YENEPOYA

(DEEMED TO BE UNIVERSITY)
Recognized under Sec 3(A) of the UGC Act 1956
Accredited by NAAC with 'A' Grade

YENEPOYA (DEEMED TO BE UNIVERSITY)

Deralakatte, Mangaluru -575018

REGULATIONS AND CURRICULUM GOVERNING

UNDERGRADUATE PROGRAM

BACHELOR OF AYURVEDA MEDICINE AND SURGERY (BAMS)

(CURRICULUM - EFFECTIVE FROM 2018-19)

ATTESTED
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Registrar
Yenepoya(Deemed to be University)
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NOTIFICATION – 34-ACM/2019 dtd.20.03.2019

Sub: Curriculum for 1st & 2nd BAMS course

Ref: Resolution of the Academic Council at its 34th meeting held on 08.02.2019 vide Agenda -3 (1)

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The curriculum for 1st and 2nd BAMS course submitted by the Board of Studies of the Yenepoya Ayurveda Medical College & Hospital has been approved at the 34th meeting of Academic Council held on 08.02.2019 and subsequently at the 45th meeting of Board of Management.

This notification is issued for implementation with effect from the academic year 2018-2019.

REGISTRAR
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To:

The Principal – Yenepoya Ayurveda Medical College & Hospital

Copy to:

1. Controller of Examinations
2. File copy

30/1/2019

INTRODUCTION

Ayurvedic Medicine is a medical specialty that focuses healthy lifestyle, Preventive and Curative Medicine. Itencompasses the whole entity of Health for the wellbeing of an individual at physical, mental, social, spiritual, emotional and economical levels through its wide range of dynamism. It comprises study of human, plant and animal kingdom and their interaction within the ecosystem.

Ayurveda is the Upavedha of Atharvaveda. It mainly deals on four aims in life named as "Purusharthas'. They are:-'Dharma'(Code of Conduct), 'Artha' (Wealth), 'Kaama' (Desires), 'Moksha' (Salvation) for which every individual is striving for. All this can be attained if and only a person is healthy and has longitivity. Ayurveda emphasizes more than just being healthy. It focuses on making a strong body with sound mind and curing the disease as whole rather than just symptoms. Thus it is known as the SCIENCE of LIFE. This B.A.M.S course conducted atYenepoya deemed to be University promises to generate Health Professionals having extensive and elaborated knowledge in the field of Ayurveda which is significant at Local, National and International fronts to reach globalization.

To make it more organized Ayurveda is classified into eight branches and hence named as – Ashtanga Ayurveda that contains - Kaya Chikitsa (Internal Medicine), Shalakya Tantra (ENT & Ophthalmology) Shalya Tantra – Surgery, Agadatantraevum Vidhi Vaidyak (Toxicology & Jurisprudence), Bhoota Vidya/graharoga (Astrology, Psychology and metaphysics), KaumaraBhritya (Paediatrics), Rasayan (Science of Rejuvenation) and Vajeekaran (Science of Aphrodisiac).

To study these eight branches there is a need of special module that should be fragmented into Basic Principles of Ayurveda, General introduction to human body, understanding plant, animal and mineral sources that are used as raw materials to prepare Ayurveda medicines, understanding various diseases that affect human body and at last learning the skills and techniques to cure them as well as prevent them. To meet the above objectives following subjects are introduced to complete the curriculum. They are:

SamhithaSiddhanta (Basic Principles & Sanskrit), Rachana Sharir(Anatomy), Kriya Sharir (Physiology),RogaNidanaEvumVikruti Vigyan (Etio Pathology), DravyaGuna (Pharmacology & Pharmacognosy), Rasa Shastra &Bhaisajya Kalpana (Pharmaceutics),Panchakarma (Therapeutics), SvastaVrtta (Achievement of Good Health and Climatology with stages of Disease), Physicians, Therapeutics including wholesome locality and Procedures. Descriptions of these topics are spread over the entire treatise.

Vision

- Expanding the Values & Principles of Ayurveda
- Imparting knowledge
- Encouraging to uphold the ethical values of the discipline

Mission

- Well qualified health professionals
- Teach, train and assess students
- Encourage practice in their art and science

Values

To achieve the goals of our mission statement, our faculty, students and staff will demonstrate our commitment to the following core values in all that we do.

Commitment to Excellence

To cultivate a perpetual spirit of inquiry and creativity, leading to outstanding evidence based health care, rigorous research, and inspired teaching.

Commitment to Humanism

To relieve suffering and improve quality of life.To treats all people with compassion, respecting human dignity and autonomy.

Commitment to Social Responsibility

To serve and advocate for all people, especially underserved and vulnerable patients and populations, by addressing social determinants of health, social justice and stewardship of social resources.

Commitment to Professionalism

To act in accordance with the highest standards of integrity, demonstrating personal accountability and resilience, collegiality and teamwork and the pursuit of lifelong learning.

Goals:-

- To build human resources and develop technologies to respond to the professional needs of the society
- To provide a well developed foundation of skills, knowledge and attitudes to students needed to serve the society.

Objectives:-

- To facilitate knowledge by organizing seminars, workshops and outreach programs.
- To sensitize the students towards social responsibilities by incorporating value education system.
- To facilitate communication and collaboration with academic industry and society in field of research.

COURSE PARTICULARS

I. Admission, Selection and Migration – Eligibility Criteria

No candidate shall be allowed to be admitted to the Ayurveda Curriculum of first year of Bachelor of Ayurveda Medicine and Surgery (BAMS) until:

1. He/She shall complete the age of 17 years on or before 31st December, of the year of admission to the BAMS course:

2. He/she has passed qualifying examination as under:-

a. The higher secondary examination or the Indian School Certificate Examination which is equivalent to 10+2 Higher Secondary Examination after a period of 12 years study, the last two years of study comprising of physics, chemistry, biology (minimum marks as prescribed in Section II below) or any other elective subjects with English at a level not less than the core course for English as prescribed by the National Council for Educational Research and Training after the introduction of the 10+2+3 years educational structure as recommended by the National committee on education;

Note: Where the course content is not as prescribed for 10+2 education structure of the National Committee, the candidates will have to undergo a period of one year pre-professional training before admission to the Ayurveda College;

Or

b. The intermediate examination in science of an Indian University/Board or other recognised examining body with Physics, Chemistry and Biology which shall include a practical test in these subjects and also English as a compulsory subject;

Or

c. The pre-professional/pre-medical examination with Physics, Chemistry and Biology, after passing either the higher secondary school examination, or the pre-university or an equivalent examination. The pre-professional/pre-medical examination shall include a practical test in Physics, Chemistry and Biology and also English as a compulsory subject;

Or

d. The first year of the three years degree course of a recognized university, with Physics, Chemistry and Biology including a practical test in three subjects provided the examination is a ”University Examination” and candidate has passed 10+2 with English at a level not less than a core course (with PCB aggregate marks as above);

Or

e. B.Sc Examination of an Indian University, provided that he/she has passed the B.Sc examination with not less than two of the following subjects Physics, Chemistry, Biology (Botany, Zoology) and further that he/she has passed the earlier qualifying examination with the following subjects-Physics, Chemistry, Biology and English.

Or

f. Any other examination which, in scope and standard is found to be equivalent to the intermediate science examination of an Indian University/Board, taking Physics, Chemistry and Biology including practical test in each of these subjects and English; In case of doubt, it is the onus of the student to get clarification from Association of Indian Universities.

Note: Marks obtained in Mathematics are not to be considered for admission to BAMS Course

II. Selection of Students

The selection of students to the Ayurveda College shall be based solely on merit of the candidate and for determining merit; the following criteria shall be adopted:

1. A competitive entrance examination (NEET) is absolutely necessary in the cases of institutions of All India character;

2. Procedure for selection to BAMS course shall be as follows:-

I. A candidate must have passed in the subjects of Physics, Chemistry, Biology and English individually and must have obtained a minimum of 50% marks taken together in Physics, Chemistry and Biology at the qualifying examination and in addition must have come in the merit list prepared as a result of such competitive all-India entrance examination by securing not less than 50% marks in Physics, Chemistry and Biology taken together in the competitive examination. In respect of candidates belonging to reserved category, the marks obtained in Physics, Chemistry and Biology taken together in qualifying examination and competitive entrance examination should be a minimum of 40%.

II. Provided that a candidate who has appeared in the qualifying examination the result of which has not been declared, he may be provisionally permitted to take up the competitive entrance examination and in case of selection for admission to the BAMS course, he shall not be admitted to that course until he fulfils the eligibility criteria as per above regulations.

III. Duration of the Course:

The undergraduate Ayurveda training programme leading to BAMS degree shall be of 4 ½ years with a minimum of 240 teaching days in each academic year and 1 year compulsory internship programme. During this period, the student shall be required to have engaged in full time study at an Ayurveda College recognised or approved by the Central Council of Indian Medicine.

IV. Migration:

1) Migration from one Ayurveda College to another is not a right of a student. However, migration of students from one Ayurveda college to another Ayurveda college in India may be considered by the Central Council of Indian Medicine only in

Exceptional cases on extreme compassionate grounds*, provided the following criteria are fulfilled. Routine migrations on other ground shall not be allowed.

2) Both the colleges, i.e. one at which the student is studying at present and one to which migration is sought, are recognised by the Central Council of Indian Medicine
3) The applicant candidate should have passed first year BAMS examination
4) The applicant candidate submits his application for migration, complete in all respects, to all authorities concerned within a period of one month of passing (declaration of results) the first year Bachelor of Ayurveda Medicine and Surgery (BAMS) Examination.
5) The applicant candidate must submit an affidavit stating that he/she will pursue 240 days of prescribed study before appearing at II year Bachelor of Ayurveda Medicine and Surgery Examination at the transferee Ayurveda College, which should be duly certified by the Registrar of the concerned University in which he/she is seeking transfer. The transfer will be applicable only after receipt of the affidavit.

Note 1:

I. Migration is permitted only at the beginning of II year BAMS Course in recognized Institutions.
II. All applications for migration shall be referred to Central Council of Indian Medicine by the college authorities. No Institution/University shall allow migration directly without the prior approval of the Council.
III. Council reserves the right not to entertain any application which is not under the prescribed compassionate grounds and also to take independent decisions where applicant has been allowed to migrate without referring the same to the Council.

Note 2: *Compassionate ground criteria:

I. Death of supporting guardian.
II. Disturbed conditions in the Ayurveda College area as declared by Government.

V. Attendance requirement, Progress and Conduct

At the time of appearing for the professional examination in the subject, the aggregate percentage of attendance in the subject should be not less than 75% in theory and 75% in practical/clinical in each year.

VI. Subjects of Study:

First Year

I. Padartha Vijnana And Ayurveda Itihasa
II. Sanskrit
III. Kriya Shareera
IV. Rachana Shareera
V. Maulika Sidhanta Evam Ashtanga Hridaya

Second Year

I. Dravyaguna Vijnana
II. Roga Nidana Evam Vikrithi Vijnana
III. Rasa Shastra Evam Bhaishajya kalpana
IV. Charaka Samhitha Purvardha

Third Year

I. Agadatantra, Vyavahar Ayurveda-Ayurved Evam Vidhivaidyak
II. Swasthavritha and Yoga
III. Kaumarabhrithya
IV. Prasuti Tantra Evum Striroga
V. Charak Samhita Utharaardha

Fourth Year

I. Kayachikitsa
II. Panchakarma
III. Shalya Tantra
IV. Shalakya Tantra
V. Research Methodology and Medical Statistics

VII. **Examinations:**

These regulations shall be applicable for the BAMS degree examinations conducted by Yenepoya University (Deemed to be).

1 **Preface:**

A. Evaluation is a continuous process and is based on criteria developed by the concerned authorities with certain objectives to assess the performance of the learner. This also indirectly helps in the measurement of effectiveness and quality of the concerned BAMS programme
B. Evaluation is achieved by two processes
    1. Formative or internal assessment
    2. Summative or University examinations

    Formative evaluation is done through a series of 3 examinations conducted periodically by the institution. Summative evaluation is done by the University through examinations conducted at the end of the specified course.

2. Methods of Evaluation:

Evaluation may be achieved by the following tested methods:

1. Written test

2. Practicals
3. Clinical examination
4. Viva voce

INTERNAL ASSESSMENT EXAMINATION

The continuing assessment examinations may be held frequently at least 3 times in a given academic year and the average marks of these examinations should be considered.

SCHEME OF EXAMINATION:

The scheme of examination for BAMS Course shall be divided in to 1st BAMS examination at the end of the first academic year, 2nd BAMS examination at the end of secondacademic year, 3rd BAMS examination at the end of third academic year, and 4th BAMS examination at the end of the last 1 ½ years. In addition to these, supplementary examination for each year will be conducted within 6 months of declaration of results respectively. 240 days minimum teaching in each academic year is mandatory.

The examination shall be open to a candidate who satisfies the requirements of attendance, progress and other rules lay down by the University. (75% attendance in all exams appearing subjects)

1) University shall organise admission timings and the admission process in such a way that teaching starts from the15th of October in each academic year.

I BAMS Examination:

1. Sanskrit
2. Padartha Vijnana Evam Ayurveda Itihasa (Paper I &II)
3. Kriya Shareera (Paper I &II)
4. Rachana Shareera (Paper I &II)
5. Maulik Sidhanta Evam Ashtanga Hridaya

II BAMS Examination

1. Dravyaguna Vijnana (Paper I &II)
2. Roga Nidana Evam Vikrithi Vijnana (Paper I &II)
3. Rasa Shastra Evam Bhaishajya kalpana (Paper I &II)
4. Charaka Samhitha Purvardha

III BAMS Examination

1. Agadatantra, Vyavahar Ayurveda-Ayurved Evam Vidhivaidyak
2. Swasthavritha and Yoga (Paper I &II)
3. Prasuti Tantra Evam Striroga (Paper I &II)
4. Kaumarabhrithya
5. Charak Samhita Utharaardha

IV BAMS Examination

1. Kayachikitsa (Paper I &II)
2. Panchakarma
3. Shalya Tantra (Paper I &II)
4. Shalakya Tantra(Paper I &II)
5. Research Methodology and Medical Statistics

WRITTEN EXAMINATION:

1. The written examination in each subject consists of one or two paper as per the CCIM norms, each of three hours duration and shall have maximum of 100 marks
2. Each paper will be divided in to two sections, A and B of equal marks
3. The question paper should contain different types of questions such as essays, short answer and very short answers.
4. The nature of questions set, should be aimed to evaluate students of different standard, ranging from average to excellent.
5. The questions should cover as broad an area of the content of the course. The essay questions should be properly structured and the marks specifically allotted
6. The university may set up a question bank.

PRACTICAL AND CLINICAL EXAMINATION:

1. **Objective Structured Clinical Examination:** The clinical and practical examination should provide a number of chances for the candidate to express his/her skills. A number of examination stations with specific instructions will be provided. This will include clinical procedures, laboratory experiments, spotters etc. Additionally, bedside clinical case presentations will be conducted wherever necessary.
2. **Records/Log Books:** The candidate should be given credit for his records based on the scores obtained in the records. The record in the first appearance can be carried over to the subsequent appearances if necessary.
3. **Scheme of clinical and practical examinations:** The specific scheme of clinical and practical examinations, the type of clinical procedures/ experiments to be performed and marks allotted for each are to be discussed and finalised by the chairman and other examiners and it is to be published prior to the conduct of the examinations along with publication of the time table for the practical examinations. This scheme should be brought to the notice of the external examiner asand when the examiner reports. The practical and clinical examinations should be evaluated by two examiners of which one shall be an external examiner appointed from other universities. Each candidate should be evaluated by each examiner independently and marks computed at the end of the examination.
4. **Viva Voce:** Viva voce is an excellent mode of assessment because it permits a fairly broad coverage and it can assess the problem solvingcapacity of the student. An

Assessment related to the affective domain is also possible through viva voce. It isdesirable to conduct the viva voce independently by each examine.In order to avoid vagueness and to maintain uniformity of standard and coverage, questions can be pre-formulated before administering them to each student. Marks are exclusively allotted for viva voce and that can be divided equally amongst the examiners

MARKS DISTRIBUTION IN EACH SUBJECTS OF I BAMS EXAMINATION:

1. **Padartha Vijnana Evam Ayurveda Itihasa**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

2. **Sanskrit**

   Theory: 100 marks

3. **Kriya Shareera**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

   Practical: 80 marks

   Viva voce: 20 marks

4. **Rachana Shareera**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

   Practical: 80 marks

   Viva voce: 20 marks

5. **Maulik Sidhanta Evam Ashtanga Hridaya**

   Theory: 100 marks

   Viva Voce: 50 marks

MARKS DISTRIBUTION IN EACH SUBJECT OF II BAMS EXAMINATION:

1. **Dravyaguna Vijnana**

Theory: Paper I – 100 marks
Paper II – 100 marks

Practical: 140 marks

Viva voce: 60 marks

2. **Roga Vijnana Evam Vikrithi Vijnana**

Theory: Paper I – 100 marks
Paper II – 100 marks

Practical: 70 marks

Viva voce: 30 marks

3. **Rasa Shastra Evam Bhaishajya kalpana**

Theory: Paper I – 100 marks
Paper II – 100 marks

Practical:
Rasashastra – 60 marks
Bhaishajyakalpana – 60 marks (Total 120 marks)

Viva voce:
Rasashastra – 40 marks
Bhaishajyakalpana – 40 marks (Total 80 marks)

4. **Charaka Samhitha Purvardha**

Theory:100 marks

Viva voce: 50 marks

MARKS DISTRIBUTION IN EACH SUBJECT OF III BAMS EXAMINATION:

1. **Agada Tantra Vyavahar Ayurveda-Ayurved Evam Vidhivaidyak**

Theory:- 100 marks

Viva voce: 50 Marks

2. **Swastavritta & Yoga**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

   Practical: 70 marks

   Viva voce: 30 marks

3. **Kaumarabhritya**

   Theory: 100 marks

   Practical Viva: 50 marks

4. **Prasooti Tantra Evam Striroga**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

   Practical Viva: 100mark

5. **Charaka Samhitha Uttarardha**

   Theory: 100 marks

   Viva voce: 50 marks

MARKS DISTRIBUTION IN EACH SUBJECT OF IV BAMS EXAMINATION:

1. **Kayachikitsa**

   Theory: Paper I – 100 marks
   Paper II – 100 marks

   Practical: 100 marks

2. **Panchakarma**

   Theory: 100 marks

   Practical: 50 marks

3. **Shalya Tantra**

Theory: Paper I – 100 marks
Paper II – 100 marks

Practical:100 marks

4. **Shalakya Tantra**

Theory: Paper I – 100 marks
Paper II – 100 marks

Practical: 100 marks

5. **Research Methodology and Medical Statistics**

Theory: 50 marks

Criteria for Pass:

For declaration of pass in a subject, a candidate shall secure 50% marks in the University Examination both in Theory and Practical/Clinical examinations separately, as stipulated below:

Successful candidates who obtain 65% of the total marks or more shall be declared to have passed the examination in First Class. A candidate who obtains 75% and above is eligible for Distinction. Only those candidates who pass the whole examination in the first attempt will be eligible for distinction or class.Other successful candidates will be placed in Second Class.

Grace Marks: Grace marks up to a maximum of 5 marks may be awarded to students who have failed only in one subject but passed in all other subjects.

Re-totalling: The University on application and remittance of a stipulated fee to be prescribed by Yenepoya(Deemed to be) University, shall permit a recounting or opportunity to recount the marks received for various questions in an answer paper/papers for theory of all subjects for which the candidate has appeared in the university examination. Any error in addition of the marks awarded if identified will be suitably rectified.

Qualification and experience for eligibility for examinership in BAMS examination

1. MD/MS Degree in concerned subject from a recognised Institution
2. Five years teaching experience in the subject in a recognisedAyurvedaCollege after MD/MS
3. Should be holding the post of a Reader or above in an Ayurveda – Institution approved/recognised by the CCIM for BAMS

Note:

In case of shortage of examiners as mentioned above, one examiner from allied subject is permissible

Fifty percent of Examiners appointed shall be external from Ayurveda Institutions approved/recognised by the CCIM for BAMS Course, from another University.

Reciprocal arrangement of Examiners should be discouraged, in that, the Internal Examiner in a subject should not accept external examinership for a college form which external examiner is appointed in his subject for the corresponding period.

No person shall be an External Examiner to the same University for more than 3 consecutive years. However, if there is a break of one year the person can be re-appointed.

ELIGIBILITY FOR PROMOTION

Irrespective of passing in subjects of concerned year, the student will be promoted to the consecutive year till 3rd year BAMS. He/she will be eligible to appear for 3rd year BAMS examination only when he/she passes in all the subjects of 1st and 2nd year BAMS. Irrespective of passing subjects of 3rd year BAMS, the student will be promoted to Final year. He/she will be eligible to appear for the final year exam only after he/she passes in all the subjects of 3rd year.

TEACHING & LEARNING METHODOLOGY

Courses are taught in lecture format. Audio visual tools are a key element utilized with this traditional teaching method. The lecture halls are designed to provide students with maximum viewing access to all audio-visual content including PowerPoint presentations, videos, and more. Practical labs and dissection classes are utilized for the skilled learning and better understanding of the subject. Shloka recitation classes are routinely conducted towards enabling the students to have in depth knowledge and basic understanding of Samhithas which are the foundation of Ayurveda.

Regular bedside clinical classes are conducted to enhance the students logical thinking, clinical approach, and diagnostic skills as per Ayurveda and modern science. Field visits and practical classes are conducted to enrich their ability to identify various herbs, to analyze properties of the herbs, to understand the applied aspects and to teach pharmacognosy. The students are given expert training during practical classes to prepare the classical formulations in the teaching pharmacy.

GOALS & OBJECTIVES

GOALS:

The Ayurveda graduates during training in the institutions should acquire adequate knowledge, necessary skills and reasonable attitudes which are required for carrying out all activities appropriate to general Ayurveda practice involving prevention, diagnosis and treatment of anomalies and diseases of the human body. The graduate also should understand the concept of community health education and be able to participate in the rural health care delivery programmes existing in the country.

OBJECTIVES:

The objectives are dealt under three headings (a) Knowledge and Understanding (b) Skills and (c) Attitudes.

(A) KNOWLEDGE AND UNDERSTANDING:

The graduate should acquire the following during the period of training.

1. Adequate knowledge of the scientific foundations on which Ayurveda is based and good understanding of various relevant scientific methods, principles of biological functions: ability to evaluate and analyse scientifically various established facts and data.
2. Adequate knowledge of the development, structure and function of the human body both in health and disease and their relationship and effect on general state of health and also bearing on physical and social wellbeing of the patient.
3. Adequate knowledge of clinical disciplines and methods which provide a coherent picture of anomalies, lesions and diseases of the human body and preventive diagnostic and therapeutic aspects of Ayurveda
4. Adequate clinical experience required for general Ayurveda practice
5. Adequate knowledge of the constitution, biological function and behaviour of persons in health and sickness as well as the influence of the natural and social environment on the state of health.

