

UNITED NATIONS EDUCATIONAL,  
SCIENTIFIC AND CULTURAL ORGANIZATIONSTRUCTURE OF UNIVERSITY EDUCATION IN INDIAHistorical background:

The educational system in India today is of comparatively recent origin, having its beginnings in the early years of British rule in India, about a hundred years ago, when schools and colleges teaching English and other subjects through the medium of English came into existence in this country. The first Universities in India - those of Calcutta, Bombay and Madras - were established in 1857. By that time a number of educational institutions had come into being, many of them set up by Christian missionaries, and others by the Government. These institutions provided instruction in English language and literature and in some of the modern sciences. The conflict that had arisen in the first decade of the 19th century between the advocates of western learning and the champions of oriental education was more or less finally resolved in favour of western education by 1835, when it was laid down, under the influence of Macaulay, that Government funds available for education were to be devoted mainly to support schools and colleges which imparted western learning through the English language.

The Universities of Calcutta, Bombay and Madras were set up to co-ordinate the work of the colleges scattered all over the country, to examine the students in them and to award degrees to the successful ones. The model on which these Universities were incorporated was the University of London, then a new institution. Although the University of London itself has undergone profound changes during the last 100 years of its existence, the pattern of the first Indian Universities still remains more or less what it was at the beginning, in spite of certain important modifications that have been made in the course of the years.

Until the first years of the 20th century, India had five Universities, the Universities of the Punjab (Lahore) and of Allahabad having been founded in 1882 and 1887 respectively. These Universities affiliated the Colleges in their respective regions, conducted examinations leading to various degrees and awarded degrees.

Several new Universities were established in the first quarter of the 20th century, and some of these incorporated new ideas of university organization put forward by different University Commissions appointed by the Government. Some of them were patterned on the more recent British Universities. They were "unitary" universities in the sense that their jurisdiction was confined to a small area and that they undertook to teach as well as to examine students under their care, providing residential accommodation for most of the students. But the economic and social circumstances of the country necessitated the continuance of the affiliating Universities. A small residential University is expensive.

It is possible to set up a College in a small town without much initial outlay of money; and students attending classes as day-scholars can receive a college education very cheaply.

The Universities of India:

Today there are 29 full-fledged Universities in India. These are, in the order of their foundation:

Calcutta	1857	Travancore	1937
Bombay	1857	Utkal	1943
Madras	1857	Saugor	1946
Allahabad	1887	Rajputana	1947
Banaras Hindu	1916	Panjab	1947
Mysore	1916	Gauhati	1948
Patna	1917	Roorkee	1948
Osmania	1918	Poona	1948
Aligarh Muslim	1920	Jammu & Kashmir	1948
Lucknow	1920	Maharaja Sayajirao	
Delhi	1922	University of Baroda	1949
Nagpur	1923	Karnatak	1950
Andhra	1926	Gujarat	1950
Agra	1927	Visva-Bharati	1951
Annamalai	1929	Bihar	1952

Of these, the University of Jammu & Kashmir, established in 1948, affiliates the Colleges in the State of Jammu & Kashmir. The Colleges were formerly affiliated to the University of the Punjab (Lahore). Political changes connected with the partition of India in 1947 necessitated the creation of a separate University in Jammu & Kashmir, Visva-Bharati, which has recently (1951) been given a Charter by the Government of India, was founded as an international university by the poet Rabindranatj Tagore. It has certain distinctive characteristics of its own and is an attempt "to develop a basis on which the cultures of the East and West may meet in common fellowship". Of the other 27 universities, the Agra University is a purely affiliating body having no teaching functions of its own. It has under its jurisdiction some 50 Colleges scattered over the States of Uttar Pradesh and Madhya Bharat. It was created in 1927 to relieve the University of Allahabad of affiliating functions and to enable the latter to function as a unitary teaching university. So too the new University of Bihar, with headquarters at Patna, has been brought into being as from the beginning of 1952 to relieve the University of Patna of its affiliating functions and allow it to function as a University confined to the city of Patna, federating the Colleges in that city into a compact teaching organization somewhat in the manner of Oxford or Cambridge. The Universities of Banaras, Aligarh, Lucknow and Annamalai are unitary residential teaching Universities. The University of Delhi is of the federative kind, i.e., it federates into a teaching organization a number of autonomous constituent Colleges in the city of Delhi. Roorkee University, which grew out of the Thomason Engineering College, is unique in that it is an Engineering University and has no other Faculties. The other universities are mainly affiliating ones, but have also important teaching functions, especially in the fields of post-graduate and professional education and research.

