbet, eigenartig, wou Bedtrgefiibl curdtrinft, Das bem Beftebenden, wie man ez in ben altfeltifdent Eamben finfo der פBefor voriant, (erbaltmig vorbügt, weil bem dentidach Sime ons Geworbeme beiliger ift als Das Gemadyte Die ?ugfingung iducinbar regeflos. Jreibeit beve ほinzelnen, 3wang ofs Berbanoes: wit io ganj Dentid) ift Diefes Saufenoorf mit primer prenggeregelten flurein= teilung und jeinem wirren Bejibredte an ben simjelnen Fhuftufen! (Gime nene Borge, bie ant tefften greifenbe non alfen, wird befannt: Die Eorge um Scim und Sauş, um Die wetbende (6rnte. Dit igr gewinnt der (3)itterglambe in Tiefe mo Breite. ©in neucs Bied t jiedt ein. liberald
 wiel mebr Joylf alg 飞pos. Die Bejdidte biefry 3eit, in
 unfer Batertand wird, ftebt miter bem mildftrablendent -Sterne dar Mrbeit an ber (Sefittulg, nidyt dem blutigroten


\section*{LOWER MATHEMATICS.}

\section*{Division A.}

First Pafer.-Two and a Haly Hours.
Candidates should attemizt to ansuter abestions in all the divisions \((-1),(B),(C)\) of this paper, as the Examiners may ryect any cantitate who shous exteptional weakness in ang oae of them.

\section*{A.}
1. How many times is \(£ 2618 \mathrm{~s} .4 \frac{1}{2}\) d. contained in \(£ 9728 \mathrm{~s} .2 \mathrm{~d}\), and how much remains over?
2. Find the value of 2 acres 3 roods. 16 perches of land at £24 12s.6d. per acre. Find also the value of 1 perch of the land as a decimal of a pound.
3. If the weight of one cubic foot of water is \(62 \cdot 55\) lbs., find the error made in calculating the weight of 1200 cubic ft. on the assumption that one cubic foot weighs 1000 oz .
celiv. MATRICULATION.
B.
4. Divide \(a^{4}+b^{4}-c^{4}+4 a b\left(a^{2}+b^{2}\right)+6 a^{2} b^{2}\) by \(a^{2}+b^{2}+c^{2}+2 a b\), and multiply the result by \(a+b+c\).
5. Find the simplest factors of
(i.) \(x^{4}-10 x^{3} y-39 w^{2} y^{2}\).
(ii.) \((a+2 b)^{3}-8(a-b)^{3}\).
(iii.) \(35 x^{2}+27 x y-44 y^{2}\).
6. Solve the equations
\[
\left.\begin{array}{l}
\text { (i.) } \frac{1}{12}\left[(2 x+1)^{2}-4\right]+2 x+\frac{11}{4}=\frac{(x+3)^{2}+3}{3} \\
\text { (ii.) } \frac{3 x+4 y}{24}=x-y, \\
\frac{x-2 y}{3}+y=\frac{7}{3} .
\end{array}\right\}
\]

Verify the solution of the first equation by substitution, and of the second graphically by drawing the straight lines represented by the equations.

\section*{C.}
7. Define "parallel straight lines," and state the axiom (or postulate) with regard to parallel straight lines of which you make use.
Prove that if one straight line fulling upon two other straight lines makes the alternate angles equal, then the two last mentioned straight lives are parallel.
Prove that if two straight lines are cut by three parallel straight lines, and the intercepts on one straight line are equal, they are also equal on the other straight line.
8. Prove geometrically the propiosition
\[
a^{2}+2 a b+b^{2}=(a+b)^{2}
\]
9. Prove that angles in the same segment of a circle are equal, and conversely that if the angl \(\mathrm{ACB}=\mathrm{ADB}, \mathrm{C}\) and D being on the same side of \(A B\), then the points \(A B C D\) are concyclical.

\section*{LOWER MATHEMATICS.}

\section*{Division A.}

Second Paper. - Two and a Half Hodes.
Candidates should attempt to answer questions in all the divisions \((A),(B),(C)\) of this paper, as the Examiners may reject any candidate who shows exceptional weakiess in any one of them.

