

## **SYLLABUS**

**for Courses affiliated to the  
Kerala University of Health Sciences  
Thrissur 680596**



**Ayurvedacharya**

**(Bachelor of Ayurvedic Medicine and Surgery-B.A.M.S.)**

**Course Code: 003**

**(2016-17 Academic year onwards)**

**2016**

## 2. COURSE CONTENT

### 2.1 Title of course:

Ayurvedacharya (Bachelor of Ayurvedic Medicine and Surgery-B.A.M.S.)

### 2.2 Objectives of course

The **Bachelor of Ayurveda** education will aim at producing graduates, having profound knowledge of Ashtanga Ayurved supplemented with knowledge of scientific advances in Modern medicine along with extensive practical training; who will become efficient Physicians and Surgeons fully competent to serve the health care services.

### 2.3 Medium of instruction:

The medium of instruction shall be English

### 2.4 Course outline

- |    |                                |   |           |
|----|--------------------------------|---|-----------|
| a. | I Professional                 | - | 12 months |
| b. | II Professional                | - | 12 months |
| c. | III Professional               | - | 12 months |
| d. | Final Professional             | - | 18 months |
| e. | Compulsory Rotatory internship | - | 12 months |

Clinical training of the student will start from third year onwards in the hospital attached with college and shall be as follows:-

#### i) Kayachikitsa (Indoor and Outdoor) 18 Months

- |    |                           |          |
|----|---------------------------|----------|
| a) | Kayachikitsa (Samanya)    | 6 Months |
| b) | Manasroga                 | 3 Months |
| c) | Rasayan & Vachikaran      | 3 Months |
| d) | Panchakarma               | 3 Months |
| e) | Rog Vigyan Vikruti Vigyan | 3 Months |

#### ii) SHALYA (Indoor and Outdoor) 9 Months

- |    |                                   |                                    |
|----|-----------------------------------|------------------------------------|
| a) | Shalya (Samanya)                  | 3 Months (Minimum one month in OT) |
| b) | Shalya (Kshar & Anushastra Karma) | 3 Months (Minimum one month in OT) |
| c) | Ksharsutra                        | 2 Months                           |
| d) | Anaesthesia                       | 15 Days                            |

e) Radiology

15 Days

iii) **Shalaky Tantra**(Indoor and Outdoor) 3 Months(Minimum one month in OT)

iv) **Prasuti evam Striroga**(Outdoor and Indoor) 3 Months

v) **Kaumar Bhritya** (Outdoor and Indoor) 1 Month

vi) **Atyayik(Casualty)** 2 Months

## 2.5 Duration

Degree Course 5 ½ years. Comprising  
Compulsory rotatory Internship - 12 months

## 2.6 Syllabus

Table 1

1 <sup>st</sup> Professional	2 <sup>nd</sup> Professional	3 <sup>rd</sup> Professional	Final Professional
1. Padarth Vigyan evam Ayurved ka Itihas Paper 1 & 2	1. Dravyaguna Vigyan Paper 1 & 2	1. Agadatantra, Vyavhr Ayurvednevam Vidhi Vaidyak	1. Kayachikitsa Paper 1 & 2
2. Sanskrit	2. Roga Nidan evam Vikriti Vigyan Paper 1 & 2	2. Swastha Vritta & Yoga Paper 1 & 2	2. Panchkarma
3. Kriya Sharir Paper 1 & 2	3. Rasashastra evam Bhaishjya Kalpana Paper 1 & 2	3. Prasuti evam Striroga Paper 1 & 2	3. Shalya Tantra Paper 1 & 2
4. Rachna Sharir Paper 1 & 2	4. Charak Samhita (Purvardh)	4. Balroga	4. Shalaky Tantra Paper 1 & 2
5. Maulik Siddhant Avam Ashtang Hridaya (Sutrasthan)		5. Charak Samhita (Uttarardh)	5. Research Methodology & Medical Statistics

**2.7 Total number of hours**

AS shown in Clause No 3.4

**2.8 Branches if any with definition**

Not applicable

**2.9 Teaching learning methods**

Suitable methods will be carried out.

**2.10 Content of each subject in each year**

**SYLLABUS OF AYURVEDACHARYA (FIRST BAMS) COURSE INDEX**

<b>1ST PROFESSIONAL</b>
<b>1.1 PADARTH VIGYAN EVAM AYURVED KA ITIHAS</b>
<b>1.2 SANSKRIT</b>
<b>1.3 KRIYA SHARIR</b>
<b>1.4 RACHANA SHARIR</b>
<b>1.5 MAULIK SIDDHANT EVUM ASTANG HRIDAYA (SUTRA STHAN)</b>

## **1.1 PADARTHA VIGYAN EVUM AYURVED KA ITIHAS**

**(Philosophy and History of Ayurveda)**

**Padartha Vigyanam**

**Theory- Two papers– 200 marks (100 each paper)**

**Total teaching hours: 150 hours**

### **PAPER-I**

**100 marks**

#### **PART A**

**50 marks**

#### **1. Ayurveda Nirupana**

1. Lakshana of Ayu, composition of Ayu.
2. Lakshana of Ayurveda.
3. Lakshana and classification of Siddhanta.
4. Introduction to basic principles of Ayurveda and their significance.

#### **2. Ayurveda Darshana Nirupana**

1. Philosophical background of fundamentals of Ayurveda.
2. Etymological derivation of the word “Darshana”. Classification and general introduction to schools of Indian Philosophy with an emphasis on: Nyaya, Vaisheshika, Sankhya and Yoga.
3. Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda).
4. Padartha: Lakshana, enumeration and classification, Bhava and Abhava padartha, Padartha according to Charaka (Karana-Padartha).

#### **3. Dravya Vigyanam**

1. **Dravya:** Lakshana, classification and enumeration.
2. **Panchabhuta:** Various theories regarding the creation (theories of Taittiriyaopanishad, Nyaya-Vaisheshika, Sankhya-Yoga, Sankaracharya, Charaka and Susruta), Lakshana and qualities of each Bhoota.
3. **Kaala:** Etymological derivation, Lakshana and division / units, significance in Ayurveda.
4. **Dik:** Lakshana and division, significance in Ayurveda.
5. **Atma:** Lakshana, classification, seat, Gunas, Linga according to Charaka, the method / process of knowledge formation (*atmanah jnasya pravrittih*).
6. **Purusha:** as mentioned in Ayurveda - Ativahikapurusha/ Sukshmasharira/ Rashipurusha/ Chikitsapurusha/ Karmapurusha/ Shaddhatvatmakapurusha.
7. **Manas:** Lakshana, synonyms, qualities, objects, functions, dual nature of mind (*ubhayaatmakatvam*), as a substratum of diseases, penta-elemental nature (*panchabhutatmakatvam*).
8. Role of Panchamahabhuta and Triguna in Dehaprakriti and Manasaprakriti respectively.
9. Tamas as the tenth Dravya.
10. Practical study/application in Ayurveda.

**4. Gunavigyaniyam**

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

**5. Karma Vigyaniyam**

1. Lakshana, classification in Nyaya.
2. Description according to Ayurveda.
3. Practical study/ application in Ayurveda.

**6. Samanya Vigyaniyam**

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

**7. Vishesha Vigyaniyam**

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

**8. Samavaya Vigyaniyam**

- 8.1 Lakshana
- 8.2 Practical study /clinical application in Ayurveda.

**9. Abhava Vigyaniyam**

- 9.1 Lakshana, classification
- 9.2 Clinical significances in Ayurveda.

**PAPER-II****Padartha Vigyan Evam Ayurved Ka Itihas****100 marks****PART A****75 marks****Pariksha**

1. Definition, significance, necessity and use of *Pariksha*.
2. Definition of *Prama*, *Prameya*, *Pramata*, *Pramana*.
3. Significance and importance of *Pramana*, Enumeration of *Pramana* according to different schools of philosophy.
4. Four types of methods for examination in *Ayurveda* (Chaturvidha-Parikshavidhi), *Pramana* in Ayurveda.
5. Subsudation of different *Pramanas* under three *Pramanas*.
6. Practical application of methods of examination (Parikshavidhi) in treatment (Chikitsa).

## **Aptopdesha Pariksha/ Pramana**

- Lakshana of Aptopadesha, Lakshana of Apta.
- Lakshana of Shabda, and its types.
- Shabdavritti-Abhidha, Lakshana, Vyanjana and Tatparyakhya. Shaktigrahahetu.
- Vaakya: Characteristics, Vaakyarthagyanahetu- Aakanksha, Yogyata, Sannidhi.

### **1. Pratyaksha Pariksha/ Pramana**

1. Lakshana of Pratyaksha, types of Pratyaksha- Nirvikalpaka-Savikalpaka with description, description of Laukika and Alaukika types and their further classification.
2. Indriya-prapyakaritvam, six types of Sannikarsha.
3. Indriyanam lakshanam, classification and enumeration of Indriya. Description of Panchapanchaka, Penta-elemental nature of Indriya by Panchamahabhuta (*Panchabhautikatwa* of Indriya) and similarity in sources (*Tulyayonitva*) of Indriya.
4. Trayodasha Karana, dominance of Antahkaran.
5. Hindrances in direct perception (*pratyaksha-anupalabdihikaaran*), enhancement of direct perception (Pratyaksha) by various instruments/ equipments, necessity of other Pramanas in addition to Pratyaksha.
6. Practical study/ application of Pratyaksha in physiological, diagnostic, therapeutics and research grounds.

### **1. Anumanapariksha/Pramana**

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

### **1. Yuktipariksha/ Pramana**

1. Lakshana and discussion.
2. Importance in Ayurveda.
3. Practical study and utility in therapeutics and research.

## **6. Upamana Pramana**

1. Lakshana.
2. Application in therapeutics and research.

### **1. Karya- Karana Siddhanta (Cause and Effect Theory)**

1. Lakshana of Karya and Karana. Types of Karana.
2. Significance of Karya and Karana in Ayurveda.
3. Different opinions regarding the manifestation of Karya from Karana: Satkaryavada, Asatkaryavada, Parinamavada, Arambhavada, Paramanuvada, Vivartavada, Kshanabhangurvada, Swabhavavada, Pilupaka, Pitharpaka, Anekantavada, Swabhavoparamavada.

**PART B-**

**Ayurved Itihas**

**25 marks**

1. 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.
2. Introduction to the authors of classical texts during Samhitakaal and their contribution: Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhabala, Vagbhata, Nagarjuna, Jivaka.
3. Introduction to the commentators of classical Samhitas – Bhattaraharicchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara, Vijayarakshita, Gayadas, Arunadutta, Hemadri, Gangadhara, Yogindranath Sen, Haranachandra, Indu.
4. Introduction to the authors of compendiums (Granthasamgrahakaala) – Bhavmishra, Sharngadhara, Vrinda, Madhavakara, Shodhala, Govinda Das (Author of Bhaishajyaratnawali), Basavraja.
5. 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.
6. Globalization of Ayurveda – Expansion of Ayurveda in Misra (Egypt), Sri Lanka, Nepal other nations.
7.
  - a) Developmental activities in Ayurveda in the post-independence period, development 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.
8. 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                                  | Gajanan Shastri                |
| 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                           | Vaidya Ramkrishna Sharma Dhand |
| 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<br>Sharma Paragraph of acceptance of Indian medicine | Rajguru Hem Raj                 |
| 2. Upodghata of Rasa Yogasagar   | Vaidy Hariprapanna Sharma       |
| 3. Ayurveda Ka Itihas  | Kavira Suram Chand              |
| 4. Ayurveda Sutra  | Rajvaidya Ram Prasad Sharma     |
| 5. History of Indian Medicine (1-3 part)   | Dr. Girindr Nath 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   | Acharya Priyavrata Sharma       |
| 11. Indian Medicine (Osteology)  | Dr. Harnley                     |
| 12. Ancient Indian Medicine  | Dr. P. Kutumbia                 |
| 13. Madhava Nidan and its Chief<br>(Chapters highlighting history)                   | Dr. G.J. Mulenbelt Commentaries |
| 14. Ayurveda Ka BrihatItihasa  | Vaidya Atridev Vidyalankara     |
| 15. Ayurveda Ka Vaigyanikaltihasa  | Acharya Priyavrata Sharma       |
| 16. Ayurveda Ka Pramanikaltihasa   | Prof. Bhagwat Ram Gupta         |
| 17. History of Medicine in India   | Acharya Priyavrata Sharma       |
| 18. Vedomein Ayurveda  | Vaidya Ram Gopal Shastri        |
| 19. Vedomein Ayurveda  | Dr. Kapil Dev Dwivedi           |
| 20. Science and Philosophy of Indian Medicine  | Dr. K.N. Udupa                  |



**The sentences for translation should be selected from the under mentioned reference books-**

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

**PART- B**

**50 marks**

**भाषाध्ययनम्**

- 1.) आयुर्वेदार्थग्रन्थाध्ययनक्रमः-Stepwise method of study of Ayurveda Arsha Granthas (Sushruta Samhita, Shareera Sthanam, Chapter-4) 25 marks
- 2.) वैद्यकीय-सुभाषितसाहित्यम् (अध्यायाः 1-10) 15 marks
- 3.) पञ्चतन्त्रम्-अपरीक्षितकारकम् (क्षपणक कथातः मुखपण्डितकथापर्यन्तम् पञ्चकथाः) 10 marks

**REFERENCE BOOKS-**

- 1.) Sushruta Samhita, Shareera Sthanam, Chapter-4
- 2.) Prabhashanam Work Book, Su.sam.chap.4  
Published by-AYURVEDA ACADEMY® BANGALORE;  
Email-ayuacademy@gmail.com
- 3.) Vaidyakeeya Subhashita Sahityam - Dr. Bhaskara Govinda Ghanekar
- 4.) Panchatantra-(Apareekshitakarakam) -Pt. Vishnu Sharma

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### 1.3 KRIYA SHARIR (PHYSIOLOGY)

Two Papers-200 Marks (100 marks each)

Teaching hours-200 hours

**PAPER- I**

**100 marks**

**PART A**

**50 marks**

1. Conceptual study of fundamental principles of Ayurvediya Kriya Sharir e.g - Panchamahabhuta, Tridosha, Triguna, Loka-Purusha Samya, Samanya-Vishesha. Description of basics of Srotas.
2. Definition and synonyms of the term Sharir, definition and synonyms of term Kriya, description of Sharir Dosha and Manasa Dosha. Mutual relationship between Triguna-Tridosha & 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-Rasa-Guna. 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.

**PART- B 50 marks**

**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 hyper vitaminosis.

**PAPER-II 100 marks**

**PART A 50 marks**

**1. Dhatu:**

Etymology, derivation, definition, general introduction of term Dhatu, different theories related  
to Dhatuposhana (Dhatuposhana Nyaya)

## 2. Rasa Dhatu:

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 Srotas, 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 Praman 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 Majja 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 Praman 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, Praman, classification and functions of Ojas. Description of Vyadhikshamatva. Bala Vriddhikara Bhava. Classification of Bala. Etiological factors and manifestations of Ojavisramsas, Vyapat and Kshaya.



11. **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.
12. **Mala:** Etymological derivation and definition of the term Mala. Aharamala: Enumeration and description of the process of formation of Aharamala.
  1. Purisha: Etymological derivation, definition, formation, properties, quantity and functions of Purisha. Physiology of Purishavaha Srotas, manifestations of Vriddhi and Kshaya of Purisha.
  2. 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 Kshaya of Mutra.
  3. Sveda: Etymological derivation, definition, formation and functions of Sveda. Manifestations of Vriddhi and Kshaya of Sveda. Description of Svedvaha Srotas
  4. Dhatumala: Brief description of each type of Dhatumala.
13. **Panchagyanendriya:** Physiological description of Panchagyaanendriya and physiology of perception of Shabda, Sparsha, Rupa, Rasa and Gandha. Physiological description of Karmendriya.
14. **Manas:** Etymological derivation, definition, synonyms, location, properties, functions and objects of Manas. Physiology of Manovaha Srotas.
15. **Atma:** Etymological derivation, definition, properties of Atma. Difference between Paramatma and Jivatma; Characteristic features of existence of Atma in living body.
16. **Nidra:** Nidrotipatti, types of Nidra, physiological and clinical significance of Nidra; Svapnotipatti and types of Svapna

## PART –B

50 marks

### Modern Physiology

1. Haemopoietic 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**

**100 marks**

### **Ayurvedic practical**

**Teaching hours-180**

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

### **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 Hemoglobin
5. Microscopic examination of blood
  - a. Total RBC count
  - b. Total WBC count
  - c. Differential leucocyte count
6. Packed cell volume (PCV) demonstration
  - ESR demonstration
  - Bleeding time, Clotting time
  - Blood grouping and Rh typing
7. Examination of Cardio-Vascular system
  - Pulse examination
  - Arterial blood pressure measurement
  - Examination of heart sounds
  - ECG demonstration
8. Examination of Respiratory system
  - Respiratory rate
  - Breath sounds
  - Spirometry
9. Examination of Nervous System- Sensory & Motor.
10. Urine examination –Physical examination, chemical examination. Test for normal constituents of urine. Detection of specific gravity and reaction of urine.



### Distribution of Practical marks

• Laboratory Practical	- 20
• Human Experiment	- 15
• Spotting	- 15
• Prakriti Saradi pariksha	- 20
• Practical Record	- 10
• Viva- voce	- 20

### REFERENCE BOOKS:-

• Ayurvediya Kriyasharir	- Ranjit Rai Desai
• Kayachikitsa Parichaya	- C. Dwarkanath
• Prakrit Agni Vigyan	- C. Dwarkanath
• Sharir Kriya Vigyan	- Shiv Charan Dhyani
• 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 Dhargalkar
• 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 (Ayurvedic Physiology) by	- Dr. Srikant Kumar Panda (A treatise on
• 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. Deshpande, Dr. Wavhal
• Sharir Kriya Part 2	- Dr. R.R. Deshpande, Dr. Wavhal
• 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

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## **1.4 RACHNA SHARIR (ANATOMY)**

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

### **Teaching Hours**

Theroy -300 hours

Practical-200 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.

### **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**

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

### **8.Peshi Shaarira**

1. Peshi vyakhya, structure, types, number and importance.
2. Description of Peshi.

### **9. Koshtha Evam Ashaya Shaarira**

1. Definition of koshta and number of koshtanga.
2. 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 adhasthan, their number and importance. Description of gyanendriya, 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 and ovum, fertilization. Cleavage. Germ layers formation and their derivatives. Laws of heredity, Sex determination and differentiation, Month-wise development of embryo. Foetal 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**

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

### **7. Lymphatic system**

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

### **8. Myology**

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

## **PAPER-II**

**100 marks**

## **PART A**

**50 marks**

### **1. Respiratory System**

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

### **2. Digestive system**

1. Organs of digestive tract (alimentary tract) with their clinical aspects.

2. Digestive glands: liver, spleen and pancreas.
3. 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**

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

- a. Study of radio-imaging of limbs, abdomen, pelvis and vertebral column with its clinical application.
- b. Surface anatomy of thoracic and abdominal viscera.

### **PRACTICAL**

**100 marks**

**Teaching hours: 200**

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**

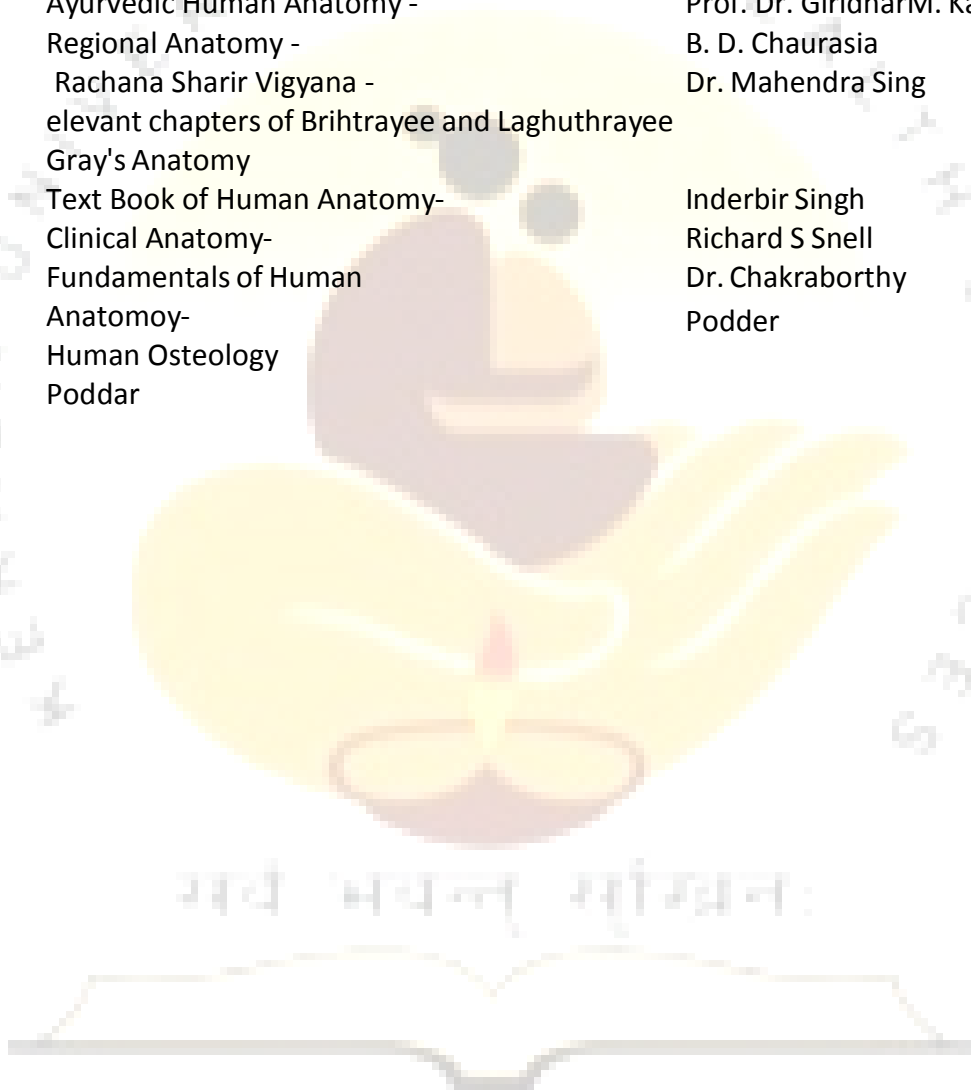
**100 Marks**

### **Reference Books :-**

**S. No. Name of Book**

**Author**

1	Brihat Shariram Vaidyaratna-	P.S. Varrier
2	Abhinava Shariram-	Acharya Damodar Sharma Gaur
3	Manava Sharir (Revised Edition)-	Prof. Dinkar Govind Thatte
4	Manava Bhruna Vigyana -	Prof. Dinkar Govind Thatte
5	Manava Anga Rekhankan Vikrian -	Prof. Dinkar Govind Thatte
6	Sharir Rachana Vigyan (English)-	Vaidya P.G. Athawale
7	Manual of Practical Anatomy Cunnigham Practical Manual Vol-1, Vol-2, Vol-3	
8	Clinical Anatomy in Ayurveda -	Prof. D.G. Thatte & Prof. Suresh Chandra
9	Sharir Rachna Vigyan (English)-	Prof. D.G. Thatte
10	Ayurvedic Human Anatomy -	Prof. Dr. GiridharM. Kanthi
11	Regional Anatomy -	B. D. Chaurasia
12	Rachana Sharir Vigyana -	Dr. Mahendra Sing
13	relevant chapters of Brihtrayee and Laghuthrayee	
14	Gray's Anatomy	
15	Text Book of Human Anatomy-	Inderbir Singh
16	Clinical Anatomy-	Richard S Snell
17	Fundamentals of Human Anatomoy-	Dr. Chakraborty Podder
18	Human Osteology Poddar	



**1.5 Maulik Siddhant avum Ashtang Hridaya**  
**(Basic Principles and Ashtang Hridaya- An ancient text of Ayurveda)**

**Theory- One Paper– 100 marks**

**Teaching Hours -150 hours**

**Part A**

**60 marks**

Ashtang Hridaya Sutrasthana Adhyaya 1 to 15

**Part B**

**40 marks**

1. Ashtang Hridaya Sutrasthana Adhyaya 16 to 30
2. Description of Ashta Prakriti
3. 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. Vishwavasudha Gaur |
| 5. Astang Hridaya | : | Sanskrit commentary by Hemadri               |
| 6. Astang Hridaya | : | Sanskrit commentary by Arunadatta            |

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## SECOND PROFESSIONAL

### 2.1 DRAVYAGUNA VIJNAN

#### (PHARMACOLOGY & MATERIA MEDICA)

Lectures: 200 Hrs.

Practicals: 200 Hrs.

Total Marks -400

Theory Two Papers– 100 Marks Each

Practical/Viva voce – 200 Marks

#### Dravyaguna vijnan - 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), Panchabhautik constitution of Rasas, Nirvritivisheshakrama (manifestation in general and particular), Ritu and shad rasa Rasanurasayoh bheda (Difference between rasa and anurasa), Lakshana (characteristics), Guna and Karma of shad Rasas, Kopana and Shamana of Dosha and dushya by Shad rasas. Effects of excess usage of Rasa. Rasopalabdhhi, Rasaskandha.

## 5- Vipaka:

Etymological derivation and definition, difference between Avasthapaka and Vipaka, Types of Vipaka, (Dvididha-Trividha, Panchavidha) Guna and karma of Vipaka.

Grades of Vipaka (taratamya), Vipakopalabdhi hetu (Factors to determine Vipaka).

## 6- Veerya:

Etymological derivation, definition and Swarupa of Virya, Number of Virya. (Dwividha & Ashtavidha), Panchabhauthikatva

Virya karmani (Effects of Virya), General principles in determination of virya along with exceptions.

## 7- Prabhava:

Definition, Effects of Prabhava.

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

## 9- Karma:

Lakshana, swarootpa 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. Chedana      |
| 10. Lekhana      | 11. Grahi      | 12. Sthambhana  |
| 13. Madakari     | 14. Pramathi   | 15. Abhishyandi |
| 16. Vyavayi      | 17. Vikashi    | 18. Rasayana    |
| 19. Vajeeekarana | 20. Jeevaneeya | 21. Balya       |
| 22. Brimhana     | 23. Langhana   | 24. Medhya      |

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

## 11- Mishraka Gana:

**11a)- Audbhida Gana (Vegetable origin)** Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kantakapanchamoola, Trinapanchamoola, Madhyamapanchamoola, Jeevaneeya panchamoola, Panchapallava, Panchavalakala, Triphala, Trikatu, Trimada, Chaturusana, Panchakola, Shadusana, Chaturbeeja, Jeevaniya gana, Ashtavarga, Trijataka, Chaturajataka, Katuchaturjataka



Panchatikta, Amlapanchaka, Chaturbhadra, Trikarshika, Swalpatriphala, Madhuratriphala, Mahavisha, Upavisha, Agrya aushadh varga- Knowledge of Agrayaushadha 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).

**14 b)** Brief knowledge of Apamishran (adulterants)

**14 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, Bronchodilators, 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, Anthelmintic, Antifungal, Vitamins, Minerals, Water imbalance and IV fluids, Vaccines, antivenom, antirabbies serum, Local anti septics, drugs in ophthalmic practice, Anti cancer drugs and immunomodulators.

## Dravyaguna vijnan - Paper II

100 Marks

### Part A

70 marks

#### 1-Detailed Knowledge of Following Dravya –

1- Detailed knowledge of following drugs 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)

Agaru	Hingu	Pippali-Pippalimula
Agnimantha	Jambu	Prishniparni
Ahiphena	Jatamansi	Punarnava
Amalaki	Jatiphal	Pushkarmoola
Apamarga	Jeerakadvaya	Rasna
Aragvadha	Jyotishmati	Rasona
Ardraka-Sunti	Kalamegha	Rohitaka
Arjuna	Kampillaka	Sarivadvaya
Arkadvaya	Kanchanara	Saireyaka
Ashvagandha	Kantakari	Sarpagandha
Ativisha	Kapikacchu	Shalaparni
Asoka	Karkatakshringi	Shallaki
Bakuchi	Karpura	Shalmali
Baladvayam	Katuki	Shankhapushpi
Bhallataka	Khadira	Shatavari
Bharangi	Kiratatikta	Shigru
Bhrungaraj	Kumari	Shirisha
Bibhitaka	Kumkum Kesara	Shyonaka

Bijak/Vijaysar	Kupilu	Talisa Patra
BilvaBrahmi	Kushta	Tila
Bruhati	Kutaja	Trivrut
Chandanadvaya	Lavanga	Tulasi
Chitraka	Lodhra	Tvak
Dadima	Madanaphala	Ushira
Devadaru	Mandukaparni	Vacha
Dhataki	Manjishtha	Varahi
Durva	Maricha	Varuna
Eladvayam	Musta	Vasa
Eranda	Nagakeshara	Vatsanabha
Gambhari	Nimba	Vidanga
Gokshura	Nirgundi	Vidari
Guduchi	Palasha	Yastimadhu
Guggulu	Parpata	Yavani
Haridradvaya	Pashanabheda	
Haritaki	Patala	

### Part B-

30 marks

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

Agastya	Jati	Palandu
Ajamoda	Jayapala	Parasika Yavani
Akarkarabh	Jeevanti	Parijata
Amlavetasa	Kadali	Parisha
Amra	Kadamba	Parnabija
Ankola	Kakamachi	Parpataka
Aparajita	Kamala	Parushaka
Ashvagol	Kankola	Patalagarudi
Ashvattha	Karanja	Patha
Asthishrunkhala	Karavellaka	Patola
Atasi	Karavira	Patranga
Avartaki	Karira	Pilu
Avartani	Karpasa	Plaksha
Babbula	Kasamarda	Prasarani
Badara	Kasha	Priyala
Bakula	Kasni	Priyangu

Bhumyamalki	Kataka	Puga
Bijapoor	Katphala	Putiha
Bola	Kebuka	Putranjivaka
Chakramarda	Kharjura	Rajika/Sarshapa
Champaka	Kitmari	Rohitaka
Chandrashura	Kokilaksha	Saptachakra
Changeri	Koshataki	Saptaparna
Chavya	Kulatha	Saral
Chirbilva	Kumuda	Sarja
Chopachini	Kusha	Shala
Danti	Kusmanda	Shara
Darbha	Lajjalu	Sharapunkha
Dattura	Langali	Shatahwa
Dhanvayasa	Latakaranja	Shati
Dhanyaka	Latakasturi	Snuhi
Draksha	Madayantika	Sringataka
Dronapushpi	Mahanimba	Svarnakshiri
Gandhaprasarini	Mandukaparni	Tagara
Garjara	Markandika	Tailaparni
Gojihva	Masha	Talmuli
Gorakshaganja	Mashaparni	Taruni
Gunja	Matulunga	Tavakshira
Shinsapa	Mayaphala	Teja Patra
Hinstra	Meshashruni	
Hribera	Methika	Tuvaraka
Hrutpatri	Mudgaparni	Udumbara
Ikshu	Mulaka	Surana
Indravaruni	Murva	Vamsha
Ingudi	Nagabala	Vata
Irimeda	Nala	Vatada
Ishvaku	Narikela	Vrudhadaru
Isvari	Nili	Vrukshamla
Japa	Padmaka	

### III Introduction, Guna, Karma and Uses of the 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 characteristics 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

1. Herbarium	20 Marks
2. Practical record	20 Marks
3. Drug identification- spotting –Raw/crude drugs	30 marks
4. Plant identification spotting –fresh	30 marks
5. Practical	40 marks
6. Viva-Voce	60 Marks
Total	<b>200 marks</b>

### 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 Chuneekar 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 Chuneekar |
| 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                           |

## 2.2 ROGA NIDAN EVUM VIKRITI VIGYAN

Theory Two Papers - 100 Marks Each

Practical/Viva voce - 100 Marks

Teaching Hours : 400

Theory -200 hours

Practical -200 hours

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. Plala 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.
2. Criteria for nomenclature of Diseases in Ayurveda (Vyad hinamakara na).
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 Nana tma j a v i k a r a . N i d a n a r t h a k a r a v y a d h i , H e t u S a n k a r a , L i n g a s a n k a r a . V y a d h i s a n k a r a , V y a d h i A w a s t h a .
7. Dhatu, Updhatu, Mala and Indriya Pradoshaj Vikara.
- 8, Concept of Ashta Mahagada.
- 9, Introduction to Ashta Nindita.