(B) SKILLS

A graduate should be able to demonstrate the following skills necessary for practice of Ayurveda

1. Diagnose and manage various common health problems encountered in general Ayurveda practice keeping in mind the expectations and the right of the society to receive the best possible treatment available wherever possible.
2. Prevent and manage complications if encountered while carrying out various surgical and other procedures.
3. Carry out certain investigative procedures and ability to interpret laboratory findings.

4. Promote general health and help prevent diseases where possible

(C) ATTITUDES

A graduate should develop during the training period the following attitudes

1. Willingness to apply the current knowledge of Ayurveda in the best interest of the patient and community.
2. Commitment to the science as to treat by Ayurvedic methods only and not to indulge in other systems.
3. Maintain a high standard of professional ethics and conduct and apply these in all aspects of professional life
4. Seek to improve awareness and provide possible solutions for health problems and needs throughout the community
5. Willingness to participate in CME programmes to update knowledge andprofessional skill from time to time.
6. Refer patients for consultation and specialised treatment

COMPETENCIES

At the completion of the undergraduate training programme the graduates shall be competent in the following:

General Skills

- Apply knowledge & skills in day to day practice
- Apply principles of ethics
- Analyse the outcome of treatment
- Evaluate the scientific literature and information to decide treatment
- Participate and involve in professional bodies
- Self-assessment& willingness to update the knowledge & skills from time to time
- Involvement in simple research projects

Practice Management

- Evaluate practice location, populations dynamics & reimbursement mechanism coordinate & supervise the activities of allied Ayurvedic health personnel
- Maintain all records
- Practice within the scope of one's competence

Communication & Community Resources

- Assess patient's goals, values and concerns to establish rapport and guide patient care able to communicate freely, orally and in writing with all concerned participate in improving the overall health of the individuals through community activities.

Patient Care – Diagnosis

- Obtaining patient's history in a methodical way
- Performing through clinical examination
- Selection and interpretation of clinical, radiological and other diagnostic information
- Obtaining appropriate consultation
- Arriving at provisional, differential and final diagnosis

Patient Care – Treatment Planning

- Integrate multiple disciplines into an individual comprehensive sequence treatment plan using diagnostic and prognostic information
- Ability to order appropriate investigations

Patient Care – Treatment

- Ability to manage general health issues of patients through Ayurvedic medicines.
- Perform basic treatment modalities of Ayurveda including panchakarma treatments
- Recognition and initial management of medical emergencies that may occur during Ayurvedic treatment

MINIMUM WORKING HOURS FOR EACH SUBJECT OF STUDY

(I BAMS)

SUBJECT	LECTURE HOURS	PRACTICAL HOURS	TOTAL HOURS
Padartha Vijnana Evam Itihasa	100	-	100
Sanskrit	100	-	100
Kriya Shareera	200	100	300
Rachana Shareera	200	100	300
Maulika Sidhantha Evam Ashtanga Hridaya	100	-	100
Total	700	200	900

II BAMS

SUBJECT	LECTUREHOURS	PRACTICALHOURS	TOTALHOURS
Dravyaguna Vijnana	200	100	300
Roganidana Evam Vikrithi Vijnana	200	100	300
Rasashastra Evam Bhaishajyakalpana	200	100	300
Charaka Samhitha (Purvardha)	200	-	300
TOTAL	800	300	1200

III BAMS

SUBJECT	LECTUREHOURS	PRACTICALHOURS	TOTALHOURS
Agada Tantra, Vyavahara Ayurveda Evam Vidhi Vidhayak	200	100	300
Swastavritta and Yoga	200	100	300
Kaumarabhrittya	100	100	200
Prasooti Tantra Evam Striroga	200	100	300
Charaka Samhita Uttarardha	100	-	100
TOTAL	800	400	1200

IV BAMS

SUBJECT	LECTUREHOURS	PRACTICALHOURS	TOTALHOURS
Kayachikitsa	200	100	300
Panchakarma	100	100	200
Shalya Tantra	200	100	300
Shalakya tantra	200	100	300
Research Methodology and Medical Statistics	40	-	40
TOTAL	740	400	1140

SYLLABUS OF STUDY

(I BAMS)

BAMS Curriculum - SANSKRIT

GOALS

Ayurveda is an ancient Indian system of medicine. This is originally in Sanskrit language. Therefore, study of Sanskrit language for an Ayurveda student is very much necessary. So, the broad goal of teaching Sanskrit is to make the students understand the correct meaning of the Ayurveda medical science.

OBJECTIVES

At the end of the course, the student will be able to:

1. Understand and speak properly Ayurvedic terminologies in Sanskrit Language
2. Read and write in Devanagari Script
3. Understand the grammar part of Sanskrit Language
4. Follow the stepwise method of study of Ayurveda Shastra Granthas
5. Explain the concepts of Ayurvedic Medical Science

Theory – One paper - 100 marks

Teaching Hours – 150 hours

Part-A (50Marks)

संस्कृतव्याकरणाध्ययनम्

1. संस्कृतभाषायाः परिचयम् (Introduction to Sanskrit Language)
2. देवनागरिभाषायां टङ्कनाभ्यासः (Typing practice in Devanagari Script)
3. षड्-लिङ्गप्रकरणम् शब्दरूपाणि (Forms of nouns in different genders)
4. संज्ञाप्रकरणम् (Samjnaprakaranam)
5. सन्धिप्रकरणम् (Sandhiprakaranam)
6. विभक्त्यर्थाः (Meaning of noun cases) – कारकप्रकरणम् (Karakaprakaranam)
7. धातुप्रकरणम् (Verbs), भ्वादिगणीय धातूनां पञ्च लट्-लोट्-लङ्-लिट्-विधिलिङ्-लकारेषु रूपाणि (Lat-Lot-Lan-Lit-Vidhilin five types of lakaras in Bhu etc. category of verbs)
8. वाच्यप्रयोगः (Usage of voice) , कर्तरि कर्मणि वाव्यप्रयोगाः (Usage of active & passive voice)
9. प्रत्ययः (Pratyayah), उपसर्गः (Upasargah), अव्ययः (Avyayah)

10. समासप्रकरणम् (Samasaprakaranam)

11. अनुवादः (Translation)

Reference Books:

1. Laghusiddhanta Kaumudi – Acharya Varadaraja (Commentary by Shri Dhananand Shastry)
2. Brihattrayee – (Charaka Samhita, Sushruta Samhita, Ashtanga Hridayam)
3. Anuvada Chandrika – Chakradhara Hansa Nautiyal
4. Sanskruta Ayurveda Sudha – Dr. Banwari Lal Gaur
5. Rachananuvada Kaumudi – Dr. Kapildev Dwivedi
6. Bhasha Sopanam – Published by Rashtreeya Samskruta Samsthanam, New Delhi

Part-B (50Marks)

संस्कृतभाषाध्ययनम्

1. पञ्चतन्त्रम् (Panchatantram), अपरीक्षितकारकम् (Apareekshitakarakam) – क्षपणककथातः मूर्खपण्डितकथापर्यन्तं पञ्चकथाः (Five stories from Kshapanaka-katha to Moorkhapandita-katha)
2. वैद्यकीय-सुभाषितसाहित्यम् (Vaidyakiya-subhashitasahityam), अध्यायाः 1-10 (Chapters 1-10)
3. आयुर्वेदार्षग्रन्थाध्ययनक्रमः (सुश्रुतसंहितायाः चतुर्थोऽध्यायः, शारीरस्थानम्) – Stepwise method of study of Ayurveda Arsha Granthas (Sushruta Samhita, Chapter-4, Shareerasthanam)

Reference Books:

1. Sushrutha Samhita, Shareera Sthanam - Chapter 4
2. Prabhashanam workbook, Su.sam.chap 4, Published by – Ayurveda Academy, Bangalore
3. Vaidyakeeya Subhashita Sahityam – Dr. Bhaskara Govinda Ghanekar
4. Panchatantra (Apareekshitakarakam) – Pt. Vishnu Sharma

PADARTHA VIGYAN EVUM AYURVEDA ITIHAS

(Philosophy and History of Ayurveda)

GOAL

To introduce the students to the exciting world of Ancient Ayurvedic philosophies associated with the sciences like Darshana, pramana, Tarka, Tantra, etc. as well as the historical background of Ayurveda. This will help the student to understand the basic concepts of Ayurveda and its application.

OBJECTIVES

Enabling the student:

1. To analyse and understand the philosophical concepts through Ayurveda
2. To integrate the knowledge from basic sciences and Ayurveda history
3. To assess the relative contribution of Darsana and Ayurveda

Padartha Vigyanam

Theory- Two papers– 200 marks (100 each paper) Total teaching hours: 150 hours

PAPER I

Part A

1. Ayurveda Nirupana

- Lakshana of Ayu, composition of Ayu.
- Lakshana of Ayurveda.
- Lakshana and classification of Siddhanta.
- Introduction to basic principles of Ayurveda and their significance.

2. Ayurveda Darshana Nirupana

- Philosophical background of fundamentals of Ayurveda.
- Etymological derivation of the word “Darshana”.
- General introduction to classification of schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya and Yoga.
- Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda).

- Padartha: Lakshana, enumeration and classification
- Types of Padartha: Bhava and Abhava padartha
- Padartha according to Charaka (Karana-Padartha).

3. Dravya Vigyaniyam

Dravya:

- Etymological derivation
- Lakshana, classification and enumeration.

Panchabhuta:

- Guna and lakshana of each Mahabhootha
- Various theories regarding the creation (theories of Taittiriyopanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Susruta), Lakshana and qualities of each Bhoota.
- Role of panchamahabhuthas in Deha and Manasa Prakriti

Kaala:

- Etymological derivation, Lakshana and division / units, significance in Ayurveda.

Dik:

- Etymological derivation, Lakshana and division
- Significance of Dik in Ayurveda.

Atma:

- Etymological derivation, Lakshana, classification, seat, Gunas, Linga according to Acharya Charaka.
- The method / process of knowledge formation (atmanah jnasya pravrittih)

Purusha: Asmentioned in Ayurveda –

- Ativahikapurusha/ Sukshmasharira/ Rashipurusha/ Chikitsapurusha/ Karmapurusha/ Shaddhatvatmakapurusha.

Manas:

- Etymological derivation, Lakshana, synonyms, qualities, objects, and functions of Manas.
- Ubhayaatmakatvam (dual nature of mind), Panchabhutatmakatvam.

Tamas as the tenth Dravya.

Practical study/application in Ayurveda.

PAPER-I

Part B

4. Gunavigyaniyam

- Etymological derivation, classification and enumeration according to NyayaVaisheshika and Charaka, Artha, Gurvadiguna, Paradiguna, Adhyatmaguna.
- Lakshana and classification of all the 41 gunas.
- Practical / clinical application in Ayurveda.

5. Karma Vigyaniyam

- Etymological derivation, Lakshana, classification in Nyaya.
- Description according to Ayurveda.
- Practical study/ application in Ayurveda.

6. Samanya Vigyaniyam

- Lakshana, classification.
- Practical study/ application with reference to Dravya, Guna and Karma.

7. Vishesha Vigyaniyam

- Lakshana, classification.
- Practical study/ application with reference to Dravya, Guna and Karma.
- Significance of the statement “Pravrittirubhayasya tu”.

8. Samavaya Vigyaniyam

- Lakshana
- Practical study /clinical application in Ayurveda.

9. Abhava Vigyaniyam

- Lakshana, classification
- Clinical significances in Ayurveda.

PAPER II

PART A

1. Pariksha

- Etymological derviation
- Definition of Priksha
- Definition of Prama, Prameya, Pramata, Pramana.
- Enumeration of Pramana according to different schools of philosophy.
- Four types of methods for examination in Ayurveda (ChaturvidhaParikshavidhi), Pramana in Ayurveda.
- Subsudation of different Pramanas under three Pramanas
- Significance and importance of Pramana
- Practical application of methods of examination (Parikshavidhi) in treatment (Chikitsa)

2. Aptopdesha Pariksha/ Pramana

- Lakshana of Aptopadesha, Lakshana of Apta.
- Lakshana of Shabda, and its types.

3. Pratyaksha Pariksha/ Pramana

- Etymological derivation
- Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka- Savikalpaka with description, description of Laukika and Alaukika types and their further classification.
- Indriya-prapyakaritvam
- Six types of Sannikarsha.
- Indriyanam lakshanam, classification and enumeration of Indriya.
- Description of Panchapanchaka
- Panchamahabhutatwa of Indriya
- Trayodasha Karana, dominance of Antahkaran.
- Practical study/ application of Pratyaksha in physiological, diagnostic, therapeutics and research grounds.

4. Anumanapariksha/Pramana

- Lakshana of Anumana.
- Introduction of Anumiti, Paramarsha, Vyapti, Hetu, Sadhya, Paksha, Drishtanta.
- Types of Anumana mentioned by Charaka and Nyayadarshana.
- Characteristic and types of Vyapti.
- Lakshana and types of Hetu, description of Ahetu and Hetwabhasa.
- Characteristic and significance of Tarka.
- Practical study/ application of Anumanapramana in physiological, diagnostic, therapeutic and research.

5. Yuktipariksha/ Pramana

- Lakshana and discussion.
- Practical study and utility in therapeutics and research.

6.Upamana Pramana

- Lakshana.
- Application in therapeutics and research.
- Karya- Karana Siddhanta (Cause and Effect Theory)
- Lakshana of Karya and Karana. Types of Karana.
- Significance of Karya and Karana in Ayurveda.
- Different opinions regarding the manifestation of Karya from Karana: Satkaryavada, Asatkaryavada, Parinamavada, Arambhavada, Paramanuvada,Vivartavada, Kshanabhangurvada, Swabhavavada, Pilupaka, Pitharpaka, Anekantavada, Swabhavoparamavada.

PAPER II

PART B

AYURVEDA ITIHASA

- Etymological derivation (Vyutpatti), syntactical derivation (Niruktti) and definition of the word Itihas, necessity of knowledge of history, its significance and utility, means and method of history, historical person (Vyakti), subject (Vishaya), time period (Kaal), happening (Ghatana) and their impact on Ayurveda.
- Introduction to the authors of classical texts during Samhitakaal and their contribution: Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhabala, Vagbhata, Nagarjuna, Jivaka. PART B- Ayurved Itihas 25 marks 5
- Introduction to the commentators of classical Samhitas – Bhattaraharicchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara, Vijayarakshita, Gayadas, Arunadutta, Hemadri, Gangadhara, Yogindranath Sen, Haranachandra, Indu.
- Introduction to the authors of compendiums (Granthasamgrahakaala) – Bhavmishra, Sharngadhara, Vrinda, Madhavakara, Shodhala, Govinda Das (Author of Bhaishajyaratnawali), Basavraja.
- Introduction to the authors of Modern era –Gana Nath Sen, Yamini Bhushan Rai, Shankar Dajishastri Pade, Swami Lakshmiram, Yadavji Tikramji, Dr. P. M. Mehta, Ghanekar, Damodar Sharma Gaur, Priyavrat Sharma.
- Globalization of Ayurveda – Expansion of Ayurveda in Misra (Egypt), Sri Lanka, Nepal other nations.

a) Developmental activities in Ayurveda in the post-independencedevelopment in educational trends.
b) Establishment of different committees, their recommendations.

c) Introduction to and activities of the following Organizations :- Department of AYUSH, Central Council of Indian Medicine, Central Council for Research in Ayurvedic Sciences, Ayurvedic Pharmacopeia commission, National Medicinal Plants Board, Traditional Knowledge Digital Library (TKDL)

d) Introduction to the following National Institutions :

- National Institute of Ayurved, Jaipur.
- IPGT&RA, Gujrat Ayurved University, Jamnagar.
- Faculty of Ayurved, BHU, Varanasi.
- Rashtriya Ayurveda Vidyapeetha, New Delhi. Drug and Cosmetic Act.

f) Introduction to national & international popular journals of Ayurveda. 9. Introduction to activities of WHO in the promotion of Ayurved.

REFERENCE BOOKS:-

A). Padartha Vigyan:-

1.	Padarthavigyan	Acharya Ramraksha Pathak
2.	Ayurvediya Padartha Vigyana	Vaidya Ranjit Rai Desai
3.	Ayurved Darshana	Acharya Rajkumar Jain
4.	Padartha Vigyana	Kashikar
5.	Padartha Vigyana	Balwant Shastri
6.	Sankhyatantwa Kaumadi	GajananS hastri
7.	Psycho Pathology in Indian Medicine	Dr. S.P. Gupta
8.	Charak Evum Sushrut ke Darshanik Vishay ka Adhyayan	Prof. Jyotirmitra Acharya
9.	Ayurvediya Padartha Vigyana	Dr. Ayodhya Prasad Achal
10.	Padartha Vigyana	Dr. Vidyadhar Shukla
11.	Padartha Vigyana	Dr. Ravidutta Tripathi
12.	Ayurvediya Padartha Vigyana Dhand	Vaidya Ramkrishna Sharma
13.	Ayurvediya Padartha Vigyan Parichaya	Vaidya Banwarilal Gaur
14.	Ayurvediya Padartha Darshan	Pandit Shivhare
15.	Scientific Exposition of Ayurveda	Dr. Sudhir Kumar
16.	Relevant portions of Charakasamhita, Sushrutasamhita.	

B) History of Ayurveda:-

1.	Upodghata of Kashyapasamhita Paragraph of acceptance of Indian medicine	Rajguru Hem Raj Sharma
2.	Upodghata of Rasa Yogasagar	Vaidy Hariprapanna Sharma
3.	Ayurveda Ka Itihas	KaviraSuram Chand
4.	Ayurveda Sutra	Rajvaidya Ram Prasad Sharma
5.	History of Indian Medicine (1-3 part)	Dr. GirindrNath Mukhopadhyaya
6.	A Short history of Aryan Medical Science	Bhagwat Singh
7.	History of Indian Medicine	J. Jolly

8. Hindu Medicine — Zimer
9. Classical Doctrine of Indian Medicine — Filiyosa
10. Indian Medicine in the classical age — AcharyaPriyavrata Sharma
11. Indian Medicine (Osteology) — Dr. Harnley
12. Ancient Indian Medicine — Dr. P. Kutumbia
13. Madhava Nidan and its Chief — Dr. G.J. Mulenbelt
14. Commentaries (Chapters highlighting history)
15. Ayurveda Ka BrihatItihasa — Vaidya Atridev Vidyalankara
16. Ayurveda Ka VaigyanikaItihasa — Acharya Priyavrata Sharma
17. Ayurveda Ka PramanikaItihasa — Prof. Bhagwat Ram Gupta
18. History of Medicine in India — Acharya Priyavrata Sharma
19. Vedomein Ayurveda — Vaidya Ram GopalShastri
20. Vedomein Ayurveda — Dr. Kapil Dev Dwivedi
21. Science and Philosophy of Indian Medicine — Dr. K.N. Udupa
22. History of Indian Medicine from — Dr. Jyotirmitra
23. Pre-Mauryan to Kushana Period
24. An Appraisal of Ayurvedic Material in Buddhist literature - Dr. Jyotirmitra
25. Mahayana Granthon mein nihita — Dr. RavindraNathTripathi
26. Ayurvediya Samagri
27. Jain Ayurveda Sahitya Ka Itihasa — Dr. Rajendra Prakash Bhatnagar
28. Ayurveda- Prabhashaka Jainacharya — Acharya Raj Kumar Jain
29. CharakaChintana — Acharya Priyavrata Sharma
30. Vagbhata Vivechana — Acharya Priyavrata Sharma
31. Atharvaveda and Ayurveda — Dr. Karambelkara
32. Ayurvedic Medicine Past and Present — Pt. Shiv Sharma
33. Ancient Scientist — Dr. O.P. Jaggi
34. Luminaries of Indian Medicine — Dr. K.R. Shrikanta Murthy
35. Ayurveda Ke Itihasa Ka Parichaya — Dr. RavidduttaTripathi
36. Ayurveda Ke — Pranacharya Ratnakara Shastri
37. Ayurveda Itihasa Parichaya — Prof. Banwari Lal Gaur

KRIYA SHAREER

(PHYSIOLOGY)

GOAL

The broad goal of teaching undergraduate students human physiology is to provide the student comprehensive knowledge of the normal functions of the human body to facilitate an understanding of the physiological basis of health and disease. In addition to this, goal is to provide a thorough understanding of human physiology in terms of basic principles and theorems in Ayurveda.

OBJECTIVES

At the end of the course the student will be able to:

1. Explain the normal functioning of all the organ systems and their interactions for well-co-ordinated total body function.
2. List the physiological principles underlying the pathogenesis and treatment of disease.
3. Conduct experiments designed for the study of physiological phenomena.
4. Interpret experimental and investigative data
5. Distinguish between normal and abnormal data derived as a result of tests which he/she has performed and observed in the laboratory.
6. Know the basic clinical examinations of a person.

Theory

Two Papers-200 Marks (100 marks each)

PAPER- I- 100 marks

PART- A 50 marks

1. Conceptual study of fundamental principles of Ayurvediya Kriya Sharira e.g - Panchamahabhuta, Tridosha, Triguna, Loka-Purusha Samya, Samanya-Vishesha, Description of basics of Srotas.
2. Definition and synonyms of the term Sharira, definition and synonyms of term Kriya, description of Sharir Dosha and Manasa Dosha. Mutual relationship between TrigunaTridosha & Panchmahabhuta. Difference between Shaarir and Sharir. Description of the components of Purusha and classification of Purusha, role of Shatdhatupurusha in Kriya Sharira and Chikitsa.
3. Dosha- General Description of Tridosha. Inter relationship between Ritu-Dosha-RasaGuna. Biological rhythms of Tridosha on the basis of day-night-age-season and food intake. Role of Dosha in the formation of Prakriti of an individual and in maintaining of health. Prakrita and Vaikrita Dosha.
4. Vata Dosha: Vyutpatti (derivation), Nirukti (etymology) of the term Vata, general locations, general properties and general functions of Vata, five types of Vata (Prana,

Udana, Samana, Vyana, Apana) with their specific locations, specific properties, and specific functions. Respiratory Physiology in Ayurveda, Physiology of speech in Ayurveda.

5. Pitta Dosha: Vyutpatti, Nirukti of the term Pitta, general locations, general properties and general functions of Pitta, five types of Pitta (Pachaka, Ranjaka, Alochaka, Bhrajaka, Sadhaka) with their specific locations, specific properties, and specific functions. Similarities and differences between Agni and Pitta.
6. Kapha Dosha: Vyutpatti, Nirukti of the term Kapha, general locations, general properties and general functions of Kapha, five types of Kapha (Bodhaka, Avalambaka, Kledaka, Tarpaka, Śleshaka) with their specific locations, specific properties, and specific functions.
7. Etiological factors responsible for Dosha Vriddhi, Dosha Kshaya and their manifestations.
8. Concept of Kriyakala.
9. Prakriti:
   a) Deha- Prakriti: Vyutpatti, Nirukti, various definitions and synonyms for the term „Prakriti". Intra-uterine and extra-uterine factors influencing Deha-Prakriti, Classification and characteristic features of each kind of Deha-Prakriti

   b) Manasa- Prakriti: Introduction and types of Manasa- Prakriti.

