

Academic

**The Tamil Nadu
Dr. M.G.R. Medical University
Chennai**



**Regulations & Syllabus for the
Bachelor of Ayurvedic Medicine & Surgery
(B.A.M.S.) Degree Course**

**THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY,
CHENNAI**

REGULATIONS AND SYLLABUS FOR THE

BACHELOR OF AYURVEDIC MEDICINE & SURGERY (B.A.M.S)

DEGREE COURSE

1. ELIGIBILITY FOR ADMISSION

Candidates for admission to the Ayurvedacharya course should have passed Higher Secondary Examination conducted by the Govt. of Tamil Nadu or an equivalent examination after 12 years of study of any state or central board accepted by the Medical University with the following group of science subjects : Physics, chemistry and Biology/Botany and Zoology. A pass in each of the science subjects is essential. Candidates before seeking admission to any one of the affiliated institutions shall obtain an Eligibility Certificate from the University by remitting the prescribed fees along with the application form.

2. AGE LIMIT

Candidates should have completed the age of 17 years at the time of admission or would complete the age on or before 31st December of the year of admission to the first year B.A.M.S. Course.

3. REGISTRATION

A candidate admitted to the course in any of the affiliated institution shall register with this University by remitting the prescribed fees along with the application form for registration duly filled in and forwarded to this University through the Head of the Institution within the stipulated date.

4. DURATION & THE COURSE OF STUDY

The course is of 5 1/2 years duration which is as follows

First Professional	:	18 months
Second Professional	:	18 months
Third Professional	:	18 months
Compulsory Internship (CRRI)	:	12 months

Each professional course includes a Part-I of 12 months and Part-II of 18 months duration (Part-II is inclusive of Part-I). After the satisfactory completion of the CRRI the ayurvedacharya degree will be awarded by the University.

5. MEDIUM OF INSTRUCTION

English and Sanskrit are the media of instruction.

6. COMMENCEMENT OF THE COURSE

1st July of an Academic Year

7. COMMENCEMENT OF EXAMINATION

April 15th/November 15th.

Theory examination will not be held on Saturdays and Sundays. If the commencement date falls on a public holiday, the next working day will be the date of commencement of the examination.

8. CUT OFF DATE FOR ADMISSION TO EXAMINATION

Candidates admitted till 30th September will be registered to take up their I Professional Part-I examination during April of the next year.

and Part-II examination during November. Candidates admitted from 1st October to 28th February will be registered to take up their I Professional Part-I examination during the November of next year and Part-II examination during the April of the next year.

Candidates admitted on or after 1st March will be registered for the academic year concerned but they have to undergo the course and appear the examination along with the subsequent year batch of students.

9. ATTENDANCE REQUIREMENT FOR ADMISSION TO EXAMINATION

- a) No candidate shall be permitted to any one of the parts of BAMS Degree Course examinations unless he/she has attended the course in the subject for the prescribed period in an affiliated institution recognised by this University and produces the necessary certificate of study, attendance, satisfactory conduct and progress from the Head of Institution.
- b) A candidate is required to put in minimum 80% of attendance in both theory and practical separately in each subject before admission to the examination.

10. CONDONATION OF LACK OF ATTENDANCE

Condonation of shortage of attendance upto a maximum of 10% in the prescribed eligible attendance for admission to an examination rests with the discretionary powers of the Vice-Chancellor. A candidate lacking in attendance should submit an application in the prescribed form and remit the stipulated fee 15 days prior to the commencement of the theory examination.

The Head of the Department and Head of the Institution should satisfy themselves on the reasonableness of the candidates request while forwarding the application of the candidate with their endorsements to the Controller of Examinations who would obtain the Vice-Chancellor's approval for admission to the examination. No application would be reviewed if it is not forwarded through proper channel.

Condonation for lack of attendance should be taken up for consideration under the following circumstances :

- a) Any illness afflicting the candidate (The candidate should submit to the Head of the Institution a Medical Certificate from a registered Medical Practitioner soon after the returns to the institution after treatment).
- b) Any unforeseen tragedy in the family (The parent/guardian should give in writing the reason for the ward's absence to the Head of the Institution).
- c) Participation in NCC/NSS and other co-curricular activities representing the institution or University. (The Head of the Institution should instruct the concerned officers in-charge of the student activities in their institution to endorse the leave)

11. REVALUATION OF ANSWER PAPERS

Revaluation is offered in the case of failure in III B.A.M.S. Part-II examinations only, provided the candidate failed in only one subject and had no history of failure in the whole course.

12. DETENTION FROM COURSE/EXAMINATION

The candidate who fails in more than three subjects out of six subjects in I Professional examination will not be permitted to enter the II Professional course and the detained candidate should put in 70% attendance in the failed subjects during the following session.

The candidate will not be permitted to appear for the examinations in III Professional course unless he/she has passed in all the subjects of the I & II Professional course.

13. INTERNAL ASSESSMENT EXAMINATIONS

Candidate who has not attended internal Assessment Examinations in not eligible to appear for University examinations. Candidate is not eligible to appear for university supplementary examinations of a subject if he/ she has not attended a fresh I A examination of that subject after failure in the University examination.

14. NUMBER OF WORKING DAYS

200 working days per academic year.

15. SUBJECTS AND SCHEME OF EXAMINATIONS

Subjects	THEORY				PRACTICAL			
	D	Univ. IA	O	T	D	Univ. IA	R	T
1st BAMS Part I								
1. Ayurveda								
Itihās (History of Ayurveda)	3Hrs	75	25	100	-	-	-	-
2. Modā Sidhānta (Basic Principles)	3Hrs	100	20	30	150	-	-	-

3. Padarth Vigyan
(Logics)

Paper I	3 Hrs. 100	20	30	250
Paper II	3Hrs. 100			

Part II

4. Sanskrit

Paper I	3Hrs. 100	20	30	250
Paper II	100			

5. Kriya Sharir
(Physiology)

Paper I	3 Hrs. 100	20	30	250	3Hrs. 70	20	10	100
Paper II	100							

6. Rachna Sharir
(Anatomy)

Paper I	3Hrs. 100	20	30	250	3Hrs. 70	20	10	100
Paper II	100							

2nd B A M S Part I

Subjects D Univ. IA O T D Univ. IA R T

1. Agad Tantra

Vyavahar Ayurved

Aram Vidhi

Vaidyak (Toxico-

logy & Jurispru

dence)

3 Hrs. 100	20	30	150	3 Hrs. 70	20	10	100
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2. Swastha Vritta

(Social & preventive medicine)

Paper I	3 Hrs.100	20	30	250	3 Hrs.70	20	10	100
Paper II	100							

3. Kaya Chikitsa

(General Medicine)

Paper I	3 Hrs.75	25	-	100	-	-	-	-
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PART II

4. Rog Vigyan Avam

Vkriti Vigyan
(Pathology)

Paper I	3 Hrs.100	20	30	250	3 Hrs.70	20	10	100
Paper II	3 Hrs.100							

5. Rasashastra Avam

Bhaishajya

Kalpana (Alachemy
& Pharmacy)

Paper I	3 Hrs.100	20	30	250	3 Hrs.70	20	10	100
Paper II	3 Hrs.100							

6. Dravyaguna

Vigyan (Pharmacology)

Paper I	3 Hrs.100	20	30	250	3 Hrs.70	20	10	100
Paper II	3 Hrs.100							

3rd B.A.M.S. Part I

Subjects	THEORY				PRACTICAL			
	D	Univ. IA	O	T	D	Univ IA	R	T
1. Kayachikitsa								
Paper II	3 Hrs.	100						
Paper III	3 Hrs.	100	20	30	250	3 Hrs.	70	20 10 100
2. Prasuti tantra Avam striroga Vigyan (Obstetrics & Gynaecology)								
Paper I	3 Hrs.	100						
Paper II	3 Hrs.	100	20	30	250	3 Hrs.	70	20 10 100
3. Kaumara Bharitya (Paediatrics)	3 Hrs.	100	20	30	150	3 Hrs.	70	20 10 100
PART II								
4. Shalaky Tantra (Diseases of neck & head)								
Paper I	3 Hrs.	100						
Paper II	3 Hrs.	100	20	30	250	3 Hrs.	70	20 10 100
5. Shalya Tantra (Surgery)								
Paper I	3 Hrs.	100						
Paper II	3 Hrs.	100	20	30	250	3 Hrs.	70	20 10 100
6. Kaya Chikitsa								
Paper IV	3 Hrs.	100						
Paper V	3 Hrs.	100	20	30	250	3 Hrs.	70	20 10 100
7. Panchakarama	3 Hrs.	100	20	30	150	3 Hrs.	70	20 10 100

16. MARKS QUALIFYING FOR A PASS

- 45% of marks in the University written examination
- 50% of marks in the University practical examination
- 50% of marks in written, practical, oral and internal assessment.

17. RE-ADMISSION AFTER BREAK OF STUDY

- a) Candidates having a break of study of 5 years and above from the date of admission and more than two spells of break will not be considered for re-admission.
- b) The five years period of break of study shall be calculated from the date of first admission of the candidate to the course for the subsequent spells of break of studies.

18. MIGRATION /TRANSFER

Migration/Transfer of candidates from one recognised institution to another recognised institution of this University shall be granted on the following conditions :

- a) All migration/transfers are subject to the approval of the Vice-Chancellor.
- b) Transfer shall be effected only at the beginning of the academic year.
- c) The transfer application should be in the prescribed form as stipulated by the University and sent through proper channel to the Academic Officer within three months of publication of the results or admission to the course.
- d) Transfers can be effected during any year of study after fulfilment of the regulations of this University.

- e) Transfers will be effected subject to the condition that the sanctioned strength of that institution in that particular year is not exceeded.
- f) The provision of combination of attendance shall be granted to the transferee for admission to the examination of this University on satisfactory fulfilment of the regulations of this University.

19. DETAILED SYLLABUS

I B. A. M. S. PART I
SUBJECT 1.

AYURVEDA ITHIHASAM (History of Ayurveda)

1. Pre-Vedic period, Pre-historic period.
2. Determination of Vedic period, Eternity and antiquity of Ayurveda. The state of Ayurveda during Vedic period. Significance of Ayurveda in Vedas. Concept of Ayurveda as upaveda.
3. Ayurveda in Upanishads, Puranas, Vyakarna and Kavyadi Sahityas. Ayurveda in Kautilya's Arthasastra. Ayurveda in Sramana Sahitya and Bauddha Sahitya.
4. Presentation of Ayurveda. Lineages of Atreya, Dhanwantari etc. of Ayurveda. Important aacharyas of vedic period. Brahma, Dakshaprajapati, Aswinikumaras, Indra, Bhaskara, Varuna etc. Churning the Ocean of milk. Origin of Amruta. Incarnation of Dhanwantari.
5. Ayurveda parampara in Sramana literature. Role of Jaina acharyas in the making of Ayurvedic literature.
6. Samhita period. Determination of Samhita period. State of Ayurveda during Samhita period. Sampradayas and paramparas of Atreya, Dhanwantari, Bharadvaja, Punarvasu Atreya, Divodasa, Dhanwantari, Kashyapa, Hiranyaksha, Bhargva Bahleeka, Vayorvidha, Krishnatreya, Krishna Bharadwaja and others.
7. Authors of Samhitas. Agnivesa, Bhela, Jatukarna, Parasara, Harita, Ksharapani Susruta, Karavira, Aurabra, Aupadenava, Paushkalavata, Gopurarakshita, Jivaka, Nimi, Videha.

8. Redactors-acharyas, Charaka, Dridabala, Nagarjuna.
9. Samgrahakala, Determination of Samgrahakala. Commentators of Samgrahagrandhas. Jejjada, Chakrapani, Dalhana, Gangadhara, Varahamihira, Bhattarahaschandra, Arunadatta their introduction, period of work. Grantha Samgraha authors - Bhavamisra, Sarangadhara, Madhavakara, author of Bhaishajyaratnavali, author of Basavarajiyam.
10. Period of origin of Rasasastra. Development and importance of Rasasastra. Universality of Rasasastra. Important acharyas of Rasasastra, their introduction and period.
11. Vrikshayurveda. Mrigayurveda. Important Acharyas- Nakula, Aswagosh, Palakapya.
12. Adhunik Kala. Authors of Adhunik a. Gananthasen, Yaminibhushan Ray, Yadavji Trikamji etc.
13. Universality of Ayurveda. Spread of Ayurveda to Sumeria, Babylonia, Assyria, Egypt, China, Pharus, Arabia, Cambodia and other countries of South East Asia.
14. Influence of Ayurveda on Hippocratic medicine. Acceptance of Ayurveda by Greek. Journey of Indian Scholars to Greece. Spread of Ayurveda through King Alexander. Relations between India and Greece in ancient period. Popularity of Indian surgeons in Greece.
15. Role of King Asoka's rock edicts in the spread of Ayurveda.
16. Explanation of the concept of Brihatrayis and Laghutrayis.
17. Development of Ayurveda after independence. Developments in educational field. Constitution of different committees. Scope of

Ayurvedic research. Subject wise organisation of books. Associated works of vaidyas.

18. Journals and news-letters in Ayurveda and their development.

19. World Health Organisation.

Texts:

1. Preface to Kashya Samhita.
2. Preface to Pratyaksha sarira.
3. Ayurveda Itihasa - Vaidya Suramachandra.
4. Ayurveda sutra - Ramaprasadji.

References

1. Bharatiya bhaishajya samarthan pariccheda of Kashyapa Samhita upotghata.
2. Upotgata of Rasayogasagara.
3. Upolgataa of Pratyaksha sarira.
4. Ayurved ka itihas - Vaidya Suramchand.
5. Ayurveda Sutra - Pandit Ramprasadji.
6. Ayurved ka brihat itihas - Vaidya Atridev Gupta.
7. History of Ayurveda - Vaidya
G.N. Mukhopadyaya.
8. Indian Medicine in Classical age - Vaidya P.V. Sarma.
9. Vedom me ayurved - Ramagopala Sastry.
10. Vaghbata vivechanam - Vaidya P.V. Sarma.

11. Charaka chintan - Vaidya P.V. Sarma.
12. Ayurved ka vaijnanik itihās - do.
13. Ayurved ka prabhavak Jainacharya - Acharya Rajkumar.
14. Jainacharya Sahitya ka itihās - Dr. Rajendra Prakash Batnagar.
15. Atharvaved and Ayurved - Karamkar.
16. History of Indian Medicine - Jolly.
17. Hindu Medicine - Zimmer.
18. Ayurvedic medicine - Past and present
- Pandit Shivsharma.
19. Our glorious heritage - Dr. Rustomji Vakil.
20. History of Ayurveda - Dr. Kutumbaiha.
21. Science and philosophy of Indian Medicine - Dr. K.N. Udappa.
22. History of Ayurveda from Pre-Mauryan to Kushan period - Dr. Jyotimitra.
23. Ayurvedic material in Buddhist literature - Dr. Jyotimitra.
24. Luminaries of Indian medicine - Dr. Srikantamurthy.
25. Ancient scientist - O.P. Jaggi
26. Ayurveda itihās evam parichay - Dr. Ravidatta Trivedi.

MOOLA SIDDANTHA (Basic Principles)**Sharira prakarana**

Ayurveda, Origin of Ayurveda. Eight divisions of Ayurveda. Speciality of the Ashtangasamgraha text. Importance of the Kayachikitsa branch. The three doshas, Derivation of the word dosha. States of disease and health. Origin of dosha. Time of predominance of dosha. Constitution/prakriti according to dosha. The best and the worst type of prakriti. Lakshanas of doshas viz. Vata and their qualities/gunas. Seven dhatus. Malas. Dushyas. Functions of dhatus. Derivation and definition of the word dhatu. Causes for the increase and decrease of dhatus.

Dravya prakarana

Dravya. Rasa. Three types of dravya. Veerya, Vipaka. Twenty qualities viz. guru etc. Indriyartha gunas. Vyavayi, Vikashhi. Aparagunas. Mahagunas viz. satwa etc.

Roga prakarna

Description of and causes for the states of roga and arogya. Derivation of the words roga and arogya. Types of rogas. Seates of rogas. Doshas of manas/mind. Examination of roga. Types of doshas. Suitable time for administration of medicine.

Chikitsa prakarana

Two types of treatment/chikitsa. Seats of kaya doshas. Seats of

manodoshas. Qualities of a good student. Time not suitable for study. Duties of student. Qualities of physician. Qualities of a bad physician. Qualities of a royal physician. Qualities of a good physician. Importance of the study of sasthanas. Analysis of prognosis of rogas / curability and incurability. Qualities of easily curable diseases. Qualities of diseases which are difficult to be cured. Qualities of diseases which are not curable. Qualities of a kind physician.

Dravyam made up of five mahabhutas. Types of rasas. Analysis of prabhava. Qualities of dravya made up of five mahabhutas viz. parithiva, apya, agneya etc. Oushadhatwa / medicinal value. Qualities of shamana dravya etc. Six types of rasas. Eight types of veeryas. Two types of veeryas. Functions of ushna virya. Function of shita virya. Vipaka. difference of opinion about vipaka. Prabhava. Qualities viz. guru etc. Peculiarity of prabhava. Explanations of rasa. Origin of rasa based on bhutas. Qualities of the six rasas - Madhura, amla, lavana, katu, tikta, kashaya. Functions of madhura, amla, lavana, katu, tikta, kashaya.

Skanda/group of madhura, amla, lavana, katu, tikta, kashaya dravyas. Difference of opinion about the function of rasas. The origin of rasas and significance of desha/place in it. Number of combinations of rasas. Sixty three types of combinations of rasas.