\section*{A.}
1. The manufacturer of an article makes a profit of 20 per cent., the wholesale dealer makes a profit of 25 per cent., and the retailer a profit of 30 fer cent. Find the cost to the manufacturer of an article which is sold by the retailer at \(£ 12 \mathrm{~s} .9 \mathrm{~d}\).
2. Find, to the nearest penny, the compound interest on \(£ 123013 \mathrm{~s} .4 \mathrm{~d}\). for 3 years at 4 per cent.
3. The external lengith, breadth and depth of an cpen box are 5 ft .10 in ., 3 ft .6 in . and 2 ft .6 in . respectively, and it is made of wood one inch thick. Find the volume of the wood used.
B.
4. Simplify

> (i.) \(\frac{2 x}{2 x-y}+\frac{2 x}{2 x+y}+\frac{8 x^{2}}{4 x^{2}+y^{2}}+\frac{16 x^{2} y^{2}}{16 x^{4}-y^{4}}\).
> (ii.) \(\left(a+\frac{b-a}{1+a b}\right) \frac{a}{b} \div\left(1-\frac{a(b-a)}{1+a b}\right)\).
5. Solve the equations
(i.) \(\frac{x+3}{x-2}+\frac{3 x+6}{x-4}=11\).
(ii.) \((a+b+x)^{2}+b x=a^{2}-b^{2}\).
(iii.) \(x^{2}+6 x y=0\),
\(2 y^{2}-5 x y=8\).
6. Two numbers are in the ratio \(5: 6\). If 4 be added to each of them, the sums are in the ratio \(7: 8\). Find the numbers.
C.
7. Prove that parallelograms upon the same base and between the same parallels are equal to one ancther.
Draw a quadrilateral whose opposite sides are parallel and 2 and 3 inches long respectively, and the remaining sides are each \(1 \frac{1}{2}\) inches long. Make a triangle cqual to the quadrilateral, and hence or otherwise fild its arca in square inches and decimals of a equare inch.
colvi. MATRICULATION.
8. Prove that the square on the bypothenuse of a right-angled triangle is equal to the sum of the squares of the sides containing the right angle.
If \(A B\) represents one unit of length, draw a straight line containing \(\sqrt{ } 7\) uinits of length.
9. Show that the angles which a tangent to a circle makes with a secant drawn through the point of contact are equal to the angles in the alternate segments of the circle.
If two circles touch each other externally, prove that any straight line drawn through the point of contact cuts off similar segments from the two circles.

\section*{HIGHER MATHEMATICS. \\ Division B. \\ First Paper.}
- Candidates shunda attempit to ansuer yuestions in all the divisions (A), (B), (C) of this paper, as the Examiners may rejort any candidate who shots taceptional weakness in any one of them.
A.
1. I'wo men \(A\) and \(B\) do a piece of work together, the proceeds after paymeut of all expenses to be divided between \(A\) and \(B\) in the ratio of 2 to 1 . A advances the expenses amounting to \(£ 517 \mathrm{~s} .6 \mathrm{~d}\)., and 13 receives the proceeds \(£ 52\) 10s. How much has he to hand over to \(A\) ?
2. A statuette 5 inches high is to be made of silver. A plaster model 2 ft . high is made, and weighs 20 lbs . Find what will be the weight of the statuette if silver is 13 times as heavy as plaster.
3. A grocer sells eggs at 15 for a shilling, thereby making a profit of \(13 \frac{1}{3}\) per cent. What profit will he make if he sells them at 9 d. a dozen?
4. If \(x-y+z=0\), prove that
\[
\frac{1}{y^{2}+z^{2}-x^{2}}+\frac{1}{z^{2}+x^{2}-y^{2}}+\frac{1}{x^{2}+y^{2}-z^{2}}=0 .
\]
5. Solve the equations
(i.) \(x^{2}-x(a-b)+(a-b+c) c=2 c x+a b\).
(ii.)
\[
\begin{aligned}
3 x+9 & =2 \sqrt{ }(x y) \\
5 \sqrt{ } x-3 \sqrt{ } y & =3
\end{aligned}
\]
B.
6. What is the locus of a point P which moves in a plane so that a given line \(A B\) in the plane always subtends the same angle at it?
Find a point \(O\) inside a triangle ABC such that the angles \(B O C, C O A\) and \(A O B\) are all equal.
Does a solution of this problem always exist?
7. Describe a circle about a given triangle, and prove the following formulæ for its radius
\[
\mathrm{R}=\frac{a}{2 \sin \mathrm{~A}}=\frac{a b c}{4 \Delta} .
\]
8. If AD is drawn bisecting the exterior augle \(\mathbf{A}\) of a triangle \(A B C\), and meeting the base in \(D\), prove that
\(\mathrm{DB}: \mathrm{DC}=\mathrm{AB}: \mathrm{AC}\).
9. ACBD are four points in a straight line in this order, such that the rectangle \(\mathrm{AC} . \mathrm{BD}\) is equal to the rectangle AD.CB. On CD a circle is described, and \(P\) is any point on its circumference ; and LCM is drawn parallelto PD , meeting PA and PB in L and M . Show that \(\mathrm{LC}=\mathrm{CM}\), and hence that PC bisects the angle APB.
C.
10. Define the tangent of an angle.