10. Ahara: Definition, classification and significance of Ahara, Ahara-vidhi-vidhana, Ashta Aharavidhi Viseshayatana, Ahara Parinamkar Bhava.
11. Aharapaka (Process of digestion): Description of Annavaha Srotas and their Mula. Role of Grahani & Pittadhara Kala.
12. Description of Avasthapaka (Madhura, Amla and Katu). Description of Nishthapaka (Vipaka) and its classification. Separation of Sara and Kitta. Absorption of Sara. Genesis of Vata-Pitta-Kapha during Aharapaka process. Definition of the term Koshtha. Classification of Koshtha and the characteristics of each type of Koshtha.
13. Agni – Definition and importance, synonyms, classification, location, properties and functions of Agni and functions of Jatharagni, Bhutagni, and Dhatvagni.
14. Role of Gunas in Physiology, Importance of Guna vipareeta Chikitsa.
15. Introducing Agantu and Sthani Doshas.

PART- B

Modern Physiology

1. Definition and mechanisms of maintenance of homeostasis. Cell physiology. Membrane physiology. Transportation of various substances across cell membrane.
2. Resting membrane potential and action potential.
3. Physiology of respiratory system: functional anatomy of respiratory system. Definition of ventilation, mechanism of respiration, exchange and transport of gases,

neural and chemical control of respiration, artificial respiration, asphyxia, hypoxia. Introduction to Pulmonary Function Tests.

4. Physiology of Nervous System: General introduction to nervous system, neurons, mechanism of propagation of nerve impulse, physiology of CNS, PNS, ANS; physiology of sensory and motor nervous system, Functions of different parts of brain and physiology of special senses, intelligence, memory, learning and motivation. Physiology of sleep and dreams, EEG. Physiology of speech and articulation. Physiology of temperature regulation.
5. Functional anatomy of gastro-intestinal tract, mechanism of secretion and composition of different digestive juices. Functions of salivary glands, stomach, liver, pancreas, small intestine and large intestine in the process of digestion and absorption. Movements of the gut (deglutition, peristalsis, defecation) and their control. Enteric nervous system.
6. Acid-base balance, water and electrolyte balance. Study of basic components of food. Digestion and metabolism of proteins, fats and carbohydrates. Vitamins & Minerals-sources, daily requirement, functions, manifestations of hypo and hypervitaminosis**.**

PAPER- II

100 marks

PART- A

1. Dhatu: Etymology, derivation, definition, general introduction of term Dhatu, different theories related to Dhatuposhana (Dhatuposhana Nyaya)
2. Rasa Dhatu: Central Council of Indian Medicine Etymology, derivation, location, properties, functions and Praman of Rasa-dhatu. Physiology of Rasavaha Srotas, Formation of Rasa Dhatu from Aahara Rasa, circulation of Rasa (Rasa-Samvahana), role of Vyana Vayu and Samana Vayu in Rasa Samvahana. Description of functioning of Hridaya. Ashtavidha Sara (8 types of Sara), characteristics of Tvakasara Purusha, conceptual study of mutual interdependence (Aashraya-Aashrayi Bhaava) and its relation to Rasa and Kapha. Manifestations of kshaya and Vriddhi of Rasa.
3. Rakta Dhatu: Etymology, derivation, synonyms, location, properties, functions and Praman of Rakta Dhatu. Panchabhautikatva of Rakta Dhatu, physiology of Raktavaha Srotas, formation of Raktadhatu, Ranjana of Rasa by Ranjaka Pitta, features of Shuddha Rakta, specific functions of Rakta, characteristics of Raktasara Purusha, manifestations of Kshaya and Vriddhi of Raktadhatu, mutual interdependence of Rakta and Pitta.
4. Mamsa Dhatu : Etymology, derivation, synonyms, location, properties and functions of Mamsa Dhatu, physiology of Mamsavaha Srotasa, formation of Mamsa Dhatu,

characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsa Dhatu .Concept of Peshi.

5. Meda Dhatu : Etymology, derivation, location, properties, functions and Pramana of Meda Dhatu, physiology of Medovaha Srotas, formation of Medo Dhatu, characteristics of Medasara Purusha and manifestations of Kshaya and Vriddhi of Meda.
6. Asthi Dhatu: Etymology, derivation, synonyms, location, properties, functions of Asthi Dhatu. Number of Asthi. Physiology of Asthivaha Srotas and formation of Asthi Dhatu, characteristics of Asthisara Purusha, mutual interdependence of Vata and Asthi Dhatu, manifestations of Kshaya and Vriddhi of Asthi Dhatu.
7. Majja Dhatu : Etymology, derivation, types, location, properties, functions and Praman of Majjaa Dhatu, physiology of Majjavaha Srotas, formation of Majja Dhatu, characteristics of Majja Sara Purusha, relation of Kapha, Pitta, Rakta and Majja, manifestations of Kshaya and Vriddhi of Majja Dhatu.
8. Shukra Dhatu: Etymology, derivation, location, properties, functions and Pramana of Shukra Dhatu, physiology of Shukraravaha Srotas and formation of Shukra Dhatu. Features of Shuddha Shukra, characteristics of Shukra-Sara Purusha, manifestations of Kshaya and Vriddhi of Shukra Dhatu.
9. Concept of Ashraya-Ashrayi bhava i.e. inter-relationship among Dosha, Dhatu Mala and Srotas.
10. Ojas: Etymological derivation, definition, formation, location, properties, Pramana, classification and functions of Ojas. Description of Vyadhikshamatva.
11. Bala Vriddhikara Bhava. Classification of Bala. Etiological factors and manifestations of Ojavisramsa, Vyapat and Kshaya.
12. Upadhatu: General introduction, etymological derivation and definition of the term Upadhatu. Formation, nourishment, properties, location and functions of each Upadhatu.
    a. Stanya: Characteristic features and methods of assessing Shuddha and Dushita Stanya, manifestations of Vriddhi and Kshaya of Stanya.
    b. Artava: Characteristic features of Shuddha and Dushita Artava. Differences between Raja and Artava, physiology of Artavavaha Srotas.
    c. Tvak: classification, thickness of each layer and functions.
13. Mala: Etymological derivation and definition of the term Mala. Aharamala: Enumeration and description of the process of formation of Aharamala.
    a. Purisha: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshhaya of Purisha.
    b. Mutra: Etymological derivation, definition, formation, properties, quantity and functions of Mutra. Physiology of Mutravaha Srotas, physiology of urine formation in Ayurveda, manifestations of Vriddhi and Kshhaya of Mutra.
    c. Sveda: Etymological derivation, definition, formation and functions of Sveda. Manifestations of Vriddhi and Kshaya of Sveda. Discription of Svedvaha Strotas
    d. Dhatumala: Brief description of each type of Dhatumala.

14. Panchagyanendriya: Physiological description of Panchagyaanendriya and physiology of perception of Shabda, Sparsha, Rupa, Rasa and Gandha. Physiological description of Karmendriya.
15. Manas: Etymological derivation, definition, synonyms, location, properties, functions and objects of Manas. Physiology of Manovaha Srotas.
16. Atma: Etymological derivation, definition, properties of Atma. Difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body.
17. Nidra: Nidrotpatti, types of Nidra, physiological and clinical significance of Nidra; Svapnotpatti and types of Svapna.

PART –B

Modern Physiology

1. Haemopoetic system – composition, functions of blood and blood cells, Haemopoiesis (stages and development of RBCs, and WBCs and platelets), composition and functions of bone marrow, structure, types and functions of haemoglobin, mechanism of blood clotting, anticoagulants, physiological basis of blood groups, plasma proteins, introduction to anaemia and jaundice.
2. Immunity, classification of immunity: Innate, acquired and artificial. Different mechanisms involved in immunity: Humoral (B-cell mediated) and T-Cell mediated immunity. Hypersensitivity.
3. Muscle physiology – comparison of physiology of skeletal muscles, cardiac muscles and smooth muscles. Physiology of muscle contraction.
4. Physiology of cardio-vascular system: Functional anatomy of cardiovascular system. Cardiac cycle. Heart sounds. Regulation of cardiac output and venous return. Physiological basis of ECG. Heart-rate and its regulation. Arterial pulse. Systemic arterial blood pressure and its control.
5. Adipose tissue, lipoproteins like VLDL, LDL and HDL triglycerides.
6. Functions of skin sweat glands and sebaceous glands.
7. Physiology of male and female reproductive systems. Description of ovulation, spermatogenesis, oogenesis, menstrual cycle.
8. Physiology of Excretion – functional anatomy of urinary tract, functions of kidney. Mechanism of formation of urine, control of micturition. Formation of faeces and mechanism of defecation.
9. Endocrine glands – General introduction to endocrine system, classification and characteristics of hormones, physiology of all endocrine glands, their functions and their effects.

PRACTICAL

Ayurvedic practical

1. Assessment of Prakriti
2. Assessment of Dosha (Features of Vriddhi- Kshaya)
3. Assessment of Dhatu (Features of Vriddhi- Kshaya)
4. Assessment of Agni
5. Assessment of Koshtha
6. Assessment of Sara
7. Nadi pariksha
8. Assessment of Jihva, Mootra, Pureesha in terms of Dosha.

Modern physiology practical

1. Introduction to laboratory instruments- Simple & Compound Microscope, Scalp vein set, bulbs for blood collection, Sahli‟s Haemometer, Haemocytometer, pipettes, Urinometer, Albuminometer, Stethoscope, B.P. Apparatus, Harpenden‟s caliper, Clinical Hammer, Tuning Fork, Stop Watch, Thermometer, Centrifuge machine, ECG Machine
2. Collection of blood sample – prick, vene-puncture method, use of anticoagulants
3. Preparation of blood smear and staining
4. Estimation of Haemoglobin
5. Microscopic examination of blood a. Total RBC count b. Total WBC count c. Differential leukocyte count
6. Packed cell volume (PCV) demonstration
7. ESR demonstration
8. Bleeding time, clotting time
9. Blood grouping and Rh typing
10. Examination of Cardio-Vascular system a. Pulse examination b. Arterial blood pressure measurement c. Examination of heart sounds d. ECG demonstration
11. Examination of Respiratory system a. Respiratory rate b. Breath sounds c. Spirometry, Respirometer.
12. Examination of Nervous System- Sensory & Motor.
13. Examination of GI System.
14. Urine examination –Physical examination, chemical examination. Test for normal constituents of urine. Detection of specific gravity and reaction of urine.
15. Demonstration of Colorimeter, Viscometer, Stalagnometer, Peak flow meter, Tonometer, Osmometer.

Distribution of Practical marks

1. Laboratory Practical – 20

2. Human Experiment – 15

3. Spotting - 15

4. Prakruti Saradi pariksha - 20

5. Practical Record – 10

6. Viva- voce –20

REFERENCE BOOKS:-

- Unveiling the truths in Ayurveda –Dr. Rajkumar
- Ayurvediya Kriyasharir - Ranjit Rai Desai
- Kayachikitsa Parichaya - C. Dwarkanath
- Prakrit Agni Vigyan - C. Dwarkanath
- Sharir Kriya Vigyan - Shiv Charan Dhyan
- Abhinava Sharir Kriya Vigyana - Acharya Priyavrata Sharma
- Dosha Dhatu Mala Vigyana - Shankar Gangadhar Vaidya
- Prakrita Dosha Vigyana - Acharya Niranjana Dev
- Tridosha Vigyana - Shri Upendranath Das
- Sharira Tatva Darshana - Hirlekar Shastri
- Prakrita Agni Vigyana - Niranjana Dev
- Deha Dhatvagni Vigyana - Vd. Pt. Haridatt Shastri
- Sharir Kriya Vigyana (Part 1-2) - Acharya Purnchandra Jain
- Sharir Kriya Vigyana - Shri Moreshwar Dutt. Vd.
- Sharira Kriya Vijnana (Part 1 and 2) – Nandini Dhargalka
- Dosha Dhatu Mala Vigyana - Basant Kumar Shrimal
- Abhinava Sharir Kriya Vigyana - Dr. Shiv Kumar Gaur
- Pragyogik Kriya Sharir - Acharya P.C. Jain
- Kaya Chikitsa Parichaya - Dr. C. Dwarkanath
- Concept of Agni - Vd. Bhagwan Das
- Purush Vichaya - Acharya V.J. Thakar
- Kriya Sharir - Prof. Yogesh Chandra Mishra
- Sharir Kriya Vigyana - Prof. Jayaram Yadav & Dr. Sunil Verma.
- Basic Principles of Kriya-Sharir (A treatise on Ayurvedic Physiology) by Dr. SrikantKumar Panda
- Sharir Kriya – Part I & Part II – Dr. Ranade, Dr. Deshpande & Dr. Chobhe

- Human Physiology in Ayurveda - Dr Kishor Patwardhan
- Sharirkriya Vignyan Practical Hand Book– Dr.Ranade, Dr.Chobhe, Dr. Deshpande
- Sharir Kriya Part 1 – Dr.R.R.Deshapande, Dr.Wavhai
- Sharir Kriya Part 2 – Dr. R.R.Deshapande, Dr.Wavhai
- Ayurveda Kriya Sharira- Yogesh Chandra Mishra
- Textbook of Physiology – Gyton& Hall
- A Textbook of Human Physiology – A.K.Jain
- Essentials of Medical Physiology - Sembulingam, K
- Concise Medical Physiology - Chaudhari, Sujit K
- Principals of Anatomy& Physiology - Tortora &Grabowski Textbook of Medical Physiology- Indu Khurana

SHAREERA RACHANA

GOALS

The student should gain knowledge and insight into the anatomic relevance of Ayurvedic terms like shareera, asthi, sandhi, kala, indriya, marma, koshta, ashaya, garbha, pramana, sira, dhamani, srothas, peshi, shatchakra, and nadi.

He/she should also have knowledge into the functional anatomy of normal human body, functional histology and an appreciation of the genetic basis of inheritance and disease, and the embryological development of clinically important structures, so that relevant anatomical & scientific foundations are laid down for the clinical years of BAMS course.

OBJECTIVES

At the end of the 1st year BAMS course in Rachana Shareera the undergraduate student is expected to:

1. Know the anatomic relevance of Ayurvedic terms mentioned in the texts
2. Know the location of 108 marma on the body and the impact of injury on these sites
3. Know the normal disposition of the structures in the body while clinically examining a patient and while conducting clinical procedures
4. Know the anatomical basis of disease and injury
5. Know the microscopic structure of the various tissues.
6. Know the nervous system to locate the site of lesions according to the sensory and or motor deficits encountered.
7. Have an idea about the basis of abnormal development and critical stages of development
8. Know the sectional anatomy to read the features in radiographs and pictures taken by modern imaging techniques

Theory- Two Papers-200 Marks–(100 marks each)

Teaching Hours-210 hours

PAPER-I (100 marks)

PART-A (50 marks)

1. Shariropkramaniya Shaarira

- Sharira and shaarira vyakhya (definitions of sharira and shaarira).
- Shadangatvam (six regions of the body).
- Anga pratyanga vibhaga (sub divisions).
- Mrita sharir samshodhan.

- Shaarira shastra vibhaga.
- Shaarira gyan prayojana.
- Constitution of purusha according to dhatubheda, panchabhautikatvam, trigunatmakatvam, tridoshamayatvam.
- Karma purusha, and doshadhatumala-mulakatvam.

2. Paribhasha Shaarira

- Kurcha, kandara, jala, asthisanghat, seemanta, seevani, rajju, snayu and lasika.

3. Garbha Shaarira

- Garbha definitions.
- Explanation of shukra, artava, garbhadhana.
- Role of tridosha and panchmahabhuta in the fetal development.
- Beeja, beejabhaga and beejabhagavayava.
- Linga vinischaya.
- Masanumasika garbha vriddhi-krama.
- Garbhottpadakbhava.
- Garbhavriddhikara bhava
- Garbha poshana, apara nirmana , nabhinadi nirmana.
- Aanga pratyanga utpatti.

4. Pramana Shaarira

- Anguli pramana.
- Anjali Pramana.

5. Asthi Shaarira

- Asthi vyakhya, number, types, asthi swaroopa.
- Vasa, meda and majja.

6. Sandhi Shaarira

- Sandhi vyakhya, numbers, types of asthi sandhi.

7. Sira, Dhamani, Srotas Shaarira

- Definition, types and number of sira and dhamani.
- Description of Hridaya.
- Sroto shaarira: Definition, types of srotas and srotomula.

8. Peshi Shaarira

- Peshi vyakhya, structure, types, number and importance.
- Description of Peshi.

9. Koshtha Evam Ashaya Shaarira

- Definition of kostha and number of koshthanga.
- Types and description of ashaya.

10. Kalaa Shaarira

- Kalaa: definition and types.

11. Uttamangiya Shaarira

- Shatchakra
- Ida, pingala and sushumna nadi - brief description.

12. Marma Shaarira

- Marma: definition, number, location, classification.
- Clinical importance with viddha lakshana.
- Explanation of trimarmas.
- Detail description of marmas.

13. Indriya Shaarira

- Definition of indriya, indriya artha and indriya adhisthan, their number and importance.
- Description of gyanendria, karmendriya and ubhayendriya (manas).

PART-B (50 marks)

1. Definition and branches of anatomy. Preservation methods of the cadaver.

2. Anatomical Terminologies

- Anatomical position, Planes, and explanation of anatomical terms related to skin, fasciae, bones, joints and their movements, muscles, ligaments, tendons, blood vessels, nerves.

3. Embryology

- Definitions and branches of embryology.
- Embryo and fetus.
- Sperm.
- Ovum.
- Fertilization.
- Cleavage. Germ layers formation and their derivatives.
- Laws of heredity.
- Sex determination and differentiation.

- Month-wise development of embryo.
- Fetal circulation.
- Placenta formation
- Umbilical cord formation.

4. Osteology

- Bone: Definition, ossification, structure and types.
- Description of bones with clinical anatomy.

5. Arthrology

- Joints: Definition, structure types and movements.
- Description of joints of extremities, vertebral joints and temporomandibular joint with their clinical anatomy.

6. Cardiovascular system

- Definition, types and structure of arteries and veins.
- Description of heart and blood vessels with their course and branches.
- Pericardium with applied aspect.

7. Lymphatic system

- Definition, types and structure of lymph vessels, lymph glands with their clinical aspect.

8. Myology

- Structure and types of muscles.
- Description of muscles; their origin, insertion, actions, nerve supply and clinical anatomy.

Paper II (100 marks)

Part A (50 marks)

1. Respiratory System

- Bronchial tree and lungs with their clinical aspects.
- Respiratory tract: nasal cavity, pharynx, larynx, trachea, bronchial tree.
- Pleura with its clinical aspects.
- Diaphragm.

2. Digestive system

- Organs of digestive tract (alimentary tract) with their clinical aspects.
- Digestive glands: liver, spleen and pancreas.
- Description of peritoneum with its clinical aspects.

3. Urinary System

- Urinary tract: kidney, ureter, urinary bladder and urethra with their clinical aspects.

4. Reproductive system

- Male Reproductive system: reproductive organs, tract and glands (prostate and seminal vesicles) with their clinical aspects.
- Female reproductive system: reproductive organs, tract and glands with their clinical aspects.

5. Endocrinology

Definition, classification & description of endocrine glands (pituitary, thyroid, parathyroid, thymus and suprarenal glands) with clinical aspects.

PART B (50 marks)

6. Nervous System

- Nervous system: definition, classification and its importance.
- Description of brain and spinal cord.
- Description of peripheral nervous system: cranial and spinal nerves, nerve plexuses.
- Description of autonomic nervous system.
- Formation and circulation of cerebrospinal fluid and blood supply of brain and spinal cord.

7. Sensory organs

- Description of structures of eye, ear, nose, tongue and skin with their clinical aspects.

8. Surface and radiological anatomy

- Study of radio-imaging of limbs, abdomen, pelvis and vertebral column with its clinical application.
- Surface anatomy of Heart, Lungs, Liver, Kidney, Stomach, Pancreas, Spleen.

PRACTICAL

Marks: 100 marks

Teaching hours: 180

Content of practical

1. Practical study of bones
2. Practical study of organs
3. Practical study of surface and radiological anatomy.
4. Shava vichhedana – detailed dissection of the whole body.
5. Practical study of location of marma
6. Demonstration of histology slides (10 slides)

Distribution of marks

1.	Spotting -	20 marks
2.	Dissected organs and histology slides -	20 Marks
3.	Bones, joints, marma -	20 Marks
4.	Surface & radiological anatomy -	10 Marks
5.	Practical records -	10 Marks
6.	Viva-Voce -	20 Marks
	Total	**100 Marks**

Reference Books:-

S. NO.	NAME OF BOOK	AUTHOR
1	Relevant chapters of Brihtrayee and Laghuthrayee	
2	Brihat Shariram Vaidyaratna	P.S. Varrier
3	Pratyaksa Shareera (Part 1 to Part 4)	Gananath Sen
4	Drushtartha Shareeram (Vol 1& Vol 2)	Vaidya Atavel
5	Abhinava Shariram	Acharya Damodar Sharma Gaur
6	Secrets of Marma	Dr Avinash Lele
7	Manava Sharir (Revised Edition)-	Prof. Dinkar Govind Thatte
8	Ayurvedeeya Shareera Rachana Vijnana	Acharya Tarachand Sharma
9	Manava Bhruna Vigyana	Prof. Dinkar Govind Thatte
10	Manava Anga Rekhankan Vikrian	Prof. Dinkar Govind Thatte
11	Sharir Rachana Vigyan (English)	Vaidya P.G. Athawale
12	Clinical Anatomy in Ayurveda	Prof. D.G. Thatte & Prof. Suresh

		Chandra
13	Sharir Rachna Vigyan (English)	Prof. D.G. Thatte
14	Ayurvedic Human Anatomy	Prof. Dr. Giridhar M. Kanthi
15	Human Anatomy in Ayurveda	Dr.U.Govinda Raju
16	Rachana Sharir Vigyana	Dr. Mahendra Singh
17	Human Anatomy(volume 1,2,3)	B. D. Chaurasia
18	Gray's Anatomy	
19	Text Book of Human Anatomy	Inderbir Singh
20	Human Embryology	Inderbir Singh
21	Text Book of Human Histology	Inderbir Singh
22	Text Book of Human Neuroanatomy	Inderbir Singh
23	Clinical Anatomy	Richard S Snell
24	Fundamentals of Human Anatomoy	Dr. Chakraborthy
25	Human Osteology	Poddar
26	Principles of Anatomy and Physiology	G.J.Tortora
27	Manual of Practical Anatomy Cunnigham Practical Manual Vol-1, Vol-2, Vol-3	
28	Netter’s Atlas of Human Anatomy	

MAULIK SIDDHANT EVUM ASHTANGA HRIDAYA (SUTRASTHANA)

(Basic Principles and Ashtang Hridaya- An ancient text of Ayurveda)

GOAL

The *Ashtanga Hridayam*, the "Heart or Essence of all the Eight Branches of Ayurveda," is one of the fundamental ancient root texts of Ayurveda. Ashtanga Hridayam continues to serve as a root source for Ayurvedic philosophy and protocol, providing clear guidelines in all aspects of health.The students should gain knowledge and insight into the basic principles of Ayurveda also to introduce all the basics of life, regarding medicinal preparations, treatment that which are relevant to Ayurveda medical practice. During this course he/she will be carefully guided in order to gain a comprehensive understanding of the content of this text.