Doshadi vijnaniyam

The dosha dhatu malas as the body's constituents. Function of vata dosha. Function of pitta dosha. Function of kapha dosha. Functions of dhatus. Functions of malas. Symptoms of increase of vata. Symptoms of increase of pitta. Symptoms of increase of kapha. Symptoms of increase of individual dhatus. Symptoms of decreased vata. Symptoms of decreased pitta. Symptoms of decreased kapha. Symptoms of each decreased dhatus. Symptoms of each decreased

malas. Methods to understand the increase and decrease of doshas etc. The seats of dosha. Seat of vata. Seat of pitta. Seat of kapha. Causes of increase and decrease of dhatus. Pachakagni. Vatarogas occurring when vata gets vitiated in asayas. Pittarogas when pitta gets vitiated in asayas. Kapharogas when kapha gets vitiated in asayas. The rogas which are produced due to vitiation of doshas in raktadi dhatus. Description of ojus. Qualities of ojus. Causes for the decrease of ojus. Treatment for the decrease of ojus. Description of the seat of ojus. General treatment for the increase and decrease of doshas.

Doshabhediya.

The seats of dosha. Names of the five types of vata, their seats and functions. Names of the five types of pitta, their seats and functions. Names of the five types of kapha, their seats and functions. Analysis and symptoms of dosha sanchaya, dosha prakopa and dosha prasama. The ability of vitiated dosha to produce roga. Eighty types of diseases produced by vata. Forty types of diseases produced by pitta. Twenty types of diseases produced by kapha. Types of vikaras viz. osha, plosa etc. Functions of kupita vata dosha. Functions of pitta dosha. Functions of kapha dosha. Combinations of increased and decreased doshas. Methods of occurrence of disease due to increased dosha.

Doshopakramaniya.

General treatment of disease due to vata dosha. General treatment of disease due to pitta dosha. General treatment of disease due to kapha dosha. Method of treatment of dosha. Importance of food etc. in the increase of dosha. The difference of opinion about the methods to overcome the increase of dosha. Treatment for the suspected aggravation of dosha. The symptoms of sama doshas and nirama doshas. Description about ama. Procedure for the

elimination of sama doshas.

Rogabhediya

Seven types of diseases. Two types of diseases. Pratyutpanakarmaja diseases. Purvakarmaja diseases. Classification of diseases. Types of diseases viz mridu, madhya and athimatra. Doshas as the cause for all diseases. The three types according to the cause asatmendriyarthasamyoga, prajnaparada and parinama. Atiyogakalpana. Pathways of diseases/rogamargas - bahya, madhyama and abhyantara. Svatantra and paratantra disease. Analysis of upadosha.

Bheshajavacharaniam.

Prescribed rules for administration of medicine. Hard detectability of aggravated doshas. Descriptions of rogi, roga and aushadha. Aushadha nisheda. Administration of medicines for states of atisthoulya etc. Necessity for the examination of the quality of medicine. Time for administration of medicine. Nisheda of oushadha samsodhana. Determination of suitable time for the collection of drugs. Administration of medicine without food, before food, in between two meals, after food, with food, in between two morsels of food, before and after meals, frequently, with each morsel of food, at night. Intake of medicine without taking food and before food and their significance. Pathyakalpana. Time for the elimination of the accumulated doshas.

Dvidivhopakramaniyam

Two types of chikitsa/treatment. Santarpana. Apatarpana. Sodhana. Samana. Characteristic features of sodhana. Types of sodhana. Characteristics features of shamana. Types of shamana. Significance of the Shamana procedure. Contraindications for

brimhana treatment. Signs of proper langhana treatment. Signs of proper bhrimhana treatment. Ill effects of improper langhana chikitsa. Ill effects of improper brimhana chikitsa. Characteristic features of excessive langhana treatment. Characteristic features of excessive brimhana treatment. Occurance of sthoulyata. Diseases due to increase of medo dhatu. Characteristic features of ati sthoulyata. Treatment for ati sthoulya. Defects of ati langhanam. Ati karsya. Emaciation. Comparative merits of karshyata. Characteristic features of ati karsya and its treatment. Importance of meat in brimhana chikitsa. Use pippalyadi mantha. Types of treatment of sthula and krisa. Determination of dose for langhana and brimhana.

Text.

Concerned parts of Ashtanga hridaya and Ashtanga samgraha.

Reference.

Concerned parts of charaka samhita and Susruta samhita.

I B A M S Part I**Subject 3****PADARTHAVIJNANAM (LOGIES)****PAPER I****Part A**

1. Philosophical background and Padarthavijnana. Meaning of the word darsana. Importance of darsanas. Origin, number of classification/gradation of darsanas. Study of the six darsanas. Knowledge of other darsanas and siddhantas of India. Influence of darsanas on Ayurveda. Darsanas related to Ayurveda. The independent fundamental view of Ayurveda. Utility of Ayurvedic Padarthavijnana. Characteristic features of padarthas. Number and classification of padarthas. Bhava padarthas and abhava padarthas.
2. Knowledge of dravyas: Definition of dravyas. Number of dravyas. Different classifications of dravyas. Classifications characteristics of prithvi, jala, tejas, vayud and akasa. Formation of akasa and vayu. Definition and qualities of panchamahabhutas. Satvadi gunas of mahabhutas. Formation of mahabhutas and their presence in each. description of kala. Derivation and definition of the word kala. Oupad hika bheda of kala / division. Importance of kala in Ayurveda, definition of dik/disa. Qualities of Aatma. Divisions of Aatma according to Ayurveda. Paramatma or Paramapurusha. Ativahika purusha or atma with sukshma sarira. Rasi Purusha or sthula chetana sarira. Chikitsya purusha or karma purusha or samyoga purusha or shad dhatu purusha. Existence of atma without body. Characteristics of Aatma.

Process of perception of knowledge in atma. Origin of Aatma. Definition and description of manas. Features, objects, actions, position of manas/mind. Non-recognition of dravyatva of tamas. Study of dravyas in Ayurvedic view.

Part B

Knowledge of gunas. Definition and characteristics of gunas. Number of gunas. Vaiseshika gunas. Karmanusamanya gunas. Adhyatmika gunas. Paradisamanya gunas. Study of gunas- Study of vaisheshika gunas - Origin of sabda and its divisions. Sparsa, Rupa, Rasa, Gandha, Karmania - samanya gunas- guru-laghu, seeta - ushna, snigdha, - ruksha, manda - tikshna, sthira - sara, mridu - katina, pichhila - visada, slakshna - khara, sukshma - sthula, drava - sandra. Adhyatmika gunas - Bhuddi, iccha, dvesha, sukha, dukha and prayatna. Paradi samanyam gunas - paratva, aparatva, yukti, samkhya, samyoga, vibhaga, prdhaktva, parinama, samskrara and abhyasa. The 24 gunas described in the nyaya darsana. Similarities and differences of guna. Gunas obtained through dravyas.

Study of the importance of gunas. Mutual relation of 41 gunas described by Caraka and 24 gunas described in nyayadarsana.

4. Knowledge of karma.: Characteristics and divisions of karma. Loukika divisions of karma. Divisions of karma in nyaya darsana. Study of karmas in the view of Ayurveda.
5. Knowledge of samanya.: Definition of samanya-Asraya lakshana and division of samanya. Importance of studying samanya in the view of Ayurveda.

6. Knowledge of visesha: Discussion and definition of visesha and its divisions. Explain "pravruthirubhayasyatu" Importance of studying visesha in the view of Ayurveda.
7. Knowledge of samavaya: Definition of samavaya. Study of Samavaya in Ayurveda.
8. Knowledge of abhava: Definition and divisions of abhava- prtagabhava, pradhvamsabhava, atyantabhava and anyonyabhava.

PADARTHIVIJANA (LOGIES)

PAPER II

Part A

1. Knowledge of pramana: Definitions of pramana, prama, prameya, pramatha, aprama, smriti and bhranti. Importance and benefits of pramana. Different opinions about the number of pramanas. Comprehension of six pramanas into three pramanas. The pramanas accepted by Ayurveda. Use of the word pariksha in a context where the word pramana should be used, in Ayurveda.
2. Knowledge of pratyaksha pramana: Definition of pratyaksha. Process of perception. Svarupa and lakshnas of indriyas. Number and classification of indriyas, Description of jnanendriya, karmendriya and ubhayendriya. Objects of indriyas. Bhautikatva of indriyas. Description of pancha panchakas. Functions of indriyas. Description of 13 karanas. Importance of antakaranas among karanas. Functions of antakarana.

Divisions of pratyaksha. Pramana - nirvikalpa, savikalpa pratyaksha. Description and classification of sannikarsha. Samanyalakshna, lakshana pratyasattiyogna. Description of indriya sannikarsha in ayurveda. Seats of vedana. Causes of vedana. Study of ability of indriyas. Detailed description of the pratyaksha pramana with the help of various instruments. Need of other pramanas when pratyaksha pramana exists. Obstructors of pratyaksha. Use of Pratyaksha pramana in Ayurveda.

3. Knowledge of anumana.:Svarupa and lakshana of anumana. Definition and classification of anumana according to Caraka. Other classifications of anumana. Description of pancha avayava vakya. Lingaparamarsha. Anvayavya tireki, kevalanvayi. Classification of anumana in nyaya saastra. Definition and classification of hetu, ahetu, sat hetu, hetvabhasa. Description of vyapti. Definition of drishtanta. Definition and importance of tarka. Utility of anumana pramana in Ayurveda.
4. Knowledge of aptopadesa pramana.:Importance of aptopadesa in ayurveda. Definition of aptopadesa. Agama pramana. Definition of sastra, Astikya pramana. Nighantu sabda pramana. Definition and classification of sabda in tarka sangraha. Definition and classification of sabda according to Caraka. Description of sabdarthabhoddakavritti. Definition of vakya. Description of the causes for the knowledge of vakya. akanksha, योग्यता, sannidhi. Description of saktigraha and saktigrahaka.
5. Knowledge of yukti pramana.:Meaning of yukti pramana, definition, importance and description.
6. Knowledge of upamana pramana.:Definition of upamana. Definition and utility of upamana in Ayurveda.

7. Knowledge of other pramanas.: Definition of arthapatti, anupalabdi, abhava, sambhava, cheshta, parishesha, itihasa.

Part B.

8. Karya karana bhavas and different theories.: Definition and classification of karana. Description of samavayi, asamavayi and nimitta karanas. Importance of karyakaranabhava in Ayurveda. Satkaryavada, asatkaryavada. Paramanuvada. Kshanbhan guravada, peelupaka, pitarapaka, anekanthavada.
9. Description of srishti and tatvas.: The process of srishti. Origin of prakrti or avyakta, mahat, ahankara., Formation of indriyas panchatanmatras, panchamahabhutas.

Description and classification of tatvas. Process of srishti according to ayurveda. Description of the 24 tatvas according to Caraka. Description of eight prakrtis. 16 vikrtis.

Similarities and differences between kshetra and kshetrajna, vyakta and avyakta, purusha and prakrti. Cause for the Union of prakrti and purusha. Description of trigunas. Features of satvaguna, rajoguna and tomoguna. Mutual dependence of trigunas. Punarjanma. Confirmation of punarjanma by the four pramanas. Description of moksha/salvation, srishti/creation and samhara / dissolution according to the modern concept.

10. Knowledge of tantrasyukti.: Definition of tantrayukti., utility and benefits. use of tantrayuktis. Number of tantrayuktis. 15 tantrayukti vakhyas, 17 kalpanas, 17 tacchilyas, 21 arthasramas, tantragunas, 14 tantra doshas. Importance of tantrayuktis in ayurveda.

Text :

1. Caraka samhita - Sutrasthana 1, sarirasthana 1, vimanasthana 8.
2. Susrutasmhita - Sarirasthana 1, Uttarantra 65.
3. Tarakasamgraha.
4. Samkhyakarika.
5. Vaiseshika darsana - Prasasthapaada bhasya.

References :

1. Padarthavijnan Acharya Ramakrishna pathak.
2. Ayurvediya padarthavijnan Vaidya Ranajit Ray.
3. Ayurveda Darsan Acharya Rajkumar Jain.
4. Padarthvijnan Kaseekar.
5. Padarthvijnan Balavant Sastri.
6. Kanada gouthamiya
7. Sankhyatatva kaumudi Gajanan Sastri.
8. Psychopathology in Indian Medicine - Dr. S.V. Gupta.
9. Carak evam Susrut ke darsanik vishay ka adhyayan - Jyotimitra.
10. Ayurvediya padarthavijnan Dr. Ayodhya prasad Achal.
11. Padarthavijnan Dr. Vidyadhar Sukla.
12. Padarthavijnan Dr. Ravidath Tripathi
13. Concerned portions of Susrutasmhita, Carakasamhita, Ashtanga Samgraha and Ashtangahridaya.

I. B A M S Part II**Subject 4****SANSKRIT****PAPER I**

1. Vyakarna - only the below given parts of the book laghusiddhanta kaumudi.
 - i. Samjna prakarana
 - ii. Sandhi prakarana.
 - iii. Avyaya prakarana.
 - iv. Karaka prakarana.
2. Anuvadha - Anuvadha chandrika - Chakradhara Hans.
3. Asuddhi samsodhanam - Samsodhanam sadharanam na pustaka sapekshakam bhavati.

PAPER II

1. Vaidyakiya subhashitani - Dr. Bhaskar Govinda
1 to 20 chapters. Ghanekar
2. Raghuvamsam - Canto I
3. Panchatantra - Aparikshita karakam.

I B. A. M. S. Part II**Subject 5****KRIYA SARIRAM (Physiology)****PAPER I****Part A**

1. Introduction, interpretation and synonym of the word Sarira. Interpretation of the word kriya. A brief account of various types of purusha according to dhatu bheda. Significance of shaddhatuja purusha in treatment. ~~Causative significance / role of dosha~~, dhatu and mala in the body. Origin of dosha dhatu malas from panchamahabhutas. Relationship between trigunas and tridoshas. Similarities between loka and purusha. Origin, definition and number of doshas, dhatus, upadhatus and malas. Different types of dehaprakriti/physical constitutions, their features. Description of shad kriyakalas - sanchaya, prakopa etc. causes of vitiation of doshas and origin of disease. Causes and symptoms of dosha kshaya / decrease and vrudhi / increase.

2. Description of sariraka doshas - definition, structure, quality, functions, location and classification of vata, pitta and kapha. Location, quality and functions of classified doshas.

3. Importance and function of pranavyu in respiration, mechanism, respiratory tract, knowledge of pranavaha srotas. Role of vata in circulation of blood, control of respiration, breathlessness, vayu in artificial respiration. Importance of vata in pranayama. Description of residual air. *srotogata avasishta vayu varnam.

4. Important functions of udanavayu. Structure of larynx, dhvanyatmaka / and varnatmaka / sabda, production of voice and its control.

5. Important functions of vyanavayu. Circulation of rasa and rakta through hridaya / heart. Description of heart. Doshas in hridaya. Cardiac cycle, description of different heart sounds, hrigati varnanam, its control. Cardiac arrest. Blood pressure and knowledge of nadi / pulse.

Part B

6. ~~Nourishment of body an panchamahabhutas. Different types~~ of aharadravyas according to panchamahabhutas. Origin food articles according to rasa, types, classification according to variety and form. Constituents of aharadravyas, description of quality and function. Jivaniyatatva / vitamins. Symptoms occurring due to deficiency.

Physiology of digestion. Description of jatharagni, acchapitta, bhutagni and dhatwagni. Factors influencing digestion of food. Digestion and assimilation of food at danta, tongue, salivary glands, grasanika. * Description of functions of the organs of mahasrotas. Description of avasthapaka and the stages of digestion. Formation of sara and kitta. Absorption of sara. Formation of tridoshas from ahara. Detailed description of vipka. Functions of liver, portal vein, its relationship with liver, * Formation of sapta dhatus from ahara. Description of dhatupaka and the different nyayas relating to it. Mridu, madhya and krura koshtas. Functions of pancreas and spleen.

KRIYA SARIRA (Physiology)

PAPER II

Part A

1. Description of formation of rasadhatu from ahararasa. Rasayanikriya. qualities, functions and location of rasadhatu, vrudhi and kashaya symptoms, quantity. Description of ashtavidha saras. Features of tvaksara purusha. Formation of lymph / lasika, function and circulation.

2. Origin of raktadhatu, position, functions. Raktavahasrotas / cardio - vascular system. Colouring of rasa by ranjakapitta. Signs of suddha rakta / pure blood. Importance and functions of blood. Constituents of blood. Formation of different blood corpuscles. description of blood coagulation. Description of blood groups. Features of rakta sara purusha. Signs and symptoms of rakta dhatu vrudhi kshaya.

3. Origin of mamsadhatu, Structure and function of muscle fibres. Description of qualities, functions and position. Mamsavaha srotas / muscular system. Mechanism of muscle contraction and relaxation. Features of mamsasara purusha. Signs and symptoms of vriddhi kshaya of mamsa.

4. Description of medodhatu. Origin, structure, qualities, location and functions. Description of modovahasrotas / adipose tissues. Features of modosara purusha. Signs and symptoms of medodhatu vriddhi and kshaya.

5. Description of asthidhatu, formation and structure. Mutual relationship between asthi and vayu. Function of asthi vaha srotas/ skeletal system. Features of of asthisara purusha. Signs and

symptoms of asthivruddhi and kshaya.

6. Description of majjadhatu, formation, structure, qualities, location and functions. Features of majjadhatu purusha. Symptoms and signs of majjadhatu vruddhi and kshaya.

7. Description of sukradhatu. Formation and location.

Functions of sukravahasrotas. Qualities of sukra. Features of sukrasara purusha. Signs and symptoms of sukradhatu vruddhikashayas.

8. Ojus- form and varieties. Quantity, function, location and importance. Description of ojus and bala. Varieties of bala. Description of vyadhikshamatva / immunity.

9. Upadhatu-formation and number. Nature of stanya, formation, qualities and functions. Origin of artava, varieties and form. Description of menstrual cycle. Skin formation, varieties and functions.

Part B

10. Number of aharamalas and dhatumalas. Formation, location and functions of important malas like purisha / feaces, mutra/urine and sveda/sweat etc. Functions of kidney, urinary bladder, ureter and urethra.

11. Five jnanendriyas / sense organs location. Physiology of perception of rupa, rasa, gandha etc. Knowledge of controlling centre of each sense organ.