In addition to the universities mentioned above, mention must also be made of two other institutions which have university standing. Serampore College (near Calcutta), founded in 1818 by European missionaries received in 1827 a Royal Charter from King Frederick VI of Denmark (to whom Serampore then belonged) and this was confirmed by the British Government in 1845. But the Charter was not utilized till 1915 when degrees in Divinity were granted for the first time. The position now is that in the Faculties of Arts and Science Serampore College is affiliated to Calcutta University, but in the Faculty of Theology the College functions as an independent University.

The Shreemati Nathibai Damodher Thackersey Indian Women's University (usually known as "Women's University") was founded in 1916 to provide an education "specially suited to the needs and requirements of women". The University has now received a Charter from the Government of Bombay and awards its own degrees which are different from the degrees of the other universities.

#### Technical & Research Institutes:

Apart from the universities there are in India a large number of Technical and Research Institutes. Chief among these are:

- Bhandarkar Oriental Research Institute, Poona
- Bose Research Institute, Calcutta
- Statistical Institute, Calcutta
- Jute Technology Institute, Calcutta
- Forest Research Institute and Colleges, Dehra Dun
- The Harcourt Butler Technological Institute, Kanpur
- Indian Agricultural Research Institute, New Delhi
- Central Marine Research Station, Mandapam
- Malaria Institute, Delhi
- Indian Institute of Science, Bangalore
- Indian School of Mines & Applied Geology, Dhanbad
- Building Research Station, Roorkee
- Central Drugs Research Institute, Lucknow
- Central Food Technological Research Institute, Mysore
- Central Leather Research Institute, Madras
- Central Road Research Institute, Okhla (Delhi)
- National Chemical Laboratory, Poona
- National Fuel Research Institute, Jealgora (Bihar)
- National Metallurgical Laboratory, Jamshedpur
- National Physical Laboratory, New Delhi
- Central Glass and Ceramics Research Institute, Calcutta

These institutions are mainly concerned with specialized research in particular fields of study and investigation, although some of them undertake considerable teaching functions. Thus the Bhandarkar Oriental Research Institute prepares students for post-graduate degrees in Sanskrit of the Poona University, and the Institute of Jute Technology is affiliated to Calcutta University in a similar way. The Indian School of Mines and Applied Geology grants its own diplomas. The Indian Institute of Science, the Forest Research Institute and Colleges and the Indian Agricultural Research Institute grant diplomas and fellowships.

The diplomas and fellowships of these institutions have a very high standing in the country. Most of the research institutes have been recognized by the Inter-University Board of India as centres where a university student holding a first research degree can carry on further work for higher degrees.

#### Organization of Education:

The general educational pattern in India may be briefly described. A pupil enters a primary school between the ages of 4 and 6. The primary stage ordinarily lasts 4 or 5 years. The middle and high school stages which follow are usually of six (3+3) or seven (3+4) years' duration. Thus the normal age at which a pupil completes his high school education is 16-17. Occasionally one finds much younger students finishing their school course and seeking entrance to a university, although in many universities there is a rule by which students below the age of 16 cannot be admitted. At the end of the high school course there is a school-leaving or matriculation examination which qualifies a student for admission to a university. In some parts of the country, the matriculation examination is conducted by the University. Elsewhere, it is conducted by the Government or by a High School Board. The ordinary university course is of 4 years' duration. At the end of the first 2 years there is an examination called the Intermediate examination. This may be an Arts or a Science or Commerce or other examination. The successful candidate then takes the B.A. or B.Sc., B.Com., or other Bachelor degree course, which is usually of 2 years' duration. At the end of the two years a student appears for the Bachelor's degree (B.A., B.Sc., etc.) examination. According to the courses he took or the marks he obtained, the successful candidate obtains a Pass or Honours degree. In some universities, however, there are, in addition to the 2-year Pass courses, Honours courses which are of 3 years' duration after the Intermediate. After the Bachelor's degree, there is the Master's degree which is awarded after a further period of one or two years of study and passing a further examination. The present practice in Annamalai, Andhra, Madras and Travancore Universities, however, is to award the Master's degree after the lapse of some time, without further examination, to candidates who have passed a Bachelor's Honours degree examination. In these universities the examination for the Master's degree (for those who have obtained the Bachelor's Pass degree) is identical with the Honours examination.