- L0. 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 micro organisms such as virus- bacteria-fungus manager

### Part B

50 Marks

#### IV. Nidana Panchakavigyana

1. Difference between Roga and Rogi Pariksha.
2. Importance of NidanPanchaka.
3. Hetu - Definition, Synonyms and Classification.
4. Purva Rupa - Definition, Synonyms, Samanya and Vishistha Puryarupa.
5. Rupa - Definition, synonyms, samanya and Pratyatma Lakshana. Difference between Vvadhi 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 NidanaPanchaka 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 Parikshavigyana

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

50Marks





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

### **I Diseases of Rasavaha Srotas**

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

### **II. Diseases of Raktavaha Srotas**

1. Kamala - Raktapitta - Vatarakta - Kroshtuksheersha - Shitapitta - Maha Kushta - Visarpa - Shwitra and Introduction to Kshudra Kushta.
2. Introduction to Hepatomegaly, Splenomegaly, Leukaemia, Thalessemia, Sick cell Anaemia.
3. Introduction to Urticaria, Psoriasis, Eczema, Pemphigus.

### **III. Diseases of Mamsavahasrotas**

- (a) Galganda
- (b) Introduction to Thyroid disorders

### **IV. Diseases of Medovahasrotas**

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

### **V. Diseases of Asthi - Majjavahasrotas**

1. Vatavyadhi - Akshepaka - Apatanaka - Ardita - Pakshaghata - Gridhrasi - Vishwachi, Avabahuka, - Manyasthambha, Katigraha, Pangutwa
2. Sandhigata vata, Asthi Majjagata vata.
3. Introduction to Osteo- Arthritis, OsteoDorosis.
4. Introduction to Parkinson's disease, Stroke, Lumbago- Sciatica syndrome, Bell's Palsy, Cervical- Lumber & 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 Pranavahasrotas**

- 1(a). Kasa - Shwasa - Hikka - Urahkshata - Shosha - Rajyakshma,
- 1(b). Introduction to the aetiopathogenesis of Pneumonia, Pleural effusion, Bronchitis, Bronchiectasis, Bronchial Asthma.

### **VIII. Diseases of Annavaha- Pureeshavaha Srotas**

1. Agnimandya - Ajirna - Aruchi- Chhardi - Amlapitta- Shoola - Parinama Shoola

AnnadravaShoola- Atisara - Pravahika - crahani -Gulma- Udara Roga.

2. Introduction to Anaha, Adhmana, Atopa, Visuchika Alasaka, Vilambika.

3. Introduction to Peptic Ulcer, Irritable Bowel Syndrome (IBS) Diarrhoea, Dysentery, Constipation, Inflammatory Bowel Diseases.

#### **IX. Diseases of Udakavaha Srotas**

1(a) Introduction to Trishna, Daha.

1(b) Introduction to water and electrolyte imbalance disorders.

#### **X. Diseases of Mutravahasrotas**

1(a) Mutrakrichha - M utraghata.

1(b) Introduction to Urinary Tract Infection, N ephropathies.

#### **XI. Diseases of Swedavahasrotas**

1(a) Introduction to Khalitya, Palitya

#### **XII. Diseases of Manovahasrotas**

1(a) Apasmara, Unmada, Atatwa bh in ivesha-Vishada, Anidra, Mada, Murchha, Sanyasa.

1( b)Introduction to Epilepsy Depression, Anxiety neurosis.

#### **XIII . UpasargajanyaVyadhi (Communicable diseases)**

1(a) Romantika - Masurika - Upadamsha - Phiranga.

1( b)Introduction to M easels,Ch icken pox, Leprosy, Tuberculosis and AIDS,

#### **XIV. KrimiVigyana**

1) Definition, classification of Krimi and features of Krimiroga,

2) Snayuka, Shleepada.

3) Introduction of Filariasis and 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 thurabalapramana 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. Identification of Instruments | -10 Marks |
| 3. Laboratory Experiments        | -20 Marks |
| 4. Short Case                    | -10 Marks |

5. Long Case	-20 Marks
6. Viva - Voce	-30 Marks
<b>Total</b>	<b>100 Marks</b>

### 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 Prof. Ram Harsh Singh Siddhanta.
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 Harsh Mohan Undergraduates.
31. Medical Laboratory Technology R. Sood.
32. Clinical Diagnosis and Management by Todd, Sanford and Davidson Laboratory methods
33. Clinical Hematology In Medical Practice Degruichy's.
34. Robbins Basic Pathology Kumar, Abbas, Fausto et al.

## 2.3

# Rasashastra Evam Bhaishajyakalpana

(IATROCHEMISTRY AND AYURVEDIC PHARMACEUTICS)

Theory -Two Papers

Total Marks- 200

Practical :-

Total Marks-200

Teaching hours-400

### RASASHASTRA

Paper 1

100 Marks

Part A

50 Marks

1. 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. Brief Description and Application of Technical terminologies (Paribhasha): 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. Brief description of Yantras and their application Ulukhala Yantra, Khalwa Yantra, Kachhapa Yantra, Damaru Yantra - Vidhyadhara Yantra- Urdhwapatan, Addhapatan & Tiryakpatana Yantra, Jaranartha Tulayantra, Dolayantra, Patalayantra, Palika Yantra, Baluka Yantra, Bhudhara Yantra, Sthali Yantra, Swedana Yantra.
5. Brief description & application of Musha (Crucible): 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 Sandhi Bandhana.

6. Brief description & applications of Chullika, Satwapatana Koshti, Patala Koshti, Gara Koshti, Angarakoshti and knowledge of various heating appliances viz. Gas stove, Hot plate, Heating mantle, Induction Stove, Hot Air Oven.
7. Concept, definition and types of Puta: 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 and pyrometer.
8. Knowledge of 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 of Ashtasamskara.
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 and apathya.
10. Brief introduction of quality control , standardization and GMP of Rasaoushadhies.

## 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, Sasyaka (Peacock ore), Chapala and Rasaka (Sphalerite).
2. **Uparasa** – Gandhaka (Sulfur), Gairika (Red Ochre), Kasisa (Green Vitriol), Kankshi (Alum), Haratala (Orpiment), Manahshila (Realgar), Anjana and Kankustha.
3. **Sadharana Rasa** – Kampillaka, Gauri pashana (Arsenic oxide), Navasagara (Ammonium chloride), Kaparda (Cowry), Agnijara, Giri Sindura (Red oxide of Hg), Hingula (Red Cinnabar) and 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 Cinnamome stone), Vaidurya (Cats eye). Ratnapariksha, Ratnadosha, Ratna-graha sambandha.
6. **Uparatna**- Vaikranta (Tourmaline), Suryakanta (Sun stone), Chandrakanta (Moon stone), Rajavarta (Lapis lazuli), Perojaka (Turquoise), Sphatikamani (Quartz), Trinakanta, Palanka, Putika, Rudhir.
7. **Sudha varga** – Sudha (Lime stone ), Kaparda (Cowries), Shukti (Oyster Shell) , Shankh (Conch Shell), Mriga shringa (Stag horn), Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fish bone), Kukkutanda twak (Hen's Egg Shell).
8. **Sikata varga** - Sikata (Silica), Dugdhapashana (Talc), Nagapashana / Jaharmohara (Serpentine), Badarshama (silicate of lime ), Vyomashma (Sangeyashab - Jade), Kousheyashma (Asbestos) and Akika (Agate).
9. **Kshara varga** - Sarja kshara (Sodium bicarbonate), Yava kshara, Tankana kshara (Borax), Surya Kshara (Potassium Nitrate).
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 and Chitrakmool.
12. **Aushadhi Yoga Gyanam**- ingredients, manufacturing process, and bhesajprayogvidhi. 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, 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, Sveta Parpati.

**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. | <b>Rasa [Parada]</b>        | Samanya Shodhana of Parada<br>Kajjali   |
| 2  | <b>Maharasa varga</b>       | Mugdha<br>Shodhana of Abhraka<br>Dhanyabhraka nirmana<br>Shodhana of Makshika<br>Shodhana of Shilajatu<br>Shodhana of Sasyaka.                                    |
| 3. | <b>Uparasa varga</b>        | Shodhana of Gandhaka<br>Shodhana of Gairika   |
| 4. | <b>Sadharana rasa varga</b> | Shodhana of Kasisa<br>Shodhana of Kankshi<br>Shodhana of Haratala<br>Rasa manikya nirman<br>Shodhana of Hingula<br>Shodhana of Navasadar<br>Shodhana of Kapardika |



- |   |   |
|---|---|
| <p>5. <b>Sudha Varga</b></p>                        | <p>Shodhana of Shankha<br/>Shodhana of Shukti<br/>Shodhana of Pravala mula<br/>Shodhana of Godanti</p>                            |
| <p>6. <b>Dhatu varga</b></p>                        | <p>Samanya Shodhana of Lauha<br/>Shodhana of Mandura Samanya<br/>Shodhana of Tamra Shodhana<br/>of Naga<br/>Shodhana of Vanga</p> |
| <p>7. <b>Kshara Varga</b><br/>8. <b>Parpati</b></p> | <p>Shodhana of Tankana<br/>Preparation of Rasaparpati, Bola<br/>Parpati and Swetaparpati</p>                                      |
| <p>9. <b>Visha varga</b></p>                        | <p>Shodhana of Vatsanabha, Bhallataka,<br/>Kupilu, Dhattura beeja, Jayapala,<br/>Gunja, Chitrakamoola.</p>                        |

#### **PRACTICAL FOR DEMONSTRATION / GROUP PRACTICALS**

1. Hingulad rasakrishti (Hingulottha Parada).
2. Bhasma: 4 (One from each group)
  - i. Abhraka bhasma, Swarna Makshika bhasma, Tamra bhasma
  - ii. Vanga bhasma, Naga bhasma, Yashada bhasma
  - iii. Mandura bhasma, Kasisa bhasma
  - iv. Shankha bhasma, Kapardika bhasma, Godanti bhasma.
3. Pishti : 1 Pravala pishti, Jaharmohara / Akika pishti,  
Trina kantha mani pishti, Mukta pishti.
4. Druti : 1 Gandhaka druti.
5. Formulations 4 (one from each group)
  - i. Rasasindura, Swarna vanga, Sameer pannaga rasa
  - ii. Saptamruta lauha, Punarnava mandura, Navayasa lauha
  - iii. Agnitundi vati, Tribhuvana kirti rasa, Sootshekhara rasa,  
Laghusutashekhara Rasa
  - iv. Arogyavardhini vati, Laghumalinivasanta rasa, Hinguleshwar rasa,  
Anandbhairav rasa, Rajapravartini vati

## BHAISHAJYAKALPANA

Paper II

100 Marks

Part A

50 Marks

- 1. History and Chronological (kramika vikasa) development** of Bhaishajyakalpana. Concept of Aushadha and Bhesaja.
- 2. Fundamental principles** of Bhaishajya Kalpana.
- 3. 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 grahan niyam.
- 4. Guidelines and Methods** of collection, storage, preservation of Aushadhi dravya. Concept of Saviryatavadhi (shelf life) and stability in ancient and contemporary science.
- 5. Bhesajprayogavidhi** : Aushadha Matra, Anupana and sahapan and Aushadh sevan kaala. (Posology).
- 6. Panchavidha kashaya kalpana and Other kalpana** : Kashaya Yoni, Swarasa, Kalka, Kwatha, Hima and 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, Gutti, Pinda, Modaka, Varti Preparation of Tablets, pills, capsule and Suppositories. Masi kalpana, Lavana kalpana, Kshara kalpana and Kshara sutra.
- 7. 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 and mesh.
- 8. 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.

- 9. 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, Chandanasava.
- 10. Kritanna and Aushadhisiddha anna Kalpana:** Definition of Kritanna, Concept of Pathya and Apathya, Yavagu –types of yavagu, Manda, Peya, Vilepi, Anna, Bhakta, Odan, Yush -types, Krishara, Mansa rasa, Vesavara, Khad Kamblika, Raga, Shadava, Dadhi and Takra Varga – Takra, Udasvita, Katvar, 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 for following:**
- 2.1 Netraupacharartha kalpana (Ophthalmic preparations)** – Seka, Drava, Pindi, Anjana - Ashchyotana - Tarpana - Putapaka and Vidalaka, Methods of preparation of eye drops, eye ointments.
- 2.2 Nasyopachararth Kalpana** - Classification of Nasya, Navana, Avapidana, Pradhaman, Marsha and Pratimarsha nasya.
- 2.3 Dhumapanarth kalpana** - Classification of dhumpaana, Method of preparation of dhumvarti and it's therapeutic uses. Dhupan: Vranadhupan, arshodhupan.
- 2.4 Mukhaprayogarth kalpana** - Gandoosha - Kavala - Pratisaran, Tooth paste, Tooth powders and Mouth wash.
- 2.5 Basti kalpana**- Classification, Method of preparation of Niruha and Anuvasana, Basti Therapeutic properties and uses of Basti.
- 2 Brief knowledge of Standardization of Ayurvedic formulations- Kasthanushadhi.
- 3 Brief introduction of Drug and Cosmetics Act 1940 and Rules 1945.

- 4 Concept of, Aushadhi Nirmanshala, with respect to Good Manufacturing Practices (GMP) in accordance to Schedule T.

**Practical Bhaishajya Kalpana**

**50 Marks**

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

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

1. Swarasa- Andraka swarasa, Tulasi swarasa, Kumari Swarasa, Vasa putapaka swarasa
2. Kalka- Nimba kalka, Rasona kalka.
3. Kwatha- Punarnavasthaka kwatha, Rasna Sapthaka kwatha, Kulattha kwath.
4. Hima- Dhanyaka hima, Sarivadi hima .
5. Phanta- Panchakola phanta, Yastimadhu Phanta.
6. Pramathya- Mustadi pramathya
7. Mantha- Kharjuradi mantha
8. Aushadh siddha paniya- Shadanga paniya
9. Laksha Rasa.
10. Arka - Yavani arka, Gulab arka, Misreya arka
11. Panaka- Chinchā panaka, Chandan panaka.
12. Sharkara- Banapsha sharkara, Nimbu sarkara.
13. Churna- Sitopaladi Churna, Hinguwashtaka Churna.
14. Gutika- Chitrakadi Gutika, Sanjivani Vati.
15. Guggulu-Triphala Guggulu, Kaishora Guggulu.
16. Avaleha- Chyavanaprashavaleha, Vasavaleha, Vyaghri Haritaki avaleha, Manibadra avaleha.
17. Rasa kriya - Darvi Rasakriya, Guduchi Ghana, Kutaja Ghana.
18. Khanda- Haridra khanda, Narikela khanda, Sowbhagya shunti paka
19. Satva- Amruta satva,
20. Varti- Phala varti, Chandrodāya varthi
21. Lavana- Arka lavana, Narikela lavana
22. Masi- Triphala masi, Mayurpiccha Masi
23. Ksheerapaka- Arjuna ksheerapaka, Rasona ksheerapaka, Shunthi Ksheerpaka
24. Kshara- Apamarga kshara, Snuhi kshara, Ksharasutra. .
25. Manda, Peya, Vilepi, Yavagu, Krishra, Vesavara

26. Yusha - Mudga yusha, Saptamushtika yusha, Kulattha yusha
27. Aristha- Kutajarishta, Takrarishta .
28. Asava - Kumaryasava, Kanakasava
29. Sukta kalpana- Kanji
30. Udaka- Tandulodaka
31. Upanaha- Atasi Upanaha
32. Siktha Taila Nirmaan
33. Malahara- Sarjarasa malahara, Gandaka malahara, Cream, Emulsion. Sneha Kalpana  
Sneha Murchhana - Ghrita Murchana, Taila Moorchnana, Ghrita kalpana: Jatyadi ghrita, Triphala ghrita, ksheerashatphala ghrita- Taila kalpana-Panchaguna taila, Arka taila, Bala taila, Jatyadi taila
35. Taila patana- Bhallataka taila patana, Jayapala taila patana
36. Shodhana- Guggulu, Hingu.

**II.** Visit of minimum three GMP approved Ayurvedic manufacturing units.

Distribution of Practical Marks: Total 200 Marks

Rasashastra	-	100
1. Record Book	-	10 Marks
2. Experiment	-	30 Marks
3. Spotting	-	20 Marks
4. Viva-voce	-	40 Marks
Bhaishajyakalpana	-	100
1. Record Book	-	10 Marks
2. Experiment	-	30 Marks
3. Spotting	-	20 Marks
4. Viva-voce	-	40 Marks

#### Reference Books

1. Adyatan Rasa Shastra
2. Abhinav Rasa Shastra
3. Asava Arishta Vigyanam

R.K. Goyal  
Vaidya Somadev Sharma  
Dr. Pakshdhar Jha

4. Ayurvediya Rasa Shastra (Sachitra)
5. Ayurvediya Rasa Shastra
6. Rasa Bhaishajya Paribhasa
7. Ayurvediya Rasa Shastra
8. Ayurved Prakash
9. Drugs and Cosmetic Act - 1940
10. Paka Darpana
11. The Paka-darpana of King Nala
12. Parada Vigyaniam
13. Pratyaksha Aushadh Nirmanam
14. Bhaishjyakalpana Vigyanam
15. Rasa Tarangini
16. Rasa Darpan
17. Rasa Bindu
20. Rasa Bhaishajya Kalpana Vigyan Vaidya
21. Rasa Mitra
22. Rasa Ratna Samuchchaya (Hindi)
23. Rasaratna samuchchaya-
24. Rasaratna samuchchaya -
25. Rasa Shastra Prayogiki Srivastava,
26. Rasamritam
25. Rasayan Sara
26. Rasendra Sampradaya
27. Rasendra Sara Sangraha
29. Vaidyak Paribhasha Pradeep (Hindi Translation)
30. Sharangadhara Samhita
31. Bharatiya Bhaishajya Kalpana Vigyana
32. Bhaishajya Kalpana Vijnanam
33. Rasa Shastra (English)
34. Rasa Ratna Samuchchaya (English)
35. Rasendra Chintamani (Hindi)
36. Ayurvedic formulary of India 38. Ayurvedic Pharmacopoeia of India , CCRAS
39. Bhaishjya Kalpana Vigyan
40. Textbook of Rasashasra

Chandrabhusan Jha  
 Badrinarayan Pandey  
 Sureshananda Thapaliyal  
 Prof. Siddhi Nandan Mishra  
 Vaidya Gujrat Mishra

Dr. Indradev Tripathi  
 Dr. Madhulika critical study  
 Vasudev M. Dwivedi  
 Acharya Vishwanath Dwivedi  
 Dr. Agnihotri  
 Sadanand Sharma  
 Prof. Bhajan Das Swami  
 Dr. Sanjay Sharma  
 Santosh Kumar Khandal  
 Dr. Tryambak Nath Sharma  
 Dattatreya Ananta Kulkarni.  
 Ambikadatta shastri  
 Damodar Joshi  
 Yadav and Prof. Ramesh Saxena  
 Vaidya Yadavji Tirkramji Acharya  
 Vaidya Shyam Sunderacharya  
 Vaishya  
 Vaidya Hajari Lal Sukul  
 Vaidya Gopal Krishna  
 Dr. Indradev Tripathi  
 Dr. Radhakrishna Parashar  
 Gananath Vishwanath Dwivedi  
 Dr. K Ramachandra Reddy  
 Prof. Damodar Joshi  
 Prof. Damodar Joshi  
 Prof. Siddhinandan Mishra

Siddhi Nandan Mishra  
 Dr. K Ramachandra Reddy.

41. Ashadhayoga Vigyanam	Dr. K. Ramachandra reddy
42. Vaidyaka Paribhasha Pradipa (English Translation)	Dr. K. Ramachndra Reddy & Dr. P. Suresh
43. Relevant parts of Brihatrayee	
44. Text book of Bhaishjya Kalpana -	Dr Shobha G Hiremath
45. Text Book of Rasa Shastra	Dr P H C Murthy
46. Rasa Chandashu	Prof S S Savirkar (CCRAS Publication)
47. Bhaishjya Ratnawali	Prof S N Mishra
48. Yoga Ratnaka	

## 2.4 CHARAKASAMHITA-PURVARDHA

(Sutrasthana, Nidanasthana, Vimanasthana, Sharirasthana and Indriyasthana)

Theory-One Paper-100 Marks

Lectures-200 Hours

### Part A

- |                  |          |
|------------------|----------|
| 1. Sutrasthana   | 40 Marks |
| 2. Indriyasthana | 10 Marks |

### Part B

- |                  |          |
|------------------|----------|
| 1. Nidanasthana  | 15 Marks |
| 2. Vimanasthana  | 20 Marks |
| 3. Sharirasthana | 15 Marks |

## DETAILED SYLLABUS

### Sootrasthana – (40 marks)

#### 1. Charaka's perspective on Ayurveda

- Structure of Charakasamhita - Contribution of Dridhabala - Importance of different Sthanas- arrangement of Sootrasthana in Chatushtkas - its rationale
- Descend of Ayurveda- Definition of Ayurveda- Ayurveda's Trisootra & Triskandha - Ayurveda's relationship with Atharvaveda (Soo 30)- Ashtangas - Eternity of Ayurveda – Prayojana of Ayurveda – Ideal features of Saastra (Vi 8)

#### 2. Charaka's contributions on Maulika sidhanta

- Concept of Karanapadartha – explanation of six padartha (Soo1) Importance of Samanya-visesha sidhanta-

- Tridosha sidhanta – Features of tridosha including Naanaatmaja vyaadhi and Aatmaroopa, role of tridosha in disease manifestation (as per Soo1, Soo 12, Soo 20), Trividha gati of doshas (Soo 17)

### 3. Charaka's perspective on health and its preservation (Swasthavritta)

- Components of Dinacharya - Importance of ritucharya- General characters of Ayanas (dakshina & Uttara)-
- Importance of Vega – List of Sareerika Vegas – Importance of Dhaaraneeeya vega –
- Importance of Trayopasthambha –
- General guidelines for prevention of diseases (Soo 7)
- Importance of sadvritta through examples of Sadvritta related general life, Aahaara and Vyavaaya –
- Concept of saatmya and rule regarding change from the saatmya –
- Concept of Ashtanindita kaaya – List of Ashtanindita purusha – reason for their ninditatwa
- Importance of Aahaara – Four types of Aahaara, significance of “Aahaarassambhavam vastu”,

### 4. Charaka's perspective on Dravya & Aushadha

- Definition and classification of Dravya (Soo 1),
- Features of ideal Aushadha (Soo1), Importance of drug identification (Soo 1),
- Names of shad virechana asraya, Panchakashaya yoni, Panchavidhakashayakalpana, 50 Mahakashayas, list of any five mahakashaya group (preferably hridya, vishaghna, sothahara, sukrasodhana and samjnasthapana)
- Concepts of Rasa, Guna, Veerya, Vipaka and Prabhaava (as per Soo 26)
- Hitatama-ahitatama aahaaradravya, list of 50 important agryas (as per Yajja purusheeya)
- Classification of Aharadravya (as per Soo 27)
- Definition of Viruddha and names of 18 Viruddha

### 5. Charaka's perspective on disease causation and pathology

- Importance of Trividha hetu
- Santarpana-apatarpana janya rogas,
- Dhatupradoshajavyadhi
- Examination protocols – Dwividha pareeksha, Trividha pareeksha and Chaturvidha pareeksha

### 6. Charaka's perspective on Chikitsa

- General treatment outline of Sareerika and Manasika dosha (Soo 1)
- Definition of Chikitsa (Soo 9/5)
- Use of Pradeha with two examples, Importance of Peya/yavagu in treatment with suitable examples (Soo2),
- Classification of Chikitsa – Dwividha (Oorjaskara, Rogahara), Trividha (Yuktivyapasraya, Daivavyapasraya, Satwavajaya), Shadupakrama, Dasavidha



langhana, Apakarshanaadi vibhajanam (Vi 7), Concept of Adravyachikitsa, Concept of Naishtikee chikitsa (Sa 1)

- Importance of Pathya in treatment (Soo 25)
- Superiority of sodhanachikitsa over samanachikitsa

#### **Vimanasthana (20 marks)**

- Concept of Rasaprabhava, Dravyaprabhaava (Vi 1)
- Concept of Vikritivishama samavaaya (Vi1)
- Concept of Srotas (Vi 5), list of srotas along with moolasthan (Srotovimaana)
- Concept of Janapadodhwamsa- list of factors affected in Janapadodhwamsa (Janapadodhwamsaneeya)
- Dhatusaamya lakshana- aarogyalakshana (Rogabhishagjiteeya)
- Role of Srotas in Roga (Vi5)
- Concept of Ashtaahaaravidhi, different rules of food intake (aahaaravidhi)
- Different classification of diseases (as per Vi 6)
- Dasavidha pareekshya bhaava (Karanam, Karanam, Kaaryayoni etc. as per Vi 8)
- Aaturapareeksha (list of 10 factors)
- Dwividha vyaadhita (Vi 7)

#### **Nidanasthana (15 marks)**

- Definitions of Nidaana, Pragraha, Linga, Upasaya and Samprapti (Ni 1)
- Concept of Nidanarthakara roga
- Sankhyasamprapti and introduction to diseases like Jwara, Raktapitta, Gunma, Prameha, Kushta, Sosha, Unmaada and Apasmaara (as per Nidanasthana)

#### **Sareerasthana (15 marks)**

#### **7. Mauliksidhanta**

- Lokapurusha samya sidhanta- Swabhavoparama vada- Concept and importance of Tisraishana –
- Panchabhuta sidhanta – Ekaguna vridhhi, Asaadhaaranadharma (Sa 1), Panchabhuta make up of human body, Characters of Paarthivaadi dravya
- Concept of Prajnaaparaadha, Vedanadhishtana, Trishna, Yoga & Moksha, Ashtasidhi (Sa1)

#### **8. Charaka's perspective on Life and Human body**

- Composition and types of Ayus – description of Hitaayu, Ahitaayu, Sukhaayu and Dukhaayu- Concept of Tridanda
- Concept of Purusha – Ekadhatu, Shaddhatu, Chaturvimsati, Ativahika
- Aatmalinga, Characters of manas (Sa 1), Panchapanchaka (Soo 8)

- Concept of Sareera (Sa 6) - Aahaaraparinaamakarabhaava, Sareeravridhikarabhaava, Balavridhikarabhaava, Garbhopaghaatakara bhaava
- Concept of ojus
- Description of Prakritipareeksha – types of Prakriti, lakshana of each prakriti
- Saarapareeksha and Satwapareeksha (vi 1)
- Factors contributing to formation of garbha (Sa 3)
- Streekarabhaava and Purushakara bhaava (Sa 2)
- Saatwika, Raajasa, Taamasa kaaya's – Important features

### **Indriyasthana (10 marks)**

- Concept and classification of Arishta

### **Reference Books**

1. Charakasamhita–AyurvedaDipikacommentaryby Chakrapani.
2. Charakasamhita (Hindi Commentary): Vaidya Jayadev Vidyalkar or Vd. Atridev Vidyalkar or Prof. Gorakha Nath Chaturvedi & Kashinath Shastri or Dr. Brahmanand Tripathy or Dr. Ravi Dutta Tripathy
3. Charakasamhita (English Commentary): Dr. Ram Karan Sharma & Vd. Bhagwan Dashor Acharya Priyavrat Sharma.
4. Charakasamhita-Ayurveda Dipika Commentary-Hindi Translation by Dr. B L Gaur, published by Rashtriya Ayurved Vidyapeeth

### **THIRD PROFESSIONAL**

#### **3.1 AGADTANTRA, VYAVAHAR AYURVED EVUM VIDHIVADYAK (TOXICOLOGY, FORENSIC MEDICINE AND MEDICAL JURISPRUDENCE)**

Theory One Paper – 100 Marks

Practical/Viva voce - 50 Marks

Theory - 200 hrs

Practical - 100 hrs

### **Part- A**

**50 Marks**

1. 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. Definition of toxicology, Definition of poison, suicidal and homicidal poisons, classification of poisons, their action and route of administration, absorption, excretion, metabolism, diagnosis and general principles of treatment, duties of a medical practitioner in case of suspected poisoning

3. Origin and Classification of Visha: -Its sources, Difference between Visha, Madya and Oja guna, Visha Upadrava and Visha Mukta Lakshana.

4. Tests for detection of Visha, and 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. Introduction to Environmental Toxicology- Samuhika Vishaprayoga- effect of chemical and nuclear warfare.

6. Vishopakrama described by Charak, General Principles of Management of poisoning.

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

8. Garavisha, Dooshivisha, Viruddhahara. Food adulteration and poisoning– classification, diagnosis, management and contemporary significance.

9. Jangama Visha –Detailed study of Sarpa, Keeta, Loota, Vrischika, Mooshika, Alarka– Visha; Lakshana, Bheda, Chikitsa and their Sadhyasadyata (contemporary and classical views).

10. Introduction to poisoning due to Acids, Alkalis, metals, Non-metals, Asphyxiants and others, their Fatal Dose, Fatal period, Manifestation, management, medico legal importance and postmortem appearance of poisoning due to:

a) Acid and Alkalis– Sulphuric acid, Hydrochloric acid, Nitric acid, Hydrocyanic acid, Oxalic acid, Carbolic acid, Formic acid, alkalis in general.

b) Asphyxiants– Carbon monoxide, Carbon dioxide, Hydrogen sulphide

c) Nonmetallic poisons– Phosphorous, Iodine

Metallic poisoning– Arsenic, Mercury, Lead, Copper, Zinc, Tin.

d) Others - Petroleum – Kerosene Organo phosphorus compounds -Aluminum phosphate, 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. Definition of Vyavahara Ayurveda (Forensic medicine) and Vidhivaidyaka (Medical jurisprudence), concise history of Vyavahara Ayurveda (Forensic medicine) and Vidhivaidyaka (Medical jurisprudence). Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.
2. Legal Procedures:- Inquest, Evidence, Witness, Courts and their powers.
3. Personal identity and its Medico legal aspects, forensic odontology, Introduction to Forensic Serology and DNA profiling.
4. Death and its Medico Legal Aspects, Medico Legal autopsy and exhumation
5. Injuries and thermal injuries, their medico Legal aspects, general introduction of weapons.
6. Dowry deaths (Domestic Violence), their Medico Legal importance and laws in relation to it.
7. Asphyxial deaths and its Medico Legal importance.
8. Medico Legal importance of Pregnancy, Delivery; Impotence & Sterility, Abortion, Infanticide, battered baby. Virginity, Artificial Insemination, Legitimacy.
9. Sexual offences, and their Medico Legal aspects. Sexual perversions.
10. Introduction to Forensic psychiatry.
11. Introduction to forensic laboratory
12. 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.
13. Laws in relation to Medical practitioners: Indian Medicine Central Council Act.
14. Maintenance of medical record.
15. 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.