12. Description of autonomous and central nervous system/ svatantra and paratantra. Knowledge of different motor and sensory areas. Description of ida, pingala, sushumna and shad chakras.

13. Manas - form and qualities like anutva and ekatva. Jnana and karmendriyatva. Position of manas. Description of samjnavaha srotas. Objects of manas-chintyam, vicharyam etc. its functional potency, sankalpa and indriya nigraha, animation of mind by atma, its qualities. Comprehension of sukha and dukha. Attainment of jnana due to the interaction of atma, manas, indriya and vishaya; its absence causing ajnana. Physiology of sleep and dream / nidra and svapna. Functions of manovaha srotas. Manodoshas, Transmission of jnana perceived by indriyas. Jannamayatva, dharakatva and baladyakatva of prana. Abhipretartha Sadhakatva of hridayastha sadhaka pitta.*

Preraka function of udana and vyana in sense organs, in the support of buddhi. Sara and asara vivekatva/discrimination.

Mutual relationship between manasa and sarira doshas, their prabhava / influence. Different varieties of manas according to variety of personalities. Sarirakriyamaka manovijnanam tatvavivechanam. / physiological and psychological aspect of mind.*

14. Endocrinal System - Description of different endocrine glands, functions of endocrine secreions on the body and mind. Signs and symptoms of hypo and hyper activity of endocrine glands.

Practicals :

1. Observation of natural forms of dhatu, upadhatu and malas.
2. Examination of vata, pitta and kapha prakriti.
3. Demonstration of physiology of dosha, dhatu and malas in normal healthy persons and in the diseased.
4. Practical microscopy and histology.

5. Blood grouping, collection of blood, bleeding and clotting time.
6. Practical examination of normal and abnormal urine.
7. Examination of blood, RBC, WBC counts etc., estimation of Hb, practical examination of normal and abnormal blood. Preparation of slides, staining techniques etc.
8. Practicals in neuro-muscular physiology, study in frog muscle preparation.
9. Haemoglobinometer, haemocytometer, sphygmomanometer, sphygmo graph - practical demonstration.

Texts :

Paper I

1. Ashtanga hridaya - Sutrasthana 11, 12; Sarirasthana 3 concerned parts.
2. Ashtangasangraha - Sutrasthana 19, 20; Sarirasthana 5 concerned parts.
3. Charaka samhita - Sutrasthana 1,7,12,20; Sarirasthana 1, Vimanasthana 6, Chikitsasthana 15,28.
4. Susrutasangraha- Sutrasthana 14, 15, 21, 35, 46; Sarirasthana 1, Nidanasthana 1 Uttaratantra 66,

Paper II

1. Ashtangahridaya - Sarirasthana 3 concerned part.
2. Ashtangasangraha - Sarirasthana 5 concerned part.
3. Charakasamhita - Sutrasthana 8, 24, 28, Sarirasthana 7.
4. Susrutasangraha - Sarirasthana 4.

References :

1. Abhinava sarira kriyavijnan - Acharya Priyavrat Sarma.
2. Ayurvediya kriyasarira - Vaidya Ranajitray Desai.
3. Ayurvediya sarira Kriyavijnan - Dr. Sivakumar Gowde.
4. Abhinava sarirakriyavijnan - do
5. Sarirarachana evam kriyavijnan - Dr. S.R. Verma
6. Sarir aur sarirakriyavijnan - Dr. Manju & M.C. Gupta.
7. Prayogika kriyasarira - Dr. Purnachandra Jain &
- Dr. Yajnadatta sukla
8. Sarirakriyavijnan - Dr. Prameela Verma &
- Dr. Kanti Pandey
9. Sarasadoshadhatumalvijnan - Dr. Vasantakumar Srimal.
10. Tridoshavijnan - Kaviraj upendranath Das.
11. Concerned portions from
Charaka, Susruta, veghbata Samhitas.
12. Textbook of human physiology - Dr. K. Madhavankutty.
13. Textbook of anatomy
and physiology - Kimberman.

I B A M S Part II

Subject 6

RACHANA SARIRAM (Anatomy)

PAPER I

Part A

1. Sariopakrama: Definition of sarira and saarira. Benefits of the knowledge of sariram, Shadangatvam. Divisions of sarirastra. Preparation and preservation of dead body.
2. Abhinivritti sariram / Structural anatomy: Structure of the body as per dhatus. Panchabhautikatva of sarira and its subtleness. Karmapurusha. Triguna nature of sarira. Tridoshamayatvam of sarira. Dosha-dhatu-mala nature of sarira.
3. Garbha Sarira:
Definition of garbha, Embryology, Histology: Descriptions of sukla, artava, ovum, conception, cell multiplication, beeja-beejabhaga avayavas. Anuvamsaki theory. Determination of sex. Development of foetus. Factors influencing foetal development. Prakriti - physical and mental constitutions. Nutrition of foetus. Development of placenta. Formation of umbilical cord. Ahladyakakarnanai. Foetal circulation. Formation of membranes. Formation of different parts. different systems of the body. Malformations.
4. Pramana Sarira: Measurement of body in terms of anguli, anjali etc.

Part B

5. Asthi Sarira / Osteology: The number of bones. Functional and structural classification of bones. Classification of the skeletal system. Description of individual bones and importance in Salyatantra / surgery.
6. Sandhi sarira. / Sydesmology: Normal structure of bony joints. Different classifications of joints. Types. Description of ligaments and tendons and functions. Importance of sandhi in Salyatantra.
7. Sira dhamani srotosarira/ Angiology: Importance of circulatory system. Description of heart / hridaya. Description of sira, dhamani, srotas. Their numbers, formation, location, branches etc. Similarities and differences in functions of sira and dhamani. srotomayatva of sarira.
8. Lasikasamsthanam / Lymphatic system:
Lymph, lymphatic ducts, lymph glands
9. Pesi Sariram: Description of muscles with location, number, types, origin and insertion, nerver supply and functions. Importance of muscles.
10. Paribhasha sariram: Kurcha, kandara, jalam and integrity of body / sarira sanghatam.

Text :

1. Ashtanghrdaya - Sarira sthana 1, 3 concerned parts.
2. Ashtangasamgraha - Sarirasthana 1,2,5, concerned parts. 6 concerned parts, 8

3. Caraka samhita sutrasthana 30, Srirasthana 2 - 6, 7 concerned parts, Vimanasthana 5, 8.
4. Susruta samhita - Sarira 1 -3 , 5, 7, 9.
5. Pratyaksha sariram - Part I and Part II.

RACHANA SARIRAM (ANATOMY)

PAPER II

Part A

1. Anatomy of koshta and aasayas.: Definition of kopshta and aasaya. Number and name of koshtangas. anatomical description of organs in the thorax, abdomen, alimentary canal from mouth to anus / digestive system, respiratory system, urinary and reproductive system.
2. Anatomy of glands.: Description of endocrine and exocrine glands.
3. Anatomy of kala /lining membranes.: Description of kala, 7 types, their benefits and uses. Specific kalas related to heart, lungs, brain, abdomen, joints and bladder.
4. Anatomy of skin.: Definition of tvak, divisions and functions.

Part B

5. Anatomy of the central nervous system.: Cerebrum, cerebellum, midbrain, pons, medulla oblongata, spinal cord and spinal nerves, cranial nerves, peripheral nervous system, autonomous nervous system, sympathetic and parasympathetic nervous system.

6. Tantra sarira.: Ida, Pingala, sarasvati etc. Six chakras. Description of brain in old texts.
7. Anatomy of marma.: Definition, number, location and classification of marmas, Importance in Salyatantra. Importance of three chief marmas.
8. Anatomy of body tissues.
Description
9. Anatomy of sense organs.
Definition of indriya, number, classification and their anatomy.

Practicals :

1. Total dissection
2. Demonstration of bones and organs.
3. Surface anatomy.

Texts :

1. Ashtangahrdaya - Sarirasthana 3 concerned part, 4.
2. Ashtangasamgraha - Sarirasthana 5 and 6 concerned part, 7.
3. Charaka samhita - Sutrasthana 8, Sarirasthana 7 concerned part, chikitsasthana 26.
4. Susrutasamhita - Sarirasthana 4, 5, 6; Uttarantra 1.
5. Pratyakshasariram - Tritiyabhaga.

References for Paper I & II

1. Pratyaksha sariram - Gananatha Sen.
2. Abhinava Sariram - Damodar Sharma.
3. Parisadyam sabdartha sariram - do.
4. Manava sarir - Prof. Dinakar Gobind Thate.
5. Manava bhruna vijnan - do
6. Manava angrekhangam evam sarira vikirna rachana - do
7. Manava sarira rachanas vijnan - Dr. Mukundasvarupa Varma.
8. Brihat Sariram - P.S. Varrier.
9. Abhinava savacheda vijnan - Harisvarup Kulasreshta.
10. Drishtartha sariram - Vaidya P.G. Athavale.
11. Manual of practical anatomy - Cunninghams.
12. Concerned parts from Charakasamhita, Susrutasamhita, Vaghbata.

II B A M S Part I**Subject : 1****AGADATANTRA AND VYAVAHARA AYURVEDA
(Toxicology & Jurisprudence)****Part A**

1. Definition of agadatantra. Definition, origin, sources and functions of visha. Forms and types of visha. Sources of sthavara and jangama vishas. Duties of Pranacharya.

2. Examination of visha. Signs of poison. Examination based on panchabhutas, origin and properties. Effects of poison in animals.

3. Signs of vishadata; signs of poison in cloth, foods, drinks etc. Examination of poisoned food. Visha sankatas, Sanka visham, visha kanya. Usage of poison in ancient wars and its management. Poisoning of water, water sources, soil, food, grass and air.

4. Upavisha - number and varieties. Definition of dushivisha and garavisha, signs and management. Ten characteristics of visha. Difference between vishagunas and ojogunas. Visharoga. Vegantara Vishavegas and their management.

5. Qualitative and quantitative examination of different sthavara vishas such as sulphur, acids etc. and other kritrima vishas / artificial poisons. Their fatal dose, period, signs and management. Post-mortem signs.

6. General management of visha. Management according to Charakamantras, arishtabandhanam, utkarshanam, nishpidanam, chushanam, agni, parishekam, avagahanam, raktamoksham,

vamanam, virechanam, upadanam, hridayavaranam, anjana, nasya, dhupa, leha, oushadha, pradamana, pratisarana asthapana lepa and mritasanjivanam.

7. Madyavishas - gunas and doshas / good and bad qualities. Three stages in madyatirekam. Signs of madatyayam and management.

8. Jangamavisha - Sarpavisha. Different types of vishasarpas. Signs and management of sarpadamsa. Signs and management of vrischika, loota, mushika vishas. Signs prognosis and management of alarkavisha.

9. Upasvisha - Signs and management of kupilu, bhallataka, ahiphena, jayapala, datura, bhanga, arka, mandara, snuhi, kalihari, gunja aswamara vishas.

10. Khanja visha - Signs and management of parada, naga, vanga, giripashana, tamra visha etc.

11. Description of ahara visha. Signs and symptoms of viruddhanna sevanam such as guna, desa, kala, matra, svabhava viruddhas. General management of aharavisha / food poisoning.

12. Identification of different types of poisons commonly used in India. Signs of ingestion and management. Post-mortem appearances. First - aid in doubt of poisoning.

Part B

1. Definition of Vyavaharayurveda / medical jurisprudence. Different types of courts of law. Legal procedure at an inquest. Oath. Witness / evidence. Death certificate. Declaration in death bed. - oral and written, legal aspects.

2. Classification of aayu. Determination of age.
3. Death and its medico-legal aspects. Types of death. Signs Rigor mortis. Determination of the time of death.
4. Types of accidents - medico-legal aspects. Postmortem examination - electric burns etc.
5. Prostitution. Unnatural sexual offences / behaviour. Abortion, Medical termination of pregnancy. Impotence, sterility, virginity.
6. Rape / insanity * medico-legal aspects.
7. Law in relation to medical men-responsibilities and duties, medico-legal powers, including powers for secrecy.
8. Discussion - The ultimate aim of ayurveda is the attainment of dharma, artha, kama and moksha.
9. Discussion - Importance of observing dharma as diseases are caused by adharma.
10. Evil deeds by physical, verbal and mental activities - to be avoided.

Practicals :

1. Post-mortem examination
2. Knowledge of medico-legal procedures in courts.
3. Demonstration in toxicology museum.
4. Identification of toxic materials.

Texts :

1. Ashtangahridaya - Uttarasthana 35 to 38.
2. Ashtangasamgraha - Uttarasthana 40 to 48.
3. Charakasamhita - Chikitsasathana 23.

4. Susrutasamhita - Sutraasthana 29, 34;
Kalpasthana 1 to 8.
5. Vishajyotsnika
6. Medical jurisprudence - Dr. S. Kandasamy.

References :

1. Vidhivaidyaks - Vyavahara ayurveda
vijnan
2. Visha vijnan evam agadatantra - Dr. Charuchandra
Pathak.
3. Agadatantra - Acharya Ramanath
Dvivedi
4. Vyavaharaayurvedam
evam vishavijnan - Dr. Patvardhan and Jugal
Kishore Gupta.
5. Vasavarajiyam
6. Agadatantra - Yamini Bushan Rai.
7. Medical ethics and medical
laws in India - Dr.H.S.Mehta.
8. Medical jurisprudence and
toxicology - Modi
9. Kautaliya Arthasastra - concerned parts.
10. Lakshanamritam
11. Prayogasamucchayam.
12. Concerned parts from Charaka, Susruta and Vaghbata samhitas.

II B A M S Part I
Subject 2

SVASTHAVRITTA (Social & Preventive Medicine)

PAPER I

Part A Personal health and hygiene

1. Personal health - Use of Swasthavrittam. Definition of swastha. Daily regimen. Regimen at night. Seasonal regimen. Three upasthambas / pillars of health. Sadvritta. / good moral conduct. Urges to be suppressed and urges not to be suppressed. Fasting. Nindita pursha / censured persons and aninditha purusha. Prajnaparada. Purification of body and other protective measures of health. Factors which are generally unsuitable for health.

2. Ahara vidhi - code and conduct of eating - Factors affecting the quality / utility of food. Suitable and unsuitable foods. Method of food preparation. Defective metabolism / cooking and diseases due to that. Diseases due to santarpana and apatarpana - over and under nutrition.

3. Quantity and nutritional value of food - Necessary constituents of food. Balanced food and its quantity. Balanced diet for different age groups - manual worker, pregnant woman, child etc. Source of required nutrients elements and minerals. Deficiency diseases. Importance of shadrasa bhojana / food with all six rasas. Statistics of nutrition in different countries. Social changes based on nutrition. National programmes on nutrition.

4. Examination of food - Inspection of meat, processing of milk and its examination.

5. Food materials - Advantages and disadvantages of vegetarian and non-vegetarian foods. Diseases due to consumption of contaminated meat. Benefits of intake of milk. Effects of intoxicating materials in the body. Uses and effects of spices and condiments in the body. Effects of alcoholic drinks and smoking in the body.

6. Sleep - Proper sleep conduct. Relation between sleep and health. Improper sleep. Role of sleep in pushti and apushti / Mechanism/origin of sleep. Types. Causes of sleeplessness and its effects.

7. Brahmacharya - celibacy - Advantage and importance in life. Formation of virya / vitality. Protection of virya. Effects of destruction of virya. Proper conduct of sex for protection of health. Discrimination of stri and ritucharya regarding sexual matters.

8. Vihara - Daily regimen. Regimen at night. Seasonal regimen. Effects of supression of urges. Effects of association with bad people on health. Good moral conduct. Achara rasayana. Diseases caused by mithya / improper ahara and vihara.

Part B Social health and hygiene

1. Air - Properties of air. Air pollutants. Arrangement of air inlets and outlets in houses. Diseases caused by polluted air. Measures for air purification. Methods for artificial ventillation and their bad effects. Required quantity. Natural aeration Different types of ventillations. Artificial areation. Temperature regulating system in houses., advantages and disadvantages. Role of air in maintaining good health. Circulating and stagnant air. Transformation of air. Mountainious air. Processing of air. Impurities and mixing.*

2. Soil and house - Purification of land / soil. Heat regulation. Suitable and unsuitable houses for living. Kitchen, latrine, cow shed etc.

3. Water - Quantity for use. Varieties. Qualities of river, well, lake water etc. Soft water. Hard water. Contamination of water, harmful effects of contaminated water on health. Methods of water purification - physical, chemical and mechanical methods. Different types of water filters. Inspection of water etc.

4. Light - Sunlight, its effect on body. Artificial methods of lighting, advantages and disadvantages.

5. Wastes - System for removing wastes in towns and villages.

6. Latrine - Permanent and temporary latrines. Temporary latrines in festival grounds. Urinals. Methods of removal of night soil. Methods adopted in villages. Misra and bhinna methods *

Manner of removal of night soil from residential areas. Provision of pipes for entry of air. Disposal - in seas and lakes, spreading in ground, into ditches. Percolation. Chemical, biological and other methods. Aerobic and anaerobic methods. Purification of supernatant layer.

7. Disposal of dead body - Cremation, burial, electrical crematorium.

8. Measures for protection of health in institutions - Provisions for pure drinking water.

9. Educational institutions - Provision for good building, air light etc.

10. Harmful effects of different occupations / industries on health
- Industrial air pollution, its harmful effects on the body.

11. Contagious / communicable diseases, epidemics / janapadodvamsa - definition, description. Isolation. Disinfection of hospitals. Natural, chemical and physical methods. Disinfection by dry and moist heat. Steriliser. Detailed knowledge about intermittent fever. Small pox, Plague, typhoid, vatajvara etc. and their prevention. Methods of vyadhikshamatva / immunisation Sexually transmitted diseases - syphilis / phiranga, upadamsa / chancres, ushnameha / gonorrhoea etc and their prevention.

12. Hospitals - Proper site, provision of light, water etc. Facilities for patients. Hospital equipments, wards, Panchakarma rooms, surgical theatre, isolation ward etc.