Almost all universities have provision for research work in Arts and Science leading to the degrees of Ph.D. (or D.Phil.), and D.Sc., or D.Litt. There are also special degrees and titles for Oriental studies and the Fine Arts.

Most universities have, in addition to courses in Arts and Science, professional and technical courses such as Law, Medicine, Engineering, Agriculture, Commerce, Teaching, Technology, etc. The usual degrees are Bachelor of Laws (B.L. or LL.B), Bachelor of Medicine and Surgery (M.B., B.S.), Bachelor of Engineering (B.E.), Bachelor of Agriculture (B.Ag.), Bachelor of Commerce (B.Com.), Bachelor of Teaching (B.T.), Bachelor of Science in Technology (B.Sc.Tech.), etc. In almost all Indian universities the courses in education and law are post-

graduate courses. The Medical and Engineering courses are post-Intermediate and last 5 years and 4 years respectively. The courses in Agriculture, Commerce, etc., are also post-Intermediate and are usually of the same duration as the courses in Arts and Science. In these Faculties also there is provision in several universities for post-graduate study and research.

In Delhi an important experiment in rearranging the relative duration of school and university courses is being tried. There the school stage leads on to a Higher Secondary examination which is higher than the Matriculation and a little lower than the Intermediate examination, the university course (whether Pass or Honours) which begins after that is of 3 years' duration, and there is no Intermediate examination. In the States of Uttar Pradesh and Madhya Bharat, the Intermediate examination is conducted by Boards of Intermediate Education and not by the universities, and university education properly so-called begins after the Intermediate examination. This arrangement affects the Universities of Agra, Allahabad and Lucknow.

#### University Administration:

The normal organization of University administration is as follows:

There is a Chancellor who is usually a figurehead. He may be the President of the country, the Governor of a State or a ruling Prince. He has no administrative function, but may preside at ceremonial functions such as Convocations for the award of degrees. The executive head of a University is the Vice-Chancellor who may be a full-time paid officer or an honorary one. He presides over the meetings of the various Councils of his University and is the mouthpiece of the University to the outside world. The Vice-Chancellor is usually appointed by the Chancellor on the recommendation of the Syndicate or Senate; but there are considerable differences in the practice in the different Universities. The chief administrative officer is the Registrar, who deals with all correspondence, prepares minutes of all meetings and controls the University office. He is a full-time paid officer. In addition to these officers, there may be a Pro-Chancellor and a Pro-Vice-Chancellor. Only four or five Indian Universities have these additional officers.

The "authorities" of a University are the Executive Council (called the Syndicate in some Universities), the Court or Senate, the Academic Council, and the Faculties. The Executive Council (or Syndicate) and the Court (or Senate) have the responsibility of framing Statutes and regulations and dealing with all matters connected with the organization and administration of the University's affairs. They are composed of persons representing various interests in the life of the University and the community in which the University exists. Most of the members of these bodies are elected by different constituencies, but a few are nominated by the Chancellor.

The Academic Council deals with academic questions generally, and is chiefly concerned with courses of study and the organization of teaching and examinations. It co-ordinates the work of the various

Faculties. The usual Faculties are those of Arts, Science, Medicine, Law, etc. The head of a Faculty is called the Dean and is usually a Professor of the University. It is the Dean's business to attend to the framing and working of the various courses of study in his Faculty. A Faculty usually has several Boards of Study to help it to frame syllabuses in different subjects, appoint examiners, etc. Faculties which are concerned exclusively with subjects of post-graduate study, such as education, law, etc., tend to become somewhat like autonomous colleges; but Faculties of Arts, Science, etc. have to co-ordinate the work of undergraduate and post-graduate classes, and, in the case of the affiliating Universities, to deal with a large number of institutions. These Faculties consist of a number of Departments (e.g. English, Sanskrit, History, etc.) and each Department has its own Head or Chairman or Director who is responsible to the Dean. Quite frequently the Dean's only function is to preside at meetings of the Faculty, and maintain a general supervision over the various Departments of teaching.