## PRACTICAL

### 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 Marks
2. Practical/Clinical Record Book	10 Marks
3. Identification (spotting)	10 Marks
4. Viva –voce	20 Marks
<b>Total</b>	<b>50 Marks</b>

### 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 (Ayurveda Toxicology English Translation)	Vaidya Balakrishnan Nair, Kerala
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	

### 3.2 SWASTHAVRITTA AND YOGA

**Theory- Two papers - 100 marks each**

**Practical / Viva voce -100 marks**

**Lectures –200 Hrs**

**Practicals and demonstration – 100 Hrs**

**Paper-I**

**PART A-VAIYAKTIKASWASTHAVRITTA**

**50marks**

## Introduction

Definition of swastha & swasthya and swasthavritta. Arogya lakshana, swasthavritta prayojanam, WHO definition of health.

Dimensions of health-Physical,Mental,Social.

Concept of wellbeing- objective, subjective, standard of living, quality of life.

## Dinacharya

1. Definition ofDinacharya
2. Aims and importance ofdinachary
3. Brahma Muhurta evamUtthana
4. UshaJalapana
5. Sharirachinta
6. Malatyaga
7. Mukhaprakshalan
8. Dantadhavana and preparation of Ayurvedic tooth powder andpaste
9. Jihvanirlekhanavidhi
10. Anjana
11. PratimarshaNasya
12. Gandusha andKavala
13. Tambulasevana
14. Dhoomapana
15. Abhyanga
16. Udvartana
17. Utsadana
18. Vyayama
19. Chankramana
20. Snana
21. Anulepana
22. Vastradharana
23. Dandadharana
24. Padatradharana
25. Chatradharana
26. Ushnishadharana
27. Ratnabharanadharana
28. Madhyahnacharya
29. Cosmetic effect of Dinacharya procedures

## Rathricharya

1. Sandhyacharya
2. Rathri bhojanavidhi
3. Shayanavidhi according toBhavamishra

## Ritucharya

1. Importance of ritucharya
2. Ritu presentation as per different acharyas
3. Adana kala & visargakala
4. Sanchaya-Prakopa-Prashamana of Dosha according to ritu
5. Doshashodhana in RituCharya
6. Relation of Agni bala and Ritu
7. Pathya and Apathya Ahara and Vihara in different ritus
8. a) Ritusandhi  
b) Yamadamsthra  
c) Rituharitaki  
d) Rituviparyaya

## Sadvritta

Description of Sadvritta and Achara Rasayana their role in Prevention and control of diseases.

## Trayopastambha

**i) Ahara** Nirukti, Swarupa, Pramukhatva, Ahara dravya Vargikaranam, Aharavidhividhana, Dwadashashana pravacharana, Ashtaharvidhivisheshayatanani, Pathyahara, Apathyahara, Samashana, Adhyashana, Vishamashana, Ahara dushparinama & tajjanya vyadhaya, Santarpanajanya evam Apatarpanajanya vyadhi, Viruddhahara and its effects, Shadrasabhojanasya mahatwam.

Dietetic standards, Proximate principles of Food, Nutritional requirements, Sources and deficiency diseases of Protein, Carbohydrate, Fat, Vitamins and Minerals.

Concept of balanced diet in Ayurveda, Nitya sevaneeya dravya, Balanced diet for different sections of people in the society, Social aspects of nutrition.

Aharavarga - Dhanya varga (Cereals and millets), Shaka and Harita varga (Leafy and Non leafy vegetables), Kanda varga (roots and tubers), Phala varga (Fruits), Taila varga (Fats and Oils), Ikshu varga & Madhya varga (Alcoholic Beverages), Dugdha varga (Milk and Milk products), Masala and vyanjana dravyas (Spices & Condiments), Kritanna varga (Prepared Food), Mamsa varga (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 fortification, and Food adulteration, Food toxicants, Properties of Vegetarian and Non-

**ii) Nidra-** Nirukti and Utpatti, Types, Nidra – Swasthya sambandha, Properties of Yukta Nidra, Effects of Ratri Jagarana, Diwaswapna, Anidra, Atinidra, Ahara and Vihara causing disturbed sleep, Ahara and Vihara Causing sound sleep.

Duration of sleep according to age, Sleep in healthy and diseased persons.

**iii) Brahmacharya** – Brahmacharya and Abrahmacharya, Importance of Brahmacharya and Abrahmacharya, Vyavaya sambandhi niyama, Effects of

Ativyavaya. Methods of Virya Raksha, Surataspriha (Libido) through Vajikarana, Viryanasa phala.



**Roganutpadaniya-** Concept of Vega- AdharaniyaVegaand

DharaneeyaVega,Di

seases due to vegadharana and their chikitsa, sharirshodhan.

**Rasayana for Swastha-**Nirukti, paribhasha(definition ), classification and examples

**Ashta nindita purusha**

**Menstrual hygiene**

**Part B (YOGA AND NISARGOPACHARA)**

**50marks**

## **1. YOGA**

### **Introduction**

Yoga shabda utpatti, definitions, Different schools of Yoga – Rajayoga, Hathayoga, Mantrayoga, Layayoga, Jnanayoga, Karmayoga, Bhaktiyoga.

Yoga prayojana

Ayurveda yoga sambandha, swasthya rakshane yogasya mahatvam  
Yogabhyasa pratibhandhaka & siddhikara bhavas as per Hathayoga.  
Mitahara and Pathyapathyani during Yogabhyasa.

### **Panchakosha Theory**

#### **Astanga yoga**

Yama, Niyama

Asana and its importance

#### Standing Postures

Ardhakatichakrasana, Padahastasana, Ardhashakrasana, Trikonasana.

#### Sitting postures

Swasthika, Gomukhasana, Padmasana, Vajrasana, Bhadrasana, Shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, ardhmatsyendrasana, Siddhasana.

#### Supine Postures

Pavanamuktasana, Sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana, Setubandhasana.

#### Prone postures

Suryanamaskara – procedure and benefits.

### **Pranayama**

Benefits of pranayama, time of practice, avara-pravara-madhyama lakshana, yukta-ayukta lakshana

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-sushumna nadis.

Pratyahara, Dharana, Dhyana, Samadhi

### Description of Yoga in Ayurveda

Moksha and Muktatma lakshana and upaya, Naishthiki chikitsa, Satyabuddhi, Tatvasmriti, Ashta Aishwarya, Ashta siddhis.

## 2.NISARGOPACHARA (Prakritika chikitsa)

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 poolbath.

**Mrittika chikitsa (Mud therapy)**

Types of soil, doctrine of mud selection, mud bath.

**Suryakirana sevana (sun bath - heliotherapy)**

**Mardana (Massage)** – different methods and effects.

**Diet types** – Soothing, Eliminative, Constructive, Positive and negative diet, Acidic and alkaline diet

**Upavasa chikitsa(Fasting therapy)** – Importance, types, therapeutic effects of fasting.

**Visrama chikitsa upayoga**

## PAPER II – SAMAJIKA SWASTHAVRITTA

### Part A

50marks

#### Janapadodhwamsa

Causes, Manifestations and control measures, importance of Panchakarma and Rasayana.

#### Vayu (Air)

Vayu guna according to sushruta samhita, Properties of Vayu as per different directions, Vayu shudhi prakara – 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

### **Jala (Ayurvedic and modern aspects)**

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

### **Bhumi and nivasa sthana (Land and housing)**

Types of soil, soil & health, Land pollution, Bhumi shodhana, Nivasa yogya bhoomi, Social goals of housing, Housing standards, Mahanasa (Kitchen) standards, Rural housing, Housing and health, Overcrowding.

### **Prakasha (lighting)**

Requirement of good lighting, natural lighting, artificial lighting, biological effects of lighting.

**Dhwani pradooshana (Noise pollution)** – Noise, Sources, effects, & control

**Vikirana (Radiation)** – sources, effects and control

### **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

### **Malanishkasana Vyavastha (Excreta Disposal) Methods**

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

**Disposal of dead body** – Burial, Burning, Electric cremation.

### **Meteorology (Ritu evam Vatavarana jnanam)**

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

### **Disaster management**

Definition, natural and man-made disasters, epidemiologic surveillance and disease control.

### **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.

### **School health services**

Health problems of school children, aspects of school health service, duties of school medical officers, Maintenance of healthy environment

### **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 factor, modes of intervention, incidence and prevalence. Susceptible host, host defenses, Immunizing Agents, Disease prevention and control, investigation of epidemic.

Disinfection – definition, types.

Ayurvedic concept of Vyadhi kshamatva and sankramaka rogas.

Epidemiology of communicable Diseases

Chicken Pox, Measles, Diphtheria, Pertussis, Mumps, Tuberculosis, SARS, Influenza, Pneumonia, Cholera, Polio, Viral Hepatitis , Typhoid, Leptospirosis, Dengue Fever, Chikungunya, Malaria, Filariasis , Leprosy, Rabies , Tetanus, Emerging and re-emerging diseases

Kuprasangaja vyadhi (STDs)  
AIDS, Syphilis, Gonorrhoea, Chancroid

**Non-communicable disease epidemiology**

Diabetes, Obesity, Hypertension, Coronary Heart Diseases, Rheumatic Heart Disease, Cancer

**Chikitsalaya Bhavana (Hospital Building)**

**PartB**

**50marks**

Prathamika swasthya samrakshana(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.

**Parivara kalyana Yojana (Family welfare Programmes)–** Demography, demographic cycle, life expectancy.  
Family planning, methods of family planning.

**Matru sishu kalyana Yojana – MCH programme**

Ante natal, intra natal, post natal, neo natal care. Child health problems and indicators of MCH care.

**Preventive geriatrics**-Problems of elderly,prevention and control measures.

**World Health Organisation**-Objectives,structure and functions.

**International health agencies**-United Nations agencies,Health work of bilateral agencies.

**Alma Ata declaration National**

**Health Policy**

**Health statistics**- Definition, Sources, uses Data collection, Classification, Presentation. Vital statistics-Morbidity rates,Mortality rates ,Fertility rates.

Health survey

**Swasthya prashasana(Health Administration) –** Health administration at Central including AYUSH, state, district, village levels.

**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.

**National Nutritional Programmes** - IDD, Vitamin A prophylaxis, Mid day meal, anemia control programmes.

**PRACTICALS**

**Demonstration of Dinacharya procedures**- anjana, nasya,

kavala, gandoosha dhoomapana, abhyanga,udvartana.

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

Practical demonstrations of Asanas mentioned in the syllabus

Pranayama (Suryabhedana, Ujjayi, Shitali, Sitkari, Bhastrika, Bhramari and Nadishuddhi) and Shad karmas (Jala dhauti, Jalaneti, Sutraneti, Trataka, Kapalabhati).

Preparing and delivering of a health educational talk on health related issues. A short compilation on any topic on environmental health.

### 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.

**Health survey-** Minimum 5 families of rural and urban areas.

There should be 3 case sheets for Yoga Naturopathy & pathya apathya 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. Vaiyaktika Swasthavritta	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:

Relevant portions of Charaka, Sushruta, Vagbhata, Sarngadhara, Bhavaprakasha, Yogaratnakara, Madhavanidana and Bhelasamhita.

Swasthavritta Samucchaya	- Pandit Rajeshwar dutt Shastri
Swasthya Vigyan	- Dr. Bhaskar Govind Ghanekar
Swasthya Vigyan	- Dr. Mukund swarup Varma
Swasthavritta	- Vaidya Sakad
Swasthavritta	- Dr. Ranade and Dr. Firke
Ayurveda Hitopadesh	- Vaidya Ranjit Rai Desai
Yoga and Ayurved	- Acharya Rajkumar Jain
Swasthavritta Vigyan	- Dr. Ramharsha Singh
Swasthavritta	- Dr. Brahmanand Tripathi

Swasthavritta - Dr. Shivkumar Gaud

Ayurvediya Swasthavritta	- Vaidya Jalukar Shastri
Patanjali yoga sutra	- Patanjali Maharshi
Hathayogapradipika	- Swatmaram Yogendra

Gherandasamhita	- GherandMuni
YogaPaddhati	- Bharatiya Prakritik ChikitsaParishad
YogikChikitsa	- Shri. Kedar NathGupta
SachitraYogasandarshika	- Dr. IndramohanJha
Yogadeepika	- Shri. B.K.S.Iyengar
LightonYoga	- Shri. B.K.S.Iyengar
LightonPranayama	- Shri. B.K.S.Iyengar
Yoga andyogachikitsa	-
Dr.RamharshaSinghFoundations ofContemporaryYoga	-
Dr.RamharshaSinghYoga SidhantevamSadhana	- Harikrishna
Shastridatar	
PrakritikchikitsaVidhi	- SharanPrasad
Prakritikchikitsavigyan	-Verma
Preventive andSocialMedicine	- J.Park
Preventive andSocialMedicine	-
BarideandkulkarniJanasankhyaShikshaSidhanta	- Dr.NirmalSahaniEvamupadesya
Health AdministrationinIndia	-S.C.Seel
Health andfamilywelfare	-T.L.Devaraj
PositiveHealth	- L.P.Gupta
Biogenic Secrets of foodinAyurveda	-L.P.Gupta
Smriti granthonmeinnihit	- Dr.
Smt.NigamSharmaSwasthaprakarasamagri	
Dr. Reddy'scomprehensiveguide	-Dr.P.sudhakarReddytoSwasthavritta
Nutritive value ofIndianfoods	-ICMR
YogaandNisargopachar	- Vd. PramaJoshi
Prachin Vangmay meinprakriticchikitsa	- swami
AnantBharati,CCRYNSwasthavritta	- Vd Yashwant Patil and
Vd.Vhawal	
Foodandnutrition	-SwaminathanOrganology and
sensologyinyoga	-PrashantSlyengarYoga-A
gameforWomen	-Geeta Slyengar
Yoga-A game for Women (hindi translation)	-Madhu Pandey

### 3.3 PRASUTI TANTRA & STRIROGA

Marks 200 (100marks each paper)

Practical-100 marks

HOURS Theory-200 Hrs

Practical-400 Hrs

#### PAPER-1 PRASUTI TANTRA

#### PART-A

#### INTRODUCTION TO SUBJECT

#### STRI SHARIRA VIGYAN

Etymological origin of the word Stri. Artava vaha and Stanyavaha strotamsi. Tryavarta yoni Stri Vishishta, Peshi Marmani.

Anatomy of female reproductive system. (External and internal genital organs) Soft & Bony Pelvis and its obstetrical importance.

DESIRABLE (non detail)

Vayobhedena Stri sangnya

### **RAJO VIGYAN**

Description of Raja, Artava and Prathama Rajo Darshana, Rajasvala Charya. Ritumati Lakshana, Ritumacharya, Ritukala

Menarche, Menstrual cycle and their regulation by endocrine glands,

Ovulation –Importance in conception

DESIRABLE (non

detail) Concept of Stri

Sukra **GARBHA**

### **VIGYAN**

- a) Garbhasya paribhasha, Garbhadhanavidhi, Garbhavakranti, Garbha Sambhava samagri, Garbhakara bhava, Panchabhautikatwa of Garbha, Masanumasika Vridhi of Garbha, Garbha Poshana, Garbhasayasthe Garbhasthiti

Foetal attitude, lie, position, presentation

- b) Apari, Garbha Nabhinadi, Jarayu, Ulba

Formation, Development, Function of Placenta, Umbilical cord, Amniotic

fluid Foetal membranes -Abnormalities of Placenta

DESIRABLE (non detail)

Garbhalingotpatti, Garbhasya Avayavotpatti, Garbha Varnotpatti, Garbha Vikriti

### **GARBHINI VIGYAN**

- a) Lakshana of Sadhyograhita Garbha, Lakshana of Vyakta Garbha, Pumsavana vidhi

Diagnosis of Pregnancy

- b) Garbhini vyavastha: Garbhini Paricharya, Garbha Upaghatakara Bhava, Dauhrida

Ante Natal care-Examination, Investigation and Management

- c) Garbha Vyapada: Nidana, Samprapthy and Chikitsa Garbhasrava and Garbhapata-  
Garbha shosha-Upavishtaka, Nagodara, Upashushka, Leena garbha,  
Antarmrita garbha, Raktagulma, Bahugarbhatha

- d) Abortions, Rh-incompatability-

Causes, clinical features, complications and management.

Gestational trophoblastic neoplasias, Ectopic pregnancy, IUGR, Intrauterine foetal death, multiple pregnancy

### **GARBHINI VYAPAD**

- a) Hrilasa, Chardi, Aruchi, Atisara, Vibandha, Arsa, Udavarta, Sotha, Parikarthika, Vaivarnya, Kandu, Kikkisa, Pandu, and Kamala, makkala  
b) Common ailments of Pregnancy-High Risk Pregnancy, Emesis gravidarum, Gestational Anemia, Gestational Hypertension, Gestational Diabetes, Toxemias of Pregnancy, Jaundice, AIDS,

Ante Partum Hemorrhage causes, clinical features complications and Management

## **PART B**

### **PRASAVA VIGYANA**

- a) Prasava Paribhasha, Prasava hetu, Prasavkaala, Sutikagaranirman, Sangrahanaya Dravyani, Sutikagara pravesha vidhi.  
b) Prasavavastha; Prajayani/ Upasthita Prasava/ Asannaprasava lakshana, Aavi. Prasavaparicharya, Jatamatraparicharya  
c) Normal Labour:-Definition of Labour, Physiology & Mechanism of Labour, Monitoring of Labour and management, Pictogram, Episiotomy, care and resuscitation of newborn.

### **PRASAVA VYAPAD**

- a) Garbhasanga, Yonisamvarana, Aparasanga, Mudagarbha-definition, Nidana, Types & Management  
b) Induction and augmentation of labour, Cervical dystocia, Cephalopelvic disproportion, Prolonged labour, Preterm labour, Post term labour, foetal distress, Assisted Labour, Caesarian



- c) Retention of Placenta, PPH - causes, clinical features and management, Genital tract Injuries during labour  
DESIRABLE (non detail)  
Uterine Inversion, Amniotic Fluid Embolism, Garbhasthithi parivarthan (Version), Forceps Delivery, Ventouse Delivery.

### **SUTIKA VIGYAN**

- a) Sutika Paribhasha, Sutika Kaal, Sutika paricharya. Changes during sootika avastha (Sareerika & Manasika)

Normal and abnormal Puerperium and its Management

- b) Sutika Roga – Number of Sutika Roga, Sutika Jwara, Shotha and Makkala.  
c) Stanyavijnan- Sthanyadushti, Sthanyakshaya, Sthanyavridhi -their causes, clinical features and treatment  
d) Emergency care in obstetrics  
DESIRABLE (non detail) Stana stanya –Pareeksha, Stanya sampat.

### **Paper-2**

### **STRI ROGA**

### **PART-A**

#### **ARTAVA VYAPAD**

- a) Artava-kshaya vridhi, Ashtartavadushti lakshana chikitsa Asrigdara lakshana samprapti Chikitsa  
b) Menstrual disorders-Amenorrhoea, hypomenorrhoea, Oligomenorrhoea, Dysmenorrhoea, Abnormal uterine Bleeding

#### **YONI VYAPAD**

Sankhya, Nidana, Lakshana, Upadrava evam Chikitsa

Endometriosis, Fibroid uterus, Genital Prolapses, Retroverted Uterus, Pelvic infections, Cervical erosion, Pelvic Inflammatory Diseases

#### **VANDHYATWA – Prakar, Nidana, Chikitsa**

Infertility – Causes, Types, Investigations and Management. Yoni Kanda, Yoni Arsa, Granthi, Arbud,

Pelvic Infections including Sexually Transmitted Infections, HIV, AIDS, Preventive measures.

MENOPAUSE-changes during menopause, menopause syndrome, management.

DESIRABLE (non detail)

Congenital malformations of female genital tract.

Sukra vijñan –kshaya, vridhi, dushti hetu lakshana and chikitsa Benign and Malignant tumours of Genital Tract

## PART-B

### STANA ROGA

- a) Stanakeela- nidana lakshana chikitsa, Stanagranthi, Stanavidradhi, Stanashoph Mastitis, Breast abscess, Galactoceles - Etiopathology, clinical features, diagnosis, prognosis and complications

- b) Sthanik Chikitsa

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 their Indications, Contraindications of cauterization of cervix, cervical dilatation and curettage, female surgical sterilization

Knowledge of indication and procedure of PAP smear. Endometrial biopsy and interpretation of the reports

Stri roga Sambandhita Pramukha Aushadhyai, Prasuti & Stri Roga Chikitsa Upayogi Yantra Shastra Parichaya and Vyadhinivischaya Upaya (Investigative and Diagnostic Aids)

Garbhanirodhaka Upaya.

Parivar Niyojana, Reproductive and Child Health Care, AIDS/HIV control Programme, MCH, PNDT Act, MTP Act, and 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 medicolegal issues in Streeroga and prasutitantra

DESIRABLE (non detail) Laparoscopy, hysteroscopy, hysterosalpingography, USG, X-RAY, Colposcopy, Cervical Biopsy.

Granthi evum Granthi nirharan samanyajnan (Myomectomy, hysterectomy)

### Ingredients, method of preparation and indications of the following drugs

**Kwatham** - Saptasaram Kwatham (A H Gulmam), Musaleekhadiradi Kwatham (Sahasrayogam),

Trayantyadi Kwatham (A H Ch. Vidradi), Drakshadi Kwatham (A H h Jwaram), Balakoditoovadi

Kwatham and Masanumasika Kwatham for garbhini (Sahasrayogam) **Ghritam/Tailam** – Ervarukaghritam (S Y), Sukumaraghritam (A H Ch. Vidradi), Kasmariyadi ghritam (A H Yoniogam) and Dadimadi ghritam Garbha vyapat, (A H Ch. Pandu)/ Dhathakyadi tailam (A H tailam Yoniogam), Dhanwataram, Kumaryasavam (SY), (Sahasrayogam),

**Arishtam/ Asavam** Asokarishtam

**Others**- Pushyanugachurnam gulam (A H Yoniogam) / Rajapravartini vati (Bhavaprakasham)/ Shatav

## 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
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. Counselling and promoting of breastfeeding
9. Record 5 antenatal cases, 5 intrapartum, 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 sthanikachikitsa
5. Observation and practical knowledge of minor gynaecological procedures
6. Observation of Surgical procedures
7. Identification, uses., Demonstration of surgical instruments
8. Observation of Method of sterilization, MTP, Surgical procedures Hysterectomy, Oophorectomy

## DISTRIBUTION OF PRACTICAL MARKS

1. Case taking-2 cases –one Gynec, one obstetric - 30 marks

2. Instruments, Drugs, & Models-	20 marks
3. General Viva-	40 marks
4. Record -2- (one Prasuti, one streerog)-	10 marks
<b>Total</b>	<b>100 marks</b>

### 3.4 Balroga - Kaumarbhritya (Ayurvedic Pediatrics)

**Theory One Paper – 100 Marks**

**Practical / Viva Voce - 50 Marks**

**Teaching Hours : 200 (theory 100 & practical 100)**

#### **Kaumarbhritya Parichaya Evum Balaka Paricharya (Introduction to Ayurvedic Pediatrics and ChildCare)**

**Part A**

**50 Marks**

1. General introduction and scope of Kaumarbhritya (Ayurvedic Pediatrics), Definitions and terminologies used in Kaumarbhritya.
2. Scientific contribution of Kashyapa Samhita in Kaumarbhritya.
3. Vayobheda (Classification of age): Garbha, Bala, Kumara; Kshirada, Kshirannada & Annada etc. and modern classification of childhood period.
4. Prana Pratyagamanam (Neonatal Resuscitation): Methodology; complications and their management (Ayurvedic and modern view). 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), and 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. Navajata 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), Stanyakshaya- Stanyanasha (Inadequate production and absence of breast milk), Dhatri (wet nurse)- Stanyabhava 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 of fetus), 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) and 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 and 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). Samanya Chikitsa Siddhanta (General principles of treatment in children).
2. General Aushadhi Matra Nirdharana - for Ayurvedic and modern drugs preparations (drug doses according to age, weight and drug contents)
3. Specific therapeutic panchakarma procedures in children with special emphases on snehan, swedan and 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 equinovarus 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 and Parigarbhika (Protein Energy Malnutrition), Vitamin and 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)

**1. SrotasVikara:**

- 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 (Dysentery), Gudabhransa (Rectal Prolapse). Ama and its disorders like Ama vata jwara (Rheumatic fever).
- c) Rasavaha Srotas: Jwara (Fever), Pandu (Anemia), Mriddhakshanjanya Pandu (Anemia associated with clay eating/Pica).
- d) Raktavaha Srotas: Kamala (Jaundice), Raktapitta (Haemorrhagic disorders), Yakritodara (Hepatomegaly) and 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), Cerebralpalsy.**

**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 (Mentalretardation).**

**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.**

## **PRACTICAL**

### **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

Clinical work: Pediatric and neonatal case records [1.0 case sheets of each]	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 KS
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 O.P. Ghai
14. Text Book of Pediatrics Nelson
15. Care of New Born by Meharban Singh
16. Panchakarma in Pediatrics Dr. Yogita Srivas



**3.5. CHARAKSAMHITA-UTTARARDHA**  
**(Uttarardha: Chikitsa - Kalpa - Siddhi Sthana)**

Theory- One paper - 100 Marks

Practical - 50 Marks

The marks of theory examination are distributed as follows:

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

**DETAILED SYLLABUS**

**Cikitsa Sthana: 60 Marks**

**1. Rasayana adhyaya**

a) Abhayamalaki Rasayana pada

- Bheshaja paryaya, bheda
- Abheshaja bheda
- Definition and benefits of rasayana and vajeekarana
- Classification of rasayana
- Importance of sodhana before rasayana
- Amalaka rasayana
- Brahma rasayana
- Chyavanaprasa

b) Pranakameeya Rasayana Pada

- Different prayogas of amalaka
- Bhallathaka vidhana

c) Karaprachitheeya Rasayana Padam

- Kevala amalaka rasayana
- Medhya rasayana
- Pippali rasayana



- Triphala rasayana
- Silajathu rasayana
- d) Ayurveda samuthaneeyam
  - Achara rasayana
  - Pranacharya
  - Rasayana yogya purusha

## 2. Vajeeakarana

- a) Samyoga sharamooleeya vajeeakarana pada
  - Vajeeakarana chikitsa uddesha
  - Uthama vajeeakarana
  - Vajeeakarana ghritha
  - Vrishya mamsa
- b) Aasikthaksheerika vajeeakarana pada
  - Vrishya ghritha
  - Vrishya ksheera
  - Vajeeakara vihara
- c) Maasha parnabhritheeya vajeeakarana pada
  - Five ksheera prayogas
  - Vrishya pippali yoga
  - Vrishya shatavari ghrita
  - Vajeeakrana ahara vihara
- d) Pumanjaatha baleeya rasayana pada
  - Vrisya paribhasha
  - Sukra kshaya hetu
  - Sukra pravriti hetu
  - Prasastha sukra guna
  - Vajeeakarana shabda nirukthi

## 3. Jwara Chikitsa

- Nidana poorvaroopo lakshana
- Dwividha classification
- Vishamajwara- Nidana samprapti

- Dhatugatajwara- lakshana sadhyasadyata
- Types of sannipatha jwara- basic understanding
- Concept of lamghana in jwara
- Importance of yavagu in jwara
- Kashaya pana in jwara, meaning of kashaya
- Shodhana in jwara
- Vasti in jwara
- Vishamajwara vishesha chikitsa
- Dhatugata jwara vishesha chikitsa
- Apathya in jwara
- Punaravarthakajwara - definition and treatment

#### **4. Rakthapitta Chikitsa**

- Mahagatatwa of Raktha pitha
- Vishesha nidana
- Anthiki
- Samanya chikitsa soothra
- Langhana in raktha pitha
- Sodhana in raktha pitha
- Importance of samana chikitsa in Raktha pitha

#### **5. Gulma Chikitsa**

- Gulma sthana
- Nichaya gulma hetu
- Samanya chikitsa sutra of gulma
- Apakwa gulma lakshana
- Different anupanas in Narayana Churna
- Importance of vasthi and virechana in gulma
- Pathya ahara in gulma
- Upadrava of gulma
- Raktha gulma chikitsa

#### **6. Prameha Chikitsa**

- Dosha and dushya involved in Prameha

- Samanya chikitsa suthra
- Samana chikitsa in prameha
- Use of sneha in vataja meha
- Importance of vyayama in prameha

## 7. Kushta Chikitsa

- Saptadravyas
- Mahakushta and kshudrakushta
- Vatha- Pitta –Kapha kushta samanya lakshana
- Samanya chikitsa
- Drugs for sodhana
- Rasayana prayoga
- Tikta shatpala gritha, mahatiktaka – indication
- Types of swithra, lakshanas
- Samanya chikitsa of swithra

## 8. Rajyakshma Chikitsa

- Chatur nidana for yakshma
- Triroopa, shadroopa, ekadasa roopa
- Samprapthi based on nidana
- Jwara visishta lakshana
- Swarabheda – chikitsa
- Sodhana and its indication in yakshma
- Mamsa prayoga
- Adravya chikitsa

## 9. Unmada Chikitsa

- Nidana
- Samprapthi
- Samanya lakshana
- Definition
- Types & their signs and symptoms
- General signs and symptoms and types of Bhootonmada
- Line of treatment of unmada

- Guna and indications of purana ghrita
- Line of treatment of bhootonmada
- Preventive measures of unmada
- Vigatonmada lakshana

#### **10. Apasmara Chikitsa**

- Definition
- Nidana and samprapthi
- Line of treatment of apasmara
- Nidana, samprapthi and line of treatment of atatwabhinivesha

#### **11. Kshata ksheena Chikitsa**

- Nidana of ura kshatha
- Kshatha ksheena lakshana
- Poorva roopa of kshata ksheena
- Sadhya asadhyatha of kshata ksheena
- Chikitsa of kshata ksheena
- Raktha ati pravriti chikitsa in kshatha ksheena
- Sarpi guda
- Pathya in kshatha ksheena

#### **12. Swayathu Chikitsa**

- Samanya lakshana
- Samanya chikitsa suthra
- Punarnavadyarishta
- Kamsa hareethaki
- Pathya of sophia
- Aganthu sophia
- Bahya upakramas of sophia

#### **13. Udara Chikitsa**

- Importance of agnimandya
- Nidana
- Upadrava of jalodara
- Asadhya lakshana

- Udara samanya chikitsa
- Pleehodara chikitsa
- Aharakrama
- Samana chikitsa

#### **14. Arsa Chikitsa**

- Types of arsa
- Adhishtana
- Dosha predominance of sushka and ardra arsas
- Basic understanding of sushka and ardra arsas chikits
- Importance of takra in arsas
- Use of picha vasthi in arsas
- Pathya apathya in arsas

#### **15. Grahani dosha Chikitsa**

- Nidana and samprapthi of ajeerna
- General signs and symptoms of ajeerna
- Mandagni lakshana
- Description of grahani
- Ama-nirama grahani
- General line of treatment of grahani
- Importance of takra in grahani
- Nidana-samprapthi-lakshana and management of athyagni

#### **16. Pandu roga Chikitsa**

- General signs and symptoms of pandu
- Description of kamala, kumbhakamala and haleemaka
- General line of treatment of pandu, kamala, kumbha kamala and haleemaka

#### **17. Hikka swasa Chikitsa**

- Nidana lakshana and samprapti of both in brief
- Reasons for common line of treatment
- Therapeutic classification of patients of swasa and hikka
- Shodhana line of management
- Shamana line of management
- Importance of shodhana in swasa hidhma

## **18. Kasa Chikitsa**

- Nidana samprapti in brief
- Chikitsa according to pradhana dosha and anubandha dosha
- Kshata kasa chikitsa- comparison with kshata ksheena chikitsa
- Concept of vyatyasa chikitsa in kshaya kasa