13. Knowledge about seasons, weather etc.

SVASTHAVRITTA (Social & Preventive Medicine)

PAPER II

Part A

Yoga

1. Etymology of the word yoga and the different definitions.
2. Origin and benefits of yoga.
3. Description of Hata yoga and its advantages.
4. Relationship between yoga and ayurveda.

5. Description of yoga in ayurveda.
6. Role of yoga in maintaining good health.
7. Obstructions to yogabhyasa. Factors for getting benefits.
8. Yamas and niyamas.*
9. Advantages of asanas and their influence on health.
10. Detailed knowledge of the following asanas :-
Swasthikasana, Gomukhasana, Virasana, Koormasana, Kukkutasana, Utthanakumasana, Dhanurasana, Matsyendrasana, Paschimottanasana, Mayurasana, Savasana, Bhadrasana, Siddhasana, Padmasana, Simhasana, Sarvangasana, Sirshasana, Pavanamuktasana, Bhujangasana, Vajrasana, Suptavajrasana, Matsyasana, Yogasana, Chakrasasana.
11. Definition of hitahara and mitahara in yoga.
12. Suitable and unsuitable regimens during yoga.
13. Malasodhaka and Bhramari pranayama.
14. Proper time for pranayama. Avara, pravara madhyama, lakshnas.
15. svedakarya of pranayama.
16. Suitable and unsuitable foods during pranayama.
17. Benefits of proper pranayama. Harmful effects of improper pranayama.

18. Prevention of diseases by pranayamaa.
19. Signs of naadi suddhi.
20. Shad karmas / Six procedures
21. Classification of kumbhaka - Suryabhedana, Ujjayi, Sitali, Sitkari, Bharastrika, Bbramari, Moorccha, Plavani.
22. Introduction to the ashtangas / eight units of yoga.
23. Importance of moditation in yoga. Its influence on mental health.
24. Raja yoga.
25. Description of ida, pingala, sushumna nadi.
26. Mula, jalandhara, uddhyana bandhas.
27. Yoga approved in ayurveda. Sukha dukha nivritti in that. *
28. Absence of all types of pain in yoga and moksha.
29. Sathya buddhi yoga sadhika.
30. Moksha lakshana / definition. Means of attaining moksha.
31. Features of muktama.
32. Naishtiki treatment.
33. Influence of yoga procedures on doshas of the body and mind
34. Classification of yoga kriyas and their influence according to various systems.

Part B Nisargopachara / Naturopathy

1. Advantages and importance of nisargopachara.
2. Importance of water. Use of cold water and hot water in treatment.
3. Pada prakshalanam, vamanam, dhauti, basti, snanam, padasnanam, hasthasnanam, prushtasnanam, vaktrasnanam, mehana snanam etc. Uses of jalapattika.
4. Bashpa snanam / steam bath . Classifications as local, general etc instruments used.
5. Mrittika majjanam / mud bath. - advantages.
6. Importance of sunlight. Atapasnana vidhi / sun bath, types.
7. Classification of mardana / massage, benefits and importance in treatment.
8. Importance of fasting in treatment.
9. Role of rest in treatment.

Part B. Primary health care - family planning welfare of mother and child - national programmes.

1. Definition of primary health care. Chief divisions, nature, desa. Organisation of Primary health care in the country. Government control. Contribution of Ayurveda towards this at present and its popularity.

2. Family planning - Over population problem. Increase in population and economic development. Population and quality of life

er population and environment. Increased population and education. Various theories on population. Population policy of India.

3. Family welfare programme - History, nature, various methods, plans. Contribution of government and non-government hospitals towards family welfare. Contribution of doctors, educated persons, students etc.

4. National programmes - Prevention and control of malaria, blindness, tuberculosis, leprosy etc.

5. Mother and child welfare - Aim, importance, divisions, Immunisation methods. Vaccination. Different programmes in India for mother and child welfare.

6. World Health Organisation. Alma ata declaration. National health policy. Importance of ayurveda and other systems of medicine in it.

7. Ministry of health - Department of health and preventive medicine at the national level, state level etc. International central, state and local bodies - rules regarding public health.

8. Bio-statistics - Statistical methods. Sim. Statistics of birth, death etc. death certificate.

Practicals :

1. Practical Knowledge of pratimarsa, anjzana, dhuma, gandhusa, kabala etc.
2. Practical knowledge of yogic shad kriyas like dhauti etc.
3. Practice of any six yogasanas, Pranayama - puraka, rechaka, kumbhaka associated with them.

4. Visit to water treatment plants.
5. Sewerage disposal site.
6. Milk diary.
7. Leprosy sanatorium.
8. Primary health centre.
9. Mother and child welfare unit.
10. Family welfare centre.

Texts :

Paper I :

1. Ashtanghrudayam - Sutrasthana 2 to 5.
2. Ashtangasangraha - Sutrasthana 3 to 7.
3. Charaka samhita - Sutrasthana 6,7,27. Vimanasthana 3.
4. Susruta samhita - Sutrasthana 45 ; Chikitsasthana 24; Utaratantra 64.

Paper II

1. Ashtanghrudayam - Sutrasthana 5 to 8
2. Ashtangasangraha - Sutrasthana 6 to 11
3. Charaka samhita - Sutrasthana 5, 23,25,27,28. Vimanasthana 1,2.
4. Susruta samhita - Sutrasthana 20,45,46, Kalpasthana 1.
5. Hathayoga pradipika - concerned parts.
6. Prakriti chikitsan vidhi - Sarma Prasad - concerned parts.

References :

1. Svasthavritta samucchayam - Pandit Rajesvara Datta Sastri.
2. Svasthavijnanam - Dr. Bhaskar Govind Ghanekar.
3. Svasthayavijnanam - Dr. Mukunda Svarupa Varma.
4. Ayurvediya hitopadesh - Vaidya Ranajit Rai Desai.
5. Yog aur ayurved - Acharya Rajkumar Jane.
6. Svasthavritta vijnan - Dr. Rama Harsha Singh
7. Ayurvediya svasthavritt - Jaloolkar.
8. Hatha yoga pradipika - Svatmarama Yogendra.
9. Yougika yoga paddhati - Bharatiyaprakritikchikitsaparisat
10. Prakritik chikitsa - Kedaranatha Gupta.
11. Prakriti chikitsa vijnan - Varma.
12. Prakriti chikitsa vidhi - Sarat Prasad.
13. Janasankhya siksha
siddhant aur upadeyuatha - Dr. Nirmal Sahni.
14. Health administration in India- S.G. Seal
15. Svastavrittam - Dr. Sivakumar Goud.
16. Health and family welfare - T.L. Devaraj
17. Sachitra yogasan darsika - Dr. Indramohan Char.
18. Concerned parts of Charaka,
Susruta, Vaghbata samhitas
19. Text book of social and
preventive medicine - Park and Park.
20. Hygiene and public health - B.N. Ghosh.
21. Social and preventive
medicine - Yashpal Bedi.

II B A M S Part - I**Subject 3****KAYACHIKITSA (General Medicine)****PAPER I****Part A**

Definition of the word kayachikitsa. Derivation of the word kaya, importance, synonyms and types. Definition of the word chikitsa, Synonyms and derivation. Difference in meaning based on the derivation of the synonyms. Types of chikitsa. Description of chikitsa purusha. Derivation of the word vyadhi, definition, samprapti, lakshna and types. Definition of the word dukha; three types of dukha, seven types of dhukka and their subdivisions.

The hetu / causes of disease - bahya / external cause, abhyantara / internal cause, sannikrishta nidana, viprakrishta nadana / hetu, pradhanika, vyabhichari, utpada vyanjaka hetus. Asatmendriyayoga, prajnaparada and parinama, samavayi karanam, asamavayi karana, nimittakarana; Interrelation between agantu roga and nijaroga; inter-relation among the four types of diseases.

Causes for the aggravation of doshas, prakopa of vata, pitta and kapha, difference between vyadhi dosha and vyadhi dooshya, characteristics of the different stages of dosha in vyadhi utpatti. Proper knowledge about the stages of sanchaya, prakopa, prasara, sthansamraya, vyakti and bheda. Knowledge of kriyakala based on the peculiarities of each stage, its treatment.

Vyadhipratyaneeekata / vyadhikshamatva - ability to resist and withstand disease, prakriti - constitution of the body, knowledge about accessories for acquired immunity. Qualities of each pada of treatment-shodasa kala bshhajam. Naishtikichikitsa; introduction to yoga, naturopathy, unani, siddha medicine etc.

Differentiation of sama and nirama, origin of ama, characteristic features of doshas, dhatus and malas with ama and the method of examining them. Knowledge of avaranam. Dosha avaranam, mala avaranam, their symptoms and causes, characteristic features of avrita doshas, dhatus and malas and method of examining them.

Principle of naming rogas / nosology; knowledge of the vriddhi and kshya of doshas, dhatus and malas. Knowledge of ojakshaya, ojovibhramsa and ojoyapat, samanyaja vikaras, nanatmajavikaras.

Srotodushti and diseases occurring due to it. Types of vitiation of srotas, their characteristic features and principles of treatment.

The different views of chikitsa based on the commentaries viz, dosha-dushya sammorchana vighatanameva chikitsa and so on.

Treatment to avoid occurrence/ recurrence of disease, prashaman chikitsa, two types of treatment, six types of treatment, treatment for each doshas - vatachikitsa, pittachikitsa, kaphachikitsa. Principles of treatment in the vriddhi and kshaya of doshas. Principles of treatment of amadosha, consideration of dosha and dushya in the treatment.

Daivavyapasraya chikitsa. Yuktivyapasraya chikitsa. Satvavajaya chikitsa.

Text :

1. Ashtangahridaya Sutrasthana chapter 1, 11 to 14.
Nidanasthana chapter 16.
2. Ashtangasangraha Sutrasthana Chapter 19 to 24.
Nidanasthana chapter 16.
3. Charakasamhita Sutrasthana ch 9-11, 20, 22, 23.
Vimanasthana Chapter 4 to 8.
4. Susrutasamhita Sutrasthana Chapter 15,24.

ROGAVIJNANA AND VIKRITIVIJANANA (Pathology)**PAPER I****Part A**

1. Symptoms of increase and decrease of doshas, dhatus and malas.
2. The to and fro movement of doshas between koshta and sakha.
3. The interdependency of doshas and dushyas.
4. The etiological factors for chaya and prakopa of doshas.
5. Kriyakala - Symptoms of sanchaya, prakopa with respect to vyapanna season * Specific symptoms of prasara of doshas. Sthanasamsraya of doshas.
6. Origin of purvarupa / prodromal symptoms.
7. Signs and symptoms of kupita doshas, mode of spread, effects.
8. The three rogamargas and diseases related to them.
9. Definition and importance of vikritivijnana.
10. Dhatu avayava, koshanu nirmana - their significance in the origin of diseases and preservation of health.
11. Dual nature of diseases. Internal environment of body favourable for this duality.

12. Beeja dushti - bija dushti and diseases due to it.
13. Description of srotas.
14. Significance of srotas in pathogenesis. Description of vaigunya / derangement of srotas and their symptoms.
15. Diseases of different srotases and their causative factors.
16. Two divisions of dhatus with respect to srota - margaga upadhatuja, sthanastha.
17. Diseases of margaga dhatus related to sonita / blood. General description of deranged blood and sophia / inflammation.
18. Examination of decay and pus formation.
19. Coagulation of blood. Clotting of blood in the blood vessels siras, dhamanis etc.
20. Diseases due to involvement of localised tissues of hridaya, prana, vrikka, mutravaha, annavaha, yakrt, pliha etc.
21. Reproduction, ductless glands, vata nadi / nervous system - current important diseases.
22. Diseases due to mala pradosha.
23. Diseases due to indriya pradosha.
24. Diseases due to upadhatu pradosha.
25. Definition and general elucidation of vyadhi.
26. Role of doshas, dhatus and malas in the occurrence of disease.

27. Explanation of dosha dhatu sammurchana.
28. The cause - effect relationship between diseases and doshas.
The features of doshas and diseases.
29. Different types of origin of diseases.
30. Asraya of vyadhi.
31. Types of disease - agantuja, sarira, mansika, svabhavika types.;
adibalapravrittadi types; prakruta and vikruta types; anubandha
and anubandhya types.
32. Disease as causatives.
33. Multiple causative factors in disease.
34. Mixed symptoms in diseases. gaurava / severity and laghava of
diseases.
35. Cause for diversity of diseases.
36. The innumerability of diseases and the possible numbering.
37. The view of World Health organisation on classification of
diseases.
38. Vyadhikshamatva / immunology and its relevance.
39. Diseases and its types.
40. Eight nindita, eight mahagadas / major diseases, santarpanaja
and apatarpanja diseases / over nutrition and under nutrition.
41. Symptoms and diseases due to ojo vyapat. Ojo visramsa and
ojakshaya.

42. Arbuda and karkatarbuda / benign and malignant neoplasms.
43. Cell/tissue division in malignant tumours-general principles
44. Stages of diseases, description of ama and pakra symptoms.
45. Symptoms of sama and nirama doshas.
46. Symptoms of sama and nirama dushyas.
47. Symptoms of sama and nirama malas.
48. Dhatugatatvam. Uttaana and gambira stages.
49. Antarvega and bahirvega stages.
50. Explanation of doshapaka and dhatupaka.
51. Causes for epidemics/ janapadodvamsaka karama.
52. Explanation of occurrence of epidemic diseases.
53. Samprapti of epidemic diseases.
54. Diseases caused by environmental pollution.
55. Microbiology in the view of ayurveda and role of micro organisms in pathogenesis.
56. Contagious diseases and their causes.
57. Aupasargika roga.
58. Importance of nidana panchaka and diagnostic methods.
59. Hetu/cause - definition: types of causes: four types as sannikrishta, three types as asatmendriyarthasamyoga, three

types like dosha, vyadhi and ubhay, two types as utpadada and vyanjaka, bahya and abhyantara, two types as anubandhi and anubandha, three types based on asayapakarsha, hetu and gati, two types as prakriti and vikriti.

60. Purvarupa-purvarupa lakshana, two types - samanya/ general and visesha/ specific.
61. Rupa- rupalakshana, differentiation of rupa and vyadhi.
62. Description of upasaya and anupasaya. Difference between upasaya and chikitsa, examples. Types of upasaya-hetu viparita, vyadhi viparita, hetu vyadhi viparita, hetu viparitarthakari, vyadhi viparitarthakari, hetu vyadhi viparitarthakari.
63. Samprapti - samprapti lakshanas, classification.
64. Symptoms of upadrava/ secondary diseases and arishta/ signs of fatality.
65. Sadhyasadhyatva/ prognosis - discussion on curability and incurability of diseases.
66. Examination of patient- history of illness.
67. Three procedures in examination - darsana, sparsana and prasna.
68. Three examination as aptopadesa, pratyaksha and anumana.
69. Eight examinations viz. nadi, mutram etc. Six examinations.
70. Differential diagnosis.
71. Explanation of diseases according to vitiation in dhatus.

72. Upadhatus
73. Diseases produced by viitiation of purisha, mutra and sveda.
74. Diseases of indriyas.
75. Classification of diseases according to systems- organs.
76. Nanatmaja diseases and samanyaja diseases. 80 types of vata diseases etc.
77. International disease index/ code - relationship between ayurvedic classification and WHO coding.
78. Methods of examination - inspection, palpation, interrogation and auscultation.
79. Four types of examination - pratyaksha, anumana, aptopadesha and yukti.
80. Ten modes of examination as prakruti, vikriti, sara etc.

ROGAVIJNANA AND VIKRITIVIJNANA (Pathology)

Paper II

Detailed study of different phases of diseases in relevance to organ, sytem etc. view of pathology viz. pathology of grahani in grahani disease etc.

1. Diseases affecting rasavaha srotas- Pathogenesis of jvara and visishta jvaras.
2. Diseases affecting raktavaha srotas- Pathogenesis of rakta pitta, pandu, kamala, kumbhakamala, halimakam, vataraktam

kroshtukashirsham, sitapittam, udaram, kotha, sitala, masurika, romantika, yakrit vikaras, pliha vikaras, snayuka, slipada, phiranga and upadamsa.

3. Diseases affecting pranavaha srotas- kasa, svasa, hikka, hridayaroga, hridayasula, hridayabhighata, parsvasula, urastoya and rajayakshma.
4. Diseases affecting udakavaha srotas - atisara, pravahika, visuchika, vilambika.
5. Diseases affecting annavahasrotas- pathology of chardi, agnimandya, ajirna, anaha, adhmana, atopa, amlapitta, sula and udara roga.
6. Diseases affecting medovaha srotas - prameha.
7. Diseases affecting asthivaha srotas - sandhigata vata.
8. Diseases affecting manovahasrotas - murcha, sanyasa, apasmara unmada and atatvabhinivesa.
9. Diseases affecting vatanadi vaha srotas- avruta vata, akshepaka, urustambha, ardita, gridhrasi.
10. Diseases affecting mutravaha srotas - sula, mutrakricchira, mutraghata, ushnaata.
11. Diseases due to deficiency of vitamins.
12. Diseases affecting skin - kushta, visarpa, svitra.
13. Vyadhikshamatva- significance of infective organisms and immunization. Types, habitat, structure, staining method, and life cycle of micro organisms and parasites. Sensitivity and culturing techniques.

Practicals:**In laboratory:**

1. Examination of feaces, urine, blood and sputum.
2. X ray, scanning, ultrasonogram.
3. ECG, EMG examination.
4. Bio-chemical examination.
5. Bacteriological examination.
6. Pathological examination of margaga dhatus, sthanastha dhatus.
7. Histopathological examination according to disease and site.
8. Examination of synovial fluid, peritoneal fluid and pericar dial fluids.
9. Practical knowledge of diagnostic and therapeutic instruments.

In Hospital:

1. Examination and observation of the patient.
2. Practical knowledge of pancha nidana. atleast 20 cases.

Texts:**Paper I.**

1. Ashtangahridaya Sutrasthana ch. 1, 12-14
Nidanasthana chap. 1.
Sarirasthana chap. 5,6
2. Ashtangasamgraha Sutrasthana chap. 19, 20,24.