OBJECTIVES

By the end, student is expected to:

1. Uncover the deepest meaning behind the Ayurvedic principles
2. Build an authentic foundation of traditional Ayurvedic knowledge
3. Learn guidelines for applying the basic principles in each branch of Ayurveda

Theory- One Paper– 100 marks
Viva – 50 marks
Teaching Hours -120 hours

PART A (60 marks)

- Ashtang Hridaya Sutrasthana Adhyaya 1 to 15

PART B (40 marks)

- Ashtang Hridaya Sutrasthana Adhyaya 16 to 30
- Description of Ashta Prakriti
- Shastra Lakshan (Tantra), Tantraguna, Tantradosha, Tachitalya, Arthasraya, Kalpana

Reference Books:

1. Astang Hridaya : Hindi commentary by Lalchanda Vaidya
2. Astang Hridaya : Hindi commentary by Vd. B.L. Gaur
3. Astang Hridaya : English commentary by Dr. T. Sreekumar
4. Astang Hridaya : English commentary by Dr. Vishwavasu Gaur
5. Astang Hridaya : Sanskrit commentary by HemadriPa
6. Astang Hridaya : Sanskrit commentary by Arunadatta

SYLLABUS OF STUDY

(II BAMS)

DRAVYAGUNA VIJNANA

(PHARMACOLOGY & MATERIA MEDICA)

GOALS

The students should be able to identify the drugs of herbal origin and animal origin. This knowledge will be useful for the students in preparing medicines. These basic principles of Dravya Guna are of utmost importance in clinical application.

OBJECTIVES

At the end of the course, the student will be able to

1. Identify the plants taxonomically through field visits.
2. Identify the pharmacognostic features of wet and dry drugs.
3. Analyze the properties of the drugs and differentiate the poisonous and non-poisonous drugs.
4. Differentiate useful parts of the herbal drugs according to the chemical constituents.
5. Differentiate the original sample from the adulterated sample.
6. Understand the applied aspects of medicines and food.
7. Gain the knowledge about drug collection, storage, posology, route of drug administration and adjuvant.
8. Know the history of Dravya Guna through study of Lexicons.

Lectures: 200**Hrs**

Practicals: 200 **Hrs**

Total Marks -400

Theory Two Papers– 100 **Marks Each**

Practical/Viva voce – 200 **Marks**

Paper I

(100 **Marks)**

Part A

(50 **Marks)**

1- Dravyaguna Shastra Paribhasa:

- Lakshana of Sapta Padartha of Dravyaguna Vijnana viz
  - Dravya

- Rasa
- Guna
- Virya
- Vipaka
- Prabhava and Karma.

2- **Dravya:**
   - Etymological derivation, definition,
   - panchbhoutikatwa.
   - Classification of Dravya according to Samhitas and Nighantus Taxonomical classification.

3- **Guna:**
   - Etymological derivation, definition and Classification of Guna.
   - Detailed knowledge of Gurvadi Guna & Paradi gunas.

4- **Rasa:**
   - Etymological derivation, definition, Meaning of "Rasa" in various contexts.
   - Shad Rasas (Madhura, Amla, Lavana, Katu, Tikta, and Kashaya), Lakshana (characteristics),Guna and Karma of shad Rasas, Kopana and Shamana of Dosha and dushya by Shad rasas. Effects of excess usage of Rasa, Rasaskandha.
   - Panchabhautik constitution of Rasas, Nirvrittiviseshakrama (manifestation in general and particular), Ritu and shad rasa, Rasopalabdhi
   - Rasanurasayoh bheda (Difference between rasa and anurasa)

5- **Vipaka:**
   - Etymological derivation and definition
   - Difference between Avasthapaka and Vipaka,
   - Types of Vipaka, (Dvividha-Trividha,Panchavidha)
   - Guna and karma of Vipaka.
   - Grades of Vipaka (taratamya), Vipakopalabdhi hetu (Factors to determineVipaka).

6- **Veerya:**
   - Etymological derivation, definition and Swarupa of Virya
   - Number of Virya (Dwividha & Ashtavidha),
   - Panchabhauthikatva
   - Virya karmani (Effects of Virya)

7- **Prabhava:**
   - Definition, Effects of Prabhava.
   - Samanapratyayarabdha and Vichitrapratyayarabdha dravyas.

8- **Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength** (**balabal nirupana).**

9- **Karma:**
   - Lakshana, swaroopa and bheda of karma (Definition, nature and types of action).
   - Explanation of the following Karmas with examples
     1. Deepana

2. Pachana
3. Samshodhana
4. Samshamana
5. Anulomana
6. Sransana
7. Bhedana
8. Rechana
9. Chhedana
10. Lekhana
11. Grahi
12. Sthambhana
13. Madakari
14. Pramathi
15. Abhishyandi
16. Vyavayi
17. Vikashi
18. Rasayana
19. Vajeekarana
20. Jeevaneeya
21. Balya
22. Brimhana
23. Langhana
24. Medhya

10. Brief information on Karmas of dashemani gana of Charak Samhita.

11- Mishraka Gana:

11.**a)- Audbhida Gana** (**Vegetable origin)**

- Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kantakapanchamoola, Trinapanchamoola,Madhyamapanchamoola, Jeevaneeya panchamoola, Panchapallava, Panchavalakala, Panchakola Amlapanchaka, Panchatikta
- Triphala, Trikatu,Trimada, Trijataka Trikarshika, Swalpatriphala, Madhuratriphala
- Chaturusana, , Chaturbhadra Chaturbeeja Chaturajataka, Katuchaturjataka Shadushana
- Jeevaniya gana, Ashtavarga, Mahavisha, Upavisha
- Agrya aushadh varga- Knowledge of Agrayaaushadha Varga with example.

11 b)**Jangama Gana (Animal origin)- Ksheerashtaka, Mutrashtaka, Pitta panchaka.**

11 c)**Parthiva Gana (Mineral origin) - Lavana Panchaka, Kshara dvaya, Kshara Ashtaka.**

12- Basis of nomenclature: Basis of nomenclature of dravya, Basis and Derivation of synonyms.

13.

- Bheashaja Pariksha vidhi (as described in Charaka samhita vimana sthana 8)
- Dravya Sangrahana (collection of dravya)
- Ecology- Classification of desha (geographical area) and bhumi (soil)
- Swarupa of sangrahaniya dravya of (Nature and quality of drug to be collected)
- Sangrahana vidhi (Method of collection) -Vegetable and Animal origin drugs according to part used. Period of collection according to virya
- Samrakshana vidhi (preservation of collected dravyas)
- Bheshajagara (Storehouse))
- Study on different prayojyanga (useful plant parts)

Part B

(50 **Marks)**

(I) (20 **Marks)**

14 a) Concept of dravya shodhan (purification of dravya).

b) Brief knowledge of Apamishran (adulterants)

c) Concept of Abhava pratinidhi dravya (substitutes)

15-

- Prashasta bheshaja (ideal drug)
- Plant extracts.
- Concept of viruddha Dravya (incompatibility of the dravya).

16- Introduction to Nighantu Vigyan - Dhanwantari Nighantu, Bhavaprakashanighantu,Rajanighantu.

17- Brief knowledge of cultivation, conservation of medicinal plants and information about endangered species.

(II) (30 Marks)

18- **Introduction, Definition & scope of Pharmacology and Principles of general Pharmacology**.

Brief Knowledge about pharmacology of the following –

- Anaesthetics, CNS depressants, Sedatives, Hypnotics, Tranquilisers, Antipyretics, Analgesics, Antiepileptics,
- Antihypertensive, Antianginal, Antiplatelet, Hypolipidaemic, Haemopoetic, Coagulants
- Bronchodialators, Aerosols/ Inhalants, Expectorants
- Digestants, Carminatives, Antacids, Antiulcer, Laxatives, Antidiarrhoeals, Antiemetic, Hepatoprotective
- Diuretic, Antidiuretic, Lithotriptic, Antiinflammatory,
- Hormonal therapy, Antiobesity, Antidiabetic, Antithyroid, Oxytocic. Galactagogues, Contraceptives, Styptics,
- Antihistamines, Antimicrobial, Antibiotics, Antimalarial, Amoebicidal, Antifilarial, Anthelmentic, Antifungal,
- Vitamins, Minerals, Water imbalance and IV fluids
- Vaccines, antivenom, antirabbies serum, Local anti septics, drugs in ophthalmic practice, Anti cancer drugs and immunomodulators.

Paper II

(100 Marks)

Part A

(70 marks)

1- Detailed Knowledge of Following Dravya with respect to Basonym of drug, Main Synonyms, Regional Name, Botanical Name, Family, Classification of Dravya (Gana) as described in Charak and Sushrut, External morphology, Useful parts, Important phytoconstituents, Rasa panchaka, Action on Dosha, Dhatu, Mala, Prayogarha vyadhi (therapeutic indications), Amayikaprayoga and Matra (Therapeutic administration and Dose), Vishishta yoga (names of important formulations), Vishakta Lakshan (adverse effects), Chikitsopachara (remedial measures) and Shodhana (as required)

List of detailed drugs according to family:

1.	Vatsnabha	36.	Arjuna	71.	Tila
2.	Ativisha	37.	Lavanga	72.	Saireyaka
3.	Guduchi	38.	Jambu	73.	Kaalamegha
4.	Daruharidra	39.	Dadima	74.	Vasa
5.	Ahiphena	40.	Mandukaparni	75.	Parpata

6.	Varuna	41.	Dhatakipushpi	76.	Nirgundi
7.	Nagakeshara	42.	Jeeraka	77.	Agnimantha
8.	Baladwaya	43.	Krishnajeeraka	78.	Bharangi
9.	Shalamali	44.	Yavani	79.	Gambhari
10.	Gokshura	45.	Hingu	80.	Tulasi
11.	Bilwa	46.	Manjishta	81.	Punarnava
12.	Guggulu	47.	Madanaphala	82.	Apamarga
13.	Shallaki	48.	Jatamamsi	83.	Maricha
14.	Nimba	49.	Rasna	84.	Pippali-Pippalimoola
15.	Jyotishmati	50.	Bhringaraja	85.	Jaatiphala
16.	Karkatakashringi	51.	Pushkaramoola	86.	Twak
17.	Bhallataka	52.	Kushta	87.	Karpoora
18.	Shigru	53.	Chitraka	88.	Agaru
19.	Palasha	54.	Vidanga	89.	Chandana
20.	Beejaka/Asana	55.	Lodhra	90.	Eranda
21.	Raktachandana	56.	Kutaja	91.	Amlaki
22.	Vidari	57.	Sarpagandha	92.	Kampillaka
23.	Bakuchi	58.	Arkadwaya	93.	Devadaru
24.	Shaaliparni	59.	Sarivadwaya	94.	Talishpatra
25.	Prishniparni	60.	Kupeelu	95.	Haridra
26.	Kapikacchu	61.	Kiratatikta	96.	Ardraka
27.	Kanchanara	62.	Kaalamegha	97.	Eladwaya
28.	Yashtimadhu	63.	Shankhapushpi	98.	Kumkuma
29.	Ashoka	64.	Kantakari	99.	Varahi

30.	Shirisha	65.	Brihati	100.	Lashuna
31.	Aragvadha	66.	Ashwagandha	101.	Kumari
32.	Khadira	67.	Katuki	102.	Shatavari
33.	Pashanabheda	68.	Brahmi	103.	Vacha
34.	Haritaki	69.	Shyonaka	104.	Musta
35.	Vibhitaki	70.	Patala	105.	Durva
				106.	Usheera

Part B-II

Brief Knowledge of following dravyas with Respect to Sanskrit Name, Botanical Name, Family, Habit (Samanya Swarupa), Parts Used and Indications.

LIST OF NON-DETAILED DRUGS

1.	Swarnaksheeri	36.	Asthishrunkhala	71.	Indravaruni	106.	Gorakshaganja
2.	Champaka	37.	Aamra	72.	Karavellaka	107.	Ashwagola
3.	Patha	38.	Priyala	73.	Patola	108.	Ishwari
4.	Patalagarudi	39.	Ankola	74.	Garjara	109.	Kitamari
5.	Kamala	40.	Gunja	75.	Tagara	110.	Kankola
6.	Kumuda	41.	Agastya	76.	Akarakarabh	111.	Tejapatra
7.	Rajika	42.	Neeli	77.	Ajmoda	112.	Snuhi
8.	Sarshapa	43.	Mudgaparni	78.	Shatapushpa	113.	Danti
9.	Chandrashoora	44.	Maashaparni	79.	Dhanyaka	114.	Putranjivaka
10.	Moolaka	45.	Shimshapa	80.	Prasarni	115.	Bhumyamalaki
11.	Kareera	46.	Karanja	81.	Kadamba	116.	Jayapala
12.	Himsra	47.	Methika	82.	Kasani	117.	Udumbara
13.	Tuvaraka	48.	Kulatha	83.	Bakula	118.	Vata

14.	Tejapatra	49.	Sharapunkha	84.	Parijata	119.	Ashwattha
15.	Shaala	50.	Maasha	85.	Jati	120.	Plaksha
16.	Sarja	51.	Irimeda	86.	Peelu	121.	Chirabilwa
17.	Vrukshamla	52.	Markandika	87.	Jeevanti	122.	Kataphala
18.	Naagabala	53.	Aavartaki	88.	Karaveera	123.	Mayaphala
19.	Japa	54.	Babbula	89.	Saptaparni	124.	Sarala
20.	Paarisha	55.	Lajjalu	90.	Meshashringi	125.	Tavaksheera
21.	Latakasturi	56.	Taruni	91.	Moorva	126.	Shati
22.	Karpasa	57.	Vatada	92.	Kataka	127.	Aamragandhi Haridra
23.	Avartani	58.	Padmaka	93.	Gojihwa	128.	Kebuka
24.	Parushaka	59.	Aparajita	94.	Vruddhadaru	129.	Kadali
25.	Atasi	60.	Latakaranja	95.	Datura	130.	Talamuli
26.	Dhanvayasa	61.	Patranga	96.	Parshikayavani	131.	Palandu
27.	Changeri	62.	Kasamarda	97.	Kakamachi	132.	Chopchini
28.	Beejapuraka	63.	Chakramarda	98.	Hritpatri	133.	Langli
29.	Matulunga	64.	Parnabeeja	99.	Rohitaka	134.	Narikela
30.	Amlavetasa	65.	Tailaparni	100.	Kokilaksha	135.	Pooga
31.	Kaidarya	66.	Madayantika	101.	Priyangu	136.	Kharjura
32.	Ingudi	67.	Shrungataka	102.	Putiha	137.	Soorana
33.	Bola	68.	Saptachakra	103.	Parnayavani	138.	Vamsha
34.	Mahanimba	69.	Koshataki	104.	Hribera	139.	Kusha
35.	badara	70.	Ikshvaku	105.	Dronapushpi	140.	Shara

III- Introduction, Guna, Karma and Uses of following Jantava Dravya (Drugs of Animal Origin).

1. Kasturi
2. Gorochana
3. Mrigasringa

IV- Introductory Knowledge of Following Annapana Varga:

1- Jala Varga
2- Dugdha Varga
3- Madhu Varga
4- Taila Varga
5- Sukadhanya Varga
6- Shamidhanya Varga
7- Phala Varga
8- Shaka Varga
9- Mamsa Varga
10- Aharayogi

PRACTICALS

1. A. Study of Macroscopic, Microscopic characters and demonstration of organoleptic charcteristics and grahya-agrahyatva of following plants and their useful parts.

i. Kanda (stem) - Guduchi or Ashtishrinkhala
ii. Patra (leaves) - Vasa or Kumari
iii. Pushpa (flower and Parts of flower)- Dhataki or Japa
iv. Phala (fruit) – Maricha or Madanaphala or Vidanga
v. Beeja (seeds) – Eranda or Kapikacchhu
vi. Twak (bark) – Kutaja or Arjuna or Ashwattha
vii. Moola(Root)- Punarnava or Chitraka
viii. Niryasa (exudate) – Guggulu or Mocharasa
ix. Jangama dravya - Madhu or Ghrita.

2. Records of Herbarium sheets of 50 medicinal plants Compulsory study tour other state/s for field knowledge and procurement of plant species.

PRACTICAL MARKS DIVISION

1Herbarium	20Marks
2Practical record	20 Marks
3Drug identification- spotting –Raw/crude drugs	30 marks

4Plant identification spotting –fresh	30 marks
5Practical	40 marks
6Viva-Voce	60 Marks
Total	**200 marks**

Reference Books

1. Abhinav Buti Darpan (Vol.1-2) - Vd. Roop Lal Vaishya
2. Aushadna Vigyna Shastra - Acharya Pt. Vishvanatha Dwidevi
3. Ayurvediya Aushadnkarma vigyana - Acharya V.J. Thakur
4. Bedi Vanaspati Kosha - Prof. Ramesh Bedi
5. Bhaishajyaguna Vigyana - Dr. Alakhnarayan Singh
6. Bhav Prakash Nigantu (English) - Shreekanthamurti
7. Bhav Prakash Nighantu - With Vd. Krishna Chandra Chunekar commentary
8. Bhrinad dravyagunadarsha - Mahendra Kumar Shastri
9. Classical Uses of Medicinal Plants - Acharya Priyavrata Sharma
10. Controversial Medicinal Plants - Vd. G. Bapa Lal
11. Dalhana Ka Dravyaguna Shastra Ke Kshetra Me Yogadana - Vd. Shiv Kumar Vyas
12. Dravyaguna Kosha - Acharya Priyavrata Sharma
13. Dravyaguna Sutram - Acharya Priyavrata Sharma
14. Dravyaguna Vigyana - Dr. Gyanendra Pandey
15. Dravyaguna Vigyana(Vol. 1-2) - Acharya Yadavji Tikram Ji
16. Dravyaguna Vijyana - Dr. V.M. Gogate
17. Dravyaguna Vigyana (Vol. 1-5) - Acharya Priyavrata Sharma
18. Dravyaguna Shastrum - Vaidya G.A. Phadake
19. Dravyaguna Vijyana - Dr. A.P. Deshpande
20. Dravyagunavijnana basic Principles - Prof.D.S.Lucas
21. Forgotten Healers (Indian Medicinal Plants) - Dr. Prakash Pranjape
22. Glossry of Vegetable Drugs in Bhrittrayis - Thakur Balwant Singh & Vd. Krishna Chandra Chunekar
23. Introduction to Dravyaguna - Acharya Priyavrata Sharma
24. Kriyatamka Aushadi Parichaya - Acharya Pt. Vishvanath Dwidevi
25. Materia Medica - Acharya Ghosh
26. Nighantu Adarsh (Vol. 1-2) - Vd. Bapa Lal
27. Pharmacological basis of Medical Practice - Goodman & Gillman
28. Pharmacology and Pharmacotherapeutics - Satoskar Bhandarkar & Ainapure
29. Prayogatamaka Dravyaguna Vigyana - Dr. Maya Ram Uniyal
30. Priya nighantu - Acharya Priyavrata Sharma
31. Raspanchaka/Dravyaguna Siddhanta - Prof. Shivcharan Dhyani
32. System of Plant Nomenclature in Ayurveda - Dr. Gyanendra Panday
33. Text Book of Pharmacognosy - Trees & Valis
34. Textbook of Dravyaguna - Dr.K.Nishteswar

35. Unani Dravyaguna Vigyana - Hakim Daljeet Singh
36. Useful parts of Charaka, Sushurut, and Vagbhata.
37. Uttarakand Ki Vanaspatiya - Dr. Gyanendra Pandey
38. Vanoaushadi Darshika - Thakur Balwant Singh
39. Vanoaushadi Nidarshika - Dr. Ram Sushil Singh
40. Vedic Vanaspatiyan - Dr. Dinesh Chandra Sharma

ROGA NIDANA EVAM VIKRITI VIJNANA

GOAL

Roganidana mainly deals with the concepts like nidana panchaka, pariksha vijnana to understand the disease making procedure and to reach the exact diagnosis.

Promote the development of investigative skills to better understand pathologic process of the individuals.

OBJECTIVES

At the end of the course student will be able to,

- Describe the significance of – Dosha Dooshyadi Vigyanam, Pariksha Vijnana (dashavidha pareeksha, ashtavidha pareeksha etc), Shat Kriyakala (Vyadhi and Rutu), Nidana Panchaka
- Understand the knowledge of vyadhikshamatva, ashta mahagada, sadhyasadhyata
- Comprehend basic pathology
- Infer detailed description of vyadhis on the basis of various srotas
- Interpret the concept of avarana and dhatukshaya
- Perform bedside clinical examination
- Practice the tools of diagnosis like lab investigation, X-Ray, ECG etc
- Importance of pathyapathya in various vyadhis

Theory Two Papers – 100 Marks Each

Practical/Viva voce – 100 Marks

PAPER -1 **100 Marks**

Part A **50 Marks**

I. Dosha Dushyadi Vigyana

1. Definition and importance of Roganidana.
2. Samanya Nidana and Samanya Lakshana of Dosha Vriddhi, Kshaya and Prakopa.
3. Dosha Dhatu Ashraya Ashrayi Bhava.
4. Dhatu Kshaya Vriddhi Lakshana.
6. Mala Kshaya Vriddhi Lakshana.
7. Hetu, Bheda and Lakshana of Agni Dushti.
8. Definitions and Samanya Lakshana of Ama.

9. Sama and nirama Dosha, Dushya Lakshana.
10. Dosha Paka and Dhatu Paka Lakshana.
11. Concept, classification, diagnosis and general complications of Avarana.
12. Doshagati and Rogmarga.
13. Detailed study of Srotomoola and Srotodushti Samanya and Vishishta Hetu Lakshana of all Srotas. Differences between Sroto Dushti and Kha Vaigunya.

II. VyadhiVigyana

1. Definition, synonyms and classification of Vyadhi & Vyadhi Ghatak.
2. Criteria for nomenclature of Diseases in Ayurveda (Vyadhinamakarana).
3. Bija, Bija Bhaga and Bija Bhaga Avayava Dushti.
4. Basic knowledge of Hereditary, Congenital, Acquired, Multifactorial, Traumatic and Environmental disorders.
5. Introduction to ICD Classification of Diseases of WHO and DSM classification.
6. Samanyaja and NanatmajaVikara. NidanarthakaraVyadhi, Hetu Sankara, Lingasankara, Vyadhisankara, Vyadhi Awastha.
7. Dhatu, Updhatu, Mala and Indriya Pradoshaj Vikara.
8. Concept of AshtaMahagada .
9. Introduction to Ashta Nindita.
10. Definition and classification of Vyadhikshamatva.
11. Ojas – types of Ojo Dushti- Visrimsa- Vyapad & Kshaya & It's Diseases.

III. Basic Pathology

1. Introduction to pathology and its sub-divisions.
2. Introduction to Cell Injury and Cellular adaptations.
3. Definition and brief description of inflammation – Healing/repair.
4. Definition and brief description of edema – shock – hemorrhage, Thrombosis , embolism, Ischemia and Infarction.
5. Types of Immunity – different types of immune responses in the body – Basic knowledge of auto immune diseases, Acquired immune deficiency disease and hypersensitivity.