## **19. Athisara Chikitsa**

- General line of treatment of atisara
- Guda bhramsa chikitsa
- Use of medicated milk
- Picha vasthi
- General management of Rakthathisara

## **20. Chardi Chikitsa**

- General line of treatment of chardi
- Management of chronic chardi

## **21. Visarpa Chikitsa**

- Importance and nirukthi of visarpa
- Saptadhatu
- Nidana
- Definition of upadrava
- Asadhya lakshana of visarpa
- Samanya chikitsa based on doshasthana
- Raktamoksha and techniques
- Methods of lepa and use
- Aharakrama
- Apathya

## **22. Thrishna roga Chikitsa**

- Nidana samprapthi of thrishna roga
- Poorva roopa and roopa
- Types of thrishna
- Upasargaja thrishna
- Samanya chikitsa
- Treatment principles of thrishna due to different causes

- Use and contra indication of jala pana in thrishna roga

### **23. Visha Chikitsa**

- Visha guna
- Visha chikitsa according to different sthaanas
- Importance of anjana and nasya in visha chikitsa
- Kshara agada
- Udara and pakwashaya visha lakshana
- Gara visha chikitsa

### **24. Madathyaya Chikitsa**

- Guna and dosha of madya
- avastha of mada
- madyashritha rogas
- madathyaya laksha and nidana
- madathyaya roga samanya lakshana and chikitsa
- dhwamsaka and vikshaya lakshana and chikitsa
- benefits of abstinence from drinking alcohol
- Ashtanga lavana

### **25. Dwivraneeya Chikitsa**

- 36 upakramas of vrana
- Vrana upadrava chikitsa

### **26. Trimarmeeya Chikitsa**

- Hetu and samprapthi of udavartha
- Lakshana of udavartha
- Udavartha janitha vyadhi
- Chikitsa of udavartha
- Moothra krichra chikitsa principle
- Sukra avarodha janya moothra krichra
- Sukraja moothrakrichra chikitsa
- Rakthaja moothra krichra chikitsa
- Asmari nashaka vihara
- Vishesha lakshana of hridroga
- Treatment principle of hridroga

- Swara bheda chikitsa

### **27. Urusthambha chikitsa**

- Nidana of urusthambha
- Poorva roopa
- Why snehana and panchakarma is not indicated in urusthambha
- Rookshana in urusthambha
- Ashta katwara thaila
- Samanya chikitsa suthra

### **28. Vatavyadhi chikitsa**

- Importance of vata
- Functions of 5 types of vata
- Two types of samprapti of vata
- Nidana of vata vyadhi
- Poorvaroopo of vata vyadhi
- Gatavata lakshana
- Ardita and akshepaka
- Pakshaghata
- Ghridhrasi vishesha lakshana
- Khalvi
- Avruta vata lakshana
- Gatavata - line of treatment
- Avruta vata line of treatment
- Complications of avarana if not treated

### **29. Vatasonitha Chikitsa**

- Vishesha chikitsa of vata raktha
- Pathya and apathya of vata raktha
- Aavarana chikitsa
- Kapha-medo nashaka upaya
- Aavasthika chikitsa of vata raktha

### **30. Yoni vyapath Chikitsa**

- Types and hetu of sukra dosha
- Chikitsa of sukra dushti



- Klaibya bheda
- Samanya lakshana of klaibya
- Chikitsa of klaibya
- Chikitsa of anuktha rogas
- Samanya chikitsa sidhantha
- Pareekshya vishayas in chikitsa
- Importance of pathya anna
- Importance of sathra jnana and prathyaksha jnana



## **Sidhi Sthana: 25 Marks**

- Definition, Purpose and Importance of Sthana
- Number and names of Adhyaya

### **1. Kalpana Sidhi**

- Procedure and benefits of Snehana, Svedana, Vamana, Virecana, Niruha, Anuvasana and Nasya
- Pattern, application and significance of Peyadikrama
- Samyak, Ati and Ayoga of Vamana, Virecana, Niruha, Anuvasana and Nasya
- Pattern and application Karma, Kala and Yogavasti
- Parihara-kala & Varjaneeya vishaya

### **2. Pancakarmeeya Sidhi**

- General Contra-indications for Upakrama
- Indications of Vamana, Virecana, Niruha, Anuvasana and Nasya
- Contra-indications along with reasoning of Vamana, Virecana, Niruha, Anuvasana and Nasya
- Rules of exception

### **3. Vasti-sutreeya Sidhi**

- Factors influencing Vasti and other Karma
- Vastri-Netra Specifications
- Vasti-Putaka Specifications
- Procedure of Niruha and Anuvasana Vasti; pascat-karma
- Bala-guloochyadi Vasti Yoga
- Importance of Savya-sayana in Vasti
- Niruha-matra

### **4. Snehavyapat Sidhi**

- Dosha-hara Sneha Vasti
- Sneha Vasti-Vyapat – number and names
- Causes of Sneha Vasti-Vyapat

- Management of Sneha Vasti-Vyapat
- Importance of Hot Water
- Precautions in Sneha Vasti
- Matra-vasti

#### **5. Nētrabastivyāpat Sidhi**

- Classification and numbers
- Cause and management of each
- Nētradōṣa
- Bastidōṣa
- Praṇētrdōṣa

#### **6. Vamana-Virecana Vyapat Sidhi**

- Numbers, name and classification
- Definition of Yoga-atiyoga-ayoga
- Cause and management of each
- Importance of Sneha-Sveda prior to Sodhana
- Features of Maatraavat Oushadham

#### **7. Vastivyapat Sidhi**

- Numbers and names
- Cause and management of each
- Imparting teekshnatva and mridutva to vasti-dravya
- Mechanism of action of Vasti

#### **8. Prasrutayogeeya Sidhi**

- Concept of prasrutavasti
- Ksheeravasti
- Ekaika and hapushadi prasrutayoga

#### **9. Trimarmeeya Sidhi**

- Trimarma – Hridaya, vasti and siras – abhighata-janya roga and cikitsa
- Importance of Vasti-karma in Marma-paripalana
- Apatantraka – samprapti, lakshana and cikitsa

- Tandra – samprapti, lakshana and cikitsa
- Trayodasa Mutra-dosha - lakshana and cikitsa
- Uttaravasti – netra, dose, indications and procedure (male and female)
- Sankhaka – samprapti, lakshana and cikitsa
- Ardhavabhedaka – samprapti, lakshana and cikitsa
- Suryavarta – samprapti, lakshana and cikitsa
- Anantavata – samprapti, lakshana and cikitsa
- Nasya – indications, classification, dose, procedure and contra-indications

#### **10. Vasti Sidhi**

- Importance of vasti
- Comparison with vamana-virechana
- Vastikalpana – modifications
- Concept of 37 vasti yoga
- Anuktha vasti kalpana

#### **11. Phalamatra Sidhi**

- Phala in Vasti-kalpana
- Vasti Prasamsa
- Gajadishu Vasti - maatra & Dravya
- Sadaatura-nara
- Kaaranam & Chikitsa
- Gudavarti
- Balavarna-vardhana Vasti-yoga
- Sishu-vrudhaya Vasti-kalpana

#### **12. Uttaravasti Sidhi**

- Caring of patient in Sodhana
- Rasotharakrama
- Prakritigatapurusha
- Ashtamahadosha – lakshana and cikitsa
- Yapana vasti – benefits, contraindications, complications and management

### Kalpa Sthana: 15 Marks

- Definition, purpose and importance of Sthana
- Number and names of Adhyaya
- Definition of Vamana & Virecana
- Mode of action of both karma
- Potentiating Vamana & Virecana Dravya
- Vamana-vidhi
- Madanaphala - No. of formulations, synonyms, indications, kvatha-yoga, coorna-yoga, ghreya and matra-yoga
- Syaama-trivrut - No. of formulations, synonyms, types, indications, coorna-yoga, rutu-yoga, Kalyana-guda, Abhayaadi-modaka and Trivrit-leha
- No. of formulations, synonyms, types, indications and five yoga each of the following:
  - i. Jeemutaka
  - ii. Ikshvaku
  - iii. Dhamargava
  - iv. Vatsaka
  - v. Kritavedhana
  - vi. Caturangula
  - vii. Tilvaka
  - viii. Sudha
  - ix. Saptala-sankhini
  - x. Danti-dravanti

### PRACTICALS:

For practicals following activities are included

1. Memorizing and in writing two shloka weekly related to samprapti and chikitsa sutra (Eight Sloka

per month.) and note book of memorized shloka, corrected and signed by the class teacher is to be submitted at time of examination.

2. Preparation of Charts /Compilation/Assignment.

3. Case taking from samhita siddhant OPD IPD of the Hospital. Total 20 cases should prepared be recorded in case record Journal.

#### **Distribution of marks :-**

**Total 50 Marks**

1. Oral presentation (Presentation of 10 shloka, orally and in writing related with Samprapti and Chikitsa Sutra) 10 Marks.
2. Viva voce on Prepared Charts/ Compilation/Assignment. 10 Marks.
3. Case taking and prescription writing by examining the patients from OPD & IPD of samhita. siddhant of hospital and oral related to case record Journal. 10 Marks.
4. General Viva – Voce. 20Marks.

#### **Reference Books :-**

1. Charak Samhita -Chakrapani Tika (Sanskrit Commentary)
2. Charak Samhita (Hindi Commentary) Vd. Jayadev Vidyaiankar or Vd. Atridev Vidyalkar or Prof. Gorakh Nath chaturvedi & Kasninaih Shastri or Dr. Brahmanand Tripathy or Dr. RaviduttaTripathy
3. Charak samhita (English commentary): Dr. Ram Karan sharma & vd. Bhagwan Dash or Acharya Priyavrata Sharma

### **FINAL PROFESSIONAL SUBJECTS**

#### **4.1 KAYACHIKITSA**

Theory Two Papers

100 Marks each

Practical / Viva voce

100 Marks

Teaching Hours : Theory 300 & Practical 200

## Kayachikitsa – Paper I (100 Marks)

### Part A

50 Marks

1. Derivation of the terms 'Kaya', 'Chikitsa' and their definitions and synonyms. Definition of 'Kayachikitsa, Definition of 'Bheshaja'. Types and detailed description of Bheshaja and Chikitsa, Knowledge about Chikitsa Chatushpada, Rogi Roga Pariksha Siddhantha, Astasthan Pariksha.
2. Importance of Kriya Kaala according to stages of Dosha and their management
3. Chikitsa sutra and Management of vriddhi (increased) and kshaya (decreased) of Dosha, Dhatu and Mala, Ojo Vyapat (Kshaya, Visramsa and Vyapat) and its management. Chikitsasutra and Management of Sama-Nirama states, Roga-Anutpattikara Chikitsa, Roga Prashamana Chikitsa (Doshapratyanika, Vyadhipratyanika, Ubhayapratynika), Doshopakrama, Chikitsa sutra and Management of Sthanantara Dosha (Ashayapakarsha, Anuloma/Pratiloma gati of Dosha, Vimarga gamana of Dosha), Knowledge of Lina Dosha & its management, Diagnosis, Chikitsa Sutra and Management of Avarana and of Dhatu Pradoshaja diseases, Importance of Dosha, Dushya , Bala, Kaala, Agni, Prakriti, Vaya, Sattva Satmya, Desha, Ahara and stage of diseases in treating them. Chikitsa Sutra and Management of 'Samanyaja and Nanatmaja' diseases.
4. Detailed description of Dvidividhopakrama (Santarpana and Apatarpana) and Shadavidhopakrama (Rookshana, Snehana, Swedana, Sthambhana, Langhana and Brimhana). Detailed description of Shodhana, Shamana and Nidana Parivarjana.

Knowledge of Aushadha matra, Sevan kaala and Anupana, Definition and Knowledge of Pathya-Apathya with examples of diseases of various systems.

5. Derivation of the term 'Manas', its sthana (place), Guna (qualities) and Karma

(functions). Samanya Chikitsa Siddhanta of Manasa Roga.

6. Principles & Management of Nutritional deficiency disorders.
7. Management of Vardhakyajanita vikara, Indriyapradoshaja vikara, Alzhiemer's Disease, Sleep disorders, General debility.
8. General introduction and principles of Management of diseases produced by Genetic, Environmental and Iatrogenic factors. Disorders due to drug and Food allergy and their management and other allergic conditions.

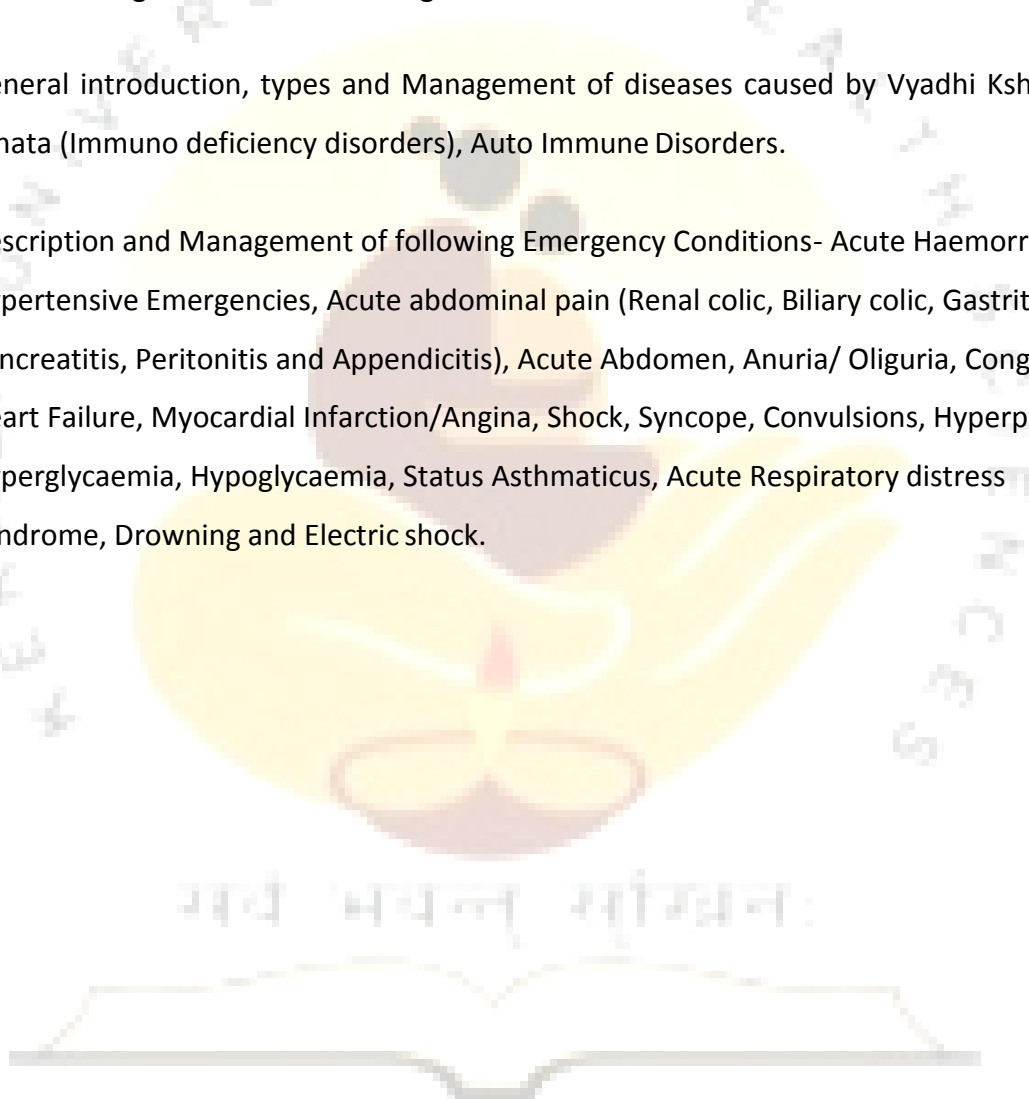
**Part B**

**50 Marks**

1. Detailed description of Chikitsa Sutra and Management of Jwara and its types. Etiopathogenesis & relevant Ayurvedic and Modern management of following types of Fevers-Typhoid, Pneumonia, Pleurisy, Influenza, Mumps, Meningitis, Encephalitis, Tetanus, Yellow fever, Plague, Dengue Fever, Chikun Guniya, Leptospirosis, Viral Fever, Anthrax, Masurika (Small pox), Laghu Masurika (Chicken pox), Romantika (Measles).
2. Chikitsa sutra and Management of the diseases of Rasavaha Srotas such as – Pandu, Amavata, Madatyaya, Hridroga, Hridshoola, Hypotension, Hypertension, Anaemia, Rheumatoid arthritis.
3. Chikitsa sutra and Management of the diseases of Raktavaha Srotas such as - Raktapitta, Kamala, Kumbhakamala, Halimaka, Daha, Mada, Murcha, Sanyasa, Vatarakta, Plihadosh, Yakrut dosha, Haemolytic disorders, Hepatitis, Cirrhosis of Liver, Leukaemia, Kushta, Shvitra, Visarpa, Sheetapitta, Udarda, Kotha and Kshudra Roga.
4. Knowledge of National Health Programmes and the relevant Ayurvedic Management of the following diseases enlisted by World Health Organisation- Malaria, Filariasis, Kala Azar, Leprosy, Tuberculosis, AIDS.



5. Introduction of general principles of maintenance of health and management of diseases of following systems of Medicine- Yoga, Naturopathy, Unani, Siddha, Physiotherapy and Rehabilitation.
6. Diseases of different Endocrine Glands- such as Thyroid, Parathyroid, Pituitary, Pancreas and Adrenal glands and their management.
7. General introduction, types and Management of diseases caused by Vyadhi Kshamatwa Hinata (Immuno deficiency disorders), Auto Immune Disorders.
8. Description and Management of following Emergency Conditions- Acute Haemorrhage, Hypertensive Emergencies, Acute abdominal pain (Renal colic, Biliary colic, Gastritis, Pancreatitis, Peritonitis and Appendicitis), Acute Abdomen, Anuria/ Oliguria, Congestive Heart Failure, Myocardial Infarction/Angina, Shock, Syncope, Convulsions, Hyperpyrexia, Hyperglycaemia, Hypoglycaemia, Status Asthmaticus, Acute Respiratory distress Syndrome, Drowning and Electric shock.



## Kayachikitsa – Paper II (100 Marks)

### Part A

50 Marks

1. Chikitsa sutra and Management of the diseases of Pranavaha Srotas such as - Kasa, Shwasa, Hikka, Rajayakshma, Urakshata, Parshwashoola, Bronchitis, Bronchiectasis, Emphysema and COPDs.
2. Chikitsa sutra and Management of the diseases of Udakavaha Srotas such as- Shotha, Jalodara, Trishna, Water & Electrolyte Imbalance.
3. Chikitsa sutra and Management of the diseases of Annavaaha Srotas such as – Agnimandya, Aruchi, Ajirna, Anaha, Atopa, Adhmana, Alasaka, Vilambika, Visuchika, Chardi, Grahani, Amlapitta, Gulma, Shoola, Bhasmaka, Acid peptic disorders.
4. Principles of treatment and management of Vata Vyadhi such as - Pakshavadha, Ekgangavata, Sarvangavata, Ardita, Avbahuka, Kati Graha, Manyastambha, Gridhrasi, Vishwachi, Khalli, Khanja, Pangu, Padaharsha, Padadaha, Vatakantaka, Kroshtukashirsha, Udavarta, Kampavata, Dhatugata and Ashayagata Avarana Vata, other Vata Rogas, Parkinsonism.
5. Nidana and Chikitsa of Urusthambha, Gullian Barrie syndrome, Muscular Dystrophy, Myasthenia Gravis, Motor Neuron Diseases and Neuralgia.

### Part B

50 Marks

1. Chikitsa Sutra and Management of Mamsavaha Srotas and Medovaha Srotas such as- Gandamala, Galaganda, Mamsashosha, Arbuda, Apachi, Prameha, Sthaulya, Karshya, Diabetes Mellitus, Dyslipidaemia.

2. Chikitsa Sutra and Management of 'Asthi and Majjavaha Srotas such as Asthimajja Vidradhi, Asthisousharya, Asthi kshaya, Sandhigata Vata, Osteo Arthritis, Osteomyelitis, Osteoporosis, Osteopenia.
3. Chikitsa sutra and management of Shukravaha srotas such as Klaibya, shukralpata, shukradosha, kshina shukra, dhvajabhanga.
4. Chikitsa Sutra and Management of diseases of Mutravaha Srotas such as -Mutrakricha, Mutraghata, Ashmari, Cystitis, Nephritis, Nephrotic Syndrome, BPH, Renal Failure.
5. Chikitsa Sutra and Management of diseases of Purishavaha Srotas such as – Atisara, Pravahika, Arsha, Purishaj Krimi, IBS and Ulcerative Colitis.
6. Chikitsa Sutra and Management of Sexually Transmitted Diseases such as – Phiranga, Puyameha, Upadamsha, lymphogranuloma inguinale, Syphilis, Gonorrhoea.
7. Introduction, Definition and Management of Kama, Krodha, Lobha, Moha, Mada, Matsarya, Shoka, Bhaya, Vishada, Dainya, Harsha and Pragyaparadha.
8. Manas and Manovahasrotas, Nidana and Chikitsa of the following disorders - UnmadaApasmara-Atattvabhinivesha, Chittodvega, Vishada, Anxiety disorders, Depression, Somatoform and Mood disorders, Stress induced disorders, Psychosexual Disorders. Importance of Daivavyapashraya, Sattwavajaya, Adravabhuta Chikitsa. Medhya Rasayana in the management of Manasa Roga. Bhuta Vidya diagnosis and management of graha disorders.
9. Derivation, definition and synonyms of Rasayana, importance of Rasayana and its benefits. Indications of Rasayana therapy. Classification of Rasayana. Kutipravesika and Vatatapika Rasayana. Indications of Vatatapika Rasayana. Knowledge of Kayakalpa, Achara Rasayana. Procedures of Kutipravesika, Poorvakarma and specific schedules to be followed after Kutipravesha, benefits of Kutipravesika Rasayana, duration of process, Rasayana yoga and directions for their use. Determination of dose of Rasayana according to age. Rules and regulation after Rasayana therapy, Importance of Immunomodulators and antioxidants in Rasayana therapy.

10. Vajikarana- Derivation, definition, synonyms, necessity, benefits, importance of fertility, Symptoms of Shûkra (Semen), Vajikaran Dravya and Aushadhi. Properties, doses, methods of administration, ingredients and methods of formation of Rasayana & Vajikarana formulation. Classification and importance of Vajikarana Dravya

**11. Knowledge of ingredients and indications of the following aushadha-yoga**

**Kwatha:** Gandharvastadi , Amritotharam, Dasamulakatutryam, Nayopayam, Balaguluchyadi, Chiruvilvadi , Elakanadi, , Rasnerandadi, Rasnasaptakam, Patolakaturhinyadi, Manjishatdi (Laghu), Dhanadanayanadi, Prasaranyadi, Ashtavargam, Nisakatakadi, Katakakhadiradi, Pathakaranjadi, Kaidaryadi, Kalasakadi, Punarvadi, Sahacharadi, , Ullivettadukadi, Nimbadi, , Rasonadi, Balajeerakadi, , Vyoshadi, Ardhavilvam, Nirgundyadi, , Indukantam, Bharngyadi, Brahmidrakshadi

**Lepa-churna:** Kottamchukkadi, Jadamayadi, Ellumnishadi, Ghrihadhoomadi

**Gulika :** Chukkumtippalyadi, Gorochanadi, Mukkamukkatukadi, Vettumaran, Suryaprabha, Svasanandam, Karuthavattu, Dhanvantharam, Krimighana-gutika, Krimishodhini

**Taila:** Kottamchukkadi, Chinchadi, Karpasasthyadi, Kayyonnyadi, Nalpamaradi, Arukaladi, Parinatakerikshiradi, Balaguluchaydi, Satahvadi, Karpuradi, , Vatashani, Prasaranyadi, Gandharvahastadi eranda-tailam, Nirgundyerandam and Nimbamrithadierandam

**Churna –** Sudarshanam, Rasnadi, Kachuradi, Eladi, Induppukanam

**Ghritham:** Indukantham

**Distribution of practical Marks**

- |                                 |          |
|---------------------------------|----------|
| 1) Daily case record - 20 cases | 20 Marks |
| 2) Patient examination          |          |
| a) Long case - one              | 20 Marks |
| b) Short case - one             | 10 Marks |
| 3) Viva –voice                  |          |
| a) Paper I                      | 25 Marks |
| b) Paper II                     | 25 Marks |



### Reference books:

1. Charak Samhita, Sushrut Samhita, Ashtanga Samgraha and Ashtanga Hridaya with their commentaries.  
Madhav Nidana with Madhukosha Commentary
2. Ayurvediya Vyadhi Vigyana Yadavji Trikamji
3. Roga Pariksha Vidhi Priyavrat Sharma
4. Panchakarma Vigyan Haridasa Sridhar Kasture
5. Cikitsadarsha Pandit Rajesvardutta Shastri
6. Kayachikitsa I-IV Ramaraksha Pathaka
7. Ayurved Nidan Chikitsa Siddhanta Prof. R.H.Singh
8. Kayachikitsa Vol. I-IV Prof. Ajay Kumar
9. Davidson's Principles and Practice of Medicine
10. API Text Book of Medicine
11. Harrison's Text Bok of Medicine
12. Cecil Text Book of Medicine
13. Panchkarma Illustrated by Dr. G.Srinivas Acharya
14. Other relevant publications on subjects concerned

### 4.2. PANCHAKARMA

Theory One Paper – 100 Marks  
Practical Viva-voce – 50 Marks  
Hours of teaching Theory – 100  
Clinical training: 200

### I. Introduction



1. Introduction to Panchakarma, Panchakarma and Shodhana, its importance for promotion of health, prevention and treatment of diseases.
2. Trividha Karma- Purva, Pradhana and Pashchat Karma in relation to Shodhana and their importance.
3. Indications of Shodhana, Shodhana according to Ritu
4. General Principles of doshagati from Koshta to Shaka and vice versa
5. General precautions (Pariharya Vishaya) for Panchakarma
6. Specifications of Panchakarma theatre and necessary equipments
7. Importance of Koshta and Agni Parikshan

## II. Snehana

1. Etymology and Definition of Sneha and Snehana
2. Snehayoni- Sthavara and Jangama: Properties of Sneha dravyas, Snehopag Dravyas
3. General knowledge of Ghrita, Taila, Vasa and Majja with their specific utility and actions ,Yamaka, Trivrit and Maha Sneha
4. Metabolism of fat
5. Achcha and Pravicharana of Sneha
6. Snehapaka and its importance in Panchakarma
7. **Types of Snehana:** i) Bahya and ii) Abhyantara Snehana

### i) Bāhya Snehana :

Methods, indications and contraindications of the following types of Bahyasnehana; Mardana, Unmardana, Pādāghāta, Samvāhana, Karna Purana & Akshi Tarpan, Lepa, Talam,

**Murdhni Taila:** Siro-Abhyanga, Shiro Seka/dhārā, Siro Pichu and Siro-Basti

### ii) Ābhyantara Snehana

Three Types of Ābhyantara Snehana: Shodhanārtha, Shamanārtha and Brimhanārtha Snehana, Indications and contraindications for Snehana

### Shodhanārtha Snehana

- a. Importance and method of Deepan Pāchan and Rookshana in Shodhanārtha Snehana. Properties of Rookshana Dravya. Samyak Rookshana Lakshana
  - b. Consideration of Agni and Koshtha in Snehana
  - c. Indication of Different Matra, Various dose schedules for Shodhanārtha Snehana; Hraseeyasi, Hrasva, Madhyama and Uttama Mātrā, Ārohana Mātrā
  - d. Methods of Shodhanārtha Snehana,
  - e. Anupāna of Sneha
  - f. Jeerna and Jeeryaman Lakshana
  - g. Samyak Yoga, Ayoga and Atiyoga of Snehana, Sneha Vyāpat & their management according to Ayurveda & Modern Medicine
  - h. Diet and regimen during Snehana
- Sadyo Sneha:** Method of administration, dose fixation and utility **Shamanārtha Snehana,** Method of administration, dose fixation and utility **Brimhanarth Senhana:** Method of administration, dose fixation and utility **Avapeedak Sneha:** Method of administration, dose fixation and utility
8. Snehana Kārmukata (mode of action)
  9. **Special Procedures:**  
Takradhara, Udvartanam, Putpāka, Aschotana, Anjana, Gandusha, Kavala, Dhoompāna, Udvartana, Utsādana, Udgharshana, Talapothichil

### III. Svedana

1. Etymology and Definition of Sveda and Svedana
2. Classifications of Sveda/Svedana
3. General Sweda dravya, Properties of Sweda dravyas, Swedaopag dravyas ,
4. Indications and contraindications of Svedana
5. Ten Types of Niragni Svedana
6. Knowledge of 13 types of Sagni Svedana and Chaturvidh Svedan
7. Detailed Knowledge with their Utility of the following Svedana procedures: Sankara/Pinda Sveda-Ruksha and Snigdha Sveda  
Patrapinda Sveda, Jambir Pinda Sveda, Vāluka Sveda, Churna Pinda Sveda, Kukkutand Pinda Sveda, Shashtika Shalipinda Sveda, Nadi Sveda, Bashpa Sveda Ksheer dhooma ,Ksheer Seka, Kwath Seka, Avagaha Sveda, Dhanymla Dhara  
Parisheka Sveda, Pizichil, Upanaha Sveda, Annalepa
8. Local Basti such as Kati Basti, Janu Basti, Greeva Basti and Urobasti
9. General precautions during Sagni Svedana and Methods to protect vital during svedana
10. Samyak Yoga, Ayoga and Atiyoga of Svedana
11. Complications of Svedana and their Management according to Ayurveda & Modern Medicine
12. Diet and management during and after Svedana
13. Parihār Vishaya
14. Svedana Kārmukata (Mode of action)
15. General Knowledge about current Sudation techniques like Sauna bath, Steam bath

### IV. Vamana Karma

1. Etymology, definition and importance of Vamana Karma
2. Utility of Vamana Karma in health and disease
3. Indications and Contraindications for Vamana
4. Knowledge of Koshta and Agni
5. General knowledge of Vamana and Vamanopaga drugs; properties, actions, preparations, preservation with special reference to Madanphala, Kutaj, Nimba, Yashti, Vacha
6. Purva Karma of Vamana: Deepan-Pāchana, Abhyantara Snehana and diet
7. Management of one gap day-Abhyanga & Svedana, diet, special Kapha increasing diet
8. Preparation of the patient on Morning of Vamana day
9. Vamaka Yoga, Anupana, fixation of dose and method of administration
10. Administration of Vamanopaga Dravya such as milk, sugarcane juice, Yashtimadhu decoction
11. Lakshana indicating Doshagati during the process
12. Management during Vamana Karma & observations
13. Symptoms of Samyak Yoga, Ayoga and Atiyoga of Vamana Karma
14. Post Vamana management
15. Types of Shuddhi-Hina, Madhya and Pravara
16. Peyadi Samsarjana Karma and Tarpanadi Karma with their specific indications
17. Complication of Vamana and their management with Ayurveda and modern drugs
18. Pariharya Vishaya
19. Vamana Karmukata (Mode of action).