Colleges which form parts of a University are usually autonomous institutions which may have been set up by private agencies (missionary societies, local educational societies, private individuals) or by Government or by the University itself. The University exercises some control over the appointment of the teaching staff of these Colleges, but in actual practice they are almost wholly free in this matter. The head of a College is the Principal who is responsible for the supervision of the academic and administrative work of his institution. Some Colleges are miniature Universities, having provision for several subjects of study leading up to the research degree stage. But a College is not free to prepare its own syllabuses and award its own degrees. It prepares candidates for examinations conducted by the University to which it is affiliated or of which it is a constituent part. The number of students in a College may vary from a few hundred to a few thousand.

#### Subjects & Courses:

Until recently, the arrangement of the educational ladder in the schools provided for a primary stage of education concerned with the three "Rs", and the rudiments of History and Geography taught in the local Indian language. At the middle school stage the student was first brought into contact with English, which formed an important additional subject. Then at the high school stage English was used as the medium of instruction, and the School-Leaving Examination was conducted in the English language. The position has now altered and English is introduced at a much later stage in the school system; in most places the medium of instruction is an Indian language and the examinations are also conducted in an Indian language. But English is still a compulsory subject of study. However, a number of schools in the large cities teach wholly through the English language and prepare candidates for the Cambridge Senior Certificate or equivalent examinations. These are still popular with certain sections of the population, but it is not certain whether the trends of national life will make their continued existence necessary or practicable for a much longer period.

A typical high school course usually includes the following subjects: English, Mathematics (Arithmetic, Algebra & Geometry), History,

Geography, a classical language (Sanskrit or Persian), an Indian language and Science. But there is considerable variation from region to region. Many regions have a system of groups of subjects and students have the option to select one of the groups.

The courses for the Intermediate examination usually consist of English, a classical or modern language, and three other subjects belonging to the Arts or Science or Commerce or other groups. In most universities the Intermediate stage is conceived as a part of "general education" and the only specialization is in the choice of the Arts or Science or some other group of subjects. Students intending to take up a professional course such as Medicine or Engineering have to select a group of subjects related to their choice.

At the B.A. stage the Pass course includes two or three papers in English and two or three other selected subjects. Usually these subjects are arranged in groups, so that a student studies two or three related subjects. The Honours courses, as already indicated, are of two kinds. In several universities the Honours course consists of additional papers in one of the subjects which form the Pass course and, in order to secure Honours, a student has to obtain First or Second class marks in these papers. A student may take Honours in English or History or Mathematics or Sanskrit or Physics or Chemistry and so on; he then has to put in two more years of study for the M.A. or M.Sc. examination, which is usually confined to one subject. The three years' Honours courses are specialized courses, and require the intensive study of one subject. In most universities the three years' Honours course requires also the study of a subsidiary subject. As has been pointed out above, the practice with regard to the M.A. or M.Sc. examination after the three years' Honours course varies from university to university. One or two universities have no Honours courses.

The Master's degree course requires specialization in one subject. It is not usually a research course, but in some universities there is provision for a dissertation to be presented by a candidate in lieu of a part or the whole of the M.A. or M.Sc. examination. There is also provision in some universities for part of the course to be completed in the first year (called M.A. or M.Sc. Previous examination), so that for the final examination candidates have to prepare only the rest of the course.

Research degrees are usually of the same pattern as in British or American universities. Students select a field of research and, under the guidance of a teacher appointed for the purpose, work for at least two years after a post-graduate degree, and then present a thesis. Except where M.A., or M.Sc. is a research degree, the first research degree is Doctor of Philosophy (Ph.D. or D.Phil.). There are higher degrees like D.Litt. and D.Sc. In the Faculty of Law there is the degree of Doctor of Laws (LL.D.) for which one may supplicate with a thesis. The higher doctorates may also be conferred on distinguished persons *honoris causa*. Some Universities have a junior research degree called Master of Literature (M.Litt.).