- Nidanasthana chap. 1.
Sarirasthana chap. 9 - 12.
3. Charakasamhita Sutrasthana chap. 10 - 12, 17 - 24.
Nidanasthana chap. 1.
Vimanasthana chap. 3-8.
Indriyasthana all chapters.
4. Susrutasamhita Sutrasthana chap. 1, 10,15,20,21, 24
Chap. 28 - 33 and 35.
Nidanasthana chap. 1
5. Madhavanidana Panchalakshana nidana.
6. Yogaratnakara Ashtasthanapariksha.

Paper II

1. Ashtangahridaya Nidanasthana all chapters.
2. Ashtangsamgraha Nidanasthana chap. 2-16.
3. Charakasamhita Nidanasthana all chapters.
Chikitsasthana ch. 3-22, 24, 26, 27
Sidhisthana chap. 9.
4. Susrutasamhita Nidanasthana chap. 2, 5-7 13.
Chikitsasthana chap. 23.
Uttaratantra ch. 39-59,61,62.
5. Madhavanidhana Madhukoshavyakhyana.

References:

1. Siddhantanidana Part I &II - Kaviraj Gananath Sen.
2. Ayurvediya vyadhivijnam - Vaidya Yadavji Acharya.

3. Doshakaranatvamimamsa - Acharya Priyavrat Sarma.
4. Nadidarsan - Pandit Tarashankar Vaidya.
5. Nadivijanan - Vidyotini tika.
6. Nadivijan - Satyadev Vasisht.
7. Nadivijanana - Gangadhar tika.
8. Rogiparikshavidhi - Acharya Priyavrat Sarma.
9. Ayurvediya rogavargikarana - Ramanath Dvivedi & G. Singh.
10. Ayurvediya nidan chikitsa
ke siddhant - Prof. Ramharsh Singh.
11. Hutchinson's clinical methods
of medicine.
12. Principles of diagnosis in
Ayurvedic treatment - Lakshmipati.
13. Principles of pathology - Dr. A. Lakshmipati.
14. Principles of Ayurveda chikitsa - Dr. A. Lakshmipati.
15. Textbook of medicine - Dr. Rustam Jal Vakil.

II B.A.M.S. PART II**Subject : 5****RASASASTRA AND BHAISHAJYAKALPANA
(Alchemy & Pharmacy)****Paper I****Part A.**

1. The origin of rasa sabda, rasadarsanam, difference between rasa and rasayana and the history of rasastra.

2. Paribhasha prakaranam/ terminology.

Lavanapanchakam, madhutrayam, amlavargam, panchamritam, panchagavya, ksheeratrayam, dravakaganam, kajali, rasapankam, rasapishti, bhavana, dhalana, avapa, nirvapa, shodhana, marana, mritaloha, apunarghava, niruttheekaram, varitara, panchamrittika etc. - explanation of these technical terms.

3. Yantras- dolayantra, damaruyantra, sthaliyantra, palikayantra, swedanayantra, putayantra, vidyadarayantra, khadayantra, patanayantra, bhootharayantra, patalayantra, khalvayantra, thulayantra, ulookhalayantra, kacchapiyantra etc. - description.

4. Mooshas- samanya moosha, vajramoosha, pakvamoosha, gosthani moosha: their description and uses: their modern forms.

5. Koshtis - chullika, angara, patala, gara and satvapataana koshtis: their modern forms.

6. Putas- mahaputa, gajaputa, varahaputa, kukkutaputa, kapotaputa, gomayaputa, kumbhaputa, valukaputa, bhootharaputa, lavakaputa their description and uses and their modern forms.

Part B.

7. The definition and synonyms of rasa, its origin, source, ores/ occurrence as compounds, natural features, kanchuka doshas etc. Good and bad characteristics for selection, sodhana, ashtasamskaras, gatis and bandhas. Preparation of hingulotha parada and the samanya sodhana of parada. Mode of preparation of kajjali, rasaparpati, lauhaparpati, tamraparpati, vyyomaparpati, swarnaparpati, vijayaparpati, panchamritaparpati, rasapushpa, rasakarpura, mugdarasa, rasasindura, makaradhwaja, siddhamakaradhwaja - their dosage, indications and mode of administration in diseases.

8. Classification, description, source, dosage, qualities and therapeutic uses of maharasas, uparasas and sadharana rasas. Preparation of swarnavanga, rasamanikya, swetaparpati etc. their dosage, qualities and therapeutic uses.

9. Dhatus and upadhatus- description, source, types, sodhana, marana, louhitikarana, amritikaranam, dosage, qualities, therapeutic uses of swarna, rajata tamra, loha: vanga, naga, yasada putilohas: kamsya pittala - mishralohas: satvapatana of bhunaga and mayurapiccha.

10. Ratnas and uparatnas - manikya, mukta, pravala, tarkshya, pushparaga, vajra, neela, gomeda, vaidurya - ratnas: vaikranta, suryakanta, chandrakanta, rajavarta, peroj, sphatika, vyoma, ashmapataka, rudhiraputtika, sugandhika, trinakanta- uparatnas: sukti, sankha, khadika, dughapashana, godanti, mrigasringa, kauseyasma, badarashma - sudhavarga- their, description, source, sodhana, marana pishtikarana dosage, qualities, and therapeutic uses.

11. Vishas and upavishas - nature, qualities general sodhana, therapeutic uses, mode of use etc.

12. Rasasala nirmana - construction of building for pharmacy- according to the drugs and cosmetics act of India. Knowledge of rules and sub-rules for manufacturing medicines.

Practicals:

1. Uses of yantras - measuring scales for liquids, length etc. devices to measure heat,; dola, damaru, sthali, putapaka, valuka, khata, vidyadhara, patala, bhudhara, khalva, moosha, kupi yantras.

2. Uses of suryaputa, mahaputa, gajaputa, varahaputa, kukkuda, kapota, lavaka putas and koshtis.

3. Parada sodhana, mudgarasa, rasapushpa, kajjali.

4. Maharasas - Abhraka sodhana, dhanyabhrakanirman; abhrakabhasma, Svarnamakshika sodhana, marana, Silajatu sodhana, thuthasodhana.

5. Uparasas - Gandhakasodhana, gairikasodhana, kasisa sodhana and marana, kamkshi sodhana, haritala sodhana, anjanasodhana.

6. Sadharana rasas - Malla sodhansa, hingula sodhana.

7. Sudhavarga - Sodhana and marana of sankha, sukthi, varata; sringa bhasma, gadanti bhasma.

8. Dhatu varga - Tamra sodhana, marana and amrutikarana; sodhana and marana of naga, vanga and yasada. Mayurapiccha bhasma, lohabanupaka, sthalipaka, putapaka; mandura sodhana and bhasmikarana; misradhatu sodhana, svarnavanga and yasadapushpa.

9. Ratnavarga - Sodhana, marana and pishtikarana of mukta, pravala, manikya; Trinakantamani pishti, akeeka pishti, jaharmohar pishti.

10. Khaivayogas - hingulesvara rasa, tribhuvanakirti rasa, putapakva vishamajvarantaka rasa, vasantamalathi rasa, mahalakshmvilasa rasa, anandabhairavi rasa, svasakuthara rasa, vasantakusumakara rasa, lokanatha rasa, pravalapanchamrita rasa, chandramrita rasa, soothasekhara rasa, chandrakanta rasa, jalodaradi rasa, hridayarna rasa, yogendra rasa, vriddha vatachintamani rasa, icchabedi rasa, punarnavamandoora, navayasa loha, saptamrita lauha, chandanadi lauha, kasturibharav rasa, chandraprabhavati, gandhaka rasayana.

11. Parpati - panchamritaparpati, rasaparpati, bolaparpati, swetaparpati.

12. Kupipakvakalpas- rasasindura, makaradhvaja, sameerpannakaras

13. Dravakalpa - sankha drava.

14. Drutikalpa - gandhaka druti.

15. Rasayanikaparikshana of parada, gandhaka, loha, tamra, svarna, naga, vanga, sudha, malla, sendriya padartha.

RASASASTRA AND BHAISHAJYAKALPANA (Alchemy & Pharmacy)

Paper II

Part A

1. The origin of bhaishajyakalpanas, its history and gradual development, the difference between oushadhi and bhaishajya.

2. The fundamental principles of bhaishajyakalpana. shelf life/ expiry period of different kalpas. preservation of oushadha kalpas,

knowledge and uses of modern methods of preservation.

3. Knowledge about poutava, dravya, paya mana/ measures. Comparison between ancient and modern units of measurements. The collection of dry and fresh drugs, dvigunya/ double measurement of ardra and drava dravyas; the criteria for selection of oushadhi dravyas, methods of collection, storage and preservation; examination testing of oushadha kalpas.

4. The introduction, definition, preparation, dosage, therapeutic uses, anupana/ vehicle of the following oushadha kalpas: svarasa, kalka, kvatha, phanta, hima, shadangapaniya, ushnodaka, tandulodaka, laksharasa, mamsa rasa, mantha, oushadha siddha paniya, oushadha yusha, arka, panaka, pramathya, rasakriya, phanita, avaleha, prasha, ghanasatva, gudapaka, churna, vatika, gutika, chandrika, vataka, pinda, modaka, varti, gudavarti, guggulu kalpa, lavanakalpa, mashikalpa, ayaskriti, putapaka kshirapaka, kshara, mamira.

Part - B

5. Preparation of oils - sidhasnehapaka vidhi, classification of snehas, moorchana vidhi, paka of taila and ghrita; the lakshana of snehapaka, the rules of snehapaka, its application, use, dose suitable time for use. Preparation of brahmighrita, jatyadi ghrita, narayana taila, panchaguna taila and their uses.

6. Sandhana kalpana - classification and description of sandjhana kalpanas - asava, arishta, seedhu, varuni, surasav, sukta, prasanna, kadambari, medaka, jagala, maireya, tushodaka, sauviraka, kanchika, neera, dhanyamla their qualities, dose, uses, mode of administration and knowledge of proper sandhana. Preparation of draksharishta, dasamoolarishta, asokarishta, arjunarishta, kumaryasava, chandanasava their qualities and uses.

7. Pathyakalpanas - manda, peya, yavagu, vilepi, krisara, anna, bhaktas, yusha, rasa, khanda, kambalika, raga, shadava, vadyodana, sikta, veshavara, takrodaka, udasvit mathita, katvara, dadhi kalpa - preparation, qualities, dosage, suitable time for administration and therapeutic uses.

8. Lepavidhi- classification, preparation and application. Preparation and mode of use of satadhauta and sahasradhauta ghrita, malahara, upanaha, siddha taila.

9. Netra kalpas - preparation and knowledge of use of drava, anjana, aschyotana, vidalaka, tarpana and putapaka. Mukhalepas, gandusha, kabala, nasya, pradhamana, dhoomapana.

10. Vastikalpa - preparation, properties and uses of different types of vastis.

11. Description of the preparation and the uses of the following yogas:

Chyavanaprashaavaleh, vyaghriharitaki, vasavaleh, sitoppaladi choorna, talisadichoorna, hinguashtakachoorna, lavanabhaskara choornam sanjivani vati, eladi vati, lavangadi vati, sankha vati, rasonavati, chitrakadi vati, chandraprabha vati, arogyavardhini vati, kaishora guggulu, simhanada guggulu, yogaraja guggulu, mrityunjaya rasa, anandabhairava rasa, tribhuvanakisti rasa, hinguleshvara rasa, Vasantamalati rasa, vasantakusumskara rasa, hridayarnava rasa, svasakutara rasa, rajamriganka rasa, hemagarbhapotali rasa, putapakva vishamajwarantaka lauha, sarvajwarahara lauha, sutasekhara rasa, vatakulantaka rasa, brihatvatachintamani rasa, jalodarari rasa, icchabedi rasa, ramabana rasa, punarnava mandoora, saptamrita lauha, navayasa lauha, kumarakalyana rasa, garbhapala rasa, pretapalakeshvara rasa, kasturibhairava rasa, lakshmililasa rasa - three types.

Practicals:

1. Introduction and construction of the relevant instruments for bhaishajyakalpana.
2. Knowledge of instruments used in ancient and modern pharmacy.
3. Knowledge of collection, storage, preservation, distribution and price determination of prepared medicines.
4. Preparation of the following yogas:

Svarasa	ardraka svarasa, talisvarasa.
Kalka	nimba kalka, rasona kalka.
Kvatha	rasnadi kvatha, punarnavashtak kvatha.
Kshirapaka	arjuna kshirapaka, rasona kshirapaka.
Mantha	Knarjuradi mantha.
Udaka	tandulodaka, shadanga paniya.
Rasakriya	guduchighana.
Avaleha	chyavanaprasha, vasavaleha, kushmandavaleha, vyaghriharitaki.
Sarkarayoga	vanapsa sarkara, parushaka sarkara.
Tailakalpa	mahanarayana taila, mahamasha taila, bala taila.
Tailapatana	bhallataka taila.
Putapaka	vasaputapaka, syonaka putapaka.

Sitakashaya	dhanyaka hima, saribadi hima.
Phantakashaya	sudharsana phanta, panchakola phanta.
Panaka	chinchā panaka, chandana panaka.
Visishtakalpa mathya.	laksharasa, oushadha yusha, oushadha
Khandapaka	haridra khanda, narikela khanda. soubhagya sunti paka, musali paka.
Snehakalpa	taila murchana, ghrita murchana.
Ghritapaka	Jatyadi ghrita, kshirashadpaia ghrita, triphala ghrita, satadhauta ghrita.
Asavarishta	draksharishta, dasamoolarishta, sarasvatarishta, kumaryasava.
Choorayoga	sitopaladi choorna, hinguashtaka choornam.
Gugguluyoga	yogaraja guggulu, triphala guggulu.
Lavanayoga	narikela lavana, arka lavana.
Mashikalpa	triphala mashi, hastidanta mashi.
Malaharayoga	gandhaka malahara, sarjarasa malahara.
Nasyayoga	shadbindu taila, katphala taila.
Gandushayoga	jatyadi kashaya, asrimedadi taila.
Vastiyoga	piccha vasti, asthapana vasti, anuvasana vasti, uttara vasti.

Sukthavarga	Kanjika nirmana.
Vatiyoga	Chitrakadi vati, lavangadi vati, vyoshadi vati.
Ksharayoga	apamarga kshara, snuhi kshara.
Satvayoga	amrita satva, udumbara sara.
Vartiyoga	chandrodaya varti, phala varti.
Upanaha	atasi upanaha.
Lepayoga	dasanga lepa, doshaghna lepa.
Dhoopayoga	dasanga dhoopa, arshoghna dhoopa.
Karnapoorana	apamarga ksharataila
Aschyotana	nisadi netrabindu.
5.	Dravyasodhana - purification of drugs - gugulu, hingu, ahiphaena, datura, vatsanabha, kupilu, gunja, jepala sodhana.
6.	Visit to any three pharmaceuticals to observe drug manufacture.

Texts:**Paper I.**

1. Rasaratnasamuchaya Chapters 1 to 11.

Paper II.

1. Ashtangahridaya Kalpasthana chapter 6.
2. Ashtangasangraha Kalpasthana chapter 8
3. Charakasamhita Sutrasthana chapter 4, 25.
4. Susrutasanghita Chikitasasthana chap 31.

References:

1. Ayurvedaprakash Gulrajsharma Mishra.
2. Rasendrasampradaya Pandit Hajarilal Sukla.
3. Rasaratnasamuchaya
(Hindi version) Dattatreya Anand Kulkarni.
4. Rasendrasarasamgraha
5. Rasatarangini Sadanand Sharma.
6. Rasamritam Vaidya Yadavji.
7. Bharatiyarasasastra Pandit Visvanath Dvivedi.
8. Rasayansar Pt Shyamasundaracharivaishya.
9. Rasamrita Dr. Tryambakanath Sharma.
10. Paradavijnaniyam Vasudev M. Dvivedi
11. Abhinavarasasatra Somadev Sharma.
12. Ayurvediyarasastra Siddhanandan Mishra
13. Rasadarpan Prof Baghavandas swamy.
14. Rasasastraprayogika Srivastav Yadav Saxena
15. Bhaishajyakalpanavijnan Dr. Avadhvihari Agnihotri.
16. Bhaishajyaratnavali comm. of Ambikadattasastri.
17. Sharangadharasamhita
18. Pratyaksh oushadhinirman Visvanath Dvivedi.
19. Asavarishtavijnan Dr. Pakshadhar
20. Vaidyakaparibhashapradip Indradev Tripathi.
21. Rasabindu Sanjay Sharma
22. Adyathan rasastra Dr. R.K. Goyal
23. Charakasamhita, Susrutasamhita, Ashtangahridaya.
24. The drugs and cosmetics Act of India.
25. Pakadarpan Dr. I.D. Tripathi.

II BAMS Part II
Subject 6

DRAVYAGUNA VIJNANAM
(Pharmacology)

PAPER I

Part A

1. Definition of dravyagunasastra. General description of saptapadartha - dravya, rasa, guna, virya, vipaka, prabhava and karma.
2. Definition of dravya, its panchabhautik composition, therapeutic importance. importance of dravya with justification.
3. Classification of dravya viz. living and non-living, on cause and effect basis, based on origin, based on source, based on use, based on mode of use, based on rasa/ taste, based on virya/ ushna - sita, classification as vargas viz. chandanadi, agurvadi. Classification based on action on doshas - trividha - samana, kopana, svasthahita; dvididha - sodhanam and samanam, Classification based on origin of family, size, shape and age, classification into ganas/ groups as described by Charaka, Susruta and Vaghbata. Classification in other nighantus.
4. Derivation of guna, lakshana, meaning, definition and classification. Description of gurvadi and paraadi gunas with examples. The importance of guna.
5. Derivation of rasa, meaning, enumeration, opinion of different acharyas regarding the number. Description about the

panchabhautik composition of rasa, process of origin, difference between rasa and anurasa, importance of rasa, its physical constitution, action of rasa in different seasons/ ritus, description of rasopalabधि hetu, rasarupantaram/ transformation of ras. Description of soumya and agneya rasa, properties of each rasa and their action, classification of rasas as uttama, maddhyama and adhama. Action of rasas on doshas - samana, kopana actions on doshas and dhatus. Mode of use of rasas with respect to its therapeutic application and dietary purposes.