### V. Virechana Karma

1. Etymology, definition and importance of Virechana Karma
2. Utility of Virechana Karma in health and disease
3. Indications and Contraindications for Virechana
4. Knowledge of Koshta and Agni
5. Classification of Virechana Drugs, General properties of Virechana dravya

6. General knowledge of single and compound Virechan drugs; properties, actions, preparations, preservation with special reference to Trivrutta, Aragvadha, Eranda, Katuki, Jaipal
7. Purva Karma of Virechana: Deepan- Pachana, Abhyantara Snehana and diet
8. Management of 3 gap days-Abhyanga, Svedana & diet
9. Management on Morning of Virechana day
10. Preparation of Virechana Kalpa, Anupana, dose and method of its administration
11. Method of Virechana Karma and management during Virechana Karma & observations
12. Symptoms of Samyak Yoga, Ayoga and Atiyoga of Virechana Karma
13. Post Virechana management
14. Types of Shuddhi-Hina, Madhya and Pravara and accordingly Samsarjana Karma
15. Complications of Virechana and their management with Ayurveda and modern drugs
16. Pariharya Vishaya
17. Virechana Kārmukatā (Mode of action)

## VI. Basti Karma

1. Etymology, definition and importance of Basti as Ardha-Chikitsa
2. Utility of Basti Karma in health and disease
3. Basti Yantra- Putaka & Netra, Detailed study of traditional Basti Yantra and their Doshas Knowledge of alternative Basti Yantra-enema can, enema syringe, modified plastic/rubber bag for Putaka, modified plastic netra.
4. Classifications of Basti
5. Karma, Kāla and Yoga Basti schedules along with their utility.
6. **Niruha Basti:** Its etymology, synonyms, definition, classifications, sub- classifications & indications and contraindications.
  - a. Dose fixation of Niruha Basti according to age
  - b. Contents and Method of preparation of Niruha Basti dravya
  - c. Diet
  - d. Administration of Niruha Basti
  - e. Pratyāgamana Kāla, Post Niruha Basti management
  - f. Samyak Yoga, Ayoga and Atiyoga of Niruha.
  - g. Complication of Niruha Basti and its management according to Ayurved and Modern Medicines
  - h. Pariharya Vishaya and kala
7. **Anuvasana Basti:** Its etymology, synonyms, definition, classifications, sub- classifications & indications and contraindications.
  - a. Dose fixation of Anuvasan Basti according to age
  - b. Contents and Method of preparation of Anuvasan Basti dravya
  - c. Diet
  - d. Administration of Anuvasan Basti
  - e. Pratyāgamana Kāla, Post Anuvasan Basti management
  - f. Samyak Yoga, Ayoga and Atiyoga of Anuvasana.
  - g. Complication of Anuvasan and its management according to Ayurved and Modern Medicines
  - h. Pariharya Vishaya and kala
8. Basti Kārmukatā (Mode of action).
9. Knowledge of following types of Basti:
 

Madhutailika Basti, Erandmuladi Basti, Yāpana Basti, Pichchha Basti, Kshira Basti, Kshara Basti, Vaitarana Basti, Panchaprasutik Basti, Lekhan Basti, Krumighna Basti, Tiktashir Basti, Ardhamātrika Basti



10. **Uttara Basti**,: its definition, indications and contraindications, Detailed study of traditional Basti Yantra and their Doshas Knowledge of alternative Basti Yantra
  - a. Preparation of patient,
  - b. Preparation of Trolley for Uttarbasti,
  - c. drug preparation and Fixation of dose,
  - d. method of administration in male and females,
  - e. observations,
  - f. complications and their management

## VII. Nasya

1. Etymology, definition, Significance of Nasya Karma.
2. Classifications and sub-classifications
3. Knowledge of general Dravya used for Nasya Karma, Shirovirechan Gana, Shirovirechanopag dravyas
4. Indications and contraindications of Nasya
5. Time of administration of Nasya
6. Dose fixation of different types of Nasya
7. Diet and regimen before and after Nasya Karma
8. Administration of Marsha, Pratimarsha, Avapeedaka, Dhoomapana and Dhuma Nasya
9. Symptoms of Samyak-yoga of Nasya,
10. Complication of Nasya and their management
11. Parihār Vishaya
12. Nasya Karmukata (mode of action)

## VIII. Raktamokshana

1. Definition, importance and Types of Raktamokshana
2. General Principles and rules of Raktamokshana
3. Classification of Raktamokshan
4. General Indication and Contra indication of Raktamokshan
5. **Jalaukavacharana**: Knowledge of different types of Jalauka (Leech) , Indications and contraindications of Jalaukavacharana, various types of Jalauka. Method of Application, Samyak Lakshan, Complication of Jalaukavacharana and their management with Ayurveda and Modern medicines.
6. **Pracchāna**: Indications and contraindications of Pracchana. Method of Application, Samyak Lakshan, Complication of Pracchana and their management with Ayurveda and Modern medicines
7. **Sirāvedha**: Indications and contraindications of Siravedha. Method of Application, Samyak Lakshan, Complication of Siravedha and their management with Ayurveda and Modern medicines
8. Knowledge of emergency management of complications such as water & electrolyte imbalance, shock, bleeding per rectal, hematemesis, epistaxis
9. Droni, Apparatus & Accessories
10. Therapeutic use of Erandataila
11. Indications, technique & application of the following procedures :Talam, Shiro sekam/Dhaara, Takradhaara, Talapothichil, Patrapinda svedam, Jambeerapinasvedam, Shashtika Shalipinda Sveda, Ksheera dhooma, Ksheera Sekam, Dhanyamla Dhara, Pizhichil, Annalepam, Ksheera dhooma and Urovasti

## IX. Physiotherapy

1. Definition, Utility and Importance of Physiotherapy.
2. Basic Knowledge of Static exercise, Infrared, Short wave diathermy, Electromagnetic therapy, Wax bath therapy, Ultrasonic therapy.

## **PRACTICALS / CLINICAL TRAINING –**

Total Duration of 3 Months posting

OPD (for 1-Month): observation of OPD patients, selection of the patients, observation of OPD base Panchakarma procedures

IPD (Panchkarma) and Panchakarma Unit – Observation of different procedures of Panchakarma, Assistance to the procedure under guidance of Panchakarma specialist

Under clinical posting, each student has to study and write 15-long Cases and 10 short cases in prescribed format

Long case Paper- minimum 1 Vaman, 1 Virechan, 1Niruha & Anuvasan Basti, 1Nasya, 1 Raktamokshan

Short case paper –Minimum one each of Pinda sweda, Shirodhara, Abhyanga, Netra Tarpan, Bahya Basti, Nadi Sweda etc.

### **Distribution of Marks**

1. Practical Record of 25 procedures	05 Marks
2. Long Procedure	10 Marks
3. Long Procedure Viva	05 Marks
4. Short Procedure	08 Marks
5. Viva on Short Procedure	02 Marks
6. General Viva-voce	20 Marks
<b>Total</b>	<b>50 Marks</b>

### **Reference Books**

1. Charak Samhita with Commentary of Ayurveda Dipika by Chakrapanidatta & Jalpakalpataru by Gangadhara
2. Sushrut Samhita with the Sushruta Nibhandha Samgraha Commentary of Dalhana & Nyayachandrika Panjika of Gayadasa on Nidana Sthana
3. Ashtanga Hridaya with Sarvanga Sundara & Ayurveda Rasayana Commentaries
4. Ashtanga Sangraha with Shashilekha Commentaries
5. Ayurvediya Panchakarma Chikitsa Dr Mukundilal Dwivedi
6. Panchakarma Vigyan Dr Haridas Shreedhar Kasture
7. Illustrated Panchakarma Dr.G Srinivasa Acharya
8. Clinical Panchkarma (English) Dr. P.Yadaiah
9. Prayogika Panchkarma (Hindi) Dr. P. Yadaiah
10. Vivida Vyadhiyome Panchkarma (Hindi) Dr. P. Yadaiah
11. The Panchkarma Treatment of Ayurveda with Kerala Specialtie Dr. T.L. Devaraj
12. Panchkarma Therapy Dr. R.H. Singh
13. Ayurveda-Principles and Panchakarma Practice Dr Mandip R. G. & Prof. Gurdip Singh
14. Principles and Practice of Basti Dr. Vasudevan & Dr. L. Mahadevan
15. Panchakarma Sangraha Dr. Manoj Shamkuwar
16. Essential of Panchakarma Therapy Dr.Pulak Kanti Kaur
17. Principles and Practice of Panchakarma Vaidya Vasant Patil
18. Harrison's Principle of Internal Medicine
19. Guyton's Physiology
20. Yogamrutam, Arogyakalpadrumbam (Kaikulangara Ramavarier,
21. Panchakarmam adhava Sodhana chikitsa(manakoda Kesavan vaidyan ),
22. Dharakalpam & Ayurvedic Treatments of Kerala (Ashtavaidyan Vayaskara N.S. Mooss)
23. Karmaparichayam (Ashtanga sangraham Prakasika vyakhyanam- Raghavan Tirumulpad)
24. Panchakarma chikitsa Dr.K.Rajagopalan
25. Keraleeya Chikitsa Paddhathi Dr.Pavana, Dr.Manoj Sankaranaraynan
26. Shirasekadi vidhi Puthehathu Raman menon

### **4.3 SHALYA TANTRA**

Theory Two Papers – 100 Marks Each  
Practical - Viva voce – 100 Marks  
Teaching Hours: Theory 200 & Practical 150

#### **PAPER –I 100 Marks**

##### **Part – A**

**50 Marks**

##### **Definition of Shalya, Shalya Tantra and its importance. Introduction to Shalya**

**Tantra:** Historical background and progress made.

- **Target** - Fluency in textual reading and comprehension.
- **Preferable targets** - Know recent developments and controversies.

##### **Description of Yantra, Shastra, Anushastra: Definition, number, types, uses, Dosha, Guna, Karma. Relevant modern instruments.**

- **Target** - Basic understanding of the concepts of Yantra and Shastra. Acquaintance with commonly used surgical instruments. Knowledge of textual descriptions.
- **Preferable targets** - Knowledge about currently used surgical instruments, their specifications, procurement sources etc.

##### **Nirjantakarana / Sterilization: Methods, types and its role in surgical practice.**

- **Target** - Basic surgical discipline of maintaining asepsis.
- **Preferable targets**- Knowledge of recently developed chemicals, instruments for sterilization.

##### **Sangyahan / Anaesthesia: Definition and Types.**

- Local anaesthesia** – Drugs, Techniques, Indications, Contraindications, Complications and their Management.
  - Regional and General anaesthesia**- Drugs, Techniques, Indications, Contraindications, Complications and their Management.
- **Target**-Basic knowledge of the drugs and instruments of anaesthesia. To observe the process of induction, monitoring and recovery.
  - **Preferable targets**- Assisting and handling anaesthesia.

##### **Trividha Karma – Purva Karma, Pradhana Karma and Paschat Karma.**

- **Target**- Capability to identify conditions which can affect the outcome of surgery in pre, intra and post- operative period.
- **Preferable targets**- Experience of handling incidents.

##### **Ashtavidha Shastra Karma - Surgical procedures.**

- **Targets**- Appreciation and comprehension of concepts and indications of different procedures.
- **Preferable targets** –Hands on experience of surgical procedures.

**Yogya - Experimental Surgery.**

- Target –Appreciation and comprehension of concepts of Yogya. Idea of patient's safety in experimental training.
- Preferable targets- Hands on training on mannequins.

**Marma: Nirukti, types, description and importance.**

- Target –Clinical application of concepts of marma.
- Preferable targets- Study of relevance of marma in the light of current anatomical and surgical knowledge.

**Kshara and Kshara Karma:**

- Nirukti, Pradhanyata, Guna, Dosha, Karma,Prakara, Yogya, Ayogya, Procedure, Upadrava and Chikitsa.**
- Kshara nirmana vidhi, knowledge of Kshara Varti, Taila and Pichu.
- Kshara Sutra – Preparation, Indications, Contraindications and Method of application, Complications and their Management.**
  - Target – Capability to identify and practice the use of kshara, kshara sutra in common clinical conditions.
  - Preferable targets – Broader knowledge of current trends and ongoing researches in kshara application.

**Agnikarma: Mahatva, Upakarana, Vidhi, Akruti bheda, Yogya, Ayogya and Upadrava Chikitsa.**

Contemporary techniques and tools of Agnikarma.

- Target - Capability to appreciate the clinical indications and comprehend Agnikarma procedure.
- Preferable targets - Hands on experience of use of cautery in surgical practice.

**Raktamokshana: Mahatva, Prakara - Siravyadha, Pracchanna, Shringa, Alabu, Jaloukavacharana – Yogya, Ayogya, Procedure, Upadrava and Chikitsa.**

- Target-Capability to appreciate and comprehend clinical indications of Jaloukavacharana and other Raktamokshana procedures.
- Preferable targets - Uses of bloodletting in current therapy.

**Bandha Vidhi – Prayojana, Dravya, Indications, Contraindications, Prakara, Upadrava, Pichu, Plota, Kavalika and Vikeshika.**

- Target- Hands on experience of techniques of bandaging.
- Preferable targets - New generation of bandaging and splintage tools.

**Pranasta Shalya and Nirharana Upaya.**

- Target – Importance of concepts of Sushruta in the management of Shalya and concerns of patient safety. Identification and management of foreign bodies.
- Preferable targets - Current concepts and diagnostic tools of dealing with foreign bodies.

**Fluid, Electrolyte, Acid Base Balance and Nutrition:**

- i. Introduction of physiology of fluids and electrolytes.
- ii. Dehydration and over hydration.
- iii. Specific electrolyte loss, Acidosis, Alkalosis, Symptomatology and Management.
- iv. Electrolyte changes in specific diseases like pyloric stenosis, intestinal obstruction and anuria.
- v. Various replacement fluids in surgery, mode of administration and complications.
- vi. Nutrition.
  - Target – Capability to identify and manage fluid and electrolyte imbalance. Ability to administer parenteral fluid.
  - Preferable targets - Advanced techniques of fluid and electrolyte assessment and management.

**Rakta Mahatwa, Raktasrava / Haemorrhage: Prakara and Lakshana.**

- i. Raktastambhana – Haemostasis.
- ii. Blood Transfusion –Blood groups, Compatibility, Indications, Contraindications and Complications with Management.
- iii. Component therapy.
  - Target-Knowledge of achieving haemostasis in haemorrhage.
  - Preferable targets - Detailed knowledge of blood bank techniques.

**Antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.**

- Target – Working knowledge of commonly used drugs.
- Preferable targets - Advanced pharmacological study of the above drugs.

**Diagnostic techniques – X-ray, Imaging techniques, Ultrasonography, CAT Scan, MRI, Biopsy / Cytological study.**

- Target- Knowledge of proper indications for optimum investigational tools and their interpretation.
- Preferable targets - Capability to work independently in the field of diagnostic techniques.

**Part – B****50 Marks****Shat Kriyakala in surgical practice.**

- Target- Clinical utility of the concepts.
- Preferable targets - Applied aspects of Kriyakalas in the light of current concepts of pathogenesis.

**Nirukti, Nidana, Samprapti, Prakara, Lakshana, Sadhya-asadhyata, Upadrava and Chikitsa of the following disorders.**

- i. Vranashotha - Inflammation
- ii. Vidhradi - Abscess
- iii. Pidika - Boils
- iv. Nadi Vrana - Sinus / Fistulae
- v. Vrana Granthi - Keloid / Hypertrophic scar

- vi. Marmagata - Shock
- vii. Kotha – Gangrene and Principles of Amputation.
- viii. Granthi - Cyst
- ix. Arbuda - Tumour
  - Target-Clinical application of the concepts.
  - Preferable targets - Hands on experience of management of different conditions.

#### **Vrana – Nirukti and Prakara**

- i. Nija Vrana – Nidana, Samprapti, Vrana Vasthu, Prakara, Lakshana, Vrana Pariksha – Sthana, Vrana Akroti, Srava, Gandha, Vedana. Vrana Avastha- Dustavrana, Shuddha Vrana, Ruhyamana Vrana, Samyak Roodha Vrana, Vrana Sadhya-asadhyatha and Vrana Upadrava.
- ii. Vrana Chikitsa – Pathya-apathya and Shashti Upakrama, Vranitagara and Rakshakarma.
- iii. Agantuja Vrana :
  - a. Sadyo Vrana - Traumatic wounds – Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
  - b. Management of bites and stings.
- iv. Dagdha Vrana – Burns and scalds.
- v. Ulcer - Types and their management.
- vi. Wound healing stages and their management.
- vii. Pramehapidaka - Diabetic carbuncle and wounds.
  - Target - Clinical application of the concepts.
  - Preferable targets - Hands on experience of management of different conditions.

#### **Twak Vikara - Nidana, Samprapti, Lakshana and Chikitsa of Chipka – Paronychia, Kadara – Corn and Kshudra rogas.**

- Target - Clinical application of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

#### **Manya Vikara – Nidana, Samprapti, Lakshana and Chikitsa of Galaganda – Goitre, Gandamala, Apachi –Lymphadenitis, Pashanagardhabha – diseases of parotid gland.**

- Target-Clinical application of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

#### **Sira Vikara - Venous disorders – Superficial and Deep venous thrombosis, Haemangioma, Varicose veins - Diagnosis and their Management.**

- Target - Clinical application of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

#### **Dhamani Vikara - Arterial disorders – Nidana, Samprapti, Lakshana and Chikitsa of Aneurysm, Buerger's disease, Atherosclerosis, Raynaud's disease.**

- Target - Clinical application of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

#### **Snayu Vikara - Diseases of tendons and ligaments – Tennis elbow, Ganglion and their Management.**

- Target - Clinical application of the concepts.



- Preferable targets - Hands on experience of management of different conditions.

**Care of AIDS - HIV and hepatitis infected patients.**

- Target - *Knowledge of safety precautions.*

**PAPER - II**

**100 Marks**

**Part - A**

**50 Marks**

**Bhagna – Skeletal injuries: Prakara including pathological fracture, Samanya Lakshana, Upadrava and Chikitsa.**

Description of fracture of following bones with Clinical features, Diagnosis, Complications and Management – scapula, clavicle, humerus, radius, ulna, femur, patella, tibia and pelvis bones. Sandimoksha - Dislocation: Dislocation of following joints with Clinical features, Diagnosis, Complications and Management of shoulder, elbow and hip.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of bone:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Osteomyelitis, Cysts, Tumours and Tuberculosis.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Cranio-cerebral injuries:** Mechanism, Pathology, Classification, Investigations, Complications and primary management.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Spine:** Mechanism, Pathology, Classification, Investigations, Complications and primary management of Tuberculosis, Ankylosing Spondylitis and Disc prolapse.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of breast:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Sthana Vidradhi - Breast abscess and Sthana Arbuda - Breast tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of chest:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Chest injury, Pleural effusion, Pleurisy and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of esophagus:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Oesophagitis, Varices, Ulcer and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Gulma Roga** - Nidana, Prakara, Lakshana, Upadrava and Chikitsa.

**Shoola vyadhi** - Nidana, Prakara, Lakshana, Upadrava and Chikitsa.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of acute abdomen.

**Udara Roga:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Jalodara - Ascites, Chidrodara – Perforation, Peritonitis and Badhagudodara- Intestinal obstruction.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of stomach and duodenum:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pyloric Stenosis, Peptic Ulcer and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of small intestine:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Tuberculosis, Obstruction and Perforation.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of large intestine** - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Tuberculosis, Obstruction, Perforation, Tumours, Appendicitis, Crohn's disease and Ulcerative Colitis.

- Target - Clinical utility of the concept.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Rectum and Anal Canal** – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital disorders, Arshas - Haemorrhoids, Parikartika - Fissure-in-ano, Bhagandara - Fistula-in-ano, Guda Vidradi - Anorectal abscesses, Gudabhramsa - Rectal prolapse, Sanniruddaguda - Anal stricture, Incontinence, Rectal Polyp and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Abdominal injuries and their management.**

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.



**Diseases of Liver:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Yakrit Vidhradi - Abscess, Neoplasia, Portal hypertension and Yakritdalyodar –Hepatomegaly.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Gallbladder:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Cholecystitis, Cholelithiasis, Obstructive jaundice and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Pancreas:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pancreatitis, Cysts of Pancreas and Tumours.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Spleen –** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Pleehodara – Splenomegaly and Splenic rupture.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Kidney and Ureters -** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Polycystic kidney, Injuries, Perinephric abscess, Calculus and Neoplasms.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Urinary bladder –** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Injuries, Ashmari - Vesical Calculus, Cystitis and Neoplasms.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Mutraghata and Mutrakrichra -** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management. Retention of urine.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Prostate -** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Prostatitis, Prostatic abscess, Benign Enlargement of Prostate and Carcinoma of Prostate.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Urethra** – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Urethritis, Stricture and Rupture.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Penis:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Congenital anomalies, Niruddhaprakasha -Phimosis, Parivartika -Paraphimosis, Avapatika - Prepuceal ulcer, Arbuda- Tumours and Lingarsha - Penile Warts.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Diseases of Scrotum and Testis:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Epididymo-orchitis, Epididymal cyst, Scrotal filariasis, Shukrashmari - Seminal calculus, Torsion of testis, Ectopic testis, Undescended testis and Tumours.

**Vridhhi Roga:** Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Mutravridhhi – Hydrocele.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Antra Vridhhi** – Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management of Hernia - Inguinal, Femoral, Epigastric, Umbilical, Incisional and rare forms of Hernia.

- Target - Clinical utility of the concepts.
- Preferable targets - Hands on experience of management of different conditions.

**Ingredients and indications** of Murivenna and Nagaradi lepachooranam

## **PRACTICALSd**

### **Content of Practicals:**

1. Identification, uses, demonstration of surgical instruments and methods of sterilization.
2. Training of case taking, bed side clinicals and case presentation.
3. Demonstration and Practical training in Anaesthesia.
4. Training to develop skills in following Parasurgical and other procedures
  - i. Kshara Karma
  - ii. Agnikarma
  - iii. Kshara Sutra
  - iv. Raktamokshana
  - v. Application of bandages and splints
  - vi. Catheterization
  - vii. Wound management procedures like Parisheka and Patradana
  - viii. Ryle's tube aspiration
  - ix. Injections -Intramuscular / Intravenous / Subcutaneous / Intradermal
  - x. Incision and drainage of abscess
  - xi. Suturing of open wounds

## 5. Observation of following procedures

- i. Circumcision
- ii. Hydrocele
- iii. Hernial repair
- iv. Vasectomy
- v. Haemorrhoidectomy
- vi. Fistulectomy
- vii. Fissurectomy
- viii. Appendectomy
- ix. Cholecystectomy

## 6. Training of Surgical Emergencies and Management.

### Clinical Training (Indoor and Outdoor) 09 Months

- Shalya (Samanya) 03 Months (atleast one month in OT)
- Shalya (Kshara and Anushastra Karma) 03 Months (atleast one month in OT)
- Asthi and Sandhi Chikitsa (Orthopaedics and Trauma) 02 Months
- Anaesthesia 15 days
- Radiology 15 days

### Distribution of Marks

- 1) Daily records - 10 Marks
- 2) Instruments - 20 Marks
- 3) Short case - 10 Marks
- 4) Long case - 20 Marks
- 5) Viva – voce - 40 Marks

**Total - 100 Marks**

### Reference Books

1. Sushruta Samhita
2. Ashtanga Sangraha
3. Ashtanga Hridaya
4. Charaka Samhita
5. The Surgical instruments of the Hindus - Girindranath Mukhopadhyaya
6. Shalya Tantra Samuchchaya - Pandit Ramadesh Sharma
7. Shalya Vigyan (Part 1-2) - Dr. Surendra Kumar Sharma
8. Shalya Samanvaya (Part 1-2) - Vd. Anantaram Sharma
9. Shalya Pradeepika - Dr. Mukund Swaroop Verma
10. Sushruti - Dr. Ram Nath Dwivedi
11. Clinical Shalya Vigyan - Dr. Akhilanand Sharma
12. Bhagha Chikitsa - Dr. Prabhakar Janardhan Deshpande
13. Kshara sutra management in anorectal ailments - Dr. S.K. Sharma, Dr. K.R.Sharma and Dr. Kulwant Singh.
14. Anorectal diseases in Ayurveda - Dr. Sijoria and Dr. Praveen Kumar Chowdary.
15. Adhunik Shalya Chikitsa Siddhanta - Dr. Katil Narshingham Udupa
16. Agnikarma Technology Innovation - Dr. P.D. Gupta
17. Shalya Tantra Ke Siddhant - Dr. K.K.Takral
18. Recent advances in the management of Arshas / Haemorrhoids - Dr. P. Hemantha Kumar
19. Arsha Evum Bhagander Mein sutra Avacharan - Vd. Kanak Prasad Vyas
20. Kshara Sutra - Dr. S.N.Pathak
21. Surgical ethics of Ayurveda - Dr. D.N. Pande

22. Bailey and Love's Short Practice of Surgery- Norman.S. Williams, Charles.V.Mann and R.C.G. Russell
23. Clinical methods in surgery - S. Das
24. Textbook of Operative Surgery - S. Das
25. Shalya Vigyan (Sachitra) - Anantram Sharma
26. Anushastra Karma - Dr. D.N. Pande
27. Concept of Vrana in Ayurveda - Dr. Lakshman Singh
28. Significance for Poorva Karma in Surgical Patient - Dr. Lakshman Singh
29. Sangyahan Prakash - Dr. D.N. Pande
30. A concise Text Book of Surgery - S. Das
31. A manual on Clinical Surgery - S. Das
32. A System of Surgical Diagnosis - T.N. Patel
33. A Practical Guide to Operative Surgery - S. Das
34. Drugs and Equipment for Anaesthesia - Arun kumar
35. Manual of Surgical Instruments - M.M. Kapur
36. Ward Procedures - Patel Mansukh. B
37. Recent trends in the management of Arshas / Haemorrhoids - Dr. P. HemanthaKumar
38. Primary Anaesthesia - Maurice King
39. Synopsis of Anaesthesia - Lee
40. Clinical Anatomy/ Surgical Anatomy - John E.Skandalakis
41. Surgical Instruments of the Hindus - Girindharnath Mukopadyay
42. Outline of Orthopedics - John Crawford Adams and David Hamblen. L
43. Outline of Fracture - John Crawford Adams
44. Recent trends in the management of Bhagandara / Fistula-in-ano - Dr. P. Hemantha Kumar
45. Principles and Practice of Agnikarma - Dr. Anand Kumar and Dr. Kanchan Shekokar
46. Manipal Manual of Surgery - Dr. Rajgopal Shenoy



#### **4.4 SHALAKYA TANTRA**

**Theory Two Papers – 100 Marks Each**

**Practical/Viva voce – 100 Marks**

**Teaching Hours: Theory 200 & Practicals 150**

**Paper I**

**NETRA ROGA VIGYAN**

**100 Marks**

##### **I. Introduction**

- Shalakyatantra nirukti, Parichayam, Ithihasam
- Netra rachana shariram (Mandala, Patala, Sandhi, Drushti Vichara) and Netra Kriya Sharira alongwith modern anatomy of Eye.
- Eye examination and knowledge of basic instruments/equipments required for examination of Eye.
- Netrarognanam – Samanya Hetu (Nija and agantuja), Purvarupa, Samprapti, Rupa and Chikitsa.
- Classification of Netraroga and its importance.

##### **II. Netra Samanya and Vishishta Chikitsa - Kriya Kalpa**

- Netra and Chakshu swasthya hitkara Dinacharya, Ritucharya, Aahara evam Vihara.
- Kriya-kalpa-Seka, Aschyotana, Pindi, Vidalaka, Tarpana, Putapaka, Anjana and importance of Panchkarma in Netra Chikitsa.
- Basic fundamentals of Netra Shastra Chikitsa e.g. Purva – Pradhana - Paschat karma, Ama-Pachyaman-Pakva Vrana shotha, Vranitopasana, Pranashtashalya, & Vranbandhana. Methods and concepts of sterilization, asepsis and antisepsis as per ancient and modern point of view.
- Basic applied knowledge of Ashtavidha shastrakarma, agni, kshara, raktamokshana in Netra rogas.
- Essential diagnostic and therapeutic modern pharmacological agents required in Netra Chikitsa

##### **III. Sandhigata Roga (Diseases of junctional areas of eye)**

- Number of sandhigata rogas, detailed etiology, pathology, clinical features and management of Pooyalasa and Srava Rogas.
- Brief Study of krimi granthi, Parvani and Alaji Rogas.
- Study of Acute and Chronic Dacryocystitis, Epiphora, Blepharitis including their aetiology, pathology, signs & symptoms, differential diagnosis and medical & surgical management.

##### **IV. Vartmagata Rogas (Diseases of Lids)**

- Number of vartmagata rogas, and detailed knowledge of etiology, pathology, clinical features and management of Anjananamika, Utsangini, Lagana, Vatahata vartma, Pakshma kopa, Sikta vartma, Pothaki, Klinna vartma, Krichhronmeelana and Kukunaka diseases of Vartma.
- Brief Knowledge of Vartmarbuda, Utklishta vartma, Nimesh, Pakshmashata, Vartmarsha
- Knowledge of Hordeolum, Ptosis, Trachoma, Trichiasis, Entropion, Ectropion including their Etiology, signs and symptoms differential diagnosis and medical & surgical management.

##### **V. Shuklagata Roga (Diseases of sclera and conjunctiva)**

**VI.**

- Number of Shuklagata rogas, detailed knowledge of etiology, pathology, clinical features

and management of Arma, Arjuna and Shuktika

- Brief Knowledge of Sira pidika, Sira jala, Pishtaka, Balasgrathita.

- c) Study of Pterygium, Scleritis, Episcleritis, Sub-Conjunctival Hemorrhage including their Etiology, signs and symptoms, differential diagnosis and medical & surgical management.

**VI. Krishnagata Roga (Diseases of cornea and uvea)**

- a) Number of krishnagata rogas, detailed knowledge of Etiology, Pathology, Clinical features, differential diagnosis, complications and Management of Savrana /kshata Shukla (Shukra), Avrana shukra (Shukla)  
b) Brief knowledge of Sira shukla, Akshipakatyaya and Ajakajata.  
c) Knowledge of Corneal ulcer, Corneal Opacity, Uveitis, Acute Iridocyclitis, Staphyloma, their aetiology, pathology, symptoms, differential diagnosis, complications and management.

**VII. Sarvagata Roga (Diseases effecting all parts of eye)**

- a) Number of Sarvagata rogas, detailed knowledge of etiology, pathology, clinical features, complications, differential diagnosis and Management of Abhishyanda, Adhimantha, Hatadhimantha and Shushkakshipaka.  
b) Brief Knowledge of Amloshita, Vata paryaya, Anyato vata, Sashopha & Ashophakshipaka- Pilla roga, Sirotpata and Siraharsha.  
c) Knowledge of Conjunctivitis, Glaucoma, Dry Eye Syndrome including their etiology, pathology, clinical features, differential diagnosis, complications and their management.