Find the value of \(\cos A\) and \(\operatorname{cosec} A\) when \(\tan A=2 \cdot 4\), and \(A\) is an angle in the third quadrant.
11. Trace the changes in magnitude and \(\operatorname{sign}\) of \(\cos \theta\) as \(\theta\) changes from \(90^{\circ}\) to \(180^{\circ}\).
12. The angle of elevation of the top of a tower 120 feet high from a point on the ground is \(36^{\circ} 36^{\prime}\). What will be the elevation from a point 50 feet nearer?

\section*{HIGHER MATHEMATICS. \\ Division B. \\ Second Paper.}

Candidates shoull atfempt to answer questions in oll the divisions (A), ( \(B\) ), (C) of this paper, as the kixminers may reject any candidate who shows exceptional weaness in any one of them.
A.
1. Find the relation between \(a, b\) and \(c\) in order that \(a x^{2}+2 b x+c\) should have \(a x+b\) as one of its factors.
2. A tramway company charging a 3d. fare per journey found that its expenses for a month were just equal to the revenue. It broke the journey into two sections, and charged 2d. for each section, through passengers receiving a ticket for each section. The number of tickets issued increased by 60 per cent., and the revenue exceeded the expense by \(£ 100\). Find the number of tickets issued on the old 3d. scale.
3. The first term of an A.P. is 38 , the fourth term 86 , find the sum of the first 15 terms.
4. Prove that
\[
\log _{\frac{a}{b}}^{a}=\log a-\log b
\]

Find the value of
\[
\begin{aligned}
& \frac{7.436}{8 \cdot 269}-.0736, \\
& \text { and of }(1.035)^{-\frac{1}{12}} \text {, }
\end{aligned}
\]
5. Write down the first four terms of the expansion of \((x-a)^{n}\), where \(n\) is a positive whole number.
Find the approximate value of \(99^{5}\) by using this expansion.
Can you account for the difference between your result and that obtained by using logarithm tables?

\section*{B.}
6.: \(P\) is a point on the circumcircle of a triangle \(A B C\), and perpendiculars PD, PE, PF are drawn to the sides. Show that \(\mathrm{D}, \mathrm{E}\) and F are collinear.
7. Triangles which are equiangular are also similar; prove this.
\(A B C\) is a triangle, \(B D\) and \(C D\) are perpendicular to \(A B\) and \(A C\) respectively, CEF is perpendicular to \(A D\) meeting AB in F . Show that the triangles AFC and ABC are similar, and that \(A C\) is a tangent to the circle through B, F and C.
8. Prove that the areas of similar triangles are as the squares on corresponding sides.
\(\mathrm{AD}, \mathrm{BE}\) and CF are the three perpendiculars of a triangle \(A B C\), show that the area of \(A E F=\triangle \cdot \cos ^{2} A\) where \(\triangle\) is the area of \(A B C\).

\section*{C.}
9. Prove geometrically that
\[
\begin{aligned}
& \sin \left(180^{\circ}-A\right)=\sin A \\
& \cos \left(180^{\circ}-A\right)=-\cos A
\end{aligned}
\]
using a figure in which \(A\) is acute.
Using your tables, write donn the values of \(\cos 130^{\circ}\), \(\tan 475^{\circ}, \sin 1305^{\circ}\).
10. Show that
\[
\tan (A+B)=\frac{\tan A+\tan B}{1-\tan A \tan B},
\]
and find the value of \(\tan 105^{\circ}\) from this formula.
11. Prove that in any triangle
(i.) \(\cos \mathrm{A}=\frac{b^{2}+c^{2}-u^{2}}{2 b c}\),
(ii.) \(a=b \cos \mathrm{C}+c \cos \mathrm{~B}\),
(iii.) \(\cos A=\frac{\sin ^{2} B+\sin ^{2} C-\sin ^{2} A}{2 \sin B \sin C}\).
12. Solve the triangle in which \(A=37^{\circ} 18^{\prime} ; B=62^{\circ} 6^{\prime}\), and \(c=72.5\).

MECHANICS,
Dirision B.
1. Enunciate the parallelogram of velocities and the parallelogram of accelerations, and prove the former.
A river, 100 yards wide, is flowing from E. to W. at the rate of 4 miles per hour. A man starts from the south bank, and rows at the a ate of 6 miles per hour in a N.E. direction; find his resultant velocity, and at what point on the \(N\). bank he will land.
2. Prove the formula \(s=u t+\frac{f t^{2}}{2}\). Also show that the body moves through \(u+n f-\frac{f}{2}\) units of space in the \(n\)th second of its motion.
A stone falling from the roof of a house is observed to pass a window \(7 \frac{1}{2}\) feet high in \(\frac{1}{8}\) second, determine the depth of the window sill below the top of the house.
3. State Newtou's Second Law of Motion.