6. Derivation and lakshana/ definition of vipaka. Opinion of different acharyas on vipaka and its settlement. Classification of vipaka based on guna and karma. Cause for vipaka. Difference between vipaka and rasa. Importance of vipaka.
7. Derivation and lakshana/ definition of virya. Opinion of different acharyas on virya and its settlement. Classification of virya, its enumeration. Description of bhutotkarsha virya. Action of virya, cause for virya, different arguments on elucidation of virya. Importance of virya with examples.
8. Description and lakshana/ derivation of prabhava. Explanation of action due to prabhava with suitable examples. Description of vichitra pratyarabda. and Samanya Pratyarabda Importance of prabhava.

Part B

9. Explanation of the mutual relation-ship of dravyasrita gunasrasa, guna, virya, vipaka, prabhava.
10. Definition of karma, lakshana/ derivation. Description of karma according to ancient and modern principles. Classification of karma. Explanation of different karmas with respect to different

dravyas. Description of the following karmas with examples dipanam, pachanam, samsodhana, samsamana, anulomana, sramsana, rechana, bhedana, chedana, lekhana, grahi, sthambana, madakari, pramadi, abhisyadi, vyavayi, vikasi.

11. Study of the following group of drugs with respect to its property, action, morphology/ structure and family. - dasamoola, vividha panchamoola, panchavalkala, panchapallava, triphala, trikatu, trimada, chaturushna, panchakola, shadushna, chaturbija, jivaniya gana, ashtavarga, trijata chaturjata, panchatikta, amlapanchaka, mahapanchavisha and upavisha. Jangama dravyas - kshirashtaka, mutrashtaka, pitapanchaka. Bhauma dravyas- lavana panchaka, ksharadvaya, ksharashtaka.
12. Synonyms of dravya and the basis for nomenclature. Classification of desa. Method of collection of dravya from various places. Collection based on useful parts. Importance of the time of collection. Collection based on virya. Method of collection of ahara dravya, jangama dravya. Preservation of collected dravya, drug store, preservation of fresh and dry drugs, weights and measures ancient and modern measures-pouthava, dravya, paya mana.
13. Impurities in dravyas. Purification of dravyas. Importance and various methods. Knowledge about adulterants.
14. Definition of prasastha bhashaja/ the best drug. Modes of use of dravya. Description of official parts. Methods of samyoga/ combination and viyoga/ subtraction of dravya, compounding of drugs, posology, determination of age, strength, sex, agni, dosha kopa, dushya, vyadhi, nature of disease, koshta, prakriti, effect of repeated use/ abhyasa of dravya, satva, nature of desa, time of administration, form of drug etc before deciding dosage.

Definition of anupana. Bhaishajya kalas. Description of routes of administration of drugs. Prescription writing.

15. Brief description of dravyaguna sastra. References about the basis of dravyagunasastra in veda and samhitas. Narration of dravyagunasastra in the history of drurveda.
16. Medieval period - authors - Description of Ashtanga nighantu, paryayaratnamala, Dhanvantari nighantu, Sothala nighantu, Hridaya dipika, Siddhamantraprakara, Madhavakrita dravyaguna, Chakrapanikrita dravyaguna samgraha grantha, Madanapalanighantu, Rajanighantu, Kayyadevanighantu etc. and their contents in brief. Introduction to books based on modern views of pharmacology.

DRAVYAGUNAVIJNANAM (Pharmacology)

PAPER II

Part A

1. Description of the gana, kula/ family, different synonyms, physical features/ taxonomy; their actions based on doshas, therapeutic uses, specific dosage, kalpas/ preparations, compositions/ compounds; removal of toxic properties of drugs/ plants having toxicity and identification of the following dravyas:

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| 1. vatsanabha | 7. varuna |
| 2. ativisha | 8. tuvaraka |
| 3. guduchi | 9. nagakesara |
| 4. pata | 10. sala |
| 5. daruharidra | 11. baladvaya |
| 6. ahiphena | 12. nagabala |

13. salmali
14. gokshura
15. charngeri
16. nimbuka
17. bilva
18. guggulu
19. tejohva
20. nimba
21. jyotishmati
22. karkatasrngi
23. bhallataka
24. sigru
25. palasa
26. aparajita
27. madhuyashti
28. yavasa
29. saliparni
30. prishniparni
31. karanja
32. latakranj
33. kapikacchu
34. sarapunkha
35. bakuchi
36. kanchanar
37. asoka
38. sirisha
39. aragvadha
40. khadira
41. haritaki
42. vibhitaki
43. amalaki
44. lavanga
45. indravaruni
46. dadima
47. dhataki
48. jambu
49. kushmanda
50. mandukaparni
51. patola
52. hingu
53. satapushpa
54. misreya
55. dhanyaka
56. ajamoda
57. yavani
58. jiraka
59. krsnajiraka
60. manjishta
61. madanaphala
62. gandhaprasar
63. jatamamsi
64. bhringraj
65. pushkaramula
66. kushta -ini

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| 67. chitraka | 95. dronapushpi |
| 68. viddanga | 96. punarnava |
| 69. lodhra | 97. apamarga |
| 70. saptaparna | 98. maricha |
| 71. sarpagandha | 99. pippali |
| 72. kutaja | 100. jatiphala |
| 73. karavira | 101. tvak |
| 74. arkadvaya | 102. karpura |
| 75. sarivadvaya | 103. agaru |
| 76. kupilu | 104. chandana |
| 77. kiratatikta | 105. eranda |
| 78. sankhapushpi | 106. danti |
| 79. trivrit | 107. arjuna |
| 80. kantakari | 108. udumbara |
| 81. brihati | 109. bhanga |
| 82. aswagandha | 110. devadaru |
| 83. dhatura | 111. talisapatra |
| 84. vasa | 112. haridra |
| 85. katuki | 113. ardraka |
| 86. brahmi | 114. eladvaya |
| 87. syonaka | 115. rasona |
| 88. patala | 116. kumari |
| 89. parasikayavani | 117. satavari |
| 90. nirgundi | 118. vacha |
| 91. agnimantha | 119. musta |
| 92. bharngi | 120. usira |
| 93. ghambhari | 121. pippalimoola |
| 94. tulasi | 122. palandu |

2. General information and gunas of the following drugs:

1. mamira
2. nirvisha
3. upakunchika
4. khandira
5. chavya
6. champaka
7. sitaphala
8. kashtdar
9. patalagarudi
10. giriparpata
11. kamalam
12. kumudam
13. sajanasi
14. makhanam
15. parpata
16. sarsapa
17. rajika
18. chandrasura
19. khubakala
20. todari
21. moolakam
22. tilaparni
23. vyaghranakhi
24. himsra
25. karira
26. vanapsika
27. vikantaka
28. punnaga
29. surapunnaga
30. tamala
31. sarja
32. vrksamla
33. asvakarna
34. latakasturi
35. parisha
36. khatmi
37. karpasa
38. muchukuntam
39. pisachakarpas
40. avartani
41. parushakam
42. gogaruki
43. gudasarkara
44. dhanvana
45. atasi
46. chunchu

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| 47. karmaranga | 72. neeli |
| 48. bijpurak | 73. sankhapushpi |
| 49. suddhama | 74. asmantaka |
| 50. haaramala | 75. goraksha |
| 51. amlavetasa | 76. mudgparn |
| 52. aralu | 77. mashaparni |
| 53. indugi | 78. bijaka |
| 54. bolam | 79. paribadra |
| 55. sallaki | 80. simsipa |
| 56. kunduru | 81. birataru |
| 57. mamsarohini | 82. ambika |
| 58. badaram | 83. sami |
| 59. unnabha | 84. patranga |
| 60. draksha | 85. chakramarda |
| 61. asthisamharak | 86. kasamarda |
| 62. arishta | 87. raktachandana |
| 63. kosagra | 88. methika |
| 64. amra | 89. vidara |
| 65. tindidika | 90. chaksushya |
| 66. priyalam | 91. kulatha |
| 67. rumimastangi | 92. tinisa |
| 68. ankoda | 93. irimeda |
| 69. gunja | 94. markandika |
| 70. agastyam | 95. avartaki |
| 71. jayanti | 96. babbula |

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| 97. lajjalu | 122. kadamba |
| 98. taruni | 123. haridra |
| 99. vatada | 124. tagara |
| 100. padmakam | 125. damanaka |
| 101. pashanabheda | 126. chauhara |
| 102. parnabija | 127. sahadevi |
| 103. silhaka | 128. mundi |
| 104. dhava | 129. akarakaraba |
| 105. tailaparni | 130. aranyajiraka |
| 106. hijjala | 131. kukundara |
| 107. madayantika | 132. jhandu |
| 108. srinkata | 133. ayapanam |
| 109. saptachakra | 134. dugdhapheni |
| 110. erandkarkati | 135. cchikkika |
| 111. trapusha | 136. kasani |
| 112. kututumb | 137. rasna |
| 113. kosataki | 138. madhooka |
| 114. jimuta | 139. bakula |
| 115. damargava | 140. lodhra |
| 116. ikshvaku | 141. parijataka |
| 117. bimbi | 142. jathi |
| 118. karavelaka | 143. yuthika |
| 119. garjara | 144. tinduka |
| 120. choraka | 145. peelu |
| 121. nadihingu | 146. karamardaka |

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| 147. meshasringi | 173. joopha |
| 148. jivanti | 174. parnayavani |
| 149. sleshmahara | 175. parushaka |
| 150. kataka | 176. asvago |
| 151. trayamana | 177. gorakshamajja |
| 152. moorva | 178. dhukrama |
| 153. gojihva | 179. peetamoola |
| 154. adhpushpi | 180. ishvari |
| 155. vridhdharu | 181. keetamari |
| 156. krsnabij | 182. sugandhvastuk |
| 157. akhuparni | 183. kankola |
| 158. amaravalli | 184. patranga |
| 159. kakamachi | 185. medasaka |
| 160. katuvi | 186. bamdaka |
| 161. tamraparna | 187. kampillaka |
| 162. rohtaka | 188. snuhi |
| 163. hritpatri | 189. putrajivaka |
| 164. suchi | 190. bhummyamalaki |
| 165. tilam | 191. svarnakshiri |
| 166. saireyaka | 192. kankusht |
| 167. kokilaksha | 193. jayapala |
| 168. kalamegh | 194. nagadanti |
| 169. uttanganam | 195. vata |
| 170. gandira | 196. asvatha |
| 171. priyangu | 197. plaksha |
| 172. pootiha | 198. chiribilva |

199. kakodumbara	225. ushava
200. tooda	226. langali
201. panasa	227. surinjana
202. akshodaka	228. musali
203. katphalam	229. narikela
204. mayaphal	230. pooga
205. bhoorja	231. tala
206. soma	232. kharjura
207. sarala	233. raktaniryasa
208. hapusha	234. ketaki
209. karpur	235. soorana
210. amragandhiha	236. manaka
211. tavakshiram	237. kumbhika
212. sati	238. kaseruka
213. nagadamani	239. vamsa
214. mahabarivaca	240. kusa
215. kebuka	241. sara
216. kadali	242. kasa
217. anannas	243. durvadvaya
218. sudarsana	244. nala
219. kumkuma	245. rohisha
220. talamula	246. hamsaraja
221. dvipantaravaca	247. mayurasikha
222. palandu	248. saileya
223. vanapalandu	249. saivala
224. varahi	250. cchatrakam

Part B

1. Identification, guna, karma and uses of the following drugs of animal origin.
 1. Kasturi 2. gorochana 3. putikhattasi 4. mrigasringa
 5. agnijara 6. mukta 7. pravala 8. sankha
 9. sukthi 10. sambhooka 11. varatika 12. angarasa

2. Identification, guna, karma and uses of the following groups:
 1. Jalavarga 2. dugdhavarga 3. madhuvarga
 4. ikshuvarga 5. tailavarga 6. madyavarga
 7. moolavarga 8. sukadanyavarga 9. samidhanyavarga
 10. mamsavarga 11. lavanavarga
 12. aharopayogivarga.

3. Identification - taxonomical study of the following plants:
 1. guduchi 2. manjishta 3. kutaja 4. dhatura
 5. vasa 6. pippali 7. arjuna 8. anantamoola
 9. asvagandha 10. satavari.

4.
 - a. Adulteration of drugs: knowledge of adulterants.
 - b. Knowledge of mode of action of the drugs in the body.
 - c. Availability of drugs, collection time, different routes of use of drug, prescription writing etc.
 - d. Improper combination of drugs/ vishama samyoga.
 - e. Dosage of drugs, toxicity due to intake in higher doses.

- f. Knowledge of systemic action of modern medicines, their effects and defects, prevention of the defects in the view of ayurveda, secretions of endocrinal glands, sulba/ copper drugs, vitamins, special medicines, antibiotics.
- g. Basic knowledge of pharmacological trials.

Practicals:

1. Concise essay of not more than 25 pages on any one drug.
2. Study of the guna, karma of a drug on a patient in hospital.
3. Knowledge of identification of the following drugs:

1. Stem	-	guduchi	manjishta.
2. leaf	-	markadika	ghritakumari
3. flower	-	lavanga	nagapushpa
4. fruit	-	pippali	madanaphala
5. seed	-	kupilu	vidanga
6. bark	-	arjuna	kutaja
7. resin	-	hingu	guggulu
8. jangamadravya-			madhu
4. Herbarium made of a collection of fifty local plants and fifty non-local plants for submitting in the practical examination

Texts:**Paper I**

1. Ashtangahridaya Sutrasthana Chap. 1,5,6,9,10,15
Kalpasthana Chap. 6.
2. Ashtaangasangraha Sutrasthana Chap. 6,13 to 18.
Kalpasthana Chap. 8.
3. Charakasamhita Sutrasthana Chap. 2,3,4,26,27.
Vimanasthana Chap. 8
4. Susrutasamhita Sutrasthana Chap. 38 to 42, 45.

Paper II

1. Ashtangahridaya Sutrasthana Chap. 5,6
2. Ashtangasangraha Sutrasthana Chap. 6,7
3. Charakasamhita Sutrasthana Chap. 27.
Chikitsasthana Chap. 1
4. Susrutasamhita Sutrasthana Chap. 46.

References:

1. Dravyagunaivjnan sachitra I & II - Acharya Priyavrat Sharma
2. Kriyatmak oushadhiparichay - Acharya Visvanath Divedi
3. Nighantu adarsh part I & II - Vaid Bapalal.
4. Dravyagunavijnana Part I & II - Acharya Yadavji Trikamji.

5. Oushadhi vijnansastr - Acharya Visvanath Dvivedi.
6. Vanoushadi darsika - Vd. Thakur Balvant Singh.
7. Bhavaprakash nighantu
8. Introduction to dravyagunavijnan - Acharya Priyavrat Sharma.
9. Vanoushadhi darsika - Dr. Ramsuseel Singh.
10. Yunanai dravyagunavijnan - Hakim Daljit Singh.
11. Ghosh materia medica - R. Ghosh
12. Priyanighantu - Acharya Priyavrat Sharma.
13. Bhaishajyagunavijnanan - Dr. L. Narayan Singh.
14. Revelant parts from Charaka, Susruta and Vaghbata granthas.
15. Relevant parts from modern pharmacology text book.

III B.A.M.S. Part I
Subject : I (Paper II & III)

KAYACHIKITSA
(General Medicine)

Part : I

PAPER II

Mythological description of origin of jwaram. Description of jwara in Vedas. Names of jwara that occur in different living beings. Definitions, synonyms, etymological interpretation and classification of jwara.

Nija jwara, agantu jwara, sama jwara, punaravartaka jwara, samavegi jwara, vishamavegi jwara, muktanubandhi jwara, sannipata jwara and its thirteen types, symptoms and treatment of sannipata jwaras mentioned in other tantras - vispharaka, asukari, bhallu, vaidarika, yamya, krakascha, karkataka, sammohaka, palaka, kuta-palaka, pralapa, raktashtivi, seetanga, tandrika, bhugnanetra, abhinyasa, jihvaka, sandhiga, antaka, rugdaha, chittavibhrama, karnika, kantakubjaka, kumbhipaka, pronurnava, pralepi, antardaha, dandapata, enidaha, haridra, ajaghosha, bhutahasa, yantrapeeda, sanyasa, samsoshi etc.

Special treatment principles of sannipata jwara - etiology, symptoms, pathogenesis and treatment of manthara jwara, antrika sannipata jwara, swasanaka jwara, utphullika, sleshaka jwara and akshiponaka.

Types of vishama jwara, their etiology, symptoms, pathogenesis and treatment. Description of satata, santata, anyedushka, tritiyaka, chaturtaka and knowledge of their types along with viparyayas - different opinions. Etiology, pathogenesis, symptoms and treatment

KAYACHIKITSA
(General Medicine)

PAPER III

Knowledge of etymology definition, etiology, pathology, clinical features and the treatment of prameha, mutrakricchra, mutraghata, asmari, udarakrimi, hridroga etc.

Knowledge of etiology, pathology, clinical features and treatment of vatavyadhis.

Knowledge of etiology, pathology, clinical features and treatment of vatarakta, urusthambha, sthoulya, karsya, plihavikara, yakritvikara, panatyaya, paramada, panajirna, kushta, kshudrakushta, kshudraroga, seetapitta, udarda, kota, visarpa, sphota, granthi, gandamala, galaganda, arbuda, apachi, snayuka, upadamsa, phiramga, sukradosha.