**VIII. Drishtigata Roga (vision disorders)**

- a) Number of Drishtigata rogas detailed knowledge of - etiology, pathology, clinical features, differential diagnosis and management of Timira, Kacha and Linga nasha.  
b) Brief Knowledge of Abhighataja lingnasha, sanimittaja & Annimittaja Lingnasha Doshandhya/Kaphavidagdha drishti, Naktandhya, Ushna vidagdha drishti, Pittavidagdha drishti, Dhumadarshi, Hriswajadya, Gambhirika, Nakulandhya, Nayanabhighata.  
c) Knowledge of Refractive errors, Cataract including their etiology, pathology, clinical features, differential diagnosis, complications and their management.  
d) Study of Eale's disease, Hypertensive & Diabetic Retinopathies, Age related Macular degeneration, Strabismus, Retinitis pigmentosa, Night blindness, Amblyopia, Central serous retinopathy, Optic Neuritis and Optic atrophy

**IX. Miscellaneous Diseases**

- a) Xerophthalmia and other malnutritional eye disorders.  
b) Knowledge of ocular trauma and their management.  
c) Introduction to Eye bank, Eye donation, Corneal Transplantation  
d) Preventive Ophthalmology and Community Ophthalmology

**X. Netra kriya (general awareness) – Mashi and Thazhi (Arogya kalpadruma- 26, Akshiroga prakarana)**

**XI. Ingredients, method of preparation and indications of the following drugs.**

- a) Ilaneer kuzhambu (Sahasrayogam netrachikitsa)  
b) Chandanadi Varthi (Arogyakalpadrumam)  
c) Mukkadi purambata (Sahasrayogam)  
d) Pathyakshadhatryadi Kwatham (Arogyakalpadrumam)



**I Samanya Chikitsa**

- a) Study of therapeutic procedures like Sveda, Kavala, Gandusa, Dhuma, Murdhni Taila, Nasya, Pratisarana, Karna Purana, karna prakshalana, nasa prakshalana Mukha Lepa.
- b) Ashtavidha shastrakarma and anushastrakarma used in the treatment of Shira, Karna, Nasa evam Mukha Rogas.

**II Shiro Roga**

- a) Importance and Superiority of Shira.
- b) Number, general etiology, pathology and cardinal features of shiro rogas and kapalgata rogas along with their common line of management/treatment.
- c) Detailed study of Vataja, Pittaja, Kaphaja shirashoola, Suryavarta, Ardhavabhedaka, Khalitya, Palitya.
- d) Brief Knowledge of Raktaja shiraha shoola, Krimija shiraha shoola, Kshayaja shiraha shoola & Sannipataja shiraha shoola, Ananta vata, Indralupta, Darunaka.
- e) Detailed study of Headache, Migraine its differential diagnosis and treatment.

**III Karna Roga**

- a) Detailed study of Rachana and Kriyasharir of Karna (Ear) & Shravanendriya as per Ayurvedic and modern view, Examination of Ear along with instruments/equipments required in Ear examination.
- b) Detailed study of etiology, pathology, classification, clinical features and management of diseases of Karna – karna shool, karna nada & shweda, Badhira, karnastrava, karna pratinaha, pootikarna, karnagoothaka, karnavidradhi.
- c) Brief Knowledge of karna kandu, karnapaka, karnarsha, karnarbuda, krimikaran & karnapali rogas, Karna sandhana (Auroplasty), fundamentals, method and Vaikritpaham
- d) Detailed study of Otagia, ASOM, CSOM, Deafness, wax including their etiology, pathology, clinical features, differential diagnosis, complications and medical & surgical management
- e) Brief Knowledge of Otomycosis, Otosclerosis, Tinnitus, Vertigo, Foreign body in ear and Noise pollution.

**IV Nasa Roga**

- a) Detailed study of Rachana and Kriyasharir of Nasa (Nose and paranasal sinuses) & Ghranendriya as per Ayurvedic and modern view, Examination of Nose. along with instruments/equipments required in Nose examination.
- b) Detailed study of Pratishyaya, Dushta pratishyaya, Nasanaha, Kshavathu, Nasagata raktapitta & Nasarsha.
- c) Brief Knowledge of Putinasa, Bhranshathu, Peenasa, Apeenasa, Nasarbuda, Nasashotha, Dipta, Nasa Sandhana.
- d) Detailed study of Rhinitis & Sinusitis Epistaxis, Nasal Polyp, DNS, Foreign body including their Etiology, pathology, clinical features differential diagnosis and medical & surgical management.
- e) Brief Knowledge of Nasal trauma, Tumours of nose and Para nasal sinuses.

### **V Mukha Roga (Diseases of Oral Cavity)**

- a) Detailed study of Rachana and Kriyasharir of Mukha Rogaadhisthana– oshtha, dantamoola, danta, jivha, talu, gal, sarvasara (Oral cavity ) as per Ayurvedic and modern view along with their Basic examination including instruments/equipments required for the examination
- b) Mukha and Danta Swasthya as per ancient and modern concepts including prevention of malignancy of oral cavity.
- c) Number and general aetiology, pathology, cardinal features of Mukha rogas along with their common line of management/treatment.

### **Oshtha Roga (Diseases of Lips)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of - Oshtha prakopa, khandoshtha
- b) Brief Knowledge of Gandalaji, Jalarbuda, Kshataja Oshthaprakopa
- c) Knowledge of cleft lip.

### **Dant Mula Gata Roga (Diseases of Periodontia)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of - Shitada, Dantaveshta, Upakush, Danta Nadi, Danta Vidradhi, Adhimansa
- b) Brief Knowledge of dantapupputaka, Saushira, Mahasaushira, Danta Vaidarbha , Paridara, Vardhana.
- c) Detailed study of Etiology, pathology, classification, clinical features and management of Gingivitis, Apical abscess, Periodontitis (Pyorrhoea).

### **Danta Roga (Dental Diseases)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of Daalan, Krimidanta, Dantaharsha, Danta sharkara, Hanumoksha
- b) Brief Knowledge of karala, Bhanjanak , Kapalika, Shyava Danta, Danta bheda,
- c) Danta chaal, Adhidanta, Danta Utpatana including Jalandhar bandha method and Danta Purna.
- d) Knowledge of Dental Caries, Dental Tartar & Tooth extraction.

### **Jihwa Gata Roga (Diseases of Tongue)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of - jivha kantaka (vataja, pittaja and kaphaja)
- b) Brief Knowledge of Upajihva, Adhijihva, Alasa.
- c) Knowledge of Glossitis, Tongue Tie, Ranula, Benign and Malignant Tumors of tongue.

### **Talu Roga (Diseases of Palate)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of - Gala shundika, Talushosha, Talupaka
- b) Brief Knowledge of Talupupputa, Adhrusha, Kacchapa, Talvarbuda, Mamsasanghata.
- c) Knowledge of Cleft palate, palatitis, uvulitis and tumours of the palate.

### **Kantha and Gala gata Roga (Diseases of Pharynx & Larynx)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of -Tundikeri, Kantha shaluka, Gilayu, Galaganda,



Swrabhedha , Galavidradhi.

- b) Brief Knowledge of Rohini, Galashotha, Kantharbuda, Kanthavidradhi, Galarbuda Galaugham, Vrindam, Ekavrindam, Valaya, balasa , Shataghni, Swaraghna.
- c) Detailed study of Etiology, pathology, classification, clinical features and management of - Pharyngitis, Laryngitis, Tonsillitis & Adenoiditis
- d) Brief Knowledge of foreign body in the throat, Carcinoma of Larynx & Pharynx, Dysphagia Diphtheria & diseases of salivary glands.

**Sarvasara Mukha Roga (Generalised mucosal affections of the oral cavity)**

- a) Detailed study of Etiology, pathology, classification, clinical features and management of Sarvasar mukhapaka
- b) Brief Knowledge of urdhvaguda, putivaktrata, mukharbuda
- c) Detailed Knowledge of Stomatitis.

**VI Miscellaneous Diseases**

National Programme for Prevention and Control of Deafness.

**PRACTICAL SALAKYA THANTHRA PAPER I & II**

**Contents of Practical**

- a) Identification, Uses, Demonstration of surgical/non-surgical equipment/instruments, materials used in shalaky chikitsa.
- b) Method of sterilization. Training of case taking, bedside clinics and case presentation.
- c) Training in para-surgical procedures-
  - 1) Ksharakarma
  - 2) Agnikarma
  - 3) Raktamokshana
- d) Training of ward procedures. Application of bandages, wound management
- e) Training of minor surgical procedures (ashtavidha)
- f) Observation of surgical procedures in Shalaky

Clinical Training      04 Months (OPD, IPD, OT and kriyakalpa)

**Distribution of marks**

- 1) Long Case                              - 30 Marks
- 2) Short Case                              - 20 Marks
- 3) Identification of instruments and equipments, medicines, etc - 10 Marks
- 4) Viva-voce                              - 30 marks
- 5) Daily Record (Caserecord)      - 10 marks

Total      100 Marks

## Reference Books:-

1. Shalakya Tantra Dr.RamaNath Dwivedi
2. Shalakya Vigyan Dr.RavindraChandra Choudhary
3. Abhinava NetraChikitsa Acharya Vishva Nath Dwivedi
4. Netra ChikitsaVigyan Dr.RavindraChandra Choudhary
5. NetraRoga Chikitsa Dr.Munje
6. NetraRoga Vigyan Dr.HansRaj
7. Parson's Diseases of Eye
8. Diseases of ENT Log and Turner
9. Shalakya Tantra Shiv Nath Khanna
10. A text book of ophthalmology in Ayurveda Dr.P.K.Shanthakumari
11. Shalakya KriyaKalpa Vigyan Prof.K.S.Dhiman
12. Useful portions of Charak, Sushrut, Vagbhata

## 4.5 Research methodology and Medical statistics

### PART – A –Research Methodology

**Total Marks 50 (Part A-30 and Part B- 20)**

**Teaching Hours: 50**

1. Brief historical background of research in Ayurved and contemporary medical science  
Evidences of researches in ayurvedic classics
2. Etymology, definitions and synonyms (Anveshana, Gaveshana, Prayeshana, Anusandhan and Shodha) of the word Research
3. Research in Ayurved - Scope, need, importance, utility
4. Types of Research (familiarization of the terms)
  - a) Pure and Applied
  - b) Qualitative , Quantitative and Mixed  
Observational and interventional.
5. Research process (Importance of each steps in brief)
  - a). Selection of the topic
  - b). Review of the literature

- c). Formulation of Hypothesis
- d). Aims and Objectives
- e). Materials and methods
- f). Observations and results
- g). Methods of communication of Research
  - 6. Research tools – Role of the pramanas as research tools
  - 7. The concept and importance of ethics in research
  - 8. Concept of Evidence Based Medicine and Scientific Writing
  - 9. Importance of IT in data mining and important research data portals concerned with Ayurved and contemporary medical science (DHARA , PubMed, Ayush Research Portal, Bioinformatics Center, Research Management Informatic System etc.)

### **Part – B Medical-Statistics**

- 1. Definition, scope and importance of the Medical statistics
- 2. Common statistical terms and notations
  - a. Population
  - b. Sample
  - c. Data
  - d. Variable
  - e. Normal distribution
- 3. Collection and Presentation of data
  - a. Tabular
  - b. Graphical
  - c. Diagrammatical
- 4. Measures of location
  - a. Average
  - b. Percentile

Measures of Central Tendency

  - a. Arithmetic mean
  - b. Median
  - c. Mode
- 5. Variability and its measurement
  - a. Range
  - b. Standard deviation
  - c. Standard error
- 6. Introduction to probability and test of significance
- 7. Parametric and non parametric tests
- 8. Introduction to commonly used statistical soft-wares.

### **Reference books for Research methodology:**

- 1. Dawson, Catherine, 2002, Practical Research Methods, New Delhi, UBS Publishers' Distributors

2. Kothari, C.R.,1985, Research Methodology-Methods and Techniques, New Delhi, Wiley Eastern Limited.
3. Kumar, Ranjit, 2005, Research Methodology-A Step-by-Step Guide for Beginners, (2nd.ed), Singapore, Pearson Education
4. Students guide to research methodology – Undergraduates. Alexandria Medical Students Association.
5. Health research methodology. A guide for training in research methods. 2nd edition. Manila, World Health Organization Regional Office for the Western Pacific, 2001.

#### **Reference Books for statistics :**

1. Health research methodology. A guide for training in research methods. 2nd edition. Manila, World Health Organization Regional Office for the Western Pacific, 2001.
2. Statistical methods in medical research. P.Armitage (Ed) Oxford Blackwell
3. Statistical methods . Snedecor GW and Cochran, WG Altman, D.G.(1991). Practical statistics for medical research. London: ChapmanPrinciples of Medical Statistics by A. Bradford Hill
4. Interpretation and Uses of Medical Statistics by Leslie E Daly, Geoffrey J Bourke, James MC Gilvray.
5. Research in Ayurveda-M S Baghel
6. research methodology in ayurveda-V.J.Thakar,Gujarat Ayurved University
7. Ayurveda anusandhan paddhati-P.V.Sharma
8. Research methodology methods and statistical techniques- Santosh Gupta. Greenhouse SW.
9. The growth and future of biostatistics: (A view from the 1980s). Statistics in Medicine 2003; 22:3323–3335.
10. Knapp GR & Miller MC. Clinical epidemiology and Biostatistics, NM series Antonisamy B, Christopher S & Samuel PP. Biostatistics : Principles and practice
11. Sundara Rao PSS & Richard J. An introduction to Biostatistics, PHI
12. Senn S (1997). Statistical Issues in Drug Development. Chichester: John Wiley & Sons.
14. Methods in Bio-statistics for Medical Students- BK Mahajan
15. Vaidyakeeya Sankhiki Shastra- Dr.S.S.Savrikar+

#### **2.11 No: of hours per subject**

As given in Clause No 3.4

#### **2.12 Practical training**

As given in Clause No. 3.4

#### **2.13 Records**

Records are to be maintained for each practical works of every subject and duly signed by supervising teacher should be submitted at the time of practical examination.

#### **2.14 Dissertation: As per Dissertation Regulations of KUHS**

Not applicable for Degree course, but Compilations are to be prepared in relevant cases

#### **2.15 Speciality training if any**

Not applicable for Degree course

## 2.16 Project work to be done if any

Not applicable for Degree course

## 2.17 Any other requirements [CME, Paper Publishing etc.]

Not mandatory for Degree course

## 2.18 Prescribed/recommended textbooks for each subject

Given as in Curriculum Clause No. 2.10

## 2.19 Reference books

Given as in Curriculum Clause No. 2.10

## 2.20 Journals (Ayurveda)

List of Journals

1. Journal of Ayurveda – National Institute of Ayurveda, Department of AYUSH, Madhav Vilas Palace, Amer Road, Jaipur – 302002. Chief Editor – Prof. Mahendra Singh Meena, Director.
2. AYU - An International Quarterly Journal of Research in Ayurveda The Executive Editor- AYU, Room No.412, 4th Floor, New Institute for Post Graduate Teaching and Research in Ayurveda building, Gujarat Ayurved University, [www.ayujournal.org/](http://www.ayujournal.org/)  
Chief Editor Prof. P.K. Prajapati  
Director, IPGT & RA, Gujarat Ayurved University, Jamnagar
3. JRRAS - JOURNAL OF DRUG RESEARCH IN AYURVEDA AND SIDDHA. *Journal of Research in Ayurveda and Siddha* [ccras.nic.in/publication/JournalofResearchinAyurvedaSiddha.htm](http://ccras.nic.in/publication/JournalofResearchinAyurvedaSiddha.htm)  
Chief Editor – Prof. Vd. K.S.Dhiman, Director General, CCRAS, New Delhi.
4. Journal of Research in Ayurveda and Siddha, Chief Editor – Prof. Vd. K.S.Dhiman, Director General, CCRAS, New Delhi.
5. Journal of Indian Medical Heritage, Chief Editor – Prof. Vd. K.S.Dhiman, Director General, CCRAS, New Delhi.
6. Arya Vaidyan – Chief Editor, Dr. M.R. Raghava Varrier, Department of Publications, Aryavaidyasala, Kottakkal.
7. *Ancient Science Life*, Official publication of AVP Research Foundation, Coimbatore, India. [www.ancientscienceoflife.org/](http://www.ancientscienceoflife.org/)
8. *HEALTH SCIENCES* - [healthsciences.ac.in/Open](http://healthsciences.ac.in/Open) Access Peer Reviewed E-Journal. kerala University of Health Sciences, Thrissur.
9. Journal of Indian Systems of Medicine. Editor – Dr. K.S.R. Prasad, Datta Megha Institute of Medical Sciences, Wardha – 442004, Maharashtra
10. J-AIM – Journal of Ayurveda and Integrative Medicine. Editor in Chief – Bhushan Patwardhan, FRLHT, P.O. Attur, Via Elahanka, Bangalore – 560064
11. Ayurveda Vikas – Editor, Ayurveda Vikas, Dabur Tower, Kaushambi, Shahidabad, Gaziabad Dist., U.P. 201010
12. Dhanwantari – Managing Editor, Amrita Danwantari, PNNM Ayurveda College, Cheruthuruthy, Shornur, Kerala. – ISSN 2349 – 123x
13. IJAR – International Journal of Ayurveda Research, AYUSH, Govt. of India, Ministry of Health & Family Welfare, Red Cross Building, New Delhi – 110001.
14. IJNPR - Indian Journal of Natural Products & Resources, CSIR – NISCAIR
15. IJTK - Indian Journal of Traditional Knowledge, National Institute of Science Communication and Information Resources, Dr K.S. Krishnan Marg, (Near Pusa Gate), New Delhi – 110012

16. PROBE, The Editor, Scientific Publications Divisions, The Himalaya Drug Company, Makali, Bangalore – 562123.
17. International Journal of Research in Ayurveda and Pharmacy (IJRAP), dr. Shalini Sharma, Administrative Office, Moksha Publishing House, 42-A, Anand kunj, Tilak Nagar Colony, Rampur – 244901, UP.
18. Glitters of Ayurveda , Publication division , SNIASR,Puthoor, Kollam,E-mail [snayurveda@gmail.com](mailto:snayurveda@gmail.com)
19. Journal of Traditional and Folk Practices- JNTBGRI , Palode , Thiruvanthapuram , Kerala
20. Treatise – Journal of Ayurveda Medical Assosiation of India , Angamaly-683572

## 2.21 Logbook

Log book should be maintained during rotatory internship and shall be countersigned by concerned HOD.

## 3.EXAMINATIONS

### 3.1 Eligibility to appear for exams

Candidates should obtain atleast 35% marks in the Internal Assesement.

Candidates should obtain 80% attendance in regular classes.

- The failed student of first Professional shall be allowed to appear in second professional examination, but the student shall not be allowed to appear in third professional examination unless the student passes all the subjects of first professional examination and maximum four chances shall be given to pass first professional examination within a period of maximum three years.
- The failed student of second professional who have passed all the subjects of first professional examination shall be allowed to appear in third professional examination.
- Maximum four chances shall be given to pass second, third and final professional examination each within a period of maximum three years, provided the course shall be completed within 9 years excluding internship.
- The Candidate shall pass all subjects of the previous years before registering for final year examinations.

### 3.2 Schedule of Regular/Supplementary exams

The university examination for a subject shall be conducted twice in a year at an interval of 4-6 months, as notified by the university from time to time.

The supplementary examination will be held within 6th months of regular examination and failed students shall be eligible to appear in its supplementary examinations as the case may be.

In case a student fails to appear in regular examination for cognitive reason, he/she will appear in supplementary examination as regular students. In such cases his/her nonappearance in regular examination will not be treated as an attempt. Such students after passing examination will join the studies with regular students and appear for next professional examination after completion of the required period of study.

### **3.3 Scheme of examination showing maximum marks and minimum marks**

Attendance and application forms for examinations of eligible students only, should be sent to the university from the college. The affiliated colleges shall conduct at least three internal examinations in each subject and marks in best out of 2 examinations shall be taken for internal assessment. However model examination is mandatory. A student who fails to appear in the internal assessment examination or wishes to improve, shall be given a re-test. An average of the marks shall be taken and is to be converted to a total of 10 marks. The maximum marks of internal assessment in each subject will be 10. Those who obtain 35% of aggregate in each subject only, will be eligible for appearing the university examinations. The class average shouldn't exceed 75%. The internal assessment marks should be intimated to the university along with the attendance and application. The university examination for a subject shall be conducted twice in a year at an interval of 4-6 months, as notified by the university from time to time. The entire BAMS course should be completed within a period of maximum nine academic years from the date of joining.

#### **EXAMINATION:**

- A. Theory examination shall have two essay question (Marks 10 x 2) and 10 questions carrying 5 marks each and the rest short answer questions carrying 3 marks each. These questions shall cover entire syllabus of subject.
- B. The supplementary examination will be held within 6<sup>th</sup> months of regular examination and failed students shall be eligible to appear in its supplementary examinations as the case may be.
- C. In case a student fails to appear in regular examination for cognitive reason, he/she will appear in supplementary examination as regular students. In such cases his/her nonappearance in regular examination will not be treated as an attempt. Such students after passing examination will join the studies with regular students and appear for next professional examination after completion of the required period of study.
- D. The following facts may be taken into consideration in determining class work in the subject:-
  1. Regularity in attendance
  2. Periodical tests (Minimum 3 Internal examinations)



### 3. Practical Records

#### FIRST PROFESSIONAL EXAMINATION

- i) The first professional examination shall be at the end of one Academic year of Professional session. The First Professional session will ordinarily starts in July.
- ii) The first professional examination shall be held in the following subjects:-
  1. Padarth Vigyan evam Ayurved Ithihas
  2. Sanskrit
  3. Kriya Sharir (Physiology)
  4. Rachna Sharir (Anatomy)
  5. Maulik Siddhant avam Ashtang Hridaya (Sutra Sthan)
- iii) The failed student of first Professional shall be allowed to appear in second professional examination, but the student shall not be allowed to appear in third professional examination unless the student passes all the subjects of first professional examination and maximum four chances shall be given to pass first professional examination within a period of maximum three years.

#### SECOND PROFESSIONAL EXAMINATION

- (i) The second professional session shall start every year in the month of July following completion of first professional examination.  
The second professional examination shall be ordinarily held and completed by the end of month of May/June every year after completion of one year of second professional session.
- (ii) The second professional examination shall be held in the following subjects:-
  1. Dravyaguna Vigyan (Pharmacology and Materia Medica)
  2. Rasashastra-Bhaishajya Kalpana (Pharmaceutical Science)
  3. Roga Nidan evam Vikriti Vigyan ( Diagnostic procedure & Pathology) and
  4. Charak- Samhita –Purvardh(An anciend Ayurvedic Text , Part 1)
- (iii) The failed student of second professional who have passed all the subjects of first professional examination shall be allowed to appear in third professional examination, but the student shall not be allowed to appear in final professional examination unless the student passes all the subjects of second professional examination and maximum four chances shall be given to pass second professional examination within a period of maximum three years.

#### THIRD PROFESSIONAL EXAMINATION

- (I) The third professional session shall start every year in the month of July following completion of second professional Examination.  
The third professional examination shall be ordinarily held and completed by the end of month of May/June every year after completion of one year of third professional session.
- (ii) The third professional examination shall be held in the following subjects:-
  1. Agad tantra Vyavhar Ayurveda evam Vidhi Vaidyaka (Toxicology and Medical Jurisprudence)
  2. Swasta Vritta & yoga (Preventive and Social Medicine & Yoga)
  3. Prasuti evam Striroga (Obstetrics & Gynaecology) and
  4. Bal Roga (Paediatrics)
  5. Charak-Samhita-Uttarardh(An anciend Ayurvedic Text , Part 2)



iii. The failed student of third professional who have passed all the subjects of first and second professional examinations shall be allowed to appear in final professional examination and maximum four chances shall be given to pass third professional examination within a period of maximum three years.

### FINAL PROFESSIONAL EXAMINATION

(i) The final professional session will be of 1 and ½ year duration and shall start every year to the month of July following completion of third professional Examination. The final professional examination shall be ordinarily held and completed by the end of month of Oct/Nov every year after completion of one and half year of final professional session.

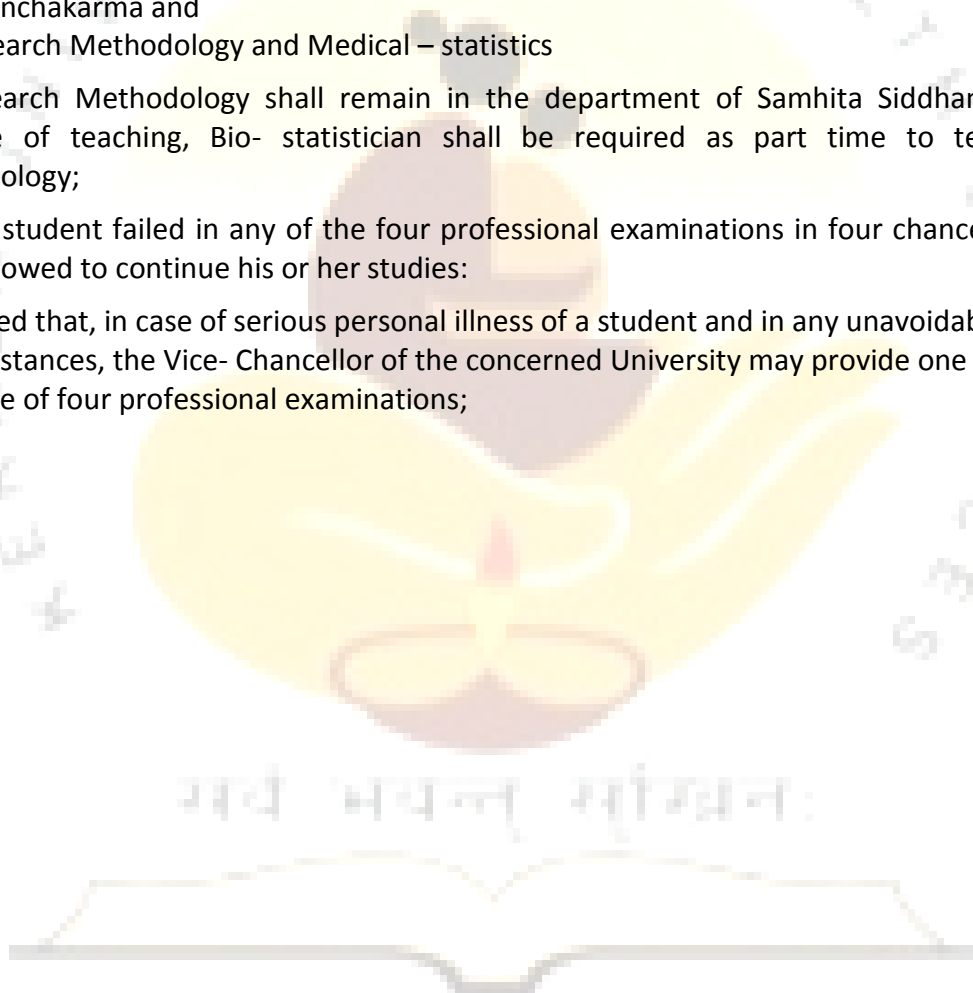
(ii) The final professional examination shall comprise of the following subjects:-

1. Shalya Tantra (General Surgery)
2. Shalakya Tantra (Diseases of Head & Neck including Ophthalmology, ENT and Dentistry)
3. KayaChikitsa (Internal Medicine –including Manas Roga, Rasayan & Vajikarana).
4. Panchakarma and
5. Research Methodology and Medical – statistics

iii. Research Methodology shall remain in the department of Samhita Siddhant but for the purpose of teaching, Bio- statistician shall be required as part time to teach Research Methodology;

iv. The student failed in any of the four professional examinations in four chances shall not be allowed to continue his or her studies:

Provided that, in case of serious personal illness of a student and in any unavoidable circumstances, the Vice- Chancellor of the concerned University may provide one more chance in any one of four professional examinations;



### 3.4 Papers in each year

#### a. Papers and Marks for Theory / Practical

Table 2

Name of the subject	No: of Hours of teaching			Details of maximum marks			
	Theory	Practical	Total	Number of papers	Theory	Practical	Total
<b>1st Professional</b>							
1. Padarth Vigyan evam Ayurved ka	100	-----	100	Two	200	-----	200
2. Sanskrit	200	-----	200	One	100	-----	100
3. Kriya Sharir	200	200	400	Two	200	100	300
4. Rachna Sharir	300	200	500	Two	200	100	300
5. Maulik Siddhant	150	-----	150	One	100	50	150
<b>2<sup>nd</sup> Professional</b>							
1. Dravy agun	200	200	400	Two	200	200	400
2. Roga Nidan Evam Vikriti Vigyan	200	200	400	Two(01- Pathology 01- Ayurveda )	200	100	300
3. Rasashastra evam Bhaishjya Kalpana	200	200	400	Two	200	200	400
4. Charak Samhita (Purvardh)	200	-----	200	One	100	50	150
<b>3<sup>rd</sup> Professional</b>							

1. Agadatantra, Vyavhr Ayurvev evam Vidhi Vaidyak	200	100	300	One	100	50	150
2. Swastha Vritta & Yoga	200	100	300	Two	200	100	300
3. Prasuti evam Striroga	200	200	400	Two	200	100	300
4. Balroga	100	100	200	One	100	50	150
5. Charak Samhita(Utt arard	200	-----	200	One	100	50	150
<b>Final Professional</b>							
1. Kayachikitsa	300	200	500	Two	200	100	300
2. Panchkarma	100	200	300	One	100	50	150
3. Shalya Tantra	200	150	350	Two	200	100	300
4. Shalakya Tantra	200	150	350	Two	200	100	300
5. Research Methodology	50	-----	50	One	50	-----	50

**NOTE:** The period of theory and practical shall not be less than 60 minutes (1 hour). The duration of the practical of clinical; subjects and Rachana Sharir (Dissection) shall be of at least 120 minutes (2 hours)

### 3.5 Details of theory exams

As shown in table2. (clause no 2.26)

The Written Examination of subjects, for one paper of 3 hours duration shall have maximum marks of 100

- Essay questions carrying 10 marks each (answer in about 8 – 12 pages). 10 short answer questions carrying 5 marks each (answer in less than 2 pages). 10 very short questions carrying 3 marks each (answer in a paragraph). Total 22 questions carrying 100 marks in each paper except 'Research Methodology and Medical Statistics'.

### 3.6 Model question paper for each subject with question paper pattern

Question Pattern

Two essay type questions carrying 10 marks each (answer in about 500 words)

Ten short answer type questions carrying 5 marks each (answer in about 250 words)

Ten very short answer questions carrying 3 marks each (answer in about 150 words)

#### Model Questions

QP CODE :

Reg.No. ....