Find the space and time in which a ferry boat weighing 150 tons, moving at 2 miles per hour, can be brought to rest by a rope round a post, the breaking pull of the rope being 1 ton weight.
t. Give three illustrations of the principle that action and reaction are equal and opposite.
A pile, weighing half a ton, is driven \(\frac{1}{4}\) ivch into the ground by the blow of a hammer weighing 2 tons descending from the height of 4 feet. Find (1) the velocity of the hammer just before stiking the pile, (2) the velocity of the pile and hammer just after the blow, (3) the average resistance of the ground.
5. Find the horse-power of the locomotive of a train, weighing 250 tons, which can ascend a slope of 1 in 75 at the rate of 10 wiles per hour against a road resistance of 14 lbs . per ton.
6. Describe the conical pendulum, and find the tension of the string and the number of revolutions per second of a conical pendulum of length \(2 \frac{1}{2}\) feet, the bob revolving in a horizontal circle of radius \(1 \frac{1}{2}\) feet.
7. Find the magnitude and line of action of the resultant of two like parallel forces \(P\), \(Q\) acting on a body, their lines of action being \(d\) feet apart.
Four weights of \(1 \mathrm{lb} ., 3 \mathrm{lbs} ., 5 \mathrm{lbs}\) and 7 lbs are hung upon a uniform bar of length 6 feet, weighing 10 lbs ., at distances 1 foot, 2 feet, 3 feet and 4 feet from one end. Find the magnitude and line of action of the single force which, applied to the bar, will support it.
8. Find the centre of gravity of a uniform triangular board.

Find also the centre of gravity of a trapezium, whose opposite parallel sides measure 30 inches and 20 inches, and whose height is 2 feet.
9. State the laws of friction and of limiting friction.

Find the least force acting up the plane which will supporta body weighing 1 ton on an inclined plane whose length is 5 feet, and height 4 feet, the coefficient of friction being \(\frac{1}{3}\).
Find also the least force acting up the plane which will drag the body up the plane.
10. Describe any system of pullies, and calculate the ratio of the power to the weight when the system comprises three movable pullies whose weights may be neglected.

\section*{ENGLISH HISTORY.}

Lower Standard.
1. Write an account of the lives of the following-(a) Sir Thomas More ; (b) Sir Walter Raleigh; (c) Thomas Wentworth, Earl of Strafford.
2. Write an account of (a) the Great Cifil War, 1642-1645; (b) the Deposition of James II.
3. Describe the events that led to the outbreak of the War of American Independence.
4. Write what you know about-(a) the Reform Act of 1832 ; (b) the Repeal of the Corn Laws.
5. Explain the interest of the voyages made near the Australian coast by the following navigators-Luis de Torres, Abel Tasman, William Dampier, James Cook.
6. Write what you know about Sir Joseph Banks, Governor Arthur, Ludwig Leichhardt.
7. Write an account of (a) the foundation of South Australia; (b) the foundation of Melbourne.
8. Write a short account of the present Federal Constitution of Australia.

MODERN HISTORY.
Higurr Standard.
You are recommended to answer Eight questions, and no move.
1. What were the chief causes of the break-up of the Roman Empire?
2. Write a short account of the reign of Charlemagne, and explain its importance.
3. "The heathen from the North wrought havoc in Christendom as usual, and grew greater in strength."
Explain.
4. Write what you know about St. Bernard, Abelard, Roger Bacon.
5. Write what you know about the "Babylonish Captivity of the Papzey," "the great Schism," "the Council of Constance."
6. What is meant by "the Italian Renaissance"?
7. Trace the development of Luther's views to 1521 (the Diet of Wörms).
8. What were the causes of the revolt of the Netherlands against Spain? What were the chief results of the revolt?
9. Explain the importance of the Treaty of Westphalia, and of the Treaty of Utrecht.
10. Describe the events that led to the outbreak of the Seven Years' War, and sum up the results of that war.
11. Endeavour to sum up the permanent changes brought about by the Revolutionary period from 1789 to 18 lj .
12. Describe shortly the events of the year 1848 .