6. Nomenclature and classification of tumors - difference between benign and malignant tumors.
7. Introduction to Nutritional disorders – disorders of macro and micro nutrients.
8. Introduction to infections.
9. Introduction and classification of microorganisms such as virus- bacteria-fungus.

Part B **50 Marks**

IV. Nidana Panchaka Vigyana

1. Difference between Roga and Rogi Pariksha.
2. Importance of Nidan Panchaka.
3. Hetu - Definition, Synonyms and Classification.
4. Purva Rupa – Definition, Synonyms, Samanya and Vishishta Purvarupa.
5. Rupa - Definition, Synonyms, Samanya and Pratyatma Lakshana. Difference between Vyadhi and Lakshana.
6. Upashaya / Anupashaya– Definition, Types and its importance in diagnosis.
7. Samprapti – Definition, Synonyms and Type and Samprapti Ghataka.
8. Shat Kriyakaala. Relationship between Nidana Panchaka and Shat Kriyakaala.
9. Upadrava and Udarka.
10. ArishtaVigyan – Definition, Types and its importance.
11. Sadhyasadhyatwa – Types, their parameters and importance.
12. General diagnostic principles of AnuktaVyadhi (Ch. Vi. 4).

V. Pariksha Vigyana

1. Importance and knowledge of Aptopadeshadi & Darshanadi Trividha, Chaturvidha, and Shadvidha Pariksha.
2. Importance and Knowledge of Ashtasthana Pariksha.
3. Importance and Knowledge of Karanadi Dashavidha Parikshya Bhava.
4. Importance and Knowledge of Dashavidha Pariksha.
5. Basic knowledge of ECG, USG, X Ray,CT Scan,MRI.

Paper II **100 Marks**

Part A **50 Marks**

Systematic study of Nidana Panchaka of following diseases (Including Upadrava, Arishta and Sadhyasadhyata).

I. Diseases of Rasavaha Srotas

1. Jwara(Jwarabheda-Ama, Pachyamana and Nirama Jwara,Agantukajwara, Punaravartaka Jwara,Vishama Jwara, Dhatugata Jwara, Charakokta Sannipata Jwara.
2. (a) General mechanism of Fever
   (b)Introduction to the Aetiopathogenesis of
   - Malaria,
   - Typhoid,
   - Dengue fever,
   - Influenza
   - Chikungunya.
3. (a)Pandu
   (b)Amavata
   (c)Hridroga
   (d)Shotha.
4. (a) Introduction to Anaemia & its Classification
   (b) Rheumatic fever,
   (c) Rheumatoid Arthritis
   (d) Hypertension
   (e) Angina
   (f) Ischaemic Heart Disease
   (g) Myocardial Infarction and CCF.

II. Diseases of Raktavaha Srotas

1. Kamala
2. Raktapitta
3. Vatarakta
4. Kroshtuksheersha
5. Shitapitta
6. Maha Kushtha
7. Visarpa
8. Shwitra
9. Introduction to Kshudra Kushtha
10. Introduction to
    - Hepatomegaly
    - Spleenomegaly
    - Leukaemia
    - Thalessemia
    - Sickle cell Anaemia
11. Introduction to
    - Urticaria
    - Psoriasis
    - Eczema
    - Pemphigus.

III. Diseases of Mamsavaha Srotas

1. Galganda
2. Introduction to Thyroid disorders

IV. Diseases of Medovaha Srotas

1. Sthoulya
2. Karshya
3. Prameha.
4. Introduction to Obesity and Diabetes Mellitus.

V. Diseases of Asthi – Majjavaha Srotas

1. Vatavyadhi
2. Akshepaka
3. Apatanaka
4. Ardita
5. Pakshaghata
6. Gridhrasi
7. Vishwachi
8. Avabahuka
9. Manyasthambha
10. Katigraha
11. Pangutwa
12. Sandhigatavata
13. Asthi-Majjagata vata
14. Introduction to Osteo- Arthritis, Osteoporosis.
15. Introduction to Parkinson's disease
16. Stroke
17. Lumbago- Sciatica syndrome
18. Bell's Palsy
19. Cervical- Lumber
20. Ankylosing Spondylitis.

VI. Diseases of Shukravaha Srotas

1. Introduction to Klaibya and Vandhyatva.
2. Introduction to male and female infertility.

Part B **50 Marks**

VII. Diseases of Pranavaha Srotas

1. Kasa
2. Shwasa
3. Hikka

4. Urahkshata
5. Shosha
6. Rajayakshma

7. Introduction to the aetiopathogenesis of
    - Pneumonia
    - Pleuraleffusion
    - Bronchitis
    - Bronchiectasis
    - Bronchial Asthma

VIII. Diseases of Annavaha- PureeshavahaSrotas

1. Agnimandya
2. Ajirna
3. Aruchi
4. Chhardi
5. Amlapitta
6. Shoola
7. Parinama Shoola
8. AnnadravaShoola
9. Atisara
10. Pravahika
11. Grahani
12. Gulma
13. Udara Roga.
14. Introduction to
    - Anaha
    - Adhmana
    - Atopa
    - Visuchika
    - Alasaka
    - Vilambika.
15. Introduction to
    - Peptic Ulcer

- Irritable Bowel Syndrome (IBS)
- Diarrhoea
- Dysentry
- Constipation
- Inflammatory Bowel Diseases.

IX. Diseases of Udakavaha Srotas

1. Introduction to Trishna, Daha.
2. Introduction to water and electrolyte imbalance disorders.

X. Diseases of Mutravaha Srotas

1. Mutrakrichha

2. Mutraghata.

3. Introduction to

- Urinary Tract Infection
- Nephropathies
- Renal calculi

XI. Diseases of Swedavaha Srotas

1. Introduction to Khalitya, Palitya.

XII. Diseases of Manovaha Srotas

1. Apasmara
2. Unmada
3. Atatwabhinivesha
4. Vishada
5. Anidra
6. Mada
7. Murchha

8. Sanyasa
9. Introduction to
    - Epilepsy
    - Depression
    - Anxiety neurosis.

XIII. Upasargajanya Vyadhi (Communicable diseases)

1. Romantika
2. Masurika
3. Upadamsha
4. Phiranga.
5. Introduction to
    - Measels
    - Chickenpox
    - Leprosy
    - Tuberculosis
    - AIDS

XIV. Krimi Vigyana

1)Definition, classification of Krimi and features of Krimiroga
2)Snayuka, Shleepada.
3)Introduction of Filariasis
4)classification of common parasites.

PRACTICAL **(100 Marks)**

i) Fundamental Principles of Laboratory Tests

Introduction to laboratory, Sterilization, glass wares, solutions reagents and safety procedures, Disposal of biomedical wastes.

ii) Haematology

1 Haemoglobin estimation.

2 Blood cells counting - WBC, RBC, platelets.

3 Hematocrit /Packed cell volume (PCV).

4 Erythrocyte indices - MCV, MCH, MCHC.

5 Peripheral blood smear, staining technique and differential leucocyte count.

6 Peripheral blood film examination in Anemia, Leukemia, Malaria, Filaria (Demonstration).

7 ESR.

8 Screening test for bleeding disorders- bleeding time (BT)**,** Clotting time (CT), Demonstration of Prothrombin time (PT).

9 Blood grouping - ABO system, Rh typing (Rhesus system).

iii) Urine Examination

1. Ayurveda anusara mutrapariksha.
2. Physical Examination - Volume, Reaction (Ph) & Specific Gravity.
3. Chemical Examination for - Proteins, Glucose, Phosphate, Ketone, Bile salts, Bile pigment.
4. Dipstick examination
5. Demonstration of Microscopic Examination.

iv) Stool Examination

1 Ayurveda anusara purishapariksha.

2 Physical examination, Sama-Nirama Pariksha.

3 Microscopic examination of ova & cyst (Demonstration)

4 Occult Blood Test.

v) Demonstration of Sputum Examination 1 Ayurveda anusara sthivanapariksha.

2 Physical, Chemical and Microscopic Examination of the sputum.

3 Sample collection and Demonstration of AFB.

vi) Demonstration of Semen examination

1 Ayurveda anusara Retaspariksha.

2 Semen examination.

vii) Biochemical Examination – (Demonstration)

Blood Glucose, Serum Bilirubin, Blood Urea, Lipid Profile, Serum Creatinine, Serum Uric acid etc.

viii) Demonstration of different staining techniques in microbiology.

ix) Demonstration of Sero-immunological Investigations: RA and Widal.

x) Laboratory record – maintenance of laboratory record book.

Bed side Practical (Clinical Methods)

1. Introduction and demonstration of clinical methods (General and Systemic Examination).
2. Practical demonstration of examination of Roga based on Pancha Nidana.
3. Demonstration of instruments used for clinical examination.
4. Practical records of clinical examination of at least 20 long cases in I.P.D including Atur-bala-pramana pareeksha.
5. Practical records of clinical examination of at least 20 short Cases based on Ashta vidha pariksha in O.P.D.
6. Demonstration of ECG, USG and Radio imaging techniques.

Distribution of Marks for final Practical Examination

1. Daily Record -10 Marks
2. Indentification of Instruments -10 Marks
3. Laboratory Experiments -20 Marks
4. Short Case -10 Marks
5. Long Case -20 Marks
6. Viva - Voce -30 Marks

Total 100 Marks

Reference Books

1. Madhava Nidana (Madhukosha Pt. Yadunandan Upadhyay Commentary) Part 1 – 2
2. Doshakaranatwa Mimamsa - Acharya P.V. Sharma
3. Nadi Darshan - Vd. Tara Shankar Mishra
4. Nadi Vigyana Vidyotini Hindi Tika
5. Nadi Vigyan- Shri Satya Dev Vashisht
6. Nadi Vigyan- Gangadhar Tika
7. Rogi Pariksha vidhi Acharya- Priyavrata Sharma
8. Ayurvediya Roga Vargikaran- Vd. Ramanath Dwivedi & Vd. Gurdip Singh.
9. Ayurvediya Nidan Evum Chikitsa Ke Siddhanta - Prof. Ram Harsh Singh.
10. Relevant portions of Charak Samhita, Sushrut Samhita and Vagbhata.
11. Text Book of Pathology- William Boyds.
12. Text Book of Pathology- Harsh Mohan.
13. Text Book of Pathology- Dey and Dey.
14. Text Book of Parasitology -Ramnik Sood.
15. Clinical Pathology and Bacteriology- S.P. Gupta.
16. Clinical methods in Ayurveda- K. R . S. Murthy.
17. Parameswarappa's Ayurvediya Vikriti Vigyan and Roga Vikriti Vigyan-Dr. P.S. Byadgi.
18. Oxford Handbook of Clinical Examination Oxford Handbooks and Practical Skills.
19. Advanced Clinical Evaluation System for Practical Assessment of Clinical Examination Skills.

20. Symptoms & Signs in Clinical Medicine - Chamberlains.
21. Clinical Methods- Hutchison's.
22. Bedside Clinics in Medicine Part- I & II-Kundu.
23. Common Medical Symptoms- Mehta.
24. Advances in Pathology & Lab Med- Weimstean, Gralem, Anderson, Cortan, Wick, Zumwelt.
25. Clinical Laboratory medicine Edited by Kenneth D Mc. Chately.
26. General Pathology- Walter & Israel Churchill Living stone.
27. A Comprehensive Dictionary of Pathology- Chris Newann.
28. Practical Pathology- Dr. K. Uma Chaturvedi.
29 Clinical examination- Douglas/Macleod's.
30 Pathology Practical book for Undergraduates- Harsh Mohan.
31 Medical Laboratory Technology - R. Sood.
32 Clinical Diagnosis and Management by Todd,
Sanford and Davidson Laboratory methods
33 Clinical Hematology In Medical Practice- Degruchy's.
34 Robbins Basic Pathology- Kumar, Abbas, Fausto at al.

RASASHASTRA EVAM BHAISHAJYAKALPANA

(IATROCHEMISTRY AND AYURVEDIC PHARMACEUTICS)

Rasashastra evam Bhaishajya Kalpana is a potential branch of Ayurveda which mainly deals with selection of genuine raw drugs followed by processing and utilizing the same in manufacturing of therapeutically potent medicines.

VISION:
Attain perfection in subjective knowledge and pharmaceutical processing of formulations with Standard Operative Procedures.

MISSION:
To expertise the students in the subject, thereby making them develop standard quality dosage forms of medicines without altering the basic concepts to achieve utmost therapeutic benefits.

OBJECTIVES:

- To acquire sound theoretical knowledge of the subject and practical skills in manufacturing of medicines.
- To develop and modify classical formulations adopting advanced technology and to validate classical formulations to achieve safety and efficacy.
- To indulge and incite in Scientific Research & Development activities and achieving academic excellence in the subject.

Theory-TwoPapers

TotalMarks-200

Teachinghours-200

Practical:- TotalMarks-200

Teachinghours-200

Paper I – 100 Marks

PART A – 50 Marks

1. **Introduction to Rasashastra**
    - Definition and etymology of Rasa
    - History of Rasashastra

- Importance of Rasaushadhi
- Concept of Rasa-Rasayana, Concept of Raseshwar Darshana
- Concept of Rasashala and Rasamandap.

2. Paribhasha:Brief Description and Application of Technical terminologies

- Avapa
- Nirvapa
- Dhalana
- Bhavana
- Jarana
- Murchana
- Shodhana
- Marana
- Amrutikarana
- Lohitikarana
- Mruta Loha
- Satwa Patana
- Druti
- Apunarbhava
- Niruttha
- Rekhapurna
- Varitara.

3. Dravya Varga

- Amlavarga
- Panchamrittika
- Panchagavya
- Panchamrita
- Ksharashtaka
- Dravakagana

- Mitra panchaka
- Rakta varga
- Lavanapanchaka.

4. Yantras (Brief description & application)

- Ulukhala Yantra
- Khalwa Yantra
- Kachhapa Yantra
- Damaru Yantra
- Vidhyadhara Yantra
- Urdhwapatan Yantra
- Addhapatan Yantra
- Tiryakpatana Yantra
- Jaranartha Tulayantra
- Dolayantra
- Patalayantra

- Palika Yantra
- Baluka Yantra
- Bhudhara Yantra
- Sthali Yantra
- SwedanaYantra

5. **Musha (Crucible) (Brief description and application)**
    - Samanya Musha
    - Gostani musha
    - Vajra Musha
    - Maha musha
    - Yoga musha
    - Vrintaka Musha
    - Malla / Pakwa musha
    - Different types of crucibles e.g. Silica crucible, platinum crucible.
    - Mudra and sandhibhandana

6. **Kosthi (Brief description and application)**
    - Chullika
    - Satwapatana Koshthi
    - Patala Kosthi
    - Gara Koshthi
    - Angarakoshthi
    - Knowledge of various heating appliances viz. Gas stove, Hot plate, Heating mantle, Induction Stove, Hot AirOven.

7. **Puta (concept ,definition and types)**
    - Suryaputa
    - Chandraputa
    - Gomayaputa
    - Lawakaputa
    - Kukkutaputa
    - Kapotaputa
    - Varahaputa
    - Gajaputa
    - Mahaputa
    - Kumbhaputa
    - Valukaputa
    - Bhudharaputa
    - Applications of Electric muffle furnace and fuel (diesel) dependent furnace. Brief introduction to thermocouple andpyrometer.

8. **Parada**
    - Synonyms
    - Occurrence,
    - Natural and artificial sources of Parada

- Hingulottha parada
- Types of Parada
- Parada Dosha: Naisargika, Yougika, Aupadhika (Kanchuka)
- Grahya-Agrahya Parada
- Parada gati
- Parada bandha
- Shodhana of Parada
- Parada sanskara and brief description ofAshtasamskara.
-

9. Concept of Murchhana and Jarana of Parada

- Preparation of Kajjali
- Classification of Rasaushadhi: Khalvi rasa e.g. Tribhuvana Keerti Rasa, Parpati Rasa- Rasa Parpati, Kupipakva Rasa- Rasa sindur, Pottali rasa - Hemagarbha pottali
- Rasa sevana vidhi and pathya andapathya.

10. Brief introduction of quality control , standardization and GMP ofRasaoushadhies.

PART B : 50 Marks

Occurrence, Synonyms, Minerological identification, Sources, Types, Grahya and Agrahyata, Shodhana, Marana and other processing techniques. Properties, dose, anupan and therapeutic uses, pathya – apathya and ashuddha, apakwa and avidhee sevanjanya dosha and its management, important formulations of the following:

1. Maharasa

- Abhraka (Biotite Mica)
- Vaikrantha
- Makshika (Chalco-pyrite)
- Vimala (Iron Pyrite)
- Shilajatu (Bitumen)
- Sasyaka (Peacock ore)

- Chapala and Rasaka(Sphalerite).

2. **Uparasa**
    - Gandhaka (Sulfur),
    - Gairika (Red Ochre),
    - Kasisa (Green Vitriol),
    - Kankshi (Alum)
    - Haratala (Orpiment)
    - Manahshila (Realgar)
    - Anjana
    - Kankustha

3. **Sadharana Rasa**
    - Kampillaka
    - Gauri pashana (Arsenic oxide)
    - Navasadara (Ammonium chloride)
    - Kaparda (Cowry)
    - Agnijara
    - Giri Sindura (Red oxide of Hg)
    - Hingula (Red Cinnabar)
    - Mriddara shringa(Litharge).

4. **Dhatu**
    - Swarna (Gold)
    - Rajata (Silver)
    - Tamra (Copper)
    - Loha (Iron)
    - Vanga (Tin)
    - Naga (Lead)
    - Yashada (Zinc)
    - Kamsya (Bronze)
    - Pittala (Brass)
    - Vartaloha
    - Dhatu -graha sambandha

5. **Ratna** –
    - Manikya (Ruby)
    - Mukta (Pearl),
    - Pravala (Coral),
    - Tarkshya (Emerald),
    - Pushparaga (Topaz),

- Vajra (Diamond),
- Nilam (Sapphire),
- Gomeda (Zircon or Cinnamone stone),
- Vaidurya (Cats eye). Ratnapariksha, Ratnadosha
- Ratna-grahasambandha.

6. **Uparatna**
    - Vaikranta (Tourmaline)
    - Suryakanta (Sun stone)
    - Chandrakanta (Moon stone)
    - Rajavarta (Lapis lazuli)
    - Perojaka (Turquise)
    - Sphatikamani (Quartz)
    - Trinakanta
    - Palanka
    - Putika
    - Rudhira

7. **Sudha varga**
    - Sudha (Lime stone)
    - Kaparda (Cowries)
    - Shukti (Oyster Shell)
    - Shankh (Conch Shell)
    - Mriga shringa (Stag horn)
    - Khatika
    - Godanti (Gypsum)
    - Samudraphena (Cattle Fish bone)
    - Kukkutanda twak (Hen’s EggShell)
8. **Sikata varga**
    - Sikata (Silica)
    - Dugdhapashana (Talc)
    - Nagapashana / Jaharmohara (Serpentine)
    - Badarshama (silicate of lime)
    - Vyomashma (Sangeyashab - Jade)
    - Kousheyashma (Asbestos)
    - Akika(Agate)

9. **Kshara varga**
    - Sarja kshara (Sodium bicarbonate)
    - Yava kshara, Tankana kshara (Borax)
    - Surya Kshara (PotassiumNitrate).

10. **Miscellaneous**
    - Mandura
    - Bola, Dam-ul Akhawayan (Raktabandhini)
    - Kasturi Bhoonag
    - Mayurpiccha
    - Sarjarasa
    - Madhoocchishta.

11. **Visha and Upavisha -Introduction, collection and storage, classification, synonyms, shodhana, antidote, therapeutic and toxic doses, anupan, therapeutic uses, and formulations of following Visha and Upavisha**
    - Vatsanabha
    - Kuchala
    - Jayapala
    - Dhattura
    - Bhanga
    - Bhallataka
    - Gunja
    - Arka
    - Snuhi
    - Langali
    - Karaveera
    - Ahiphena
    - Chitrakamoola.

12. **Aushadhi Yoga Gyanam- ingredients, manufacturing process, and bheshajprayogvidhi.**
    - Arogya Vardhini Gutika,
    - Kasturibhairava Rasa
    - Kumara Kalyana Rasa
    - Garbhapala Rasa
    - Chandraprabha Vati
    - Chandramrita Rasa

- Pratapalankeshwara Rasa
- Pravalapanchamrita Rasa
- Anandbhairava Rasa
- Yogendra Rasa
- Laxmivilas Rasa
- Vasantakusumakara Rasa
- Vasantamalati Rasa
- Brihat Vata Chintamani Rasa
- Shankha vati
- Shwaskuthara Rasa
- Hinguleswara Rasa
- Hemagarbhapottali
- Hridyarnava Rasa
- Swarnavanga
- Makaradhwaja
- Putapakwavaisham Jwarantaka Loha
- Vatvidhvamsan Rasa
- Kamadugha Rasa
- Laghusutshekhar Rasa
- Navayasa Loha
- Saptamrita Loha
- Tamra Parpati
- Panchamrita Parpati
- SvetaParpati.

13. **Introduction to** pharamcovigilance and its status in India, with reference to Ayurvedic drugs.

A) Necessary to know – From part A and B : S.No. 1 to 9

B) Desired to know – From part B : S. No.10

Practical – 100 Marks

Minimum Twenty five practicals to be performed

1.	**Rasa [Parada]**	Samanya Shodhana of Parada Kajjali Mugdha rasa
2	**Maharasa varga**	Shodhana of Abhraka Dhanyabhrakanirmana Shodhana of Makshika Shodhana ofShilajatu Shodhana ofSasyaka.
3.	**Uparasa varga**	Shodhana of Gandhaka Shodhana of Gairika Shodhana of Kasisa Shodhana of Kankshi Shodhana of Haratala Rasa manikya nirman Shodana of Manashila
4.	**Sadharana rasa varga**	Shodhana of Hingula Sodhana of Navasadar Shodhana of Kapardika
5.	**Sudha Varga**	Shodhana of Shankha Shodhana of Shukti Shodhana of Pravala mula Shodhana of Godanti
6.	**Dhatu varga**	Samanya Shodhana of Lauha Shodhana of Mandura Samanya Shodhana of Tamra Shodhana of Naga Shodhana of Vanga Shodhana of Yashada
7.	**Kshara Varga**	Shodhana of Tankana
8.	**Parpati**	Preparation of Rasaparpati Preparation of Bola Parpati Preparation of Swetaparpati
9.	**Visha varga**	Shodhana of Vatsanabha Shodhana of Bhallataka Shodhana of Kupilu Shodhana of Dhattura beeja Shodhana of Jayapala Shodhana of gunja Shodhana of Chitrakamoola

PRACTICAL FOR DEMONSTRATION / GROUP PRACTICALS

1. **Hingulad rasakrishti (Hingulottha Parada).**

2. **Bhasma: 4 (One from eachgroup**)
   - Abhraka bhasma, Swarna Makshika bhasma, Tamrabhasma
   - Vanga bhasma, Naga bhasma, Yashadabhasma
   - Mandura bhasma, Kasisabhasma
   - Shankha bhasma, Kapardika bhasma, Godantibhasma.