First Year BAMS Degree Examinations, March 2016

PADARTH VIGYAN EVAM AYURVEDA ITIHAS I

(2012 Scheme)

Time : 3 Hours

Total Marks : 100

Answer All Questions

Essays :

(2x10 =20)

1. Define and enumerate guna according to ayurveda
2. Describe the various panchabhuta theories and its importance in ayurveda

Short notes:

(10x5 =50)

3. Define nastika darsana and mention its types
4. Explain atma with its gunas
5. Vayu mahabhuta
6. Karma purusha
7. Tridosha siddhanta
8. Explain karma according to Vaiseshika philosophy
9. Define and classify samanya
10. Define and classify jnana according to tarka samgraha
11. Define samskara
12. Explain the concept of visesha according to ayurveda

**Answer briefly:**

**(10x3 =30)**

13. Adhikarana siddhanta
14. Explain dukhatraya
15. Yoga darsana
16. Enlist sixteen padarthas of nyaya darsana
17. Functions of manas
18. Define rasa according to tarka samgraha
19. Explain dravatva
20. Define abhava
21. Define sneha
22. Define ayu

**QP CODE :**

**Reg.No. ....**

**First Year BAMS Degree Examinations, March 2016**

**PADARTH VIGYAN EVAM AYURVEDA ITIHAS II**

**(2012 Scheme)**

**Time : 3 Hours**

**Total Marks : 100**

**Answer All Questions**

**Essays :**

**(2x10 =20)**

1. Define pramana and enumerate according to various darsanas
2. Define and explain yukti and its importance in ayurveda

**Short notes:**

**(10x5 =50)**

3. Jnanotpatti prakriya
4. Explain savikalpaka pratyaksha
5. Vakyarthajnanahetu
6. Explain panchavayava in anumana
7. Vyapti and its divisions

8. Asatkarya vada
9. Define hetu and hetvabhasa
10. Six types of indriyarthasannikarsha
11. Brihatrayi
12. Drug and cosmetic act

**Answer briefly:**

**(10x3 =30)**

13. Define pariksha
14. Define apta
15. Vyanjana vritti
16. Vivartta vada
17. Enlist trayodasa karana
18. Contribution of Nagarjuna
19. AYUSH
20. Chopra committee
21. • Author of gada nigrha • Commentary written by Dalhana  
• Year of establishment of Bhore committee
22. • Author of sarvanga sundara • Author of pratyaksha saareera  
• Year of establishment of TKDL

गर्वं भवन्तु मूर्खानः

**FIRST PROFESSIONAL B.A.M.S. DEGREE EXAMINATION**

(MODEL QUESTION PAPER)

**SANSKRIT**

TIME : 3 Hours

TOTAL MARKS : 100

ANSWER ALL QUESTIONS

व्याख्यात :

(2 X 10 = 20)

1. सोदाहरणं सूत्राणि व्याख्यात :
  - हलन्त्यम् • सुप्तिङन्तं पदम् • कर्तुरीप्सिततमं कर्म • साधकतमं करणम्
2. श्लोकानां पदच्छेद-पदार्थ-अन्वय-भावार्थान् लिखत :
  - यथा हि सारकाण्डेषु छिद्यमानेषु दृश्यते।  
तथा धातुर्हि मांसेषु छिद्यमानेषु दृश्यते॥
  - स्नेहाभ्यक्ते यथा त्वक्षे चक्रं साधु प्रवर्तते।  
सन्धयः साधु वर्तन्ते संश्लिष्टाः श्लेष्मणा तथा॥
  - यथा पयसि सर्पिस्तु गुडश्चेधौ रसे यथा।  
शरीरेषु तथा शुक्रं तृणां विद्यादिभगवराः॥

अधोनिर्देशानुसारं समाधत्त :

(10 X 5 = 50)

3. अधोरेखाङ्कितानां विभक्तिसाधुत्वं प्रदर्शयत :
  - तण्डूलाः ओदनं पचति। • रामेण हतः वाली। • अग्नये स्वाहा। • ग्रामात् आयाति।
4. अधोदत्तानां वाक्यानाम् अशुद्धिपरिहारं कुरुत :
  - त्वं कुत्र गच्छति? • वयं विनोदयात्रां गच्छन्ति। • पिता सह पुत्रः भोजनं करोति।
  - कलालयस्य परितः वृक्षाः सन्ति। • जनाः नगरे अधिवसन्ति।
5. मलयालभाषायाम् अथवा आङ्गलभाषायाम् अनुवदत :

रक्तमेदःप्रसादाद् वृक्कौ। मांसासृक्कफमेदःप्रसादात् वृषणौ। शोणितकफप्रसादजं हृदयं,  
यदाश्रयाहि धमन्यः प्राणवहाः। तस्याधो वामतः प्लीहा फुफ्फुसश्च, दक्षिणतः यकृतं क्लोमः च।  
तद् हृदयं विप्रेषेण चेतनास्थानं, अतस्तस्मिन् तमसाऽऽवृते सर्वप्राणिनाः स्वपन्ति॥
6. संस्कृतभाषायाम् अनुवदत :
  - The man leads cow. • The boy fell down from the tree.
  - Food becomes poison in indigestion • People always like comfort.
  - Students are reading news paper.
7. विभक्त्यन्तरूपाणि लिखत :
  - गुरुः • मनः

8. टिप्पण्यौ लिखत :

- व्यायामः
- स्नानम्

9. संस्कृतभाषायाम् उत्तरं लिखत :

- चिकित्सा नास्ति निष्फला। कस्मात् ?
- नवगोप्यानि कानि ?
- जगद्भुस्तन्मुनेर्वचः। के ?
- दारिद्र्यं नोपजायते। केषाम् ?

10. व्याख्यात :

- सद्यः फलति गान्धर्व मासमेकं पुराणकम्।  
वेदाः फलन्ति कालेषु ज्योतिर्वैद्यौ निरन्तरम्॥
- धर्मार्थकाममोक्षाणामारोग्यं साधनं यतः।  
तस्मादारोग्यदानेन तद्वत् स्याच्चतुष्टयम्॥

11. सूचितकथां सङ्गृह्य संस्कृतभाषायां लिखत :

- बुद्धिहीनाः विनश्यन्ति यथा ते सिंहकारकाः।

12. सन्दर्भमुक्त्वा आशयं विशदयत :

- चक्षुः श्रोत्रे च जीर्यते तृणैका तरुणायते।
- पुत्रगात्रस्य संस्पर्शः चन्दनादतिरिच्यते।

उत्तरं लिखत :

(10 X 3 = 30)

13. सन्धिं / सन्धिविच्छेदं च कुरुत :

- देव + ऐश्वर्यम्
- सम् + राट्
- पुनर् + रमते
- मध्वरिः
- त्वङ्करोपि
- तल्लयः

14. विग्रहवाक्यम् / समस्तपदं च लिखत :

- निर्मशिकम्
- नखभिन्नः
- जलजाक्षी
- हरिश्च हरश्च
- कुत्सितः पुरुषः
- न ब्राह्मणः

15. धातुरूपाणि लिखत :

- भवति
- वन्दिष्यते
- अपठत्

16. प्रयोगं विपरिणमयत :

- छात्राः विद्यालयं गच्छन्ति।
- सीता वस्त्रं प्रक्षालयति।
- भिषजा औषधं दीयते।

17. अधोरेखाङ्किते पदे कः प्रत्ययः इति कोष्ठात् समुचितम् उत्तरं निर्धार्य लिखत :

- छात्रः विद्यालयं गन्तुम् इच्छति। (तुमुन्, शानच्, क्)
- जनाः चित्रं दृष्ट्वा हसन्ति। (णिच्, क्त्वा, शतृ)
- सर्वदा हस्तं प्रक्षाल्य भोजनं करोतु। (त्यप्, अनीयर्, तरप्)



First BAMS Degree Examination

**KRIYA SAREERA - Paper –I**

**Time: 3 hrs**

**Max marks: 100**

**Essays: (2x10=20)**

1. Describe the different types of movements in the upper gastro-intestinal tract along with their applied aspects. [3+2+3+2]
2. Describe the general properties of *pitta*. Explain its types, locations and functions [2+2+2+4]

**Short Notes: (10x5=50)**

3. Mechanism of transport of CO<sub>2</sub>
4. Functions of basal ganglia
5. Positive and negative feedback mechanisms
6. Neuroglia and their functions
7. Defecation reflex
8. *Avasthapaaka* and *nishtapaaka*
9. Role of different *doshas* in *aaharapaaka*
10. Different states of *agni* and their characteristics
11. Functions of *prana* and *udana vayu*
12. Biological rhythm of *tridoshas*

**Answer briefly: (10x3=30)**

13. Enlist the factors determining *prakriti*
14. List out the last three *kriyakaalas* and their significance
15. Dosha predominance and characteristics of *madhyakoshta*
16. Relationship between *agni* and *grahani*
17. Relationship between *triguna* and *panchabhoota*
18. Types of Memory and the main centers involved
19. Describe the sleep cycle
20. Enlist the functions of thalamus
21. Effects of vitamin A deficiency
22. Enlist the pancreatic enzymes and their actions.

First BAMS Degree Examination

**KRIYA SAREERA - Paper –II**

**Time: 3 hrs**

**Max marks: 100**

**Essays: (2x10=20)**

1. Describe the location, properties and objects of *manas*. Explain the mechanism of *jnanotpatti*. [1+2+2+5]
2. Explain the different mechanisms of regulation of blood pressure. [4+4+2]

**Short Notes: (10x5=50)**

3. Mechanism of blood coagulation
4. Hormonal control of menstrual cycle
5. Synthesis of thyroid hormones
6. Mechanism of concentration of urine
7. Excitation – contraction coupling
8. Merits and demerits of *dhatuparinama nyayas*
9. *Upadhatu* and *malas*
10. *Asthisaara purusha*
11. Functions of *ojas*
12. Types of *nidra* and its clinical importance

**Answer briefly: (10x3=30)**

13. *Panchabhawtkatwa* of *rakta*
14. *Suddha sukra lakshana*
15. Functions of *rasavaha srotas*
16. Functions of *mootra* and *mootravahasrotas*
17. Enlist the *asraya -asrayi* relationship among *dosha-dhatu-malas*
18. Functions of plasma proteins
19. Types of shock
20. Mechanism of osmotic diuresis
21. Hormones from anterior pituitary
22. Role of antigen presenting cells in immunity.

**ASHTANGA HRIDAYAM**

**Time : 3 Hours**

**Answer all questions**

**Total Marks : 100**

**Essay**

**(2x10=20)**

1. Write about Vata ,explaining its etymological derivation ,types,functions and the locations
2. Define the word Dravya ,write about Agneya dravya,and explain why it is said as “Jagatyevam Anoushadham”

**Short notes**

**(10x5=50)**

3. Oushadha kala
4. Types of Langhana, and management of obesity
5. Dhatu vriddhi lakshana
6. Ojus in detail
7. Types of Ajeerna , and its management
8. Vata upakrama
9. Panchabhuta constitution of Rasas, and explain Rasa-Dosha relationship
10. Ama and its management
11. Dasavidha pareeksha
12. Chaya ,Prakopa and Prasama of Tridoshas according to Ritu

**Answer briefly**

**(10x3=30)**

- |  |                                   |
|--|-----------------------------------|
| 13. Types of Sweda                               | 18. Paadachatushtaya              |
| 14. Differentiate Gandusha and Kabala            | 19. Paachakapitta                 |
| 15. Shodasa vikara                               | 20. Langhana samyak yoga lakshana |
| 16. Mention the drugs of Triphala and Panchakola | 21. Benefits of Vyayama           |
| 17. Define Viruddha , and give three examples    | 22. Adharaneeyavega               |

QP Code:

Reg. No.:.....

**Second Professional BAMS Degree Examination**

**DRAVYAGUNAVIJNAN Paper – I**

Time: 3 hrs

Max. Marks: 100

• **Answer all questions**

**Essays:**

**(2x10=20)**

1. Write the Nirukti (Etymology) and Lakshana (Definition) of Dravya. Describe classification of Dravya according to Samhitas and Nighntus
2. Explain Principles of general Pharmacology

**Short Essays:**

**(10x5=50)**

3. Describe the Panchabhoutik constitution of Rasas according to different Acharyas
4. Write the differences between Avasthapaka and Nishtapaka
5. Explain Ashtavidha Veeryavada
6. Give details of Prabhavajanya karmas
7. What is meant by Karmam? Explain
8. Explain the drugs in the group Brihat Panchamoola
9. Ksheerashtaka – Explain the properties of each ksheera
10. Explain Agroushadha varga with examples
11. Abhava pratinidhi dravya – explain the importance and give five examples
12. Bronchodilators and Expectorants – General description with possible Ayurvedic correlations

**Short Answers:**

**(10x3=30)**

13. Cultivation of medicinal plants - Importance
14. Apamisran (Adulteration) - Define
15. What is Prasasthabhesaja (Ideal Drug)?
16. Plant extracts – Define and explain types
17. Dhanwanthari Nighantu – Give three specialties
18. Anaesthetics – Define and classify and give 2 examples
19. Analgesics – Define and give 2 examples
20. Anthelmintic – Define and give 2 examples
21. Vaccines – Define and mention the types
22. Immunomodulators – Define with two examples

\*\*\*\*\*

QP Code:

Reg. No.:.....

**Second Professional BAMS Degree Examination**

**DRAVYAGUNAVIJNAN Paper – II**

Time: 3 hrs

Max. Marks: 100

• **Answer all questions**

**Essays:**

**(2x10=20)**

1. Describe the taxonomy of “Aragvadha” with the help of a neat diagram
2. Describe Shami dhanyavarga with the definition, description of each members and the importance of this group

**Short Essays:**

**(10x5=50)**

3. Write the Botanical name, Family, Malayalam name, Rasapanchaka and the two important Karmas of Hareetaki
4. Write the Botanical name, Family, Malayalam name, Rasapanchaka and the two important Karmas of Kutaja
5. Write the Botanical name, Parts used, Dosage and two Amayika prayogas of Kapikachu
6. Write the Botanical name Parts used, Dosage and two Amayika prayogas of Chitraka
7. Describe the toxic signs and symptoms of the drug Bhallataka with its treatment
8. Write the Sources, Properties, Actions and Uses of Pashanabheda
9. Write the Sources, Properties, Actions and Uses of Rasna
10. Explain the Botanical name, Family and types of Hareethaki
11. Explain the Botanical name, Family and two uses of Nagakesara
12. Explain the source, Guna, Karma and uses of Kasturi

**Short Answers:**

**(10x3=30)**

13. Write two purification methods of Vatsanabha
14. Write two purification methods of Guggulu
15. Write two Chemical constituents and two important formulations of Satavari
16. Writetwo Chemical constituents and two important formulations of Lavanga
17. Explain Botanical name, family and habit of Varahi
18. Explain Botanical name, Family and use of Methika
19. Properties and actions of Trivrit
20. Qualities of Godugdha
21. Qualities of Jangalamamsa
22. Properties and Actions of Madhu (Honey)

[LF -----]

Sub. Code: -----

**SECOND PROFESSIONAL B.A.M.S. DEGREE EXAMINATION**

**RASASHASTRA EVAM BHAISHAJYA KALPANA - I**

**Q.P. Code: -----**

**Time: Three Hours**

**Maximum: 100 marks**

**Answer ALL Questions**

**I. Essay Questions:**

**(10 x 2 = 20)**

1. Explain the concept of “*Shodhana*” with suitable examples.”?
2. Explain the general pharmaceutical procedures of “*Kupipakva rasayana*” with suitable examples.

**II. Write about:-**

**(5 x 10 = 50)**

3. Explain “*Patana Yantra*” with diagrams?
4. Mention the “*shodhana*” of “*Naga*” and “*Vanga*”?
5. Explain “*Amruteekarana*” and “*Lohitheekarana*” with suitable examples ?
6. Write the preparation of “*Sidhamakaradvaja*” and its indications and dose ?
7. Write about two “*Shodhana*” procedures of “*Gandhaka*” and explain the method of Preparation of “*Gandhakadruthi*” ?
8. Describe “*Parada doshas*”?
9. Define “*Putra*” and explain “*Gajaputa and Varahaputa*”?
10. Write about “*Kampilla*”?
11. Description of “*Rasashala*”
12. Describe concisely about “*Sudha Varga*”?

**III. Short Answers on:**

**(3 x 10 = 30)**

13. “*Samanya Sodhana*” of “*Loha*” With two examples?
14. Explain anti-dote and side effects caused by improperly prepared “*Tamra Bhasma*”?
15. “*Shodhana*” of “*Dhatu*” with two uses?
16. Explain “*Bhasma pareeksha*”?
17. Write about the preparatory procedure of “*Dhanyaabhraka*” ?
18. Write about “*Ratna dosha*”?
19. Write Method of Preparation of “*Brahmi ghritha*”?

20. Describe about "*Rasa Parpati*"?
21. Explain "*Mitra Panchaka, Rasa Panka and Rasa Pishti*"?
22. Write Method of Preparation of "*Rasamanikya*"?

**SECOND YEAR B.A.M.S. DEGREE EXAMINATION**

**RASASHASTRA EVAM BHAISHAJYA KALPANA - II**

**Q.P. Code: -----**

**Time: Three Hours**

**Maximum: 100 marks**

**Answer ALL Questions**

**I. Essay Questions:**

**(10 x 2 = 20)**

1. Explain about "*Dravya Samgraha-Sanchaya-Samrakshana Vidhi*"?
2. Explain "*Arishta Kalpana*" in detail and Write the ingredient, preparation and dosage of "*Asokarishta*"?

**II. Write notes on:**

**(5 x 10 = 50)**

3. Explain "*Lehya Kalpana*" and write in detail about the preparation of "*Koosmanda Rasayana*"?
4. What is "*Kashaya Yoni*"? Why "*Lavana Rasa*" is not coming under "*Kashaya Yoni*"?
5. Explain "*Saagni and Niragni Swarasa Kalpna*" with their method of preparation?
6. What is "*Paneeya Kalpana*"? Explain the methods of preparation of "*Shadanga Paneeya*"?
7. Write about the ingredient, procedure, dose and "*anupana*" of "*Dadimashtaka choornam*"?
8. Write and explain about the type of "*Nasya kalpana*" Write about "*Marsa*" and "*Pratimarsa Nasya*"?
9. What is "*Mana*"? Compare "*Magadha Mana*" and "*Kalinga Mana*"? Explain "*Magadha Mana*" with its Metric Equalents ?
10. Write Method of Preparation of "*Bramhighritha*"?
11. Write about "*Takra Kalpana*"?
12. Explain "*Lepa Kalpana*" and compare it with its contemporary counterpart?

**III. Short Answers on:**

**(3 x 10 = 30)**

13. Briefly describe "*Kshara Kalpana*"?
14. Explain "*Phanta Kalpana*" With one Example?

15. What is “*Mana*”? Compare “*Magadha Mana*” and “*Kalinga Mana*”? Explain “*Magadha Mana*” with its Metric Equalents?
16. Explain “*Snehasidha Lakshanas*” ?
17. Explain “*Malahara Kalpana*” and write the methods of preparation of “*Sarjarasamalahara*”?
18. Write the difference between “*Asava and Arishta Kalpana*”?
19. Describe “*Bheshaja and Kalpana*”?
20. Explain “*Gandusha and Kabala*”?
21. Write about “*Vasthi Kalpan with any one Example*”?
22. Write “*Saviryathaavadhi*”

## II BAMS EXAMINATION

**Subject: CHARAKASAMHITA – POORVARDHA**

**Max. marks = 100**

**Time=3 hrs**

### Essay

**(10 x 2 = 20 marks)**

1. Explain the concept of Karanapadartha in Charakasamhita stressing on names, definitions, classification and importance of Samanyavishesha sidhanta (1+4+2+3)
2. Write an essay on Panchabhuta sidhanta as per Charakasamhita with details of Ekaguna vriddhi, Asaadhaaranadharma, Panchabhuta make up of human body and Characters of Paarthivaadi dravya (2+2+3+3)

### Brief description

**(5 x 10 = 50 marks)**

3. Eternity of Ayurveda
4. Aatmaroop of Vata & Pitta
5. Importance of Trayopasthambha
6. Ashtanindita purusha
7. Concept of Vikritivishama samavaya
8. Dasavidha pareekshyabhava
9. Aturapareeksha vidhi
10. Nidanarthakara roga
11. Definition of Samprapti
12. Classification of Arishta

### Short answer

**(3 marks\*10 = 30 marks)**

13. Definition of Pathya
14. Sankhyasaprapti of Jwara
15. Shadupakrama



16. Dasavidha langhana
17. Factors causing Janapadodhwamsa
18. Poorvaroop of Prameha
19. Aharaparinamakara bhava
20. Types of Rajasatwa
21. Shaddhatukapurusha
22. Dhatusamya lakshana

**SECOND PROFESSIONAL B.A.M.S DEGREE EXAMINATION  
ROGA NIDANA PAPER – I**

**Time: 3 Hrs**

**Maximum marks:100**

**Essay**

**(10 x2=20 Marks)**

- 1 Describe Shadkriyakala.
2. Elaborate Dasavidha Rogi Pareeksha.

**Short Essay**

**(5x10=50 Marks)**

- 3 Describe Ama and write down Saama and Nirama Vatha Lakshana.
- 4 Write short note on Vyadhikshamatwa.
- 5 Describe the Dushtinidana and Dushti Lakshana of majjavaha srothas.
- 6 Write short note on cellular adaptations.
- 7 Differentiate between benign and malignant tumors.
- 8 Describe Rogamarga and enumerate diseases affecting each Rogamarga.
- 9 Write a short note on Samprapthi.
- 10 Classify vyadhi.
- 11 Define and classify upasaya and write down suitable examples.
- 12 Discuss Sadhyasadhyatha

**Short answers**

**(3x10=30Marks)**

- 13 Describe upadrava.
- 14 Write down beejabhaga avayava dushti
- 15 Differentiate Doshapaka from Dhathupaka.
- 16 Define and classify Poorvaroopo.
- 17 Define and write down the importance of Arishta.
- 18 Write short note on Inflammation.
- 19 Describe Avarana.
- 20 Explain Nidanarthakararogas
- 21 Describe Necrosis
- 22 Write short note on ECG

**SECOND PROFESSIONAL B.A.M.S DEGREE EXAMINATION**

**ROGA NIDANA PAPER – II**

**Time 3 hrs**

**Essay**

**Maximum marks 100**

**10 x 2 = 20 Marks**

1. Explain Akshepaka Vyadhis in detail.
2. Describe the Nidana and Samprapthi of Pandu roga. Define Anaemia and explain the types.

**Short Essay**

**5 x 10 = 50 Marks**

3. Explain Kamala in detail. Write the investigations required.
4. Explain Asadhya lakshanas of Athisara.
5. Describe nidana of Gulma.
6. Describe Pakshaghatha. Write short note on stroke.
7. Describe Apasmara Poorvaroopo.
8. Describe Prameha Pidakas. Explain complications of Diabetes Mellitus.
9. Enumerate Moothraghatha rogas and explain Ushnavatham.
10. Describe Kriminidana and enumerate Krimi.
11. Explain Vishamajwara. Compare with the patterns of Fever.

12. Write down the pathology of Dhathus in Rajayakshma. Describe laboratory investigations in Pulmonary Tuberculosis.

**Short answers**

**3 x 10 = 30 Marks**

13. Describe Parinama Soola.
14. Describe COPD.
15. Explain sadhyasadyatha of Swithram.
16. Describe Pemphigus.
17. Explain Dhatugatha Kushta lakshanas.
18. Write short note on masoorika.
19. Write down the samanya lakshana of Sopha.
20. Write short note on STD's.
21. Describe Thyroid disorders.
22. Explain Masthishka chaya.

THIRD YEAR B.A.M.S DEGREE EXAMINATION

AGADTANTRA, VYAVAHAR AYURVED EVUM VIDHIVAIIDYAK

Time 3 hrs

Marks: 100

Essay

10 X 2 = 20 Marks

1. Write an essay on lootha visha, its classifications, samanya and asadhya lakshanas and the treatment modalities adopted

2. Write the Postmortem changes in different stages with its medicolegal importance

Answer all questions in about 250 words

Short Essay

8 X10 = 50 Marks

3. Write the characteristic features of Alarka visha badha with the incurable features

4. What are the asadhya lakshanas of sarpa dashta

5. Write the signs and symptoms of Madathyaya and its stages
6. What are the samanya chikitsa krama that should be adopted in Vrischika damsā
7. Write the Garavishartha lakshanas
8. Compare and contrast the various mechanical injuries
9. Write the causes of Male and female sterility
10. Write the preparation and procedure in court for an expert witness
11. Write the hydrostatic test with procedure, observation and inferences
12. Write about blood groups and their medico-legal applications

Short notes (in about 120 words)

3X10= 30 Marks

13. Differentiate Smothering from Strangulation
14. Enlist the qualities of Sadvaitya
15. Classify the methods of Artificial insemination
16. Discuss the role of Mc. Naughten's Rule in ascertaining the criminal responsibility of a mentally ill
17. Enlist the Vishopadravas
18. Enlist the ingredients of Himavan Agada with its indications
19. Importance of Hridayavarana in Visha chikitsa
20. Briefly state the Lakshana and chikitsa of Paduka visha
21. Enlist the number of Upavishas according to various texts
22. Briefly explain the Types of witnesses

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QP CODE: .....

Register No.....

**Third Professional B.A.M.S Degree Examinations  
Swasthavritta - Paper I**

**Time: 3hours**

**Total Marks: 100**

- Answer all questions
- Draw diagrams wherever necessary

**Essays**

**(2x10=20)**

1. Explain in what ways the Ritucharya influences the health aspects of humans with special reference to Utharayana.
2. Describe how the components of Bahiranga yoga contributes to human health.

**Short notes**

**(10x5=50)**

3. What are indications and contraindications of Vyayama.
4. Write the Shyanavidhi according to Bhavamishra.
5. What are the ingredients of Nityasevaneeya Ahara.
6. Define Hydrotherapy and write any three forms of hydrotherapy.
7. Difference between Food fortification and Food adulteration.
8. Describe the procedure, benefits of Nadishodhana pranayama
9. What are Astha sidhis in yoga.
10. Define Trataka, classification and benefits.
11. Distigush between Positive and Negative diet.
12. What are the features of Nidravegarodha and its management.

**Answer briefly**

**(10x3=30)**

13. Define Ardhashakti vyayama.
14. Define Hamsodaka.
15. Benefits of Vajrasana.
16. Define Mooladhara chakra.
17. What are Bandatraya.
18. Three examples of Samyoga viruddha.
19. Three indications of Mudpack.
20. Three indications for Fasting.
21. Three ideal dravyas for Dantadhavana.
22. Contraindications for Abhyanga.

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QP CODE: .....

Register No. ....

**Third Professional B.A.M.S Degree Examinations  
Swasthavritta - Paper II**

**Time: 3hours**

**Total Marks: 100**

- Answer all questions

**Essays**

**(2x10=20)**

1. Analyze the components, principles and levels of Primary Health Care.
2. Describe in detail the Direct and Indirect Mode of Disease Transmission.

**Short notes**

**(10x5=50)**

3. What are measures for prevention and control measures of Air pollution.
4. What are merits and demerits of Intra Uterine Contraceptive Devices(IUCD).
5. List down Bacteriological examination of water.
6. What are the lakshanas of Nivasayogyabhumi.
7. What are the sources and hazards of Biomedical waste.
8. What are the manageable risk factors for Hypertention.
9. Write the structure and functions of World Health Organization(WHO)
10. What are the highlights of Pulse Polio Immunisation.
11. What are Mosquito control measures.
12. What are remedial measures for Janapadodhwamsa.

**Answer briefly**

**(10x3=30)**

13. Define Body Mass Index(BMI).
14. Define Low Birth Weight (LBW).
15. Differentiate between sewage and sullage.
16. Define the characteristics of Mid day meal programme.
17. Define Ergonomics
18. Name the causative organisms of whooping cough, cholera and plague.
19. Define iatrogenic disease, give two examples.
20. Define Prophylactic disinfection, give two examples
21. Define Histogram and mention two uses.
22. Non-auditory effects of Noise pollution.

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QP Code:

Reg. No.:.....

**Third Professional BAMS Degree Examination**

**Prasuti Tantra Evum Stri Roga –Paper I**

**Time: 3 hrs**

**Max.**

**Marks: 100 Essays: (2x10marks=20)**

**Answer all questions**

1. Describe structure and function of uterus (garbhashaya).
2. Define mechanism of labour and explain with ayurvedic correlation.

**Short Notes: (10x5marks=50)**

3. Explain the effect of mathrurahara (maternal diet) in developing foetus.
4. Describe different types of abortions with ayurvedic terminologies.
5. Define bahugarbhata, write methods of diagnosis.
6. Describe 'garbhasayantharasthithi' of garbha in normal pregnancy.
7. Explain garbhaposhanam (foetal nutrition) in detail
8. Write upasthithaprasavalakshana.
9. Describe causes for aparasanga with management.
10. Enumerate absolute and common indications of caesarean section.
11. Explain types of mudhagarbha with modern correlation.
12. What is kalateetaprasava (post term labour), list causes.

**Answer briefly: (10x3marks=30)**

13. Apara-Structure
14. Douhruda-causes and management
15. Rh incompatibility-Complications
16. Garbhinipandu- causes, ayurvedic management
17. Garbhaupadrava-Enumerate
18. Kikkisa- Ayurvedic management
19. Episiotomy- Types, indications

20. Avi –Role in labour
21. Bishops' score-criteria
22. Suthikaroga-lakshana

**Third Professional BAMS Degree Examination**

**PrasutiTantraEvumStriRoga – II**

**Time: 3 hrsMax. Marks: 100**

**Essays: (2x10marks=20)**

**Answer all questions**

1. Explain nidana and chikitsa of asrugdara and describe the different types of abnormal uterine bleeding.
2. Describe nidana and lakshana of Sthanarbuda with clinical features, investigations and staging of CA Breast

**Short Notes: (10x5marks=50)**

3. Write types of congenital uterine anomalies.
4. Define yonikanda and explain clinical features & management.
5. Describe lakshana of garbhashayagrandhi with relevant investigations and management
6. Write two garbhanirodhakaoushadhayogas.
7. Write Lakshana and chikitsa of antarmukhi.
8. What are the complications of dilatation and curettage
9. Describe methods of barrier contraception
10. Describe clinical features of sthanakeelaka with management
11. Write indications and ingredients of phalasarpis
12. Write indications and procedure of utharavasthi in female

**Answer briefly: (10x3marks=30)**

13. Vipluta -lakshana
14. Shukladushti- bheda
15. Adenomyosis- clinical features



16. Vamini- lakshana
17. Arajaska- chikitsa
18. Laparoscopy - indications
19. Endometrial biopsy - procedure
20. Rajapravarthinivati- ingredients and indications
21. Veshavara – method of preparation
22. Saptasaram Kashaya- ingredients and indications

**QP Code:**

**Reg. No.:.....**

**Third Professional BAMS Degree Examination  
(Model Question Paper)  
KAUMARABHRITYA**

**Essay (Up to 500 words)**

**10 x 2 = 20 Marks**

1. Explain the steps in Sadyojaata paricharya both in Ayurvedic and modern way.
2. Explain the main therapeutic principles for the management of diseases in children

**Short Essay (Up to 200 words):**

**5 x 10 = 50 marks**

3. Explain Praasa and describe about Suvarnaprasa
4. Write Nabheenadeekalpanavidhi , enumerate the diseases of improper cutting of umbilical cord
5. Explain Stanya dushti. Explain any one of them
6. What is the line of management of Ksheeralasaka in children
7. What is Ulbakam? Explain its management
8. What are clinical features of Nephrotic syndrome
9. What are prodromal features of jwara as per Kashyapa Samhitha
10. What are the types of Phakka roga explain Garbhaja Phakka
11. Make a comparative notes on Parigarbhikam and Protein Energy Malnutrition
12. What are the general symptomatology in Grahabadha

**Short answers (Up to 120 words):**

**3 x 10 = 30 marks**

13. Write the features and diagnosis of Lactose intolerance.
14. Give the ingredients and indications of Rajanyadi churnam.
15. What are the factors in APGAR
16. What are the features of Revati Graham
17. Explain the treatment of Paittika Stanya dushti
18. Explain the features of Vitamin D deficiency in children
19. What is autism? Give any three features of autism.
20. Give three Ayurvedic formulations explained in the context of Apasmara
21. Give the dose and route of administration of DPT vaccine
22. Give the definition of Kaumarabhritya as per different Acharyas

QP Code:

Reg. No.....