\section*{CHEMISTRY.}

Division B.
Give equutions where possible.
1. Describe a convenient method of preparing pure hydrogen, and give an account of its chief properties.
2. One litre of air is slowly passed through a long tube containing red-hot carbon. State what happens, and give as nearly as possible the volume of the gas which comes out of the tube, after it has cooled down to room temperature again.
3. Write down the names and formule of all the oxides of nitrogeu, sulphur, and phosphorus. Say also what happens when each of these oxides is put into water.
4. Define the following terms, giving examples in each case\(\therefore\) Acid, Base, Acid Oxide, Basic Oxide, Basicity, Normal Salt, Acid Salt, Basic Salt.
5. What is the action of each of the following acids on zinc? (a) Hydrochloric Acid.
(b)) Sulphuric Acid.
(c) Nitric Acid.
6. How is copper prepared from its most important ore?

What are the most objectionable impurities in copper?
7. How would you prepare (a) barium chloride from barium sulphate, (b) cadmium nitrate from cadmium sulphate, (c) lead peroxide from lead?

\section*{PHYSICS.}

Division B.
Only saven questions are to de answered.
1. A bowl is filled to the brim with water; find the amount of water which overflows and the difference made in the total weight of the bowl and its contents when there is added to it-(a) a kilogramme of wood of specific gravity \(0 \cdot 4,(b)\) a kilogramme of silver of specific gravity 10 ?
2. Water at \(15^{\circ} \mathrm{C}\). can absorb 706 times its volume of ammonia. What mass of ammonia can be dissolved in one litre of water at \(15^{\circ} \mathrm{O}\). under a pressure of \(10^{\circ}\) atmospheres, the volume of one gramme of ammonia at \(0^{\circ} \mathrm{O}\). and a pressure of 760 mm . being 1317 cc .?
3. A current of dry air at \(30^{\circ} \mathrm{C}\). passes over water at the same temperature and leaves it saturated with water vapour. 'The volume of gas leaving is 1000 cc . each second; at what rate must heat be supplied so that the temperature of the air and water may remain unchanged? The latent heat of vaporisation of water at \(30^{\circ} \mathrm{C}\). is 578 , the maximum pressure of water vapour at that temperature is 31.5 mm ., the density of water vapour is 0.622 times that of dry air, and the mass of 1 cc . of dry air at \(0^{\circ} \mathrm{C}\). and 760 mm . is 0.00129 gramme.
4. Describe with full practical and theoretical detail some experiment which you have carried out in connection with the sulject of heat.
5. What is meant by the critical point in connection with the compressiou of gases? Give a diagram showing the general form of the isothermals of a substance, such as water or carbon dioxide, at and near the critical temperature and considerably above and below that temperature.
celixiv.
6. A vibrating stretched string gives out a certain note; how would you make it emit a note of double the frequency, and, the fundamental remaining unchanged, how may the quality of the note be altered?
7. What general condition must hold in order that a pleasing effect may be produced when two notes are sounded simultaneously on a musical instrument? Give some examples of two notes forming a pleasing combination and others producing an unpleasant effect?
8. Explain what is meant by the Doppler effect. The wavelength of the light corresponding to one of the hydrogen lines in the spectrum is 0.0000486072 cm ; on examining the spectrum of a star this line is seen to be displaced towards the red end, its position corresponding to a wavelength of 0.0000486112 cm ; what can be deduced from this?
9: Give the simple theory of the diffraction grating, showing how it may be used in determining the wavelength of light.
10. 'Two plates are cut from a crystal of tourmaline parallel to the crystallographic axis. Describe and explain briefly the effects observed when a source of light is viewed through the two plates, one plate being rotated about an axis parallel to the direction in which the light is travelling?

\section*{PHYSLOLOGY.}

Division B.
Diagrams to be used where possible.
1. What changes occur in the shape of the chest on taking a breath?
2. Contrast inspired with expired air.
3. What is the pulse?
4. Classify the various kinds of joints.
5. What are the functions of the iris?
6. Describe the structure of a gland, e.g., the pancreas.
\(\dot{7}\) In what forms does carbon leave the human body?
8. Describe the sense organs of taste.
9. How is the heat of the body produced?
10.. Mention the chief characters of the different groups of food-stuffs.

\section*{ENGLISH AND GEOGRAPHY.}
(For Enginering Candidates).
English and Geography answers to be given up in separate bundles. Part a.
Not more than rour questions to be attenpted.
1. Tell shortly what you know of four of the following authors, and mention some of their works-Malory, Bacon, Pope, Goldsmith, Coleridge, Byron.
2. Give a brief account of four of the following compositionsThe Canterbury Tales, The Faery Queen, Gulliver's Travels, The Talisman, The Princess, Vanity Fair.
3. State who four of the following fictitious personages are and where they occur-Mercutio, Jessica, Elaine, Le Balafré, Mr. Jingle, Mulvaney.
4. Who were the chief writers of the so-called "Queen Anne" group?
5. Name and shortly characterise three historical novels by three different authors.
6. What political circumstances have mainly affected the character of the English language?
7. Distinguish between the meanings of the following pairs of words-Examine, scrutinise; rascal, villain; educated, cultured; precious, costly.