Text:

1. Ashtangahridaya	Sutrasthana	ch. 14
	Chikitsasthana	ch. 7,11,12,18 -22.
	Uttarasthana	ch. 29 - 34.
2. Ashtangasangraha	Chikitsasthana	ch. 9,13,14,20- 24
	Uttarasthana	ch. 34 - 39.
3. Charakasamhita	Sutrasthana	ch. 21.
	Chikitsasthana	ch. 6,7,21,24,26-30
	Siddhisthana	ch. 9.
4. Susrutasamhita	Sutrasthana	ch. 15.
	Chikitsasthana	ch. 4,5,7, 9 -13, 18 -21.
	Uttarasthana	ch. 43, 47, 54, 58, 59.

III B.A.M.S. Part I**Subject : 2****PRASUTITANTRA AND STRIROGA OBSTETRICS
AND GYNAECOLOGY.
(Obstetrics & Gynaecology)****Paper I****Part A**

1. Strisarira vijnanam - anatomy and physiology of female reproductive system.: Meaning and interpretation of the word stri. Different stages of stri according to age. Sroni, asayas, yonipesi, srotas, stana, dhamani, garba. Description of these according to their prakriti and vikriti.
2. Rajovijnaniyam - ovulation and menstruation.: Strisukla, raja, ritukalam, rajasvala, ritumati, rajapravrittupramana, svarupa, karya. Rajonivrutti, aartava - utpattisthana, pramana, karya, svarupa. Mutual relationship among stana, artava and stanya.
3. Garbhavijnanam - knowledge of pregnancy/ fetus. Garbhavakranti, definition of garbha, description of sukra, essential factors for formation of garbha, garbhadana, shaddhatvatmaka purusha, garbhahetu purusha, various causes for garbha bhavotpatti, origin of atmasvsarupa, signs of gargha, symptoms and test, shape of garbha, monthly development of garbha, development of organs in garbha, nutrition of garbha, formation of apara, disorders of apara, garbhopakarama, nabinadi, normal and abnormal garbha, normal lie of garbha, position, reasons to substantiate why garbha does not breathe, cry, urinate or defecate.

4. Garbhiniyjaniam - knowledge of the pregnant woman. Signs and symptoms of sadyogarbhā, pumsavanavidhāi, causes and signs of garbhā, factors destructive to garbhā, importance of paying regard to dauhrīdā during pregnancy care, - problems due to disregard for dauhrīdā, monthwise care of pregnant women.
5. Garbhavyapat: Garbhasrava- abortion, garbhapata - miscarriage, upavishtaka, nagodara, leenagarbhā, moodagarbhā, premature/ preterm labour, delayed labour, garbhopadrava/ complications. Signs, symptoms, after effects, of sosha, hrillasa, cchardi, sotha, aruchi, atisara, vaivarnya, pandu, kamala, vibandha, parikartika, parsvagraha, mukhapaka, akshepaka, hritsula, svasa, kasa, hikka, mutragraha, vatagulma, yonigulma, udavarta, garbhini makkalam, yoni samvaranam, garbhajanya vishamayata/ toxemia of pregnancy, mritagarbhā. Post-partum haemorrhage, anyonya garbhā.
6. Garbhiniyavastha: General examination, examination of blood pressure, pulse, weight, blood, faeces, urine, vaginal discharge, instructions for healthy pregnancy, maintenance of normal health of pregnant woman, educational programme - food, acts, daily routines.

Part B.

7. Prasavavijnana/ labour: Definition/ description of prasava, duration, hetu/ cause, symptoms and signs of asannaprasava/ onset of labour, avastha/ stage, prasavapatras, signs of upasthita prasava, sutikagara pravesa/ labour ward, prasavakala avasthaprabhanada - care of delivery, care immediately after delivery, care of the new born.

8. Prasave vyapat.: Garbhasanga, aparasanga, post- partum, haemorrhage, delayed labour, garbhavasada, induced labour.
9. Sutikavijnana.: Sutikakala/ peurpurium, changes occurring during sutikakala, vyavastha, sutikagara, number and causes of sutikarogas, symptoms, prognosis and treatment. Stanya/ breast milk, lakshanas of suddha stanya, examination, stanyadushti, alpapravrutti, prachura pravrutti, their causes and treatment; family welfare, visishta vyavasthas included in family welfare, education, instruction, importance and necessity of family planning, programmes, means and procedures, medicines - natural, artificial, chemical, mechanical, hormonal, surgical.

Moodagarbha, definition, samrpapti, causes, signs and symptoms, types, prognosis, treatment, utkarshana, apakarshana, sthanapavarthanam, bhedana, chedana, peedana, rijukarana, darana, garbhasanku nirharana, kukshipadana.

**PRASUTITANTRA AND STRIROGA OBSTETRICS
AND GYNAECOLOGY**

PAPER II

Part A.

1. Artava/ menstruation, rajotpatti, rajaksinata, rajovridhi rajodushti, kashtartava/ dysmenorrhoea, rajakshaya/ oligomenorrhoea, sukrotpatti/ ovulation. Lakshanas of suddhasukra, sukradushti and treatment. Nashtartava raktapradara/ menorrhagia metrorrhagia, twenty yoni rogas, yonikanta, yoniarsas, niruddhayoni, karkatarbuda, garbhasayarbuda/ cancer of uterus. Causes of vandhyatva/ infertility - sterility, types, abnormalities in ubhaya lingas. Causes, symptomatology and treatment.

Part B.

1. Stanarogas/ diseases of breast - stanakeela, stanarbuda/ cancer of breast, stanavidradhi/ breast abscess, general gynaecological disorders. Tridoshajanya raktapradara, asadhyaraktagulma, dushtartava etc. Methods for treatment of gynaecological disorders - lepana, uttaravasti, pichu, varti, dhoopana, dhavana, dahana.

2. Sastrakarma/ surgery - dialatation of cervix, curettage of uterus, cauterisation of cervix, relocation of cervix?. general description of hysterectomy.

3. Important medicines used in striroga chikitsa, their ingredients. Welfare measures for women and children.

Practicals:

1. Clinical training in Prasuti-striroga/ obstetrics and gynaecology department in the hospital.
2. Observation of 10 cases in labour, practical handling of delivery.
3. Case history sheets of 10 gynecological cases.
4. Knowledge of contraceptive methods.
5. Instruments used in gynaecology and obstetrics.
6. Demonstration / exhibition of models.

Texts:**Paper I.**

- | | |
|---------------------|--|
| 1. Ashtangahridaya | Sarirasthana chap. 1,2. |
| 2. Ashtangasangraha | Sarirasthana chap. 1-4. |
| 3. Charakasamhita | Sarirasthana chap. 2-4, 8. |
| 4. Susrutasamhita | Sarirasthana chap. 2-4, 10.L
Nidanasthana chapter 8, 10
Chikitsasthana chap. 15, 17. |

Paper II

- | | |
|---------------------|---|
| 1. Ashtangahridaya | Sutrasthana chap. 19 uttaravasti.
Uttarasthana chap. 33, 34. |
| 2. Ashtangasangraha | Uttarasthana chap. 38, 39. |

3. Charakasamhita Nidanasthana chap. 3 raktagulma
Chikitsasthana chap. 5, 30
4. Susrutasamhita Nidanasthana chap. 10.
Chikitsasthana chap. 36.
Uttaratantra chap. 38, 42.

References:

1. Prasutivijnana - Acharya Ramnath Dvivedi.
2. Abhinavaprasutitantram - Vaidya Damodar Sharma Gand.
3. Strirogavijnanam - Vaidya Ramanath Dvivedi.
4. Abhinava striroga vijnana - Dr. Rajendra Bhatnagar.
5. Prasutivijnan - Dr. Mrinmayi Mukherji.
6. Janasamkhyasiddhant
evam upadeyata - Dr. Nirmal Sahni.
7. Theory of population
an outline - Dr. I. Wellington.
8. Prasutivijnan - Alakhnarayan Singh.
9. Textbook of gyneacology - C.S. Das.
10. Textbook of obstetrics - C.S. Das.
11. Clinical obstetrics - Mudaliar.
12. Textbook of gyneacology - Wilfred Shaw.
13. Textbook of midwifery - Johnson.
14. Chikitsamanjari - concerned parts.
15. Yogamrutam - concerned parts.

III B.A.M.S. Part I**Subject : 3****KAUMARABHRITYA (PAEDIATRICS)****Part A.**

Definition, importance and interpretation of kaumarabhritya; scope and special relevance of description of kaumarabhritya in Kasyapa Samhita.

Definition of garbha, bala, kumara, yuva and their description. Care of the neonatal/sadyojata, jatamatra and navajata balaka. Care of the infant; Balavastha, ksheerapa and ksheerannada and their foods, satmya and asatmya vihara etc.

Kumaragara/ nursery, kreedabhumi/ playfield, kreedakani/ toys, samskara, karnavedha, disorders of earlobe/ karnapali.

Examination of breast milk/stanya pariksha, diet and treatment in absence of breast milk. Treatment for stanyadushti.

Examination of dhatri/ wet nurse. Diseases caused by dushta stanya/ impure breast milk; their symptoms and treatment. Methods for sodhana of stanya.

Physical and mental growth and development of children; upavesana, annaprasanakala, padagamana.

Examination of diseases of children; dosage of medicines according to age limit.

Vedanadhyaya of Kasyapasamhita. Importance of prasanakarma of bala as in Kasyapasamhita.

Ksheerannada, dantodbedam/ dentition, dantasampat, dantaposhanam, dantodbhavam and related diseases.

Development of jnanaendriya and karmendriya during the time of mental growth.

Part B.

Sahaja vyadhis/ congenital diseases.

Sanghatabala pravrutta- garbhopadrava, sophra, kamila, raktapitta.

Adhibalapravrutta- anuvamsika, bejadoshaja, phirangaja, rajayakshma, prameha, kushta, arsas, yakritdosha.

Daivabalapravrutta - jalaseersha, mastulangakahaya, pangu, mooka, vama, oshtabheda, taluvikriti.

Prasavakalina vyadhi - moodagarbha, abhigataja, due to surgical removal of garbha; sramajvara etc.

Prasavothara vyadhis/ diseases after delivery - nabhiroga, disorders of umbilicus, akshepaka/ convulsions, stanaroga, visphota, paridagdha, mukhapaka, gudapaka, psychological disorders and their treatment. Vyadhikshamatva/ immunity and its benefits. Diseases due to malnutrition and their treatment.

General examination of children

Kshirapa - dushtastanyaja vyadhis - karsya, malavarodha, charddhi, atisara, jvara, kshiralasaka, diseases of pranavaha srotas.

Kshirannada - diseases during eruption of teeth, kukunaka, krimi, charddhi, jvara, atisara, ajirna, talukantaka. Kshiralasaka, mritbakshana pandu, parigarbhika, phakka, pangu, sosha, gandamala, yakritvikruti and related diseases. Pakshaghata, sisaviya pakshaghata, ardhita, unmada, sayyamura/ enuresis, psychological disorders - apasmara, krimidanta, tarunya pidaka, causes and treatments of balagrahas.

Text:

- | | |
|---------------------|--|
| 1. Ashtangahridaya | Uttarasthana chap. 1 to 3 |
| 2. Ashtangasangraha | Uttarasthana chap. 1 to 6 |
| 3. Charakasamhita | Sarirasthana chap. 8.
Chikitsasthana chap. 10. |
| 4. Susrutasamhita | Chikitsasthana chap. 16.
Nidanasthana chap. 10.
Uttaratantra chap. 27-37 |
| 5. Kashyapasamhita | Concerned parts. |

References:

- | | |
|------------------------------------|---------------------------|
| 1. Abhinava kaumarabhritya | Acharya Radhakrishnanath. |
| 2. Kaumarabhrityam | Raghuvirprasad Trivedi. |
| 3. Kunaratantrasamucchaya | Ramanatha Dvivedi. |
| 4. Kasyapasamhita | |
| 5. Arogyakalpadrumam balachikitsa. | |

Practicals:

1. Training in paediatric ward in the hospital - 1month
2. Recorded case sheets of minimum 10 paediatric cases.

III B.A.M.S. Part II
Subject : 4
SALAKYATANTRA
(Diseases of Neck & Head)

PAPER I

Part A.

1. Definition of Salakyatantra, introduction and history
2. Anatomy of netra - measurements, panchabhuta constituents, mandala, patala and sandhis of netra. Physiology of netra. Examination of netra.
3. Diseases of netra - common causes, prodromal symptoms, symptoms and treatments. Classification of eye diseases as in Ayurveda and modern medicine. Classification with respect to dosha, asraya and treatment. Total number of eye diseases.
4. Sandhigata rogas- number; puyalasa, srava, upanaha, krimigranthi, parvani, alaji, their causative factors, symptoms, treatment.
5. Diseases of vartma - number,; utsangy, pothaki, vartmasarkara, anjananamika, bahalavartma, bisavartma, arbuda, kumbhika, klishtavartma, aklinnavartma, praklinna vartma, vatahata vartma, nimesha, pakshmakopa, arsovartma, vartmavabhandaka, kardamavartma, upapakshmamala. Corresponding modern diseases and their treatment.

Part B.

6. Diseases of suklamandala - number; armam, suktika, pishtaka, sirolpata, sirapidaka, valasagrathita; corresponding modern

diseases, their symptoms and treatments.

7. Diseases of krishnamandala- number; savrana sukla, avrana sukla, ajakajata, akshipakatyaya, ; corresponding modern diseases, their symptoms and treatment.

8. Diseases of netra sleshmavarana and thara mandala, their symptoms and treatments.

9. Diseases of sarvakshi or sarvanetrageeta rogas- number; abhishyanda, adhimantha, hatadhimantha, sasopha akshipaka, asopha akshipaka, vataparyaya, suskakshipaka, anyatovata, amladhyushita, siropata, siraharsha, corresponding modern diseases and their treatments.

10. Diseases of drishtimandala - number; description of drishtimandala, timira, kacha, linganasa, pittavidagdhadrishti, kaphavi dagdhadrishti, dhoomadarsy, hrasvajadya, nakulandhya, ghambhirika, naktyandhya, lesions with or without causes.

11. Disorders of vision - abhighataja linganasa, cataract, general idea regarding the diseases of retina, their symptoms and treatment.

12. Paravarthanajanya diseases (refractive errors) deficiency diseases (kuposhanajanya) communicable diseases (samkramikarogas)

13. National blindness eradication programme.

14. Kriyakalpa - aschyotana, putapaka, tarpana, anjana, svedana, pindi etc.

SALAKYATANTRA
(Diseases of Neck & Head)

PAPER II

Part A.

1. Siro roga (Diseases of the head and scalp) Importance of siras(head) uttamanga; number and names of sirorogas; symptoms and treatments of vata, pitta, kapha, sannipataja sirasula (headache) suryavarta, anantavata, ardhavabhedaka, samkhaka, krimija sirasula, vidradhi, upasirshaka, darunaka, indralupta, khalitya, palitya, arumshika, siro abhighataja vikara, knowledge of sirovasthi and nasya.

2. Karnaroga (Diseases of the ear) Anatomy and physiology of karna (karnasarira) Examination of the ear; number of karnarogas: symptoms and treatments of karnasula, karnanada, karnakshveda, karnavidradhi, karnasrava, karnapaka, putikarna, krimikarna, karnakandu, karnagutha, karnarsas, karnapratinaha, karnagatasotha, karnarbuda, badhirya; knowledge of karnapurana; corresponding modern diseases and ear diseases due to noise pollution.

3. Nasaroga (Diseases of the nose) Anatomy and physiology of nose (nasasarira) examination of the nose, number, symptoms and treatments of pratisyaya, pinasa, apinasa, kshavathu, parisrava, nasasrava, putinasa, dipti, puyasonita, nasapaka, nasanaha, nasasosha, nasarbuda, sonitapitta, nasasopha, nasarsas. Diseases of paranasal sinuses and their management. Nasyakarma.

Part B

4. Mukharoga (diseases of the buccal cavity etc.) Parts of mukha; number, symptoms and treatment of mukharogas.

5. Oshtaroga (diseases of the lips) number, symptoms and treatment of oshtarogas.

6. Dantaroga (diseases of the teeth) number, symptoms and treatment of dantasarkara, krimidanta, dalana, dantaharsha, bhanjanaka, kapalika, syavadanta, hanumoksha. Methods of dental care and prevention of dental diseases.

7. Dantamoolaroga (diseases of the gums) number, symptoms and treatment of sitada, dantaveshta, dantapuppudaka, sushira, mahasushira, paridara, upakusa, vardhana, danta nadi, danta vidharbha, adhimamsa.

8. Jihvagataroga (diseases of the tongue) number, symptoms and treatment of jihvakandaka, alasa, upajihvika, jihvarbuda.

9. Taluroga (diseases of the palate) number, symptoms and treatment of galasunttika, tundikeri, arbuda, adrusha, kacchapa, mamsasanghata, talupuppuda, talupaka, talusosha.

10. Kanta roga (diseases of the pharyngo-larynx/ throat) anatomy and physiology of throat; number, symptoms and treatment of five types of rohini, kantasaluka, adhijihva, valaya, valasa, vrinda, ekavrinda, gilayu, galavidradhi, galougha, mamsathana, sataghni, vidari, svaraghna; corresponding modern throat diseases.

11. Mukha (sarvasya) rogas-mukhapakka, number, symptoms and treatment.

12. Sandhanakarma - oshtasandhana, nasasandhana, karnasandhana. Plastic surgery of lips, nose and ear.

13. Lalasravi granthi rogas (diseases of the salivary glands)

symptoms and treatment.

14. Kriyakalpa - practical knowledge of sveda, kabala, gandusha, dhooma, raktamoksha etc.

Practicals:

1. Training in hospital 3 months
2. Training in emergency department 1 month.
3. Practical demonstration of use of surgical instruments and case history recording.

Texts:

Paper I

1. Ashtangahridaya Sutrasthana chap. 23, 24.
Uttarasthana chap. 9 to 16.
2. Ashtangasangraha Sutrasthana chap. 32, 33.
Uttarasthana chap. 11 to 20.
3. Charakasamhita Chikitsasthana chap. 26.
4. Susrutasanghita Uttaratamtra chap. 1 to 19.