3. **Pishti : 1**
   - Pravala pishti
   - Jaharmohara / Akika pishti
   - Trina kantha mani pishti
   - Muktapishti.

4. **Druti:1** Gandhakadruti.

5. **Formulations 4 (one from eachgroup)**
   - Rasasindura, Swarna vanga, Sameer pannagarasa.
   - Saptamruta lauha, Punarnava mandura, Navayasalauha.
   - Agnitundi vati, Tribhuvana kirti rasa, Sootshekhararasa, Laghusutashekhara Rasa.
   - Arogyavardhini vati, Laghumalinivasanta rasa, Hinguleshwarrasa, Anandbhairav rasa, Rajapravartinivati.

BHAISHAJYA KALPANA

Paper II – 100 Marks

Part A -50 Marks

1. **History and Chronological (kramika vikasa) development of Bhaishajyakalpana.**
   - Concept of Aushadha andBheshaja.

2. **Fundamental principles of BhaishajyaKalpana.**
   - Study of Ancient and Contemporary systems of ‘Maana’ (Units of measurement)
   - Shushka -ardra –drava- dravya grahan niyam (Rules of measures of dry, fresh, liquid drugs)
   - Grahyagrahyatva,
   - Nava Puran dravya grahanniyam.
   - Guidelines and Methods of collection

- Storage &preservation of Aushadhi dravya
- Concept of Saviryatavadhi (shelf life) and stability in ancient and contemporaryscience.

3. Bheshajprayogavidhi

- Aushadha Matra
- Anupana and sahapan
- Aushadh sevan kaala.(Posology).

4. Panchavidha kashaya kalpana and Other kalpana

- Kashaya Yoni,
- Swarasa
- Kalka
- Kwatha
- Hima
- Phanta
- Pramathya
- Aushadha siddha paniya
- Tandulodaka
- Laksha rasa
- Mantha
- Panaka
- Arka
- Churna
- Rasakriya
- Ghana
- Phanita
- Avaleha
- Prasha
- Gudapaka
- Sharkara
- Syrups
- Ksheerapaka
- Satva
- Guggulu kalpana
- Vati, Guti, Pinda, Modaka, Varti Preparation of Tablets, pills, capsule and Suppositories.
- Masi kalpana
- Lavana kalpana
- Kshara kalpana and Ksharasutra.

5. Introduction and general knowledge of useful instruments/ Equipments

- Disintegrator
- Mixer
- Grinder End Runner, Edge Runner
- Sieve-Shaker
- Granulator
- Tableting machine, Pill making machines
- Coating and polishing pan
- Capsule filling machine
- Sieves andmesh.

6. **Sneha kalpana**
    - Sneha yoni,
    - Types of Sneha,
    - Sneha murchana vidhi,
    - Sneha paka vidhi, patra paka, types and their use.
    - Sneha siddhi lakshana,
    - Dose, Preparation and uses of Triphala Ghrita, Bramhighrita, Narayana taila,Anutaila.

7. **Sandhana Kalpana and its types**
    - Madya Kalpana
    - Asava
    - Arishta
    - Sura (Prasanna - Kadambari - Medaka - Jagala - Bakkasa),
    - Maireya,
    - Surasava
    - Shukta
    - Kanjika
    - Sauviraka
    - Tushodaka
    - Sidhu kalpana their methods of preparation, siddhi lakshana, properties, uses, doses.
    - Takrarishta, Draksharishta, Ashokarishta, Dashamoolarishta, Kumaryasava, ChaChandanasava.

8. **Kritanna and Aushadhisiddha anna Kalpana**
    - Definition of Kritanna
    - Concept of Pathya and Apathya
    - Yavagu & its types

- Manda
- Peya
- Vilepi
- Anna
- Bhakta
- Odana
- Yusha
- Krishara
- Mamsa rasa
- Vesavara
- Khad Kamblika
- Raga Shadava
- Dadhi and Takra Varga – Takra, Udasvita, Katvara, Mathita,Chhachika.

PART B

1. **Bahyopacharartha kalpana (External Applications)-Lepa**
    - Types of Lepa
    - Methods of preparation and mode of application Udvartan and Avachurnan, Method of preparation of Siktha Taila
    - Malahara – Sarjarasa Malahara, Gandhak Malahara, Upanaha, Atasi upanaha, Shatadhouta and Sahastradhouta Ghrita.
    - Brief introduction of semi solid dosage forms- Ointments, Creams, Emulsions, Gels,Lotions.

2. **Principles and precautions for preparation of formulations forfollowing**:
   Netraupacharartha kalpana (Opthalmic preparations)
    - Seka
    - Drava
    - Pindi
    - Anjana
    - Ashchyotana
    - Tarpana
    - Putapaka
    - Vidalaka
    - Methods of preparation of eye drops, eyeointments.

Nasyopachararth Kalpana

- Classification of Nasya -Navana, Avapidana, Pradhaman, Marsha and Pratimarshanasya.

Dhumapanarth kalpana

- Classification of dhumpaan
- Method of preparation of dhumvarti and it's therapeutic uses
- Dhupan: Vranadhupan,arshodhupan.

Mukhaprayogarth kalpana

- Gandoosha
- Kavala
- Pratisaran
- Tooth paste, Tooth powders and Mouthwash.

Basti kalpana

- Classification,
- Method of preparation of Niruha and Anuvasana Basti
- Therapeutic properties and uses ofBasti.

3 Brief knowledge of Standardization of Ayurvedic formulations-Kasthaushadhi.

4 Brief introduction of Drug and Cosmetics Act 1940 and Rules1945.

5 Bheshajagara

- Concept of Aushadhi Nirmanshala with respect to Good Manufacturing Practices(GMP) in accordance to ScheduleT.

Practicals – 100 Marks

1. Following practicals to be performed- (Minimum one from each category)

Method of preparation, therapeutic uses, dose and anupana of the following

- Swarasa- Ardraka swarasa, Tulasi swarasa, Kumari Swarasa, Vasa putapakaswarasa
- Kalka- Nimba kalka, Rasonakalka.
- Kwatha- Punarnavasthaka kwatha, Rasna Sapthaka kwatha, Kulatthakwath.
- Hima- Dhanyaka hima, Sarivadi hima.
- Phanta- Panchakola phanta,YastimadhuPhanta.
- Pramathya- Mustadipramathya
- Mantha- Kharjuradimantha
- Aushadh siddha paniya- Shadangapaniya
- LakshaRasa.
- Arka - Yavani arka, Gulab arka, Misreyaarka

- Panaka- Chincha panaka, Chandanpanaka.
- Sharkara- Banapsha sharkara, Nimbusarkara.
- Churna- Sitopaladi Churna, HinguwashtakaChurna.
- Gutika- Chitrakadi Gutika, SanjivaniVati.
- Guggulu-Triphala Guggulu, KaishoraGuggulu.
- Avaleha- Chyavanaprashavaleha, Vasavaleha, Vyaghri Haritaki avaleha,Manibadra avaleha.
- Rasa kriya - Darvi Rasakriya, Guduchi Ghana, KutajaGhana.
- Khanda- Haridra khanda, Narikela khanda, Sowbhagya shuntipaka
- Satva- Amruta satva,
- Varti- Phala varti, Chandrodayavarthi
- Lavana- Arka lavana, Narikelalavana
- Masi- Triphala masi, MayurpicchaMasi
- Ksheerapaka- Arjuna ksheerapaka, Rasona ksheerapaka, ShunthiKsheerpaka
- Kshara- Apamarga kshara, Snuhi kshara, Ksharasutra..
- Manda, Peya, Vilepi, Yavagu, Krishra,Vesavara
- Yusha - Mudga yusha, Saptamushtika yusha, Kulatthayusha
- Aristha- Kutajarishta, Takrarishta.
- Asava - Kumaryasava,Kanakasava
- Sukta kalpana-Kanji
- Udaka-Tandulodaka
- Upanaha- AtasiUpanaha
- Siktha TailaNirmaan
- Malahara- Sarjarasa malahara, Gandaka malahara, Cream, Emulsion.
- Sneha Kalpana -Sneha Murchhana - Ghrita Murchana, Taila Moorchhana, Ghrita kalpana: Jatyadi ghrita, Triphala ghrita, ksheerashatphala ghrita- Taila kalpana-Panchaguna taila,Arka**t**aila, Bala taila,Jatyadi taila.
- Taila patana- Bhallataka taila patana, Jayapala tailapatana
- Shodhana- Guggulu,Hingu.

2. Visit to minimum three GMP approved Ayurvedic manufacturingunits.

Distribution of Practical Marks

Total 200 marks

Rasashastra - 100

1. RecordBook - 10Marks
2. Experiment - 30Marks
3. Spotting - 20Marks

4. Viva-voce - 40Marks

Bhaishajyakalpana - 100

1. RecordBook - 10Marks
2. Experiment - 30Marks
3. Spotting - 20Marks
4. Viva-voce - 40Marks

Reference Books

1. A hand book of standardization of Ayurvedic formulations (E) – Dr. S.V Honwad
2. A short notes on Rasashastra (H) – Dr. Anup Lata
3. A short notes on Rasashastra (H) – Dr. S. V Shukla
4. A Text book of Bhaishajya kalpana vijnanam (E) – Dr. P.S Reddy
5. A Text Book of Rasashastra (E) – Dr. P.S. Reddy'
6. Abhidana Manjari of Bhishagarya (E) – Dr. M.S Krishnamurthy
7. Abhinava Bhaishajya kalpana vijnana (H) – Dr. Ashok Shrivastava
8. Abhinava navajivanam (H) – Prof. Siddhinandan mishra
9. Anandakanda (H) -Prof. Siddhinandan mishra
10. Ayurvediya Rasashastra (H) - Prof. Siddhinandan mishra
11. Ayurvediya Rasayanasara Illustrated (H) – Dr. Shailaja Srivastava
12. Basavarajeeyam (E) – Prof. M.S Krishnamurthy
13. Bhaishajya Ratnavali – Complete in 2 vols. (E) – Dr. G. Prabhakar rao
14. Brihad rasarajasundara (Apurva rasagrantha) (H) – Duttaram choubey
15. Harmekhala (H) - Prof. S.N. Mishra
16. Introduction to Ayurvedic Pharmaceutics (E) – Dr. Devendra Joshi & Dr. Geeta joshi
17. Kesha soundarya yogah (E) – Raghavendra Udupa
18. Paka darpana of Nala (E) – Dr. Madhulika edited by Prof. J.R. Yadav
19. Prarambika Rasashastra (Elementary rasa-shastra) (H) - Prof. Siddhinandan mishra
20. Quality control and standardization of Ayurvedic Medicines (E) – Dr. Devendra Joshi &Dr. Dr. Geeta Joshi
21. Rajamartanda (H) - Prof. Siddhinandan mishra
22. Rajamrigankah (H) - Prof. Siddhinandan mishra
23. Rasapradeepa (E) – Dr. Gananatha dwivedi
24. Rasapradeepa (H) – Dr. S.N Mishra
25. Rasashastra M.C.Q (E) – Dr. Ajit Kadam
26. Rajamartanda (E) – Dr. K. Nistheshwar and Dr. R. Vaidyanath
27. Rasakamadhenu (H) – Vd. Shri Santosh kumar and Gulraj sharma
28. Rasamanjari (H) - Prof. Siddhinandan mishra
29. Rasapaddhati (H) -Prof. Siddhinandan mishra
30. Rasaprakasha sudhakara (H) - Prof. Siddhinandan mishra
31. Rasa ratna samucchaya (H) - Prof. Siddhinandan mishra
32. Rasaratnakara (E) – Dr. A Nagaratnam
33. Rasasara (H) - Prof. Siddhinandan mishra
34. Rasashastra (Text with english translation) - Dr Damodar Joshi

35. Rasashastra samhita Sangraha (E) – Dr. Reema Khurana
36. Rasendra bhaskara (Siddhiprada Hindi vyakhyaya) (H) - Prof. Siddhinandan mishra
37. Rasendra bhaskara text with english translation (E) - Dr. Gananath V dvivedi
38. Rasendra chintamani (H) - Prof. Siddhinandan mishra
39. Rasendra sara sangraha (E) – Dr. G. Prabhakar rao
40. Rasendra sara sangraha (H) – Dr. Indradev tripathi
41. Rasendra Chudamani (H) - Prof. Siddhinandan mishra
42. Rasendramangalam of Nagarjuna (H &E) – H.S Sharma
43. Sharangadhara darpana (H) – Dr. Bhrigupati Pandey
44. Sharangadhara Samhita (H) – Dr. Shailaja srivastava
45. Sharangadhara samhita (pocket size) mool – Dr. Narayanaram
46. Sharangadhara samhita (E) - Dr. K.R. Srikanthamurthy
47. Sharangadhara samhita (mool) – Pt. Sharangadhara acharya
48. Sarangadhara samhita by Acharya Sharagadhara (Original text) -Prof. Siddhinandan mishra
49. Selected Ayurvedic Formulations (E) –Dr. K. Nisteshwar
50. Siddha prayoga Lathika (H) – Acharya shree Gulraj Sharma
51. Siddhamantra of Vaisyacharya Keshava (Text with english translation and commentary based on "Prakasha" Sanskrit commentary of Bopadeva)–Dr. Mahesh T. S
52. Vaidyya chintamani (Complete in 2 vols.) (E) - Dr. K. Ramachandra Reddy
53. Vaidya Jivanam (E) - Dr. S. Pavana Kumar
54. Vishikhaanupravesha vijnyanam (Chikitsa karma pravesha) (H) – Acharya Shree Gulraj Sharma mishra
55. Yogaratnamala of Nagarjuna (H) – Dr. Priyavat Sharma

CHARAKA SAMHITA – PURVARDHA

GOALS

The students should gain knowledge and insight into the basic principles of Ayurveda also to introduce all the basics of life, that which are relevant to Ayurveda medical practice. During this course he/she will be carefully guided in order to gain a comprehensive understanding of the content of this text.

OBJECTIVES

By the end, student is expected to:

1. Uncover the deepest meaning behind the Ayurvedic principles.
2. Understand the growth and development of Sharira
3. Get knowledge on the concept of rebirth and causative factors for all the diseases.
4. How to write and to understand a text.
5. Help to select the patient for treatment on the basis of curability by the help of understanding the concept of Arishta Lakshanas.
6. Build an authentic foundation of traditional Ayurvedic knowledge.

Theory – 100 Marks
Viva – 50 Marks

PART A (50 Marks)

1. Sutra Sthana (30 Chapters)
2. Indriya Sthana (12 Chapters)

PART B (50 Marks)

1. Nidana Sthana (8 Chapters)
2. Vimana Sthana (8 Chapters)
3. Sharira Sthana (8 Chapters)

REFERENCE BOOKS:-

1. Charaka Samhita - Ayurveda Dipika commentary by Chakrapani

2. Charaka Samhita (Hindi commentary) - Vaidya Jayadev Vidyalankar or Vd. Atridev Vidyalankar or Prof. Gorakha Nath Chaturvedi & Kashinath Shastri or Dr. Brahmanand Tripathy or Dr.Ravi Dutta Tripathy.

3. Charaka Samhita (English Commentary): Dr. Ram Karan Sharma & Vd. Bhagwan Dash or Acharya Priyavrata Sharma.

4. Charaka Samhita – Ayurveda Dipika Commentary – Hindi Translation by Dr. B L Gaur, published by Rashtriya Ayurveda Vidhyapeeth.

SYLLABUS OF STUDY

(III BAMS)

AGADATANTRA VYAVAHARA AYURVEDA EVAM VIDHIVAIDYAKA

Aims and objectives

1. To aquire the knowledge of Visha (Toxin/Poison) and PrathiVisha (Antidotes)
2. To acquire the knowledge of different types of Drugs and their Formulations
3 .To develop the knowledge of Diagnosing different types of acute and chronic Poisoning cases /conditions
4. To acquire Knowledge and Practical experience of all types of classical Visha Chikitsa (Detoxification Treatments) as per diagnosis
5. To acquire the knowledge of Forensic Medicine and Medical Jurisprudence

Theory- 100 marks each
Practical / Viva voce – 50marks
Lectures –200 Hrs
Practicals - 100 Hrs

Paper-I
PART A- 50 marks

1. Introduction to Visha and AgadaTantra

- Derivation, definition of Visha and Agadatantra.
- Scope of Agadatantra.
- Visha Utpatti
- Visha Prabhava,
- Visha Pranaharana Kriya
- Visha Guna
- Visha Gati
- Visha Vega Visha Sankata
- Shanka Visha.

2. Introduction to Toxicology

- Definition of toxicology
- Definition of poison, suicidal and homicidal poisons
- Classification of poisons
- Action of Poison
- Route of administration of Poison
- Absorption, excretion, metabolism of Poison
- Diagnosis of Poison
- General principles of treatment

- Duties of a medical practitioner in case of suspected poisoning.

3. Visha and Ojas

- Origin and Classification of Visha
- Source of Visha
- Difference between Visha, Madya and Oja guna
- Visha Upadravas
- Visha Mukta Lakshana.

.

4. Diagnosis of Poison

- Tests for detection of Visha
- Modern Toxicological Techniques of detection of poisons
- Visha Data Lakshana
- Visha Peeta Lakshana
- Signs and symptoms of Visha afflicted organs and personal effects. (Poisoning with Anjana, Lepa paduka, Abharana etc.

5.Environmental Toxicology

- Introduction to Environmental Toxicology
- Samuhika Vishaprayoga- effect of chemical and nuclear warfare.

6. Vishopakrama described by Charak

- Twenty four upakramas by Acharya Charaka

7.SthavaraVisha (Plant Poison)

Manifestation of poisoning due to poisons of plant origin their fatal Dose, fatal period, management of poisoning, post mortem appearance and its medico legal importance of

- Visha
- Upavisha- Arka, Snuhi, Langali, Karaveera, Gunja, Ahiphena, Dhattura, Bhallataka, Vatsanabha, Kupeelu, Jayapala, Bhanga
- Tobacco
- Parthenium hysteriphorus
- Chitraka
- Eranda
- Digitalis
- Cerebra Odallam.

8. Garavisha, Dooshivisha, Viruddhahara

Classification, diagnosis, management and contemporary significance.

- Garavisha
- Dooshivisha
- Viruddhahara
- Food adulteration and poisoning

9. Jangama Visha (Animal Poison)

Lakshana, Bheda, Chikitsa and their Sadhyasadhyata (contemporary and classical views).

- Sarpa Visha
- Keeta Visha
- Loota Visha
- Vrischika Visha
- Mooshika Visha
- Alark Visha

10. Sthavara Visha (Metal ,Mineral ,Acid and Alkali Poison)

- Introduction to poisoning due to Acids, Alkalis, metals, Non-metals, Asphyxiants and others
- Fatal Dose, Fatal period, Manifestation, management, medico legal importance and postmortem appearance of poisoning due to:
- Acid and Alkalis– Sulphuric acid, Hydrochloric acid, Nitric acid, Hydrocyanic acid, Oxalic acid, Carbolic acid, Formic acid, alkalis in general.
- Asphyxiants – Carbon monoxide, Carbon dioxide, Hydrogen sulphid**e**
- Nonmetallic poisons – Phosphorous, Iodine
- Metallic poisoning – Arsenic, Mercury, Lead, Copper, Zinc, Tin.
- Others - Petroleum – Kerosene Organo phosphorus compounds - Aluminumphosphate, Organo Chlorinated Compounds, Household poisons.

11 Madya and Madatyaya. Alcohol poisoning (Ethanol and Methanol).

12 Introduction to Narcotic drugs and Psychotropic substances Act 1985.

Part –B 50 Marks

1. Vyavahara Ayurveda (Forensic medicine) and Vidhivaidyaka (Medical jurisprudence)

- Definition
- History
- Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.

2. Legal Procedures

- Definition,Types of Inquest
- Definition,Types & Powers of Evidence
- Definition,Types & Powers of Witness
- Definition,Types & Powers of Courts

3. Personal Identity

- Definition,Types and Importance of Identification.
- Identification Data

- Medico legal aspects of Identification
- Forensic odontology
- Introduction to Forensic Serology and DNA profiling.

4. Death

- Definition of death
- Types of Death
- Stages of Death
- Modes of Death
- Medico Legal Aspects
- Medico Legal autopsy
- Exhumation.

5. Injuries

- Thermal injuries/Burns- Definition,Classification,Causes of Death,Post-mortem Findings
- Their medico Legal aspects
- Electrical Injuries
- Lightning Injuries
- Mechanical Injuries
- Regional & Bomb-blast Injuries
- Fire-arm Injuries
- General introduction of weapons.
- Medico-legal Aspects of WOUND

6. Dowry deaths (Domestic Violence)

- Dowry Deaths
- Medico Legal importance
- Laws in relation to Dowry Death.

7. Asphyxial deaths

- Definition
- Pathognomonic Findings in cases of Asphyxia
- Bio-chemical Changes after Death
- Violent Asphyxia- Classification
- Mechanical Asphyxia- Hanging, Striangulation,Suffocation,Drowning
- Medico Legal importance of all types

8. Pregnancy And Delivery

- Medico Legal importance of Pregnancy, Delivery
- Impotence & Sterility
- Abortion
- Infanticide
- battered baby
- Virginity
- Artificial Insemination

- Legitimacy

9. Sexual offences and their Medico Legal aspects.

10. Sexual perversions and their Medico Legal aspects.

11. Introduction to Forensic psychiatry.

12. Introduction to forensic laboratory.

13. Ethics

- Ethics as in classical Texts
- Types of Vaidya
- Pranabhisara and Rogabhisara Vaidya
- Qualities of Vaidya
- Responsibilities of Vaidya
- Chaturvidha Vaidyavrutti
- Duties of Vaidya to his patient
- Vaidya Sadvrittam
- Apujya Vaidya
- Code of conduct.