Part B.
Not more than foun questions are to be attempted.
1. Draw a map of North America as large as your paper will admit, leaving a margin of an inch; mark on it and name the chief mountains, lakes, rivers, inlets and peninsulas.
2. State briefly what you know of four of the following:

India, Japan, South Africa, the Amazon, the Mediterranean, Paris, the Andes, Vesuvius, Singapore, Papua.
colixui. MATRICUULATIION.
3. Write a short account of the form of government of FOUR of the following countries: Great Britain, Germany, Japan, Italy, Mexico, Egypt, Portugal.
4. Describe the route taken by mail steamers between Sydney and London.
5. Draw a map of Eastern Australia as large as your paper will allow, leaving a margin of not less than one inch, showing the chief mountain ranges and coastal rivers.
6. State what you know of six of the following:-

Brisbane, Murrumbidgee, Ballarat, the Federal Capital Site, Jenolan, Spencer's Gulf, Macdonald Ranges, Snowy River, Mount Wellington, Bathurst.
7. What are the chief industries of New South Wales?

Draw a sketch map showing the areas where these industries are carried on.

\section*{P. N. RUSSELL SCHOLARSHIP EXAMINATION.}

MATHEMATICS, MECHANICS AND LANGUAGES.
The papers set for Division B (Higher Standard) in the Matriculation Examination.

\section*{PLANE AND SOLID GEOMHTRICAL DRAWING AND PERSPECTIVE.}

The questions are to be answered by drawing the figures neatly in pencil with the aid of drawing instruments. Fritten descriptions or demonstrations are ǹot required, lut all constructinu lines must be clearly'shon'a.
1. Determine by geometrical construction the value of :-
\[
\begin{aligned}
& x=\frac{2 a}{\sqrt{b}} ; x=\sqrt{a^{2}-b^{2}} ; x=\sqrt{a b} \\
& x=\frac{a^{2}+c^{2}}{b} ; x=a^{2}+2 a b+b^{2} \\
& a=2 \text { inches, } b=1.5 \text { inches, and } c=1 \text { inch. }
\end{aligned}
\]
2. Describe the arc of a circle which shall pass through three points not in the same straight line, the centre being inaccessible.
3. Show how to draw a circle which shall pass through two given points and touch a given circle.
4. Show how you would construct an ellipse, having given the major and minor axis; a parabola, having given the base and central ordinate; and an ordinary rectangular hyperbola.
5. Draw the curve traced out by a point in the circumference of a circle when it rolls upon the inside and the outside of another circle, having given the diameters of the circles 1.5 inches and 9 inches respectively.
6. Two planes are mutually perpendicular. Their intersection is inclined at 30 degrees; one of them is inclined at 50 degrees; show them by their traces.
colxviii. P. N. RUSSELLSCHOLARSHIP EXAMINATION.
7. A cone 4 inches long, base 2 inches radius, lies with its side upon the horizontal plane, so that its axis is parallel to the vertical plane, and 3 inches from it. The horizontal trace of a plane of section bisects the line of contact with the horizontal plane, and meets the vertical plane at an angle of 60 degrees; the vertical trace makes an angle of 30 degrees with the ground line, both traces tending towards the base. Obtain the projections and true form of the section.
8. Draw the plan and elevation of a cube when two of its edges meeting at one of its corners are inclined at 20 degrees and 40 degrees.
9. Obtain the perspective of a box 3 feet long by 2 feet wide, having a lid standing open at an angle of 30 degrees; the edge of the short side of the box is parallel to the picture plane, and 1 foot behind it; the nearest corner of the box is: 2 feet to the left of the spectator.