### Social Sciences:

For historical reasons the Universities of India have tended to have a bias in the direction of literature and the humanities. The learning of the English language was one of the main purposes of education, and special emphasis had to be laid on English language and literature in all courses of study.

In the last quarter of a century or so, however, there has been much stress laid on Science. By far the largest proportion of all Science taught in Indian Universities consists of the pure sciences (Physics, Chemistry, Botany and Zoology), and applied sciences and technology are still a long way behind. But rapid strides are being taken in some Universities to remedy this situation.

The only "Social Science" that has received adequate attention in India is Economics. In fact far too many students have taken up Economics as a subject of study in recent years, and subjects like Philosophy and the Classics have suffered. Recently Political Science has been introduced in many universities, either as a separate department of study, or in association with History and Economics. Sociology has not yet come into its own in India. The Bombay School of Economics and Sociology has a separate department of Sociology, but in most other places it is regarded "as a name for all the odds and ends which are not covered by other social studies as Economics, Politics, Social Psychology, Social Anthropology". Social Anthropology is taught in a few Universities, but the position is not satisfactory. Psychology was and still is treated as a part of Philosophy, but it is coming into its own. In many Universities emphasis is now being laid on Experimental and Social Psychology. Studies in such problems as group tensions are being carried out in some places.

### Library & Laboratory Facilities:

Library facilities in Indian universities (with a very few exceptions) are poor in comparison with Europe or America. In the headquarters of affiliating Universities (like Calcutta, Bombay, Madras) students have access to at least two libraries - the University library and their own College library. There are also public libraries to which students can have access. But in the smaller towns where the only library is the College Library the situation is usually not very satisfactory.

The position as regards laboratories is somewhat similar. The universities have reasonably satisfactory laboratory equipment, but in general the equipment available for advanced work is limited. Fortunately, however, many of the National Laboratories and Research Institutes already referred to part make up for this. Opportunities for research work in association with industrial concerns are very few, but in the last four or five years some industries have shown an interest in education and have been helping to set up research institutes connected with their own specific industry.



Medium of Instruction:

The medium of lectures and examinations at most Universities in India is English. At the Osmania University, however, the medium has been Urdu and it is now proposed to use Hindi. At the Universities of Lucknow and Nagpur arrangements have been made for changing the medium from English to Hindi or, in the case of Nagpur, to Marathi also. Some other Universities also have plans to introduce an Indian language medium in course of time. The question of medium of instruction at the university stage involves many important considerations. Certain academic considerations and local sentiment demand that instruction at all stages should be given in the mother-tongue or the regional language, and a University Education Commission appointed by the Government of India in 1948, recommended the adoption of the regional languages as the media of university instruction. But it is feared by many that, unless all the universities of India teach in a common language, the unity of the country and the possibility of interchange of scholars and the movement of ideas will be very adversely affected. It has been decided that the official national language should be Hindi and many people therefore, advocate the adoption of Hindi as the language of university teaching. But this is not a simple matter. In regions where Hindi is not the language of the people, its adoption will be fraught with serious inconvenience and will be resisted by local sentiment. Linguistically Hindi is a "foreign" language to many people in India. Apart from this, there are other practical considerations which make some people doubt the wisdom of attempting to change the medium of instruction from English to an Indian language in the immediate future. Some of these are (1) that the Indian languages need to undergo a great deal more development before they can be used as vehicles for the expression of the highest learning, (2) it will take a long time to prepare the necessary text books and to create libraries in the Indian languages concerned, (3) it will not be easy for some time to find an adequate number of teachers who can lecture on technical subjects in Indian languages.

Notwithstanding the objections to change of medium, it seems certain that changes will take place and many educationists are exercised not over the question of medium but over the questions of how and to what extent English should continue to be learned by Indian students. The changes and vacillations of recent years have affected the level of achievement of Indian students in the study of English, and if something is not done to improve the position of English, India may lose the advantage she now has of being able to use a language of international currency with great facility. It seems fairly certain that all Universities in India, whatever medium they may adopt, will continue to provide for some teaching of English for many years to come.