14. Medical Practitioners and Law

- Definition
- Formation & Function of IMC
- Laws in relation to Medical practitioners:
- Indian Medicine Central Council Act.
- Privileged Communication
- Duties of a Patient
- Privileges & Rights of patient
- Professional Misconduct
- Euthanasia
- Malingering
- Consent

15. Physician's Responsibility

- Physician's responsibility in criminal matters
- Professional negligence
- Civil negligence
- Criminal negligence
- Medico Legal aspects of Acquired Immune Deficiency Syndrome
- Rights of an unborn child
- Medical Termination of Pregnancy Act Transplantation of human organs Bill 1994, Pre Natal Diagnostic Testing Act

- Malingering of feigned diseases
- International Code of Medical Ethics for Doctors.
- Clinical establishment Act.
- Consumer Protection Act 1986

PRACTICALS

Practical Training

1. Post Mortem examination
2. Evidence in the court
3. Demonstrations in the Forensic & Toxicology museum

(Toxic & Anti toxic substances, medico legal specimens & Charts)

4. Clinical postings
5. Library Hours for compilation

Distribution of Practical Marks

1. Post Mortem examination and Court posting – Case Record	10
2. Practical/Clinical Record Book	10
3. Identification (spotting)	10
4. Viva – voice	20
Total	**50**

Reference Books

1. Topics related to Agada Tantra from Charak Samhita, Sushrut Samhita, Ashtanga Hridaya, Ashtanga Samgraha, Kasyapa Samhitha, Yogaratnakara, Bhavaprakasha and Madhava Nidana.
2. Vidhivaidyaka (Vyavahar Ayurveda Vijnan) Dr.Charuchandra Pathak
3. Medical Jurisprudence and Toxicology Modi
4. Basavarajeeyam Edited by Vd.Govardhan
5. Agada Tantra Sh. Ramanath Dwivedi
6. Text book of Agada Tantra Edited by Dr Huparikar, Dr.Joglekar
7. Agadatantra ki Pathyapustaka Edited By Dr Huparikar, Dr.Joglekar
8. Agad Tantra Dr. Shekher Namboodri
9. Vishachikitsa Vaidya Balakrishnan Nair, Kerala

   (Ayurveda Toxicology English Translation)
10. Medical Ethics and Medical Laws in India Dr. H.S. Mehta

11. Toxicology Ayurvedic Perspective VPSV Ayurveda college Kottakkal

12. Kautilya Arthashastra (English) Prof. Kangle
13. Kautilya Arthashastra (Hindi) Dr. Raghunath Singh
14. Vyavahar Ayurveda Dr.Ayodhya Prasad Achal
15. Vyavahar Ayurveda Vigyanam Dr.Indramohan Jha (Sachchan)
16. Textbook of Forensic Medicine and Toxicology Dr. V.V.Pillay
17. Forensic Medicine Dr. B. Umadathan
18. Relevant Acts Govt. of India
19. Relevant topics from Manu Smriti

SWASTAVRITTA AND YOGA

Aims and objectives

- To get the complete knowledge about different dimensions of health asper Ayurveda and contemporary science.
- To have a thorough knowledge of Daily regimen, seasonal regimen, codes and conducts, diet and lifestyle as per Ayurveda to maintain physical and psychological health.
- Theoretical understanding of basic concepts of Yoga and practical demonstration of asanas and Pranayama techniques.
- To understand the epidemiology of communicable and non-communicable disorders as per contemporary science.
- To have knowledge of Primary health care, different health related programmes by the government, health administration at different level.
- To get an idea about environmental pollution at different levels with its effect on health of an individual and their preventive measures as per contemporary science and Ayurveda.

Theory- Two papers - 100 marks each
Practical / Viva voce -100 marks
Lectures –200 Hrs
Practical demonstration – 100 Hrs

Paper-I
PART A- VAIYAKTIKA SWASTHAVRITTA (50 marks)

1.Introduction

- Definition of Swastha&Swasthya and Swasthavritta.
- Arogya lakshana
- Swasthavrittaprayojanam
- WHO definition of health.
- Dimensions of health-Physical, Mental, Social.
- Concept of wellbeing- objective, subjective,
- Standard of living, Quality of life.

2. Dinacharya

- Definition of Dinacharya.
- Aims and importance of dinachary.
- Brahma Muhurta evamUtthana, Usha Jalapana, Sharirachinta, Malatyaga, Mukhaprakshalan,Dantadhavana and preparation of Ayurvedic tooth powder and paste,

Jihvanirlekhanavidhi, Anjana, PratimarshaNasya, Gandusha and Kavala,Tambulasevana,Dhoomapana, Abhyanga, Udvartana,Utsadana, Vyayama,Chankramana,Snana, Anulepana, Vastra dharana,Danda dharana,Padatra dharana,Chatra dharana, Ushnisha dharana,Ratnabharana dharana,Madhyahnacharya.

- Cosmetic effect of Dinacharyaprocedures.

3.Rathricharya

- Sandhya charya
- Rathribhojanavidhi
- Shayanavidhi according to Bhavamishra.

4. Ritucharya

- Importance of Ritucharya
- Ritu presentation as per different acharyas
- Adana kala & visarga kala
- Sanchaya-Prakopa-Prashamana of Dosha according to Ritu
- Doshashodhana in Ritucharya
- Relation of Agni bala and Ritu
- Pathya and ApathyaAhara and Vihara in different Ritus
- Ritusandhi,Yamadamsthra,Rituharitaki,Rituviparyaya

5.Sadvritta

- Description of Sadvritta andAchara Rasayana
- Role of of Sadvritta and Achararasayana in Prevention and control of

psycho-somatic diseases.

6.Trayopastambha

i)Ahara-

- Nirukti, Swarupa, Pramukhatva of Ahara.
- AharadravyaVargikaranam.
- Aharavidhividhana
- Dwadashashanapravicharana
- Ashtaharvidhiviseshayatanani
- Pathyahara, Apathyahara, Samashana, Adhyashana, Vishamashana.
- Aharadushparinama&tajjanyavyadhaya.
- SantarpanajanyaevamApatarpanajanyavyadhi.
- Viruddhahara and its effects.
- Shadrasabhojanasyamahatwam.
- Concept of balanced diet in Ayurveda.
- Nitya sevaneeyadravya,
- Dietetic standards
- Proximate principles of Food.
- Nutritional requirements
- Sources and deficiency diseases of Protein, Carbohydrate, Fat, Vitamins and Minerals.
- Balanced diet for different sections of people in the society.

- Social aspects of nutrition.
- **Aharavarga**- Dhanyavarga(Cereals and millets), Shaka and Haritavarga (Leafy and Non leafy vegatables), Kanda varga (roots and tubers), Phalavarga (Fruits), Tailavarga(Fats and Oils), Ikshuvarga& Madhya varga(Alcoholic Beverages), Dugdhavarga (Milk and Milk products), Masala and vyanjanadravyas (Spices & Condiments), Kritannavarga(Prepared Food), Mamsavarga (Meat types).
- Food hygiene -Milk hygiene-Milk composition, Source of infection (for Milk), Milk borne diseases, Clean and Safe milk, Pasteurization of milk. Meat hygiene-Meat inspection, Slaughter house, Freshness of fish and egg. Fruits and Vegetables hygiene.Sanitation of eating places, Preservation of food, Food handlers.
- Food borne diseases.
- Food fortificationand Food adulteration.
- Food toxicants
- Properties of Vegetarian and Non- vegetarian diet.
- Effects of spices and condiments.
- Consumption of Alcohol and its effects on personal and social health.
- Effects of pathya-apathya in life style disorders-Diabetes, Hypertension, Obesity and Coronary heart Disease.

ii) Nidra-

- Nirukti and Utpatti of Nidra.
- Types of Nidra – Swasthyasambandha
- Properties of YuktaNidra.
- Effects of RatriJagarana, Diwaswapna, Anidra, Atinidra.
- Aharas and Viharas causing disturbed sleep as well as sound sleep.
- Duration of sleep according to age.
- Sleep in healthy and diseased persons.

iii) Brahmacharya –

- Brahmacharya andAbrahmacharya.
- Importance of Bharmacharya and Abrahmacharya.
- Vyavayasambandhi niyama.
- Effects of Ativyavaya.
- Methods of Virya Raksha, Surataspriha(Libido) through Vajikarana,
- Viryanasaphala.

7.Roganutpadaniya-

- Concept of Vega- Adharaniya Vega and Dharaneeya Vega, Diseases due to vegadharana and their chikitsa, sharirshodhan.

8.Rasayana for Swastha –

- Nirukti, paribhasha(definition), classification and examples

9.Ashtanindita purusha
10.Menstrual hygiene

Part B (YOGA AND NISARGOPACHARA) - 50 marks

YOGA

1.Introduction

- Yoga shabdautpatti, definitions
- Different schools of Yoga – Rajayoga, Hathayoga, Mantrayoga, Layayoga, Jnanayoga, Karmayoga, Bhaktiyoga.
- Yoga prayojana.
- Ayurveda yoga sambandha.
- SwasthyarakshaneYogasyamahatvam
- Yogabhyasapratibhandhaka&siddhikara bhavas as per Hathayoga.
- Mitahara and Pathyapathyani during Yogabhyasa.

2. Panchakosha Theory

3. Astanga yoga

i)Yama,
ii)Niyama
iii)Asana and its importance

- Standing Postures: Ardhakatichakrasana, Padahastasana, Ardhachakrasana, Trikonasana.
- Sitting postures: Swasthika, Gomukhasana, Padmasana, Vajrasana, Bhadrasana, Shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, Ardhamatsyendrasana, Siddhasana.
- Supine Postures: Pavanamuktasana, Sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana,Setubandhasana.
- Prone postures: Bhujangasana, Shalbhasana, Dhanurasana, Makarasana.
- Suryanamaskara: procedure and benefits.

iv) Pranayama

- Benefits of pranayama, time of practice.
- Avara-pravara-madhyamalakshana
- Yuktaayuktalakshana
- Nadishudhi Pranayama
- Kumbhakabheda – Suryabhedana, Ujjayi, Sheetali, Sitkari, Bhastrika, Bhramari ,Murcha, Plavini.
- Nadishudhilakshana
- Shatkarma-Dhauti, Basti, Neti, Trataka, Nauli, Kapalabhati
- Bandhas and Mudras
- Shad chakras
- Ida-pingala-sushumnanadis.

v)Pratyahara,
vi)Dharana,
vii)Dhyana,
viii) Samadhi

4. Description of Yoga in Ayurveda

- Moksha and Muktatmalakshana and upaya
- Naishthikichikitsa
- Satyabuddhi
- Tatvasmriti
- Ashta Aishwarya
- Ashta siddhis.

5. NISARGOPACHARA (Prakritikachikitsa)

- Definition, history, aims and objectives
- Theories as per Western school of Naturopathy
- Indian school – Panchabhutopasana
- Relation of Ayurveda and Naturopathy
- Importance of Naturopathy in present era.
- Jalachikitsa(hydrotherapy) – Hot water treatment, Cold water treatment, foot and arm bath, Spinal bath, hip bath, abdominal wet pack, Steam bath, enema and whirl pool bath.
- Mrittikachikitsa (Mud therapy) Types of soil, doctrine of mud selection, mud bath.
- Suryakiranasevana (Sun bath - heliotherapy)
- Mardana (Massage) – different methods and effects.
- Diet types – Soothing, Eliminative, Constructive,Positive and negative diet, Acidic and alkaline diet
- Upavasachikitsa(Fasting therapy) – Importance, types, therapeutic effects of fasting.
- Visramachikitsaupayoga.

PAPER II
SAMAJIKA SWASTHAVRITTA
Part A – 50 marks

1.Janapadodhwamsa

- Causes, Manifestations and control measures
- Importance of Panchakarma and Rasayana.

2. Vayu (Air)

- Vayu guna according to sushrutasamhita
- Properties of Vayu as per different directions
- Vayu shudhiprakara – Ayurvedic aspect.
- Composition of air.
- Air of occupied room- Thermal discomfort and comfort zone, indices of thermal comfort.
- Air pollution – health and social aspects, Prevention and control of air pollution.
- Global warming
- Ventilation and its types.
- Mountain air & High altitude – Health problems

3. Jala (Ayurvedic and modern aspects)

- Jala guna and bheda according to Charaka Samhita and Sushruta Samhita.
- Jala shodhana according to Ayurveda.

- Importance of water.
- Safe and wholesome water.
- Water requirements, properties, types and sources of water.
- Water pollution and health hazards.
- Methods of water purification.
- Hardness of Water.
- Examination, Tests and analysis of water.
- Rain water harvesting and water recycling.

4. Bhumi and nivasasthana(Land and housing)

- Types of soil
- Soil& health
- Land pollution
- Bhumi shodhana
- Nivasayogyabhoomi
- Social goals of housing
- Housing standards
- Mahanasa (Kitchen) standards
- Rural housing
- Housing and health
- Overcrowding

5. Prakasha(lighting)

- Requirement of good lighting
- Natural lighting
- Artificial lighting
- Biological effects of lighting

6.Dhwani pradooshana(Noise pollution) -Noise, Sources, effects& control.
7.Vikirana (Radiation)- Sources, effects and control.
8. Apadravya Nirmulana (Disposal of solid waste)

- Different types of solid waste.
- Storage and collection of refuse.
- Methods of disposal of solid waste (Rural & urban)
- Bio-medical waste management.

9. MalanishkasanaVyavastha (Excreta Disposal)

- Methods for Unsewered area and Sewered area
- Latrines for camps, fairs and festivals

10. Disposal of dead body – Burial, Burning, Electric cremation.
11. Meteorology (RituevamVatavaranajnanam)

- Definition of weather and climate,
- factors influencing weather and climate.

12. Disaster management

- Definition

- Natural and man-made disasters
- Epidemiologic surveillance and disease control.

13. Occupational Health

- Occupational Hazards
- Occupational Diseases
- Prevention of Occupational Diseases
- Health & precautionary measures
- ESI Act
- Indian factories Act
- Offensive Trades- Effects on health and precautionary measures.

14. School health services

- Health problems of school children.
- Aspects of school health service.
- Duties of school medical officers.
- Maintenance of healthy environment.

15. Epidemiology

- Concept of Epidemiology
- Dynamics of disease transmission
- Concept of diseases
- Concept of causation
- Epidemiological triad
- Natural history of disease
- Concept of control
- Concept of prevention
- Risk factors
- Modes of intervention
- Incidence and prevalence.
- Susceptible host, host defences
- Immunizing Agents
- Disease prevention and control
- Investigation of epidemic.
- Disinfection – definition, types.
- Ayurvedic concept of Vyadhikshamatva
- Ayurvedic concept of Sankramakarogas.
- Epidemiology of Communicable Diseases: Chicken Pox, Measles, Diphtheria, Pertussis, Mumps, Tuberculosis, SARS, Influenza, Pneumonia, Cholera, Polio, Viral Hepatitis , Typhoid, Leptospirosis, Dengue Fever, Chikungunia, Malaria, Filariasis , Leprosy, Rabies , Tetanus, Emerging and Re-emerging diseases.
- Kuprasangajavyadhi (STDs):AIDS, Syphilis, Gonorrhoea, Chancroid.

16. Non-communicable disease epidemiology

- Diabetes

- Obesity
- Hypertension
- Coronary Heart Diseases
- Rheumatic Heart Disease
- Cancer

17. Chikitsalaya Bhavana (Hospital Building)

Part B - 50marks

1.Prathamika Swasthyasamrakshana(Primary Health Care)

- Definition, principle, elements,levels of health care.
- Structure at Village, Sub centre, PHC,CHC, Rural hospital levels.
- Health insurance
- Private agencies
- Voluntary health agencies
- NGOs and AYUSH sector
- Role of Ayurveda in Primary Health Care.

2.Parivarakalyana Yojana (Family welfare Programmes)–

- Demography
- Demographic cycle
- Life expectancy
- Family planning and methods of family planning.

3. Matrusishukalyana Yojana – MCH programme

- Ante natal, Intra natal, Post-natal, Neo natal care.
- Child health problems and indicators of MCH care.

4. Preventive geriatrics-Problems of elderly, prevention and control measures.
5. World Health Organisation-Objectives,structure and functions.
6. International health agencies-United Nations agencies, Health work of bilateral agencies.
7. Alma Ata declaration
8. National Health Policy
9. Health statistics-

- Definition, Sources and uses of health statistics.
- Data collection, Classification, Presentation.
- Vital statistics-Morbidity rates, Mortality rates,Fertility rates.
- Health survey

10. Swasthyaprashasana(Health Administration) – Health administration at Central including AYUSH, State, District, Village levels.
11. National health programmes

- Tuberculosis(RNTCP)
- Leprosy(NLEP)

- AIDS (NACP)
- Blindness (NPCB)
- Polio(PPI)
- Diabetes (NDCP)
- Cancer (NCCP)
- Guinea worm
- Vector born disease control programme.
- NRHM
- All the upcoming national health programmes
- RCH programme
- Universal Immunization Programme.

12. National Nutritional Programmes–

- IDD
- Vitamin A prophylaxis
- Mid-day meal
- Anaemia control programmes.

PRACTICALS

1. **Demonstration of Dinacharya procedures**- Anjana, Nasya, Kavala, Gandoosha, Dhoomapana, Abhyanga, Udvarttana.

2. Parichaya of aharadravya, immunization agents, disinfectants and family planning devices

3. Practical demonstrations of Asanas mentioned in the syllabus, Pranayama (Suryabhedana, Ujjayi, Shitali, Sitkari, Bhastrika, Bhramari and Nadishuddhi) and Shad karmas (Jaladhauti, Jalaneti, Sutraneti, Trataka, Kapalabhati).

4. Preparing and delivering of a health educational talk on health-related issues.

5. A short compilation on any topic on environmental health.

6. **Educational Visits**

   Observe the functioning of the Milk Dairy, Water purification unit, Sewage treatment unit, MCH/Family welfare centre, Leprosy hospital and industrial unit. Visit to Primary Health Centre for knowledge of actual implementation of National health programmes including knowledge of rural health. Visit of rural Ayurvedic dispensary. Visit to naturopathy centre to observe naturopathic treatment modalities.

7. **Health survey**-

   Minimum 5 families of rural and urban areas.

There should be 3 case sheets for Yoga Naturopathy &pathyaapathya together and 3 case sheets for communicable diseases.
Proformas for Case sheets/practical records/survey/Dinacharya projects etc should be prepared by the respective universities.

Practical and Viva Voce examination
Marks distribution - 100 marks

1. VaiyaktikaSwasthavritta	20
2. Samajik swasthavritta	20
3. Demonstration of Yoga	10
4. Naturopathy	10
5. Journal and compilation work	10
6. Viva voce	30

Reference Books:

1. Relevant portions of Charaka, Sushruta, Vagbhata, Sarngadhara, Bhavaprakasha, Yogaratnakara, Madhavanidana and Bhelasamhita.
2. SwasthavrittaSamucchaya - Pandit Rajeshwardutt Shastri
3. Swasthya Vigyan - Dr. Bhaskar Govind Ghanekar
4. Swasthya Vigyan - Dr. Mukund swarup Varma
5. Swasthavritta - Vaidya Sakad
6. Swasthavritta - Dr. Ranade and Dr.Firke
7. Ayurveda Hitopadesh - Vaidya Ranjit Rai Desai
8. Yoga and Ayurved - Acharya Rajkumar Jain
9. Swasthavrittavigyan - Dr.Ramharsha Singh
10. Swasthavrittam - Dr.Brahmanand Tripathi
11. Swasthavrittam - Dr.Shivkumar Gaud
12. AyurvediyaSwasthavritta - Vaidya Jalukar Shastri
13. Patanjalayogasutra - Patanjali Maharshi
14. Hathayogapradipika - Swatmaram Yogendra
15. Gherandasamhita - Gherand Muni
16. Yoga Paddhati - BharatiyaPrakritikChikitsa Parishad
17. YogikChikitsa - Shri. Kedar Nath Gupta
18. SachitraYogasandarshika - Dr.Indramohan Jha
19. Yoga deepika - Shri. B.K.S. Iyengar
20. Light on Yoga - Shri. B.K.S. Iyengar
21. Light on Pranayama - Shri. B.K.S. Iyengar
22. Yoga and yoga chikitsa - Dr.Ramharsha Singh
23. Foundations ofContemporary Yoga - Dr.Ramharsha Singh
24. Yoga Sidhantevam Sadhana - Harikrishna Shastri datar
25. Prakritik chikitsa Vidhi - Sharan Prasad
26. Prakritik chikitsavigyan - Verma
27. Preventive and Social Medicine - J. Park
28. Preventive and Social Medicine - Baride and Kulkarni

29. Janasankhya Shiksha SidhantaEvam upadesya - Dr. Nirmal Sahani
30. Health Administration in India - S.C.Seel
31. Health and family welfare - T.L.Devaraj
32. Positive Health - L.P. Gupta Biogenic
33. Secrets of food in Ayurveda - L.P.Gupta
34. Granthon meinnihitSwasthaprakarasamagri - Dr. Smt. NigamSharma
35. Dr. Reddy's comprehensive guideto Swasthavritta - Dr.P.sudhakar Reddy
36. Nutritive value of Indian foods - ICMR
37. Yoga and Nisargopachar - Vd. Prama Joshi
38. PrachinVangmaymeinprakriticchikitsa - swami Anant Bharati,CCRYN
39. Swasthavritta - Vd Yashwant Patil and Vd. Vhawal
40. Food and nutrition - Swaminathan
41. Organology and sensology in yoga -Prashant S Iyengar
42. Yoga-A game for Women -Geeta S Iyengar
43. Yoga-A game for Women(hindi translation)-Madhu Pandey

KAUMARABHRITYA

GOALS:

Kaumarbhritya is an important clinical branch of Ayurveda, which aims at imparting traditional, qualitative, professional, scientificeducation to create Doctors qualified in paediatric practice and providing quality patient care to neonates and children

OBJECTIVES:

At the end of this course, the student will be able to

- Know the care of Newborn through principles of Ayurveda
- Understand physiological and pathological difference in a Neonate
- Understand the difference in pediatric and adults W.S.R to growth &development, fixation of drug dosage
- Know various methods to enhance the immunity in children like SwarnaPrashana, immunization etc.
- Understand diseases pertaining to pediatric age group & its managementthrough Ayurveda
- Application of basic treatment principles in children includingPanchakarma

Theory One Paper – 100 Marks

Practical Viva Voce - 50 Marks

Paper – I

Kaumarbhritya Parichaya Evum Balaka Paricharya (Introduction to Ayurvedic Pediatrics and Child Care)

Part A - 50 Marks

1. Introduction to Kaumarabhritya
    - Definitions &Terminologies related toKaumarabhritya
2. Contribution of Kashyapa
    - Samhita towards Kaumarabhritya
3. Vayobedha in children Importance ofclassification of age in Kaumarabhritya,Modern classification of age
4. PranapratyagamanaAyurvedic view ofpranapratyagamana involving different steps.