\section*{APPLIED MECHANICS.}
1. A beam of span \(l\) feet carries a distributed load of \(w\) tons per foot run, also three equal concentrated loads \(W\) applied at points dividing the length of the beam into four equal parts. Determine the bending moments and shearing stress, and represent them by means of diagrams, having given \(l=20\) feet, \(w=2\) tons, and \(\mathrm{W}=20\) tons.
2. A floor has to carry 336 pounds per square foot. The timber joists are 12 inches deep by \(4 \frac{1}{2}\) inches wide, and have a span of 14 feet. How far apart may the centre lines be spaced if the extreme fibre stress due to bending is not to exceed 1000 pounds per square inch?
3. Make a sketch of an ordinary crane as used by contractors in Sydney for the erection of buildings, and show how you would determine the stresses in the various members. Explain the mechanism, for lifting and lowering, and for securing the stability of the crane.
4. Show how to construct a curve of the velocity of a cross-head at all parts of the stroke for a uniformly revolving crank of 1 foot radius-length of connerting rod \(=3\) feet.
From this curve show how to construct an acceleration curve.
5. Two shafts about 4 feet apart are to be connected by spur wheels, the velocity ratio being 4 to 1 . Find the diameters of the wheels, and also the number of teeth, assuming the pitch to be 2 inches.
6. A train is runuing at 40 miles an hour; find the resistance in pounds per ton necessary to stop the train in 1000 yards on a level. Also find the distance in which the train would be brought to rest by the same brake power on an up grade of 1 in 100 , and on a down grade of 1 in 50.
7. How would you express the energy stored in a hydraulic accumulator of given diameter, stroke and pressure?
An accumulator ram is 3 inches diameter, and 21 feet stroke; find the store of energy in foot pounds when the ram is at the top of its stroke, and is loaded till the pressure is 7.50 pounds per square inch.
8. In a crane the chain barrel is driven by a motor on the spindle of which is keyed a spur wheel of 14 teeth. This gears with a spur wheel of 68 teeth keyed to the same spindle, upon which is keyed a similar wheel of 12 teeth. The last wheel gears with a wheel of 50 teeth, keyed to the same spindle as a wheel of 25 teeth; and the latter gears with a wheel of 54 teeth, keyed to the chain-barrel spindle. The chain barrel is \(16 \frac{1}{2}\) inches in diameter. Sketch the arrangement, and find the revolutions per minute of the motor when 20 feet of chain per minute are wound on the chain barrel.

\section*{MECHANICAL DRAWING.}

Four Hours.
The drawings are to be in prencil, on the paper movided. Neat amd accurate drawing is essential, and candidates should note that the sketch given is wot necessarity to scale.
From the sketch shown below draw to a scale of half full size(a) The front elevation in place of view "L."
(b) The side elevation, with the bearing shown in section along its centre line, instead of view "K."
(c) The sectional plan on plane \(A B\) with the cap removed.
ccls. P. N. RUSSELL SCHOLARSHIP EXAMINATION.



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\section*{INDEX.}

W. E. SMITH LIMLTED

PRINTERS TO THE UNIVERSITY OF SYDNEY
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[^0]:    Chancellor.
    14 Vic. No. 31, s. 4. 24 Vic. No. 13, s. 5 .
    10. (1) The Senate shall elect out of their own body, by a majority of votes, a Chancellor of the University, who shall hold office for such period as the Senate shall from time to time appoint.

[^1]:    * See University and University Colleges Act, sec. 18, p. 9.

[^2]:    *' The legally qualified voters are Fellows of the Senate for the time being, Professors, Public Teachers and Examiners in the Schools of the University, Principals of Incorporated Colleges within the University, Superion Ofticers of the University declared to be such by By-law, Gradnates holding the Degree of Master or Doctor, and Graduates of three yeurs standing, who hold the Degree of Bachelor. University and University Colleges Act, secs 8 and 32.

    + By a resolution of the Senate, of date July 2, 1888, ballots for the election of Fellows may be held at the Royal Society's Rooms, or in some other central place within the city of Bydney, to be named by the Senate, or by the Chancellor, or by the Vice-Chancellor in his absence.

[^3]:    * For matriculants intending to join the French or German classes there will be a Dictation test. Those who fail to satisfy the Examiners are recommended not to proceed with these subjects.

[^4]:    * The time tables of lectures are so itranged as to make it most convenient for students to take their Science course in the First Year, and students are strongly recommended to do this. "No exemption can be granted in cases where the time tables for Second and Third Year courses in other subjects clash with the First Year Science courses. In selecting their subjects generally, students. should, see that there is no clash in the time table.

[^5]:    * For matriculants intending to join the French or German classes there will be a Dictation test. Those who fail to satisfy the Examiners are recommended not to proceed with these subjects.

[^6]:    * Second sear students between 18 and 25 years of age who have matriculated on or after 191n, or who have passed the Matriculation Examiuation (including Mechanics), are eligible for admission as students of the Institution of Civil Engineers, London, upon the recommendation of the Professor of Engineering, and upon their graduating in the "Department of Civil Engineering" or "Mechanical and Electrical Eogineering." will be exempted from the associate membership examination when they apply for admission into the Institution.

[^7]:    * Candidates may present subject (a) or subject (b) of the Higher Standard, instead of the books set at the Lower Standard.

[^8]:    - Candidates may present one of the authors prescribed at the Higher Standard instead of this subject.