**Model Question Paper**

**Third Professional BAMS Degree Examination  
CHARAKA SAMHITHA (UTTARARDHAM)**

**Time: 3 hrs**

**Max.marks: 100**

*Answer all questions*

**Essay:**

**(2x10=20)**

1. Describe the सामान्यचिकित्सासूत्र(samanya-chikitsa sutra) of श्वास(Svasa); mention any two important औषधयोग(Oushadha-yoga) along with ingredients
2. Write in detail the benefits of रसायन(Rasayana); explain the indications and regimen of पिप्पली-वर्द्धमानप्रयोग(Pippali-varthamana Prayoga)

**Short notes:**

**(10x5=50)**

3. Indication for क्षीरप्रयोग(Ksheera-prayoga) in ज्वर(Jvara) and its importance
4. Enlist स्नेहवस्तिव्यापत(Sneha-vasti Vyapat) and write the लक्षण(Lakshana) of any two
5. Indications and administration of घ्रेययोग(Gheya-yoga) of मदनफलपिप्पली(Madanaphala)
6. Classify कामला(Kamala) and write its general treatment principle

7. Importance of रक्तमोक्ष(Rakta-moksha) in the treatment of वातरक्त(Vata-rakta)
8. Write any two लेहयोग(Leha-yoga) mentioned in the treatment of कास(Kasa)
9. Explain कर्म-काल-योगवस्ति(Karma-kala-yoga vasti)
10. Utility of स्नेहन(Snehana) in the treatment of कुष्ठ(Kushta)
11. Role of तक्र(Takra) in the treatment of ग्रहणी(Grahani)
12. Any ten contra-indications of शिरो-विरेचन(Siro-virecana) along with justifications

**Answer briefly:**

**(10x3=30)**

13. Synonyms and indications of जीमूतक(Jeemutaka)
14. Benefits of वाजीकरण (Vajeeakaran)
15. Summarize पैत्तिककासचिकित्सा (Paittika-kasa-chikitsa)
16. Enlist सदातुराः(Sada-atura-nara)
17. Types and सम्प्राप्ति(Samprapti) of छर्दि(Chardi)
18. Summarize आमातिसारचिकित्सा(Ama-atisara-chikitsa)
19. Any one रसायनयोग(Rasayana-yoga) from अभयामलकीय(Abhaya-amalakeeya)
20. Describe गरविष(Gara-visha)
21. Dose and indications of मात्रावस्ति(Matratra-vasti)
22. पेयादिक्रम(Peyaadi-krama) after विरेचन(Virecana)

**Q P Code:**

**Register No.....**

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**KAYACHIKITSA –PAPER I**

**(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- Answer all questions
- Draw diagrams wherever necessary

**Essays**

**(2x10 = 20)**

1. Explain the indication and role of bahya chikitsa in Kushta
2. Describe the management of dhatu pradoshaja vyadhi

**Short Note**

**(10 x 5 = 50 )**

3. Define Kaya and chikitsa and types of chikitsa
4. Define Pathya and write the pathya-apathya of kushta
5. Explain oushadha seva kala

6. Explain the indication of Sarpipana in jwara and write the ingredients and phalashruti of Indukantha ghrita
7. Write the management of raktha pitha through gudamarga and nasa marga.
8. Write the differential diagnosis of acute abdomen
9. Write the importance and methods of Raktha moksha in Vata Raktha
10. Explain shadvidhopakrama
11. Explain Management of Vishama Jwara, Suggest kashaya yogas
12. Write about the National health programme and relevant Ayurvedic management of filariasis.

**Answer briefly**

**(10 x 3 = 30 )**

13. Dadimadi ghrita
14. Importance of physiotherapy in treating diseases
15. Mukha dooshika
16. Nidana and treatment of Kotha & Utkotha
17. Dengue fever
18. Hepatitis
19. Acute complications of Diabetes mellitus
20. Treatment principle of Amavata
21. Sanyasa
22. Apathya in nava jwara

**Q P Code:**

**Register No.....**

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**KAYACHIKITSA –PAPER II**

**(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays**

**(2×10 = 20 )**

1. Explain Shodhana Chikitsa in Swasa and Hiddhma
2. Detail the line of treatment of Prameha and explain the importance of Pathyapathya in the management of Prameharoga.

**Short Note****(10 x 5 = 50)**

- 3.Explain the treatment of Pakshaghata
- 4.Detail the line of management of Urusthambha
- 5.List the ingredients and indications of Indukantha ghrita
- 6.Detail the line of treatment of Grahaniroga and explain the importance of agni in the management of Grahaniroga
- 7.Define Vajeeekarana. Classify Vajeeekarana dravya. Write the scope of Vajeeekarana in present era.
- 8.Write the differential diagnosis of doshik sub types of mutrakricchra and suggest line of management.
- 9.Explain Pakwatisara chikitsa
- 10.Write Samanyalaxana and Chikitsa of Unmada
- 11.Define Rasayana. Explain Kuteepraveschikarasayana with an example
- 12.Write the line of management of Rajayakshma

**Answer briefly****(10 x 3 = 30 )**

- 13.Explain the symptoms and management of osteoarthritis of Knee
- 14.Describe the Sadhyochikitsa in Urakshata
- 15.Explain the Signs and symptoms of Parkinsonism
- 16.Differentiate Alasaka and Vishoochika
- 17.Mention the Signs and symptoms of Gullian Barrie Syndrome
- 18.Explain the management of galaganda
- 19.Explain the clinical features of Benign prostatic hypertrophy
- 20.List the ingredients and indications of Chiruvilwadi kashaya
- 21.List the ingredients of Kottamchukkadi tailam
- 22.Role of physiotherapy in the management of Pakshaghata

**Q P Code:****Register No.....****FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)****PANCHAKARMA****(Model Question Paper)****Time: 3 hour****Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

### Essays

(2×10 =20)

1. Explain the importance of Purvakarma in panchakarma therapy
2. Describe the procedure of sneha Nasya in detail

### Short notes

(10×5=50)

3. List the ten indications for Shodhana
4. Explain fat metabolism
5. Explain the contraindications of Nasya
6. Describe the procedure of matravasti
7. Explain the procedure of Udvartana and list its benefits
8. Describe the mode of action of Vamana dravya
9. List the materials and medicines required for Takra dhara. Explain the method of preparation of Dharadravya.
10. Explain the procedure of Prachana
11. Explain the method of emergency management in water and electrolyte imbalance
12. List samyaksnigdhalakshana according to Vagbhata and explain any two.

### Answer briefly

(10×3=30)

13. Explain the utility of Erandataila in Kateegraha
14. List six *atiyoga lakshana* of *Virechana*
15. List the ingredients and indications of Maadhutailika vasti
16. Describe sadyasneha with an example
17. Explain the procedure of *Pichu*
18. Explain the procedure of *Avagahasweda*
19. List *Anagneya sweda* and its indications
20. Explain *Swedopaga dravya* with an example
21. List six *Snehavasti vyapath*
22. Describe *Samyakyoga Lakshana* of *Anuvasana*

**Q P Code:**

**Register No.....**

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**SALYATANTRA PAPER I  
(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays**

**(2 × 10 = 20)**

- 1 Define and classify Yantra. Describe Yantraguna
- 2 Describe the Lakshana of Ama, Pachyamana, Pakwavranasopha and compare it with the signs and symptoms of inflammation

**Short notes**

**(10 × 5 = 50)**

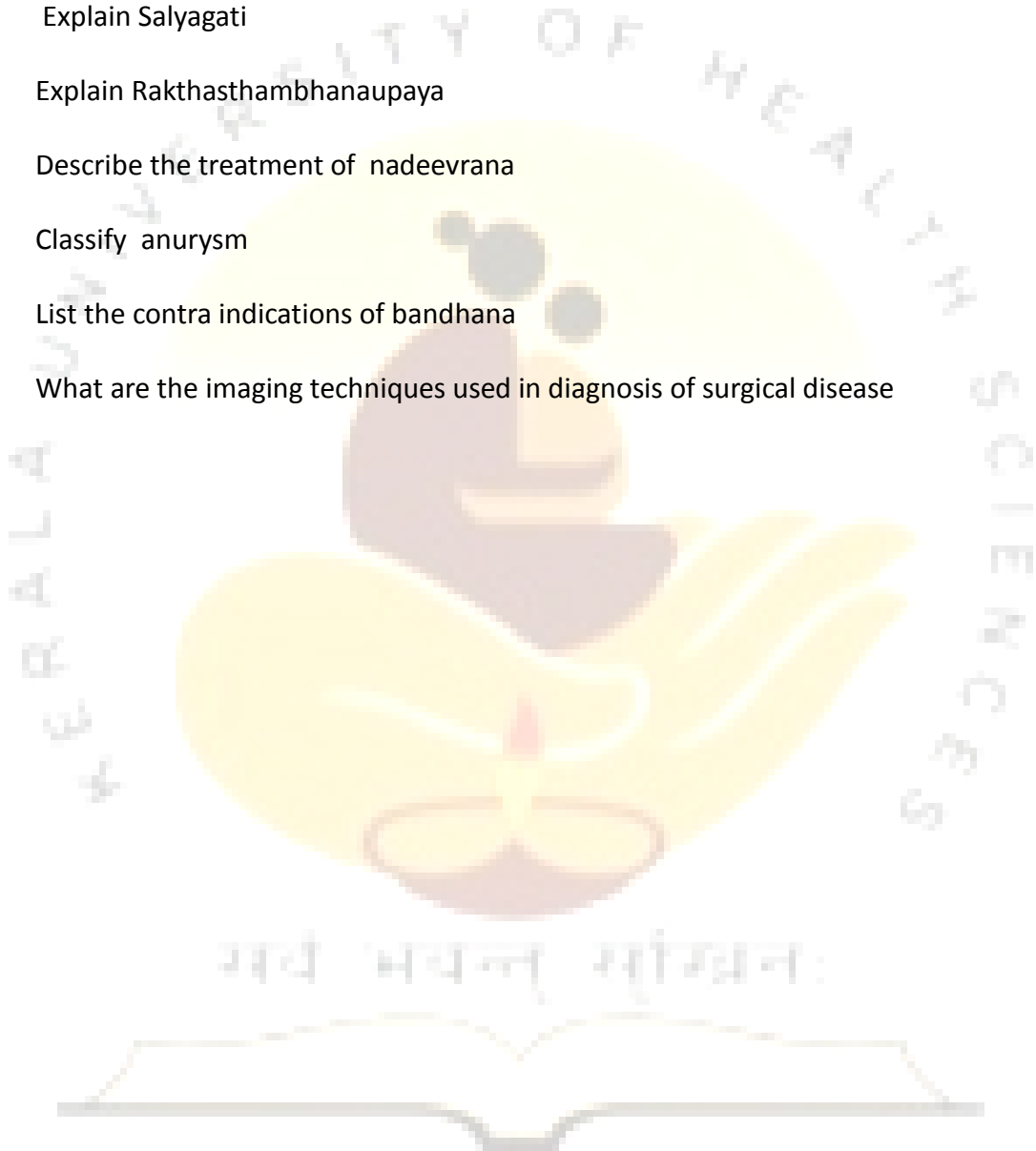
- 3 Describe the preoperative preparation methods of operation theater and instruments
- 4 Compare the indications, types of methods of sevana karma in Ayurveda & modern surgical practice
- 5 Mention the Yogyavidhi of chedana karma and bhedana karma
- 6 List the lakshana of marmabhighatha and compare it with pathophysiology of shock
- 7 Explain the management of Athidagdha & samyakdagdhavrana.
- 8 Explain the clinical features, investigations and management of Bueger's disease
- 9 Describe the classification of Anaesthesia and the method of infiltration anaesthesia
- 10 Describe the method of preparation of Theekshnakshara
- 11 Explain the etiology, clinical features, clinical examinations and management of Tennis elbow.
- 12 List the Saphopakarma of vrana. Explain each in two sentences.

**Answer briefly**

**(10 × 3 = 30 )**

13. List the indications of thiryakcheda

14. Describe the post operative procedure of patient in jaloukavacharana
15. Explain the importance of Salyatantra
16. What are Dahanopakarana
17. Explain Salyagati
18. Explain Rakthasthambhanaupaya
19. Describe the treatment of nadeevrana
20. Classify anurysm
21. List the contra indications of bandhana
22. What are the imaging techniques used in diagnosis of surgical disease





Q P Code:

Register No.....F

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**SALYATANTRA PAPER II  
(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays**

**( 2 x 10)**

1. Classify the diseases of lumbar spine, list their investigations and explain the primary management of prolapsed disc
2. Describe the clinical diagnosis of diseases of rectum and anal canal. Explain ayurvedic method of management of Arsas

**Short notes**

**(10×5=50)**

- 3 Explain the clinical features and investigations of Sthana arbuda
- 4 Describe the classification, clinical features and diagnosis of diseases of oesophagus
- 5 Explain the Nidana, prakara, Lakshana and upadrava of shoolaroga
- 6 Describe the clinical features and management of jalodara
- 7 Define badhagudodara and explain the clinical features.
- 8 Describe the clinical features and management of pyloric stenosis in infants
- 9 Explain the diagnosis and management of obstruction of small intestine.
- 10 Explain the clinical features, investigation and management of acute appendicitis

- 11 Explain the clinical features and diagnosis of yakritvidradhi
- 12 Explain the diagnosis and management of cholecystitis

**Answer briefly**

**(10 x 3 = 30 )**

13. Describe the method of management of perinephric abscess
14. List the types of urinary calculus
15. Explain the causes of hamaturia of renal origin
16. Explain the clinical features of B P H
17. Describe the aeteopathogagnosis and complications of urethral stricture
18. Explain the clinical features and management of nirudhaprakasa
19. Explain the diagnosis of torsion of testis
20. Explain the clinical features and diagnosis of Mutravridhi
21. Differentiate clinical classification and anatomical classification of hernia.
22. List the ingredients and indications of Murivenna

Q P Code:

Register No.....

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**SHALAKYA TANTRA PAPER -1  
(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays**

**(2×10 = 20)**

1. Explain the nidana, samprapthi and poorvaroop of netraroga. Classify the netraroga in ayurvedic and modern point of view.
2. Describe the aetiology, signs and symptoms of Aupasargika linganasha. Explain the relevance of these diseases in modern point of view.

**Short notes**

**(10×5=50)**

3. Explain the netrakriya sharrera in ancient view point.
4. Describe the aetiology, pathology, prognosis and management of pooyalasa.
5. Explain the prognosis of vatmaroga. Describe Krichroonmeela in detail
6. Describe the etiology, clinical features, types and management of ptosis.
7. Explain the clinical features, prognosis and management of sirotpatam and siraharsham.
8. Explain the anatomy of cornea. What are the clinical examinations to diagnose corneal diseases.
9. What are the clinical features and prognosis of kaphajalinganasha. Explain the indications and contraindications of surgery in ayurvedic and modern view point.
10. Explain refractive errors in brief. What are the surgical measures existing for myopia.
11. Differentiate between pakatyayashukla and akshipakatyaya.
12. Introduction to eye bank and explain the procedure of Keratoplasty.

**Answer briefly**

**(10 x 3 = 30 )**

13. Describe *Thimirabhasa* and its clinical importance
14. List the diseases explained in Ayurveda causing night blindness
15. List the contraindications of Anjanakarma
16. Describe types of Uveitis
17. Explain the prognosis of shuklamandalaroga.
18. Describe the apathya of netraroga
19. List the ingredients of Vimalavarthi
20. Describe the indications of DCR
21. Explain the clinical features of Pakshmashatam

22. List the ingredients and indications of ilaneer kuzhambu

**Q P Code:**

**Register No.....**

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**SHALAKYA TANTRA PAPER -II  
(Model Question Paper)**

**Time: 3 hour**

**Total marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays**

**(2×10 = 20)**

1. Explain the nidana and samprapthi of shiroroga. Classify the shiroroga and give clinical features and management of Ananthavata.
2. Explain sapthanga of Mukha. Explain the clinical anatomy of teeth. Describe the danthasampath with dental formulas.

**Short notes**

**(10×5=50)**

3. Differentiate between Karnasrava and poothikarna.
4. Describe Little's area. Explain the general causes of epistaxis
5. Explain Badhirya. What are the clinical tests to diagnose deafness.
6. Explain tooth extraction described in ayurveda.
7. Describe the clinical features of Adhidantha. Which surgery is advised in ayurveda. What are the types of impacted wisdom teeth.
8. Enumerate taluroga with prognosis.
9. Differentiate between pharyngitis and tonsillitis.
10. Explain the procedure of karnapoorana.
11. Explain the anatomy of Thyroid gland. describe thyrotoxicosis.
12. Differentiate between Nasanaha and Nasashosha. Explain the line of management.

**Answer briefly**

**(10 x 3 = 30 )**

13. Describe Jalandharabhandha. Where it is used.
14. Explain the clinical features of Upakusha
15. List the indications of Laryngoscopy
16. Explain the pathogenesis of Alasa
17. Describe the management of Indraluptha.

18. List the ingredients of Shadbindutaila
19. Describe the of Foreign body in the ear
20. Explain the preparation of Gomootrahareethaki
21. Explain the preparation of Deepikatailam
22. Describe the types and procedure of Prathisarana

**Q P Code:**

**Register No.....**

**FINAL PROFESSIONAL B A M S DEGREE EXAMINATIONS (2012 Scheme)**

**RESEARCH METHODOLOGY AND MEDICAL STATISTICS  
(Model Question Paper)**

**Time: 2 hour**

**Total marks: 50**

- *Answer all questions*
- *Draw diagrams wherever necessary*
- *Ordinary calculator permitted*

**Essay**

**(10 marks)**

1. Describe research process. Explain the importance of each steps involved in the research process

**Short Note**

**(5 x 5 = 25 )**

2. Explain normal distribution
3. Differentiate between observational and interventional types of researche
4. Explain the importance of ethics in clinical research
5. Describe the scope and necessity of researches in Ayurveda
6. Explain the role of *anumana* as a research tool

**Answer briefly**

**(5 x 3 = 15 )**

7. Describe graphical presentation of data
8. Define measures of central tendency. Explain any one of them.
9. Describe standard deviation
10. Differentiate parametric and non parametric tests
11. Explain test of significance

\*\*\*\*\*

### 3.7 Internal assessment component

Treated as a criterion for eligibility to appear the University examination. See clause 1.15

### 3.8 Details of practical examinations

For the subject having only 1 paper, 1 internal examiner & 1 external examiner shall be posted for conducting viva voce & practical; for the subjects having 2 papers, 2 internal examiners & one external examiner is posted. The internal examiner shall be posted from the same college. If there is no qualified teacher in the college for posting as examiner, one teacher can be posted from the nearby college in the same zone. The external examiner shall be posted from outside the zone or outside the university.

It is desired to conduct the viva voce independently by each examiner which should not exceed 5 minutes for 1 student by an examiner i.e. Maximum 10 minutes for viva voce for subjects having 1 paper & 15 minutes for viva voce for subjects having 2 papers. In order to avoid vagueness & maintain uniformity of standard & coverage, questions can be pre formulated before starting viva voce.

### 3.9 Number of examiners needed (Internal & External) and their qualifications

No person other than Regular/Retired teacher having concerned or allied Post Graduate degree and three years post PG teaching experience shall be considered eligible for examinership. The restriction in qualification is not applicable to teachers who were appointed on or before 01-01-1989 as per Govt order

### 3.10 Details of viva

#### 1.1 Padartha Vigyanam

Theory – Two papers; 100 Marks each (Paper II ; 75 marks for Padarthavigan & 25 marks for Ithihas) No Practical / Viva voce.

#### 1.2 Sanskrit

Theory Paper – One; 100 marks. No Practical / Viva voce

#### 1.3 KRIYA SHARIR

**Theory** Two papers- 100 Marks each **Practical / Viva voce** 100 marks

#### Distribution of Practical marks

- |                         |      |
|-------------------------|------|
| 1. Laboratory Practical | - 20 |
| 2. Human Experiment     | - 15 |

3.Spotting	- 15
4.Prakriti Saradi pariksha	- 20
5.Practical Record	- 10
6.Viva- voce	- 20
<b>Total</b>	<b>100 Marks</b>

#### 1.4 RACHNA SHARIR

##### Distribution of marks

7. Spotting	20 marks
8. Dissected organs and histology slides	20 Marks
9. Bones, joints, marma	20 Marks
10. Surface & radiological anatomy	10 Marks
11. Practical records	10 Marks
12. Viva-Voce	20 Marks
<b>Total</b>	<b>100 Marks</b>

#### 1.5 Maulik Siddhant evum Ashtang Hridaya

Theory Paper I;100 marks

Practical / Viva voce 50 marks

#### 2.1 DRAVYAGUNA VIJNAN

Theory Papers II

Practical / Viva voce 100 Marks

##### PRACTICAL MARKS DIVISION

1	Herbarium	20 Marks
2	Practical record	20 Marks
3	Drug identification- spotting –Raw/crude	30 marks
4	Plant identification spotting –fresh	30 marks
5	Practical	40 marks
6.	Viva-Voce	60 Marks
<b>Total</b>		<b>200 marks</b>

#### 2.2 ROGA NIDANA

Theory Two Papers – 100 Marks Each

Practical/Viva voce – 100 Marks

##### Distribution of Marks for final Practical Examination

1. Daily Record -10 Marks	2. Identification of Instruments -10 Marks
3. Laboratory Experiments -20 Marks	4. Short Case -10 Marks
5. Long Case -20 Marks	6. Viva - Voce -30 Marks
<b>Total 100 Marks</b>	

## 2.3 Rasashastra Evam Bhaishajyakalpana

### Theory papers II

### Practical / Viva voce – 200 Marks

#### Rasashastra

100 Marks

- |                |   |          |
|----------------|---|----------|
| 1. Record Book | - | 10 Marks |
| 2. Experiment  | - | 30 Marks |
| 3. Spotting    | - | 20 Marks |
| 4. Viva-voce   | - | 40 Marks |

#### Bhaishajyakalpana

100 Marks

- |                |   |          |
|----------------|---|----------|
| 1. Record Book | - | 10 Marks |
| 2. Experiment  | - | 30 Marks |
| 3. Spotting    | - | 20 Marks |
| 4. Viva-voce   | - | 40 Marks |

## 2.4 CHARAKASAMHITA –PURVARDHA

### Theory Paper I

### Practical / Viva voce 50 marks

The marks of theory examination are distributed as follows:

Sutrasthana – 40 Marks,  
Nidana sthana - 15 Marks  
Sharira sthana 15 Marks

Indriya sthana – 10 Marks  
Vimamana sthana – 20 Marks

## 3.1 AGADTANTRA, VYAVAHAR-AYURVED EVUM VIDHIVADYAK

### Theory Paper –I

### Practical / Viva voce – 50 Marks

#### Distribution of Practical Marks

1. Post Mortem examination and Court posting  
– Case Record – 10 marks

2. Practical/Clinical Record Book 10 Marks

Identification (spotting) 10 Marks

4 Viva – voce 20 Marks

**Total 50 Marks**



### 3.2 SWASTHAVRITTA

Theory- Two papers - 100 marks each

Practical / Viva voce -100 marks

Lectures –200 Hrs

Practicals and demonstration – 100 Hrs

#### **Practical and Viva Voce examination - Marks distribution Total 100 marks**

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

### 3.3 PRASUTI TANTRA & STRIROGA

Marks 200 (100marks each paper)

Practical-100 marks

#### **DISTRIBUTION OF PRACTICAL MARKS**

- |  |            |                        |
|--|------------|------------------------|
| 1. Case taking-2cases –one Gynec,one obstetric | - 30marks  |                        |
| 2. Instruments ,Drugs, &Models                 | - 20 marks |                        |
| 3. General Viva                                | - 40 marks |                        |
| 4. Record -2-(one Prasuti, one streerog)       | - 10 marks | <b>Total 100 marks</b> |

### 3.4. Kaumarbhritya (Ayurvedic Pediatrics)

Theory One Paper – 100 Marks

Practical Viva Voce - 50 Marks

#### **Distribution of Marks**

- |   |                  |
|---|------------------|
| Clinical work: Pediatric and neonatal case records [10 case sheets of each] | -10 Marks        |
| Patient Examination   | -20 Marks        |
| Spotting  | -05 Marks        |
| Viva – voce   | -15 Marks        |
| <b>Total</b>  | <b>-50 Marks</b> |

### 3.5. CHARAK SAMHITA- UTTARARDHA

Theory- One Paper – 100 Marks

Practical / Viva voce 50 marks

The marks of theory examination are distributed as follows:

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

### Final BAMS Subjects & Distribution of Marks

**4.1 KAYACHIKITSA** Theory Two Papers – 100 Marks Each Practical/Viva voce – 100 Marks

Distribution of practical Marks 100

- 1) Daily case record/ 20 cases - 20 marks

- 2) Patient examination                      a) 1 Long case - 20 marks              b) 1 short case - 10 marks
- 3) Viva –voice a) Paper I - 25 marks    b) Paper II - 25 marks

**4.2. PANCHAKARMA** Theory One Paper – 100 Marks Practical Viva-voce – 50 Marks Hours of teaching Theory – 100 Clinical training: 3 months

Distribution of Marks

- |   |                               |
|---|-------------------------------|
| 1. Practical Record of 25 procedures 05 Marks | 2. Long Procedure 10 Marks    |
| 3. Long Procedure Viva 05 Marks               | 4. Short Procedure 08 Marks   |
| 5. Viva on Short Procedure 02 Marks           | 6. General Viva-voce 20 Marks |

**4.3 SHALYA TANTRA** Theory Two Papers – 100 Marks Each Practical - Viva voce – 100 Marks

Distribution of Marks

- |   |                           |
|---|---------------------------|
| 1) Daily records - 10 Marks                 | 2) Instruments - 20 Marks |
| 3) Short case - 10 Marks                    | 4) Long case - 20 Marks   |
| 5) Viva – voce - 40 Marks Total - 100 Marks |                           |

**4.4 SHALAKYA TANTRA** Theory Two Papers – 100 Marks Each Practical/Viva voce – 100 Marks

- Distribution of marks      1) Long Case -30 Marks                      2) Short Case - 20 Marks
- 3) Identification of instruments equipments, medicines, etc. - 10Marks

- 4) Viva – voce - 30 Marks      5) Daily Record (Case record) 10 Marks              (Total 100 Marks)

**4.5 Research methodology and Medical statistics**

Theory examination only. Total Marks 50 (Part A-30 and Part B- 20)

## 4. INTERNSHIP

### 4.1 Eligibility for internship

The student will join the compulsory rotatory internship programme after passing the final professional examination.

### 4.2 Details of internship

Duration of Internship: 1 year

The student will join the compulsory rotatory internship programme after passing the final professional examination. The internship programme will start after the declaration of the result of final professional examination and on production of

Provisional Registration from T.C. Medical Council. The period of the internship will be of one year on residential basis with stipend.

Internship Programme and time distribution will be as follows:-

1. The interns will receive an orientation regarding details of internship programme along with the rules and regulations, in an orientation workshop, which will be organized during the first three days of the beginning of internship programme. A workbook shall be maintained by each intern. The Intern will enter date wise details of activities undertaken by him/her during his/her training.
2. Every intern will provisionally register himself with the concerned State Board/Council and obtain a certificate to this effect before joining the Internship program.
3. Daily working hours of intern will be not less than eight hours.
4. Interns are eligible for 20 Casual Leaves for the whole length of internship Programme.
5. Period of absence should be compensated with extension for the same period
6. Normally one year Internship programme will be divided into clinical training of 6 months in Ayurvedic Hospital attached to the college and 6 months in PHC/CHC/Rural Hospital/District Hospital/Civil Hospital or any Govt. Hospital of modern medicine .But where there is no provision /permission of the State Government for allowing the graduate of Ayurveda in the hospital/Dispensary of Modern Medicine ,the one year internship will be completed in the hospital of Ayurved college.

7.A. Clinical Training of six/twelve months as case may be in the Ayurvedic hospital attached to the college will be conducted as follows:-

Departments	Distribution of 6 months	Distribution of 12 months
1. Kayachikitsa	2 months	4 months
2. Shalya	1 months	2 months
3. Shalakya	1 months	2 months
4. Prasuti evam Striroga	1 months	2 months
5. Balroga-Kaumarbhritya	15 days	1 month
6. Panchakarma	15	1 Month

7.B. Six months training of interns will be carried out with an object to orient and acquaint the intern with National health programme. The intern will have to join in one of the following institute for undertaking such training.

- (a) Primary Health Centre
- (b) Community Health Centre/District Hospital
- (c) Any hospital of modern medicine
- (d) Any Ayurved hospital or Dispensary

All the above centres (a, b, c, and d) will have to be recognized by the concerned University and concerned Govt. designated authority for taking such a training.

### **Details of Guideline for training programme.**

Guidelines for conducting the internship clinical training of 6/12 months in the Ayurvedic Hospital attached to the college.

The intern will undertake following activities in respective departments as shown below:-

#### **(i) Kayachikitsa Duration : 2 months/4 months**

- i. All routine work such as case taking, investigations, diagnosis and management of common diseases by Ayurvedic Medicine
- ii. Routine clinical pathological work i.e. Haemoglobin estimation, complete haemogram, urine analysis, microscopic examination of blood parasites, sputum examination, stool examination etc. Mutra evum Mala pariksha by Ayurvedic method. Interpretation of laboratory data and clinical findings and arriving at a diagnosis.
- iii. Training in routine ward procedures and supervision of patients in respect of their diet, habits and verification of medicine schedule.

#### **(ii) Panchakarma-Duration:15 days /1 month**

- i) Panchakarma procedures and techniques regarding poorva karma, pradhan karma and paschat Karma.

#### **(iii) Shalya –Duration: 1 month/2 months**

Intern should be trained to acquaint with

- i) Diagnosis and management of common surgical disorders according to Ayurvedic principles.
- ii) Management of certain surgical emergencies such as fractures and dislocations, Acute Abdomen etc.
- iii) Practical training of aseptic and antiseptic techniques, sterilization etc.
- iv) Intern should be involved in pre-operative and post –operative managements.
- v) Practical use of anaesthetic techniques and use of anaesthetic drugs
- vi) Radiological procedures, clinical interpretation of X-ray, IVP, Barium meal, sonography etc.
- vii) Surgical procedures and routine ward techniques such as:-
  - i. Suturing of fresh injuries
  - ii. Dressing of wounds, burns, ulcers etc.
  - iii. Incision of abscesses
  - iv. Excision of cysts.
  - v. Venesection etc.
  - vi. Application of Ksharasutra in ano rectal diseases.

#### **(iv) Shalakyas-Duration:1 Month/2months**

Intern should be trained to acquaint with

- a) Diagnosis and management of common surgical disorders according to Ayurvedic principles.

- b) Intern should be involved in pre-operative and Post-operative managements.
- c) Surgical procedures in Ear,Nose,Throat,Dental problems,Opthalmic problems
- d) Examinations of Eye,Ear,Nose,Throat and refractive error etc,with the supportive instruments OPD
- e) Procedures like Anjana Karma, Nasya, Raktamokshan,'Karnapuran', Shirodhara, putpak, Kawal, Gandush etc.at OPD level.

**(v)Prasuti & Striroga-Duration:1 month/2months**

Intern should be trained to acquaint with

- a) Antenatal and post-natal problems and their remedies, antenatal and post-natal care.
- b) Management of normal and abnormal labours.
- c) Minor and major obstetric surgical procedures etc.

**(vi) Balroga-Duration: 15days/1 month**

Intern should be trained to acquaint with

- a) Antenatal and Post-natal problems and their remedies, antenatal and Post-natal care also by Ayurvedic Principles and medicine.
- b) Antenatal and post-natal emergencies.
- c) Care of new born child along with immunization programme.
- d) Important paediatric problems and their Ayurvedic managements.

**PHC/Rural Hospital/District Hospital /Civil Hospital or any Govt.Hospital of modern medicine.**

Guidelines for conducting six months internship training in primary Health Centre, Community Health Centre/District Hospital; Any Hospital of modern medicine any Ayurved hospital or Dispensary

Intern should get acquainted with-

- i. Routine of the PHC and maintenance of their records.
- ii. They should be acquainted with the routine working of the medical/non-medical staff of PHC and be always in contact with the staff in this period.
- iii. They should be familiar with work of maintaining the register e.g. daily patient register, family planning register, surgical register and take active participation in different government health schemes/programme.
- iv. They should participate actively in different National Health Programmes of Government of the State/District

**Casualty Section** of any recognized hospital of modern medicine.

Identification of casualty and trauma cases and their first aid treatment.Also procedure for referring such cases to the identified hospitals.

**Rural