- Ayurvedic view of pranapratyagamana involving different steps.
- Brief knowledge of instruments of Resuscitation Kit
- Assessment of gestational age

5. Navajata Shishu Paricharya (Neonatal Care):
    - Care of the Jatmatra (Newly born child) and the Sadyojata
    - Care of the Samaya-purvajata Shishu (Preterm)
    - Purnakalika Shishu (Full term)
    - Samaya-Paschatjata Shishu (Post term neonate)
    - Nabhinala Chhedana (Cutting of umbilical cord), Complications of improper cutting of umbilical cord and its treatment
    - Rakshoghna Karma (Protective measures- Ayurvedic and modern view)
6. Navajata Shishu Parikshana (Examination of newborn)
    - Ayu-Parikshana
    - Modern approach to Neonatal Examination
7. Navajat Shishu Poshana (infant feeding)
    - Specific feeding schedule as per Ayurvedic texts and modern concept; Stanya-Sampat (Properties of normal breast milk)
    - Stanyotpatti (Physiology of lactation)
    - Stanya Sangathana (Composition of breast milk)
    - Stanya Parikshana (Examination of breast milk)
    - Stanya-Piyusha (Colostrum)
    - Stanya-Pana-Vidhi (Techniques of breast feeding) StanyakshayaStanyanasha (Inadequate production and absence of breast milk)
    - Dhatri (wet nurse)- Stanyabhave dugdh Vyavastha (alternative feeding in the absence of breast milk), Various other milk feeding methods
8. Stanyadosha (Vitiation of Breast milk)
    - Stanya Shodhana (Purification of breast milk)
    - Stanya Janana and Vardhanopakrama (Methods to enhance breast milk formation)
9. Garbha Vridhi Vikasa Krama
    - Samanya Parichaya (brief monthwise development offetus)

- Milestones of development during infancy and childhood including concepts of various Samskaras

10. Poshana (Nutrition)
    - Normal requirements of nutrients and common food sources
11. Dantotpatti evum Danta Raksha Vidhi (Dentition and dental care)
    - Danta-sampat (Characteristics of healthy teeth)
    - Danta Nisheka evum Dantodbheda (Eruption of teeth)
    - Dantodbhedjanya Vikara (Dentition disorders)
12. Vyadhikshamatva
    - General concepts of Bala (Immunity)
    - Methods of Bala Vriddhi
13. Prashan & Lehana
    - Indications, contra-indications
    - Different drugs used in lehana
14. Knowledge of National Programs related to Child Health Care
    - Reproductive and Child Health (RCH) Program
    - Community Child Health Programs
    - Nutritional Programs,
    - National Immunization Program
    - Other programs incorporated by Govt. of India from time to time

Part B - 50 Marks

Samanya Chikitsa Siddhanta and Balaroga

(General Principles of Treatment and Management of Pediatric Disorders)

1. Bala Pariksha-vidhi Evam Shishu Vedana Parigyan (Examination of sick child and Diagnostic methods-Ayurvedic and modern).
    - History taking – birth history, family history,
    - Feeding history
    - Developmentalhistory
    - Immunizationhistory etc
    - Pediatric examination
    - Head to toe examination
    - Samanya Chikitsa Siddhanta (General principles of treatment in children).

2. General Aushadhl Matra Nirdharana
    - Ayurvedic and modern drugs preparations (drug doses according to age, weight and drug contents)
3. Specific therapeutic panchakarma procedures in children
    - Snehan
    - Swedan
    - Basti
4. Prasava Kaleena Abhighata (Birth injuries)
    - Shwasavrodha (Asphyxia neonatorum)
    - Ulvaka
    - Upashirshaka (Caput Succidanum and Cephalohaematoma)
    - Facial Paralysis
    - Erb's Paralysis
    - Bhagna (fractures)
5. Brief description of Sahajavyadhi (Congenital disorders)
    - Sahaja Hridaya Vikara (Congenital Cardiac Disorders)
    - Jalashirshaka (Hydrocephalus)
    - Khandaoushtha (cleft lip)
    - Khanda-Talu (cleft palate)
    - Sanniruddha Guda (Anal stricture / imperforated anus)
    - Pada Vikriti (Talipes equanovarus and valgus)
    - Spina bifida
    - Meningocele
    - Meningomyelocele
6. Brief knowledge of genetic disorders)
    - Down syndrome
    - Turner Syndrome
    - Muscular dystrophy
    - Sickle-Cell Anemia
    - Thalassaemia
    - Sahaja Madhumeha (Juvenile diabetes)
7. Prasavottara Vyadhi (Neonatal disorders)

- Navajata Kamala (Neonatal Jaundice)
- Navajata Netrabhishyanda (Neonatal conjunctivitis)
- Nabhiroga (Umbilical disorders)
- Navajatshishu-raktavishmayata (Neonatal Septicemia)

8. Dushta Stanyapanajanya Vyadhi (Disorders due to Vitiated Milk)
    - Lactose intolerance
    - Kshiralasaka
    - Kukunaka
    - Ahiputana (Napkin Rashes)
9. Kuposhanajanya Vyadhi (Nutritional disorders)
    - Karshya
    - Phakka
    - Balashosha
    - Parigarbhika (Protein Energy Malnutrition)
    - Vitamin
    - Micro-nutrient deficiency disorders
    - Hyper-vitaminosis
    - Failure to thrive
10. Aupasargika Vyadhi (Infectious Diseases)
    - Karnamula Shotha (Mumps)
    - Romantika (Measles)
    - Rubella
    - Masurika (Chicken Pox)
    - Rohini (Diphtheria)
    - Kukkura-Kasa (Whooping Cough)
    - Dhanurvata (Tetanus)
    - Krimiroga (Worm Infestations)
    - Antrika Jwara (Typhoid)
    - Mastisakavarnashotha (Meningitis)
    - AIDS
    - Dengue
    - Malaria

- Rajayakshma (Tuberculosis)
- Jivanujanya Yakrit Shotha (Hepatitis)
- Poliomyelitis

1) Srotas Vikara:
   a) Pranavaha Srotas
      - Pratishyaya (common cold)
      - Kasa (Cough)
      - Shwasa (Respiratory distress syndrome)
      - Tamaka Shwasa (Bronchial Asthma)
      - Utphuliika
      - Swasanaka Jwara (Pneumonia/Pneumonitis, Bronchiolitis)
      - Gala shotha (Pharyngitis, Laryngitis)
      - Talukantaka(Tonsillitis)
   b) Annavaha Srotas
      - Ajirna (Indigestion)
      - Atisara (Diarrhoea)
      - Chhardi (Vomiting)
      - Vibandha (Constipation)
      - Mukhapaka (Stomatitis)
      - Gudapaka (Proctitis)
      - Parikartika (Anal fissure)
      - Udarshula (Infantile Colic)
      - Pravahika (Dysentry)
      - Gudabhransa (Rectal Prolapse)
      - Ama and its disorders like Ama vata jwara (Rheumatic fever).

   C. Rasavaha Srotas
      - Jwara (Fever)
      - Pandu (Anemia)
      - Mridbhakshanajanya Pandu (Anemia associated with clay eating/Pica)

   D. Raktavaha Srotas
      - Kamala (Jaundice)
      - Raktapitta (Haemorrhagic disorders)

- Yakritodara (Hepatomegaly)
- Pieehodara (Spleenomegaly)

E. Mamsa-Medovaha Srotas

- Apachi (Lymphadenitis)
- Galaganda (Goitre)
- Gandamala (Cervical Lymphadenopathy)

F. Mutravaha Srotas

- Shopha in Vrikka (Glomerulonephritis and Nephrotic syndrome)

2) Anya Bala Vikara (Miscellaneous Pediatric Disorders)

- Apasmara (Epilepsy)
- Akshepa (Convulsions)
- Nirudhaprakasha (Phimosis)
- Cerebral palsy.

3) Behavioral Disorders of Children, their management and counseling

- Breath holding spell
- Shayyamutra (Bed wetting)
- Pica
- Unmada
- Autism
- ADHD (Attention Deficit and Hyperactive Disorders)
- Jadatwa (Mental retardation)

4) Pran raksha vidhi (Life saving measures in children)

- Principles of management of Shock and Anaphylaxis
- Poisoning
- Foreign body in respiratory tract
- Status epilepticus
- Hemorrhage
- Acute Renal Failure
- Febrile Convulsion
- Status Asthmaticus
- Fluid and Electrolyte Management

5) Balagraha

- General description classification, clinical features and management

IMPORTANT FORMULATIONS

Knowledge of their ingredients, indications, precautions and specific considerations including Adverse Drug Reactions (ADR) of commonly used Ayurvedic formulations in paediatrics practice

Eg: 1. Aravindasava
2. Baalachaturbhadra choorna
3. Samvardhana Ghrita
4. Rajnyadhi Choorna

Practical Viva Voce - 50 Marks

Content of Practical / Demonstration

1. Clinical training of above mentioned disorders of children.
2. Exposure to –
   a) Navajata Shishu Paricharya (Care of the newborn)
   b) Pranapratyagamana Vidhi (Resuscitation procedure of newborn)
   c) Vaccination
   d) Panchakarma Vidhi (Panchakarma procedures) especially Snehan, Swedana, Basti.
3. Knowledge of various equipments such as
   - Phototherapy unit
   - Overhead radiant warmer
   - resuscitation equipments
   - Panchakarma equipments and their application
4. Knowledge of IV fluid administration, Blood sampling
5. Anthropometry measurements and their interpretation
6. Various Ayurvedic & modern Procedures and investigations in pediatric practice

Distribution of Marks

Pediatric Long case and neonatal case records	10 Marks
Patient Examination	20 Marks
Spotting	05 Marks

Viva – voce 15 Marks

Total = 50 Marks

REFERENCE BOOKS

1) Kashyapa Samhita Complete Hindi translation by Satyapal Vidhyalankara English translation by Prof. Premvati Tiwari
2) Principles & practice of Pediatrics in Ayurveda: Dr. CHS Shastry
3) Child Health Care in Ayurveda: Prof. Abhimanyu Kumar
4) Ayurvedic Concepts of human Embryology: Prof. Abhimanyu Kumar
5) Kaumarbhritya by Prof. D.N. Mishra
6) Kaumarbhritya Ke Antargata Balgraho Ka Kramika Evam Vaigyanika Adhyana by Prof. Chanchal Sharma
7) Notes on Kaumarbhritya-by Dr. Dinesh K S
8) Pran - Pratyagannanann-by Dr. B.M. Singh
9) Ayurveda Dwara Matra Evam Shishu Paricharya by Dr. KS Patel,V.K.Kori & Raigopal
10) Kaumarbhritya related references from Charaka Samhita, Sushruta Samhita Vagbhata etc.
11) Clinical Methods in Paediatrics by Meharban Singh
12) Pediatrics Emergencies by Meharban Singh
13) Essential Pediatrics 0,P. Ghai
14) Text Book of Pediatrics Nelson
15) Care of New Born by Meharban Singh
16) Panchakarma in Pediatrics Dr. Yogita Srivas

PRASUTI TANTRA EVAM STRIROGA

GOALS:

Prasutitantra and streeroga is an important clinical branch of Ayurveda, which aims at producing graduates, having profound knowledge of various stages in life of a woman including menstruation, pregnancy, labour, and puerperium, both normal and abnormal, its management along with extensive practical training.

OBJECTIVES:

- Know about Rajovigyana ie; Physiology of menstrual cycle.
- Know about Garbhini Paricharya and vyapad ie; Antenatal care as well as pregnancy disorders both Ayurveda and modern aspects.
- Learn about Prasavavigyana, prasavavyapad and Sutikavigyana i.e; normal and abnormal labour, Post labour complications and management.
- Know about various Gynaecological disorders and its management.
- Know about various surgical and other procedures done in Gynaecology and Obstetrics.
- Have a practical training on examination of Gynaecology and Obstetric patients.
- Have a practical knowledge about Stanikachikitsa done in Prasutitantra and Streeroga.

Theory (TwoPapers) -200 Marks
Teaching hours - 200
Practical:- 100 Marks
Teaching hours - 100

PAPER-1

PRASUTI TANTRA

PART-A :

INTRODUCTION TO SUBJECT:

STRI SHARIRAVIJNAN

- Etymological origin of the word Stri.
- Artavavaha and Stanyavahastrotamsi.
- Tryavarta yoni, StriVishishtaPeshi,Marmani.
- Anatomy of female reproductive system.(External and internal genital organs)
- Soft & Bony Pelvis and its obstetrical importance.
- Vayobhedena Strisangnya

RAJO VIGYANA

- Description of Raja, Artava and Prathama RajoDarshana
- Rajasvalacharya.
- Ritumati Lakshana, Ritumaticharya, Ritukala.
- Menarche, Menstrual cycle and their regulation by endocrine glands, Ovulation –Importance in conception
- Concept of StriSukra

GARBHA VIGYANA

- Garbhasya paribhasha
    - Garbhadhanavidhi, Garbhavakranti
    - Garbha Sambhavasamagri
    - Garbhakarabhava, Panchabhautikatwa of Garbha
    - MasanumasikaVridhi of Garbha
    - Garbha Poshana
    - Garbhasayasthe Garbhasthiti
      Foetal attitude, lie, position, presentation

b) Apara, GarbhaNabhinadi, Jarayu, Ulba

- Formation, Development, Function of Placenta

- Umbilical cord, Amniotic fluid
- Foetal membranes
- Abnormalities of Placenta
- Garbhalingotpatti,
- Garbhasya Avayavotpatti, GarbhaVarnotpatti
- GarbhaVikriti

GARBHINI VIGYANA

- Sadhyograhita Garbhalakshana,Vyakta Garbhalakshana
- Pumsavanavidhi
- Diagnosis of Pregnancy
- Garbhini Paricharya,
- Garbha UpaghatakaraBhava,
- Dauhrida

Ante Natal care-Examination, Investigation and Management

- GarbhaVyapada: Nidana, Samprapthy and Chikitsa
- Garbhasrava and Garbhapata
- Garbhashosha-Upavishtaka, Nagodara, Upashushka, Leenagarbha, Antarmritagarbha,
- Raktagulma
- Bahugarbhatha, Multiple pregnancy
- Abortions
- Rh-incompatability- Causes, clinical features, complications and management.
- Gestational trophablastic neoplasia
- Ectopic pregnancy, IUGR
- Intrauterine foetal death
- Multiple pregnancy

GARBHINI VYAPAD

- Hrillasa, Chardi, Aruchi,Atisara
- Vibandha, Arsa, Udavarta,Parikarthika,
- Sotha,Vaivarnya, Kandu
- Kikkisa,
- Pandu, Kamala
- Makkala

Common ailments of Pregnancy:

- Emesis gravidarum
- Gestational Anaemia
- Gestational Hypertension
- Gestational Diabetes
- Jaundice in pregnancy
- High risk pregnancies
- Toxaemias of Pregnancy
- AIDS
- Ante Partum Haemorrhage : causes, clinical features,complications and management

PART B

PRASAVA VIGYANA :

Prasava

- Paribhasha, Prasavahetu, Prasavakaala
- Sutikagara nirmana, SangrahaniyaDravyani, Sutikagara praveshavidhi.

Prasavavastha;

- Prajayani/ Upasthita Prasava/ Asannaprasavalakshana,
- Aavi.
- Prasava paricharya, Jatamatra paricharya

Normal Labour:-

- Definition of Labour, Physiology & Mechanism of Labour
- Monitoring of Labour and management, Pictogram
- Episiotomy, care
- Resuscitation of newborn.

PRASAVA VYAPAD

- Garbhasanga, Yonisamvarana, Aparasanga
- Mudagarbha- Definition, Nidana, Types & Management
- Induction and augmentation of labour,
- Cervical dystocia, Cephalopelvic disproportion, Prolonged labour Preterm labour, Post term labour,
- Foetal distress
- Assisted Labour,
- Caesarian
- Retention of Placenta
- PPH - causes, clinical features and management, Genital tract Injuries during labour
- Uterine Inversion, Amniotic Fluid Embolism, Garbhasthithiparivarthan(Version), Forceps Delivery, Ventouse Delivery.

SUTIKA VIGYANA

a) Sutika Paribhasha, Sutika Kaal, Sutika paricharya.
    - Changes during sootikaavastha(Sareerika&Manasika).
    - Normal and abnormal Puerperium and its Management

b) SutikaRoga –
    - Number of SutikaRoga,
    - SutikaJwara, Shotha and Makkala.

c) Stanyavijnan-
    - Sthanya dushti, Sthanya kshaya,Sthanya vridhi -their causes, clinical features and treatment

- Stanastanya –Pareeksha,Stanyasampat.

d). Emergency care in obstetrics

PAPER-2

STRI ROGA

PART-A

ARTAVA VYAPAD

a) **Artava-**Kshaya,Vridhi, Ashtartavadushti, Lakshana And Chikitsa

b)**Asrigdara -**Lakshana,Samprapti,Chikitsa

c) **Menstrual disorders-**

- Amenorrhoea
- Hypomenorrhoea, Oligomenorrhoea
- Dysmenorrhoea
- Abnormal uterine Bleeding

YONI VYAPAD :

- Sankhya, Nidana, Lakshana, Upadrava evam Chikitsa
- Yoni Kanda, Yoni Arsa, Granthi, Arbuda,
- Pelvic Infections including Sexually Transmitted Infections, HIV, AIDS and its Preventive measures.
- Endometriosis, Fibroid uterus,
- Genital Prolapses, Retroverted Uterus,
- Cervical erosion
- Pelvic Inflammatory Diseases
- Poly cystic ovarian Disease
- Congenital malformations of female genital tract.
- Benign and Malignant tumours of Genital Tract

VANDHYATWA –

- Prakar, Nidana, Chikitsa
- **Infertility** – Causes, Types, Investigations and Management.
- Sukravijnan –kshaya,vridhi, dushti hetu,lakshana and chikitsa
- MENOPAUSE-changes during menopause, menopause syndrome, management.

PART-B

STANA ROGA

- Stanakeela- nidana, lakshana, chikitsa,
- Stana granthi, Stana vidradhi, Stana shopha
- Mastitis, Breast abscess,
- Galactocele -Etiopathology, clinical features, diagnosis, prognosis and complications

SthanikChikitsa

- Snehana, Swedana,
- Uttarabasti, Pichu, Varti,
- Lepana, Dhupana, Dhavana,
- Dahana, Ksharakarma
- Practical knowledge of all these procedures along with indications, complications and management.

Shastra Karma

Surgical procedures and their Indications and contra indications:

- Cauterization of cervix, cervical dilatation and curettage indications and contra indications.
- Male and female surgical sterilization
- Knowledge of indication and procedure of PAP smear.
- Endometrial and Cervical biopsy and interpretation of the reports.
- Striroga Sambandhita Pramukha Aushadhi
- Prasuti&StriRoga ChikitsaUpayogi YantraS hastra Parichaya and Vyadhivinischaya Upaya (Investigative and Diagnostic Aids)
- Garbhanirodhaka Upaya.
- Parivar Niyojana, Reproductive and Child Health Care, AIDS/HIV control Programme,
- MCH, PNDT Act, MTP Act
- Importance of current National Programme
- Knowledge of important commonly used Ayurvedic and Allopathic drugs used in Prasutitantra and Streeroga.
- Pharmacotherapeutics of allopathic drugs in obstetrics and Gynaecology Record keeping,ethical and medico legal issues in Streeroga and prasutitantra
- Laparoscopy, hysteroscopy, hysterosalpingography,
- USG, X-RAY
- Colposcopy
- Granthi evum Granthinirharana samanyajnana (Myomectomy, hysterectomy)

CLINICAL TRAINING-OBSTETRIC SKILLS

To perform independently

1. History taking and examination of antenatal and gynaecological cases.
2. Diagnosis of Pregnancy, assessing of gestational period, to diagnose onset of labour.
3. To monitor labour progress, able to plot Partogram.
4. Observation of 10 labour cases.
5. To diagnose abnormalities of labour and decide about the referral of the patient.
6. Able to provide first aid for obstetric emergencies.
7. Recognition of post partum complications.
8. Counsellingand promoting of breast feeding.
9. Record 5 antenatal cases, 5 intra-partum and 5 post-partum cases

To observe/assist-D&C, D&E, Caesarean section, Repair operations, Resuscitation of new born.

GYNAECOLOGICAL SKILLS –

To perform independently

1. History taking and examination of gynaecological cases.
2. Recording 10 gynaecological cases, 5 gynaecological procedures.
3. Taking vaginal smear, high vaginal swab.
4. Practical knowledge of sthanika chikitsa.
5. Observation and practical knowledge of minor gynaecological procedures.
6. Observation of surgical procedures mentioned above.
7. Identification, uses, demonstration of surgical instruments and method of sterilization.

To observe

MTP, Family planning operations, Hysterectomies, Oophorectomy and repair operations D&E

DISTRIBUTION OF THEORY MARKS

PAPER 1 -100 marks (Part A 50, Part B 50)

PAPER 2- 100 marks (Part A 50, Part B 50)

Total -200 marks

DISTRIBUTION OF PRACTICAL MARKS

1. Case taking-2cases –one Gynecology case,one obstetric case - 30marks
2. Instruments, Drugs, &Models-20 marks
3. General Viva- 40 marks
4. Record -2-(one Prasuti, one streerog)- 10 marks

Total 100 marks

REFERENCE :

1. Text book of Obstetrics by D.C.Dutta.
2 Text book of Gynaecology by D.C.Dutta.

3. Ayurvediya Prasutitantra evams treerogaVol I by PremavathiTewari.
4. Ayurvediya Prasutitantra evam streerogaVol II by PremavathiTewari.
5. A Text book of Obstetrics Prasutitanttra VOL I V.N.K.Usha.
6. A Text book of Obstetrics Prasutitanttra VOL II V.N.K.Usha.
7. A Text book of Gynaecology StreerogvijnanaV.N.K.Usha.
8. Ultrasonography in Obstetrics and Gynaecology by Peter w callen.
9. Shaw's text book of operative gynaecology Christopher N Hudson.
10. Gynaecology by Five teachers Rashid Latif khan.
11. Dewhurst's Textbook of Obstetrics and Gynaecology.
12. Kashyapasamhita ,Vriddajeevakiyatantra by Hemaraja Sharma.
13. TeLinde's Operative Gynaecology John A.Rock ,John D Thompson
14. William's Obstetrics F.Gary.
15. Berek and Novak's Gynaecology Jonathan S Berek.
16. Undergraduate and post graduate text book of Obstetrics and Neonatology by C.S.Dawn.
17. Jeffcoate's principles of Gynaecology ByNeeraj Bhatia.
18. Care of newbornbyMeharbon Singh Meherbonsingh.
19. StreerogaVijnanMade easy Dr Gayatri Devi.
20. PraasutitantraMade easy Dr.Gayatridevi.
21. Gynaecology by Ten teachers Helen Bickerstaff and Louise C Kenny
22. Shaw's Text book of Gynaecology VG Padubidri
SN Daftary.
23. Williams GynaecologyHoffman Schorge Bradshaw.
24. Mudaliar and Menon's Clinical ObstetricsEditors; SaralaGopalan,S.Rathnakumar and Vanita Jain.

CHARAKA SAMHITA – UTTARARDHA

(Uttarardha: Chikitsa – Kalpa - Siddhi Sthana)

Aims & Objectives:-

- To expert in treatment principle
- Helps to understand different formulation & collection of Drugs
- To expertise in different purification therapies
- Helps in Scientific research for human welfare
- Helps to understand how to write & how to understand a text

Theory- One Paper – 100 Marks

1. Chikitsa Sthana – 30 Chapters
2. Kalpa Sthana – 12 Chapters
3. Sidhi Sthana – 12 Chapters

The marks of theory examination are distributed as follows:

1. Chikitsa sthana	60 Marks
2. Kalpa sthana	15 Marks
3. Siddhi sthana	25 Marks

Reference Books:-

1. Charak Samhita -Chakrapani Tika (Sanskrit Commentary)

2. Charak Samhita (Hindi Commentary) Vd. Jayadev Vidyalankar or Vd. Atridev Vidyalankar or Prof. Gorakh Nath Chaturvedi & Kashinath Shastri or Dr. Brahmanand Tripathy or Dr. Ravidutta Tripathy

3. Charak Samhita (English Commentary): Dr. Ram Karan Sharma & Vd. Bhagwan Dash or Acharya Priyavrata Sharma.