[^9]:    + All candidates taking Science subjects must produce note-books certified to on each page by their science teacher, and in the last page by their head teacher, or by some person approved by the Senate, as evidence of having performed a satisfactory course of practical work.

[^10]:    $\dagger$ All candidates taking Science subjects must produce note-books certified to on each page by their science teacher, and in the last page by their head teacher, or by some person approved by the Senate, as evidence of having performed a satisfactory course of practical work.

[^11]:    -Practical Surveying on Baturday mornings. Drawings to be sent in by December lst.

[^12]:    * Practical Surveying on Saturday mornings. Drawings to be sent in by December 1st.

[^13]:    * Practical Surveying on Saturday mornings. Drawings to be sent in by December 1st. !| Saturday mornings additional.

[^14]:    *In the case of candidates from the United Kingdom, other States of the Commonwealth, or New Zealand. a knowledge of the corresponding statutes. by-laws, and regulations may be substituted, if' the candidate so request at the time of making application for leave to present himself for examination.

[^15]:    * For the regulations for Research Students in the Scientific Departments, see page 135 of the Calendar.

[^16]:    - Students are strongly recommended to order as early as possible all books that will be neaded in the course of the year.

[^17]:    *In 1912 this course will be upon the Mathematical Theory of Sound.

[^18]:    * Candidates may be admitted to Examination for the Degree of M.A. one year after obtaining the Degreee of B.A. The Degree of M.A. cannot be conferred until the time has elapsed which is required by the By-laws.

[^19]:    * The lectures on the subject will-for the future be delivered in the third sear of the course.

[^20]:    $\rightarrow$ See Regulation in reference to Microscopes, page 136

[^21]:    - See Regulation in reference to Microscopes on page 136:

[^22]:    * Scholars are required to proceed with their studies in the respective Faculties in which their Scholarships are awarded.

[^23]:    * The exercises for these Prizes, which must not be in the handwriting of the author, must be sent to the Registrar on or before the first day of Lent Term. They must be contained in an envelope with a motto, and be accompanied by a sealed letter containing. the name and motto of the author.

[^24]:    *Evening Students who are, under the By-laws, dividing the I. and II. Yearm into two parts, are required to pis the full Fees at the commencement of each Year so divided.

[^25]:    * For Students who have passed through the Introductory course the following is the Table of Fees; two half-days being counted as one dayFor 6 days in the week, $£ 5$ per month, or $£ 12$ per term.

    | $"$ | 5 | $"$ | $"$ | $£ 45 \mathrm{~s}$. | $"$ | $£ 10$ | $"$ |
    | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
    | $"$ | 4 | $"$ | $"$ | $£ 365.80$. | $"$. | $£ 8$ | $"$ |
    | $"$ | 3 | $"$ | $"$ | $£ 210 \mathrm{~s}$. | $"$ | $£ 6$ | $"$ |
    | $"$ | 2 | $"$ | $"$ | $£ 2$ | $"$ | $£ \&$ | $"$ |
    | $" 1$ | $"$ | $"$ | $£ 1$ | $"$ | $£ 2$ | $"$ |  |

[^26]:    - In the Faculty of Law a total of sisty guineas is payable for the courses of lectures for the LL. B. degree. The fee payable by Students not going through the regular course is two guineas per Term for each subject. *For Year.

[^27]:    * As defined in the regulations for the Matriculation Examination, Higher Standard.

[^28]:    - See regulations for Matriculation Examination.

[^29]:    *The names of holders of Scholarships before the year 1899 will be found in the Univereity Caleadar for 1900 .

[^30]:    * Holder of two other Scholarships.

[^31]:    + Did not comply with the conditions for holding a Scholarship.
    * Holder of two other Scholarships. (a) Two Scholarships awarded.

[^32]:    $\ddagger$ Special award ; Research Scholarship for 1904, $£ 100 . \quad *$ Holder of two other Scholarships.

[^33]:    * Holder of two other Scholarships.

    Did not comply with the conditions for holding the Exhibition.

[^34]:    *Names of prize winners, not necessarily implying the receipt of the prize money.

[^35]:    * Civil Engineering. $\quad+$ Mining and Metallurgy. $\ddagger$ Mtehauical and Electrical.

[^36]:    * The numes of those who gained prizes before the year 1899 will be found in the Calendar for 1900.

[^37]:    *The names of those who obtained Honours before 1899 will be found in the University Calendar for 1900.

[^38]:    - Unmatriculated.

[^39]:    * Not passing through the rêgular course. † Unmatriculated.

[^40]:    * Evening Student.

[^41]:    * Evening Student. $\dagger$ Unmatriculated.

[^42]:    * Evening Student.

[^43]:    - Eveniug Student.

[^44]:    Evening Student.