Paper II

1. Ashtangahridaya Sutrasthana chap. 20, 21, 22.
Uttarasthana chap. 17 to 24.
2. Ashtangasangraha Sutrasthana chap. 29 to 31.
Uttarasthana chap. 21 to 28.

3. Charakasamhita Sutrasthana chap. 5, 17, 19.
 Chikitsasthana chap. 26.
 Siddhidhana chap. 9.
4. Susrutasamhita Nidanasthana chap. 16.
 Chikitsasthana chap. 22, 25, 40
 Uttaratantra chap. 20 to 26.

Reference:

1. Salakyatantra Vd. Ramanath Dvivedi.
2. Salakyavijnan Dr. Ravindrachandra Chowdri.
3. Abhinava netrarogachikitsa Vd. Visvanatha Dvivedi.
4. Netrachikitsa vijnan sachitra Dr. Ravindrachandra Choudri.
5. Netraroga chikitsa Dr. Moonju.
6. Netrarogavijnan Hamsraj
7. Parson's diseases of the eye.

III B.A.M.S. Part II
Subject : 5
SALYATANTRA (SURGERY)

PAPER I

Part A

1. Origin of Salyatantra, its lineage and development.
2. Significance of Salyatantra among the eight fold branches of Ayurveda.
3. Causes of decline and measures for upliftment of Salyatantra.
4. Discussions about Dhanwantari and Susruta, their periods.
5. Contemporary authors of Susruta.
6. Commentators of Susruta samhita.
7. Classification of diseases as nija (due to intrinsic causes) and agantuka (due to extrinsic causes).
8. Prognosis.
9. Vranasotha (inflammatory swelling), vidradhi (abscess), derivation, etiology, pathogenesis, classification/ types, symptoms and signs, complications, aamapachyamanapakva stages of inflammation.
10. Management of vranasotha (inflammatory swelling), vidradhi (abscess), seven fold treatment, sixty fold treatments, management according to different stages.

11. Vrana (ulcer) derivation, interpretation, two fold classification based on nija and agantu (intrinsic and extrinsic) causes. Sudha (non-complicated) dushta (complicated) rohita (healing) and sixteen types of vrana (ulcer).

12. Examination of vrana (ulcer) vranasotha (inflammatory swelling) site, shape, colour, discharge, odour, pain sensations etc. ashta vranavastu (eight sites/ constituent matter of vrana) adhishtana, vranaparigraha, complications associated with ulcer, doshas and prognosis.

13. Nadvrana (sinuses and fistulae) types, symptomatology and management.

14. Agantu vrana/ sadyoavrana (traumatic wounds) causes, classification, symptomatology, dushti (sepsis) kotha (gangrene) complications. Management of apatanaka (tetanus) visarpa (erysipelas) haemostasis (rakta stambana).

15. Extraction of a salya (foreign body) wound toilet/ debridement. suturing of wounds. Symptomatology and management of injuries to marma (vital points) specific treatment according to its site.

16. Burns and scalds - types and management.

17. Knowledge of lost foreign bodies (pranashta salya) and their extraction.

18. Haemorrhage - pathogenesis, causes, signs and symptoms, general and specific management.

19. Intravenous transfusion of fluids (amrutajaladisuchibharanam) and blood transfusion (raktadanam).

Part B.

1. Procurement of yantras (blunt instruments) and sastras (sharp instruments) their number, names, types, size and shapes. Blade, edges, tempering of sastras, instrument case, defects and good qualities, cotton, gauze, swab, drugs used for sodhana (cleaning) and ropana (healing), practical training, initiation to practice.
2. Pre-operative measures according to specific surgical procedures.
3. Anaesthesiology, types, drugs and other materials used for anaesthesia, procedure, stages of anaesthesia, complications, management of complications.
4. Operative measures - eight fold operative procedures.
5. Post-operative measures. Causes and management of injury to marma (vital points). Bandaging techniques, rakshakarma (measures to prevent sepsis). Nursing of a post-operative case. Features of a post-operative ward. Specification on diet and regimen for patients. Specific post-operative measures adopted for individual surgeries.
6. Cauterisation using kshara (alkali).
7. Thermal cauterisation (agnikarma).
8. Procedures for blood letting - leeching and other methods. Measures for haemostasis.
9. Investigatory and therapeutic uses of radiation, X-ray.

SALYATANTRA (SURGERY)

PAPER II

Part A.

1. Classification and management of arbudas (cancer).
2. Classification and management of granthi (cysts and tumours).
3. Diseases of the sira lasika dhamanis (veins, lymphatics, arteries) classification as traumatic, congenital and acquired, complications and management.
4. Symptomatology and management of slipada (filariasis/lymphoedema) according to site.
5. Diseases of snayu (tendons, ligaments and fasciae syanyusotha (inflammatory conditions, tendinitis)/ pratanasotha, pratanagranthi(), snayugranthi().
6. Diseases of the skin - granthi (cysts and tumours) arbuda (carcinoma) tvagarsha (papilloma) vranagranthi (scartissue) andhalaji () valmika (actinomycosis?) pramehapidaka (diabetic carbuncle), kotha (gangrene) visarpa (erysipelas?) chippam (), kunakha () padadari (fissured sole) kadara (corns) masaka () tilakalaka () snayuka ().
7. Diseases of dhamani - traumatic lesions, granthi (aneurysm?) of dhamani, diseases of dhamani samoooha (arterial system)
8. Fracture of bones - types, general signs and symptoms and general management Fractures of scapula, clavicle, humerus, ulna, radius, metacarpals, phalanges, vertebrae, ribs, skull, kantasthi,

sacrum, kandarasthi, femur, patella, tibia, fibula, talus, calcaneum, tarsals, metatarsals and phalanges their symptomatology and management.

9. Dislocation of joints (sandhi moksha) - intervertebral, temporo-mandibular, shoulder, elbow, wrist, interphalangeal, hip, knee, ankle and metatarsophalangeal joints.

10. Diseases of joints - sandhigataavata (osteoarthritis), sandhigata sotha (arthritis) diseases and deformities of spine.

11. Diseases of bones - asthivradhi (osteomyelitis), granthi (tumours and cysts), arbuda (malignancy).

12. Diseases of the head/ skull - traumatic, fractures.

13. Diseases of manya (neck) - manyastaambha (torticollis) galaganda (goitre) manyagranthi arbuda (cysts, tumours and swellings of neck) apachi (lymph gland swellings) pashanagardaba (? parotitis).

14. Diseases of thorax - diseases of breast, mastitis, cysts and tumours, cancer, gynecomastia, pleuritis, ? mediastinal abscess, (inflammation of) rib, pulmonary abscess, lung tumours, lung cancer, ?pneumonia, rajayakshma (pulmonary tuberculosis).

Part B.

15. Diseases of udara/ abdomen - traumatic lesions, herniation/ ptosis, chidrodaram (perforation) baddhagudodaram (intestinal obstruction) jalodaram (ascitis) antarvidradhi (visceral abscess).

16. Diseases of oesophagus - ulceration, stricture/ obstruction, inflammation, bleeding oesophagal varices, cancer.

17. Diseases of stomach- congenital disorders, cancer, ulcer, distension (amasaya vistara) peptic ulcer (parinamasula) gulma.

18. Diseases of the small intestine. Diseases of the large intestine - cancer, tuberculosis, gulma, acute and chronic obstruction, perforation, appendicitis.

19. Diseases of rectum and anus - tumour, cancer, guda bhramsa (prolapse) bleeding per rectum, arsa (haemorrhoids), parikartika (?fissure in ano) bhagandari pidaka (ano-rectal abscess) bhagan dara (fistula in ano) congenital disorders, foreign body in ano-rectum, sannirudha guda (stricture of ano-rectum).

20. Diseases of liver - abscess, cysts, tumours, cancer, yakrityudaram (hepatomegaly).

21. Diseases of gall bladder- cholecystitis, cholelithiasis, kamala (jaundice) cancer.

22. Diseases of Pancreas - pancreatitis, calculi cancer.

23. Diseases of spleen - splenomegaly- etiology and management.

24. Diseases of kidney - congenital disorders, ptosis, cysts, tumours, cancer, ?perinephric abscess (vrikkavidradhi) tuberculosis, renal calculi, haemorrhage, traumatic lesions.

25. Diseases of ureter - urethritis, ureteric calculi, haemorrhage, cysts, tumours, cancer, disorders due to obstruction.

26. Diseases of vasti (urinary bladder) - diseases of urethra - congenital disorders, traumatic lesions, mutraghata (retention of urine) mutrakrichra (dysuria) asmari (calculi) tumours, cancer, mutrashtila

() ?stricture of bladder neck, mutrajatara () vatashtila().

27. Diseases of spermatic cord - sukrasmani (?spermatocele) inflammatio, cysts, tumours, cancer, vasectomy.

28. Diseases of penis - ulceration, niruddhaprakasa (phimosis) parivartika (paraphimosis) avapadika (injuries) cancer, arssa (warts) upadamsa (soft chancre) puyameha (gonorrhoea) phiranga (syphilis).

29. Diseases of scrotum - enlargement of scrotum, mutravridhhi (hydrocele) antravridhhi (inguinal hernia) cancer, inflammation, cysts, tumours, diseases of testis, torsion of testis.

30. Herniation of intestine/ ptosis - umbilical, femoral, hiatus, epigastric hernia etc.

Practicals:

1. Detailed examination of patient.
2. Instruments and anaesthetics.
3. Special pathological investigatory procedures.
4. Pre-operative, operative, post-operative procedures.
5. Preparation of case sheets.
6. Drugs and procedures useful in emergency conditions.
7. Practical clinical training in hospital - 6 months.
8. Clinical training in surgicals ward - 4months.
9. Training in surgical/ operation theatre - 1 month.
10. Training in emergency medicine in casualty - 1 month.
11. Observation of surgery, patients' progress etc.

Practical examination.

1. Case history record, identification of instruments.
2. Examination of short case.
3. Examination of long case.
4. Viva voce.

Texts:**Paper I.**

1. Ashtangahridaya Sutrasthana chap. 25 to 30.
Nidanasthana chap. 11.
Chikitsasthana chap. 13.
Uttarasthana chap. 25,26,29,30.
2. Ashtangasangraha Sutrasthana chap. 34. to 40.
Nidanasthana chap. 11.
Chikitsasthana chap. 25.
3. Charaka samhita Sutrasthan chap. 12 (concerned parts)
Chikitsasthan chap. 25.
4. Susruta samhita Sutrasthana chap. 1,5,7,11 to 14, 17 to
19, 22, 23, 25 to 27.
Nidanasthana chap. 9,10.
Chikitasasthana chap. 12, 16, 17

Paper II.

1. Ashtangahridaya Nidanasthana chap. 7,9,11,12.
Chikitsasthana chap. 8, 11,13 to 15
Uttarasthana chap. 32, 33.

2. Ashtangasangraha Nidanasthana chap. 7,9,11,12.
Chikitsasthana chap. 10,13, 15 to 17.
Uttarasthana chap. 32 to 39.
3. Charakasamhita Sutrasthana chap. 22(concerned parts)
4. Susrutasamhita Nidanasthana chap. 2,3,4,7,10 to 15.
Chikitsasthana chap. 3,6,7,8,12,14,
17to 21.

References:

1. Salyatantrasamucchaya Pt. Ramadesh Sharma.
2. Salyavijnan I & II Dr. Surendra Kumar Sarma
3. Salyasamanvaya I and II Vaidya Anantarama Sarma
4. Salyapradipika Dr. Mukund Svarup Verma
5. Sousruti Pt. Ramanath Dvivedi.
6. Clinical salyavijnan Dr. Akhilanda Sarma.
7. Bhagna chikitsa Dr. P.J. Deshpande.
8. Adhunik salyachikitsa
ka siddhant Dr. K.N. Udappa.
9. Charaakasamhita, Susrutasamhita, Vaghbatasamhitas
-concerned parts
10. A short practice of surgery Bailey and love.
11. A manual of clinical surgery S. Das.
12. A practical guide to
operative surgery S. Das.
13. Textbook of surgery Ross and Carlloss.

III B.A.M.S. Part II
Subject : 6
KAYACHIKITSA
(General Medicine)

PAPER IV

Manasa rogas/ mental diseases - knowledge of the following topics and diseases. Etymology, location, properties, functions of manas.

Etiological factors of manasa rogas. Definition and treatment of smritibhramsa, prajnaparadha, moha, krodha, harsha, vishada, lobha, preeti, bhaya, dvesha.

Bhranti, shila, soucha, achara/ social conduct etc. - their role in the cause and treatment of mental diseases.

Etiology, clinical symptoms and treatment of ojokshaya, ojobhramsa and ojoyapat.

Etiology, pathogenesis, clinical symptoms and treatment of manasa rogas like unmada, apasmara, atatvabhinivesa, bhrama, murcha, sanysasa, moha, avyavasthita chitta, gadodvega, anidra, apatantraka etc.

Bhutavidya - diagnosis and treatment including santikarma, bali etc. - amanushapratisheda - of grahas like deva, asura, gandharva, yaksha, rakshasa, pitru, pisacha etc.

Atyayika chikitsa - emergency treatment - introduction to emergency conditions and their treatment.

Texts:

1. Ashtangahridaya Uttarasthana chap. 4 - 7.
2. Ashtangasangraha Uttarasthana chap. 7 - 10.
3. Charakasamhita Sutrasthana chap. 11, 24.
Nidanasthana chap. 2, 8.
Chikitsasthana chap. 9, 10.
Siddhisthana chap. 9.
4. Susrutasamhita Sutrasthana chap. 18.
Uttaratantra chap. 46, 60, 61, 62.

KAYACHIKITSA (General Medicine)

PAPER V

RASAYANA

Definitions, synonyms, etymology, uses and benefits of rasayana.
Mythological importance of rasayana.

Types of rasayana - kutipravesika and vataatapika, knowledge of use of kalpa.

Achararasayana

Rasayana yogas/ formulations and their mode of administration.

Method of kutipravesika rasayana. - purvakarma - restrictions, regimen inside the kuti, special benefits of kutipravesika, period of stay in kuti, rules to be followed while coming out.

Planning of the dosage of rasayana. Knowledge of varying the doses of rasayana according to different conditions. Period for practising of normal dietary and behavioural regimen after rasayana and later. Season and persons suitable for rasayana prayoga.

Vatatapika rasayana - method, time and suitable persons.

Factors necessary for getting the benefits of rasayana.

Significance of vitamins in rasayana. Rasayana in vitamin deficiency.

VAJIKARANA

Definitions, synonyms, etymology, usage and benefits of vajikarana. Mythological importance of vajikarana. Eligible persons for vajikarana and the proper time.

Appreciation of stri, qualities of stri: demerits of childlessness.

Purvakarma of vajikarana; vajikarana yogas, their mode of administration and dose.

Characteristics of sukra which helps in conception. The regimen after consumption of vajikarana yogas, before and after sexual intercourse etc.

Texts:

1. Ashtangahridaya Uttarasthana chap. 39, 40.
2. Ashtangasangraha Uttarasthana chap. 49,50
3. Charakasamhita Chikitsasthana chap. 1,2,30.
4. Susrutasamhita Chikitsasthana chap. 26 to 30

References: (Paper I - V)

1. Chikitsamanjari.
2. Yogamrutam.
3. Arogyakalpadrumam.
4. Yogaratnakaram.
5. Bhaishajyaratnavali.
6. Pathyapathyavimarsanam.
7. Chakradattam.
8. Kashyapasamhita.

9. Sarvarogachikitsaratnam.
10. Vaidyamanjari.
11. Kayachikitsa - Vaidya Ramaraksha Pathak.
12. Chikitsadarsha - Vaidya Rameshvara Datta Sastri.
13. Manasarogavijnanam - Dr. Balakrishna Amarji Pathak.
14. Hathayogapradipika
15. Sioddhavaidyakam - V. B. Natraja Sastri
16. Vasavarjiyam
17. Prakritichikitsa - Vittal Bhasa Modi.
18. Hikumatprakash.

III B.A.M.S. Part II
Subject : 7
PANCHAKARMA
(The five special treatments)

The treatment procedures involved in Panchakarma - their benefits, definitions and methods of administration.

Diseases and patients suitable for snehana and swedana/ oleation and sudation.

Symptoms of samyaksnidha, samyak swinna, atisnidha, atisvinna, asnidha and asvinna.

Ayoga, atiyoga and samyakyoga of vamana, virechana, sirovirechana, asthapana and anuvasana, treatment of upadravas of atiyoga.

Classification of sneha prayoga, knowledge of drugs and dosages used in snehana and swedana.

Knowledge of drugs and yantras used in vamana, virechana, sirovirechana, niruha and anuvasana.

Diseases and patients suitable for samsodhana. Suitable time and stage for sodhana. Arrangements in samsodhana theatre.

Knowledge of drugs used for paschatkarma/ post-operative measures according to the condition / strength etc. of the patient.

Knowledge of uttama, madhyama, and avara vegas in vamana and virechana.

Merits and demerits of vasti yantra. Knowledge of the procedure of administration of vasti. Knowledge of drugs and dosages used in vasti. Knowledge of vastivyapat.

Knowledge of drugs and dosages for vamana and virechana.

Knowledge of samsarjana vidhi.

Practical Demonstration of the panchakarma procedures.

Text:

1. Ashtangahridaya Sutrasthana chap. 16 to 24.
Kalpasthana chap. 1 to 5.
2. Ashtangasangraha Sutrasthana chap. 25 - 29, 35, 36.
Kalpasthana chap. 1 to 7
3. Charakasamhita Sutrasthana chap. 13 to 16.
Siddhisthana chap. 1 to 11
Kalpasthana chap. 1 to 12
4. Susrutasamhita Sutrasthana chap. 43, 44.
Sarirasthana chap. 8.
Chikitsasthana chap. 31-40.
Uttaratantra chap. 18.

References.

1. Panchakarmas - Dr. A. Lakshmi pati.
 2. Ayurvediyapanchakarmavijnan - Kasture.
 3. Panchakarmam - Manakodan Kesavan
Vaidyan.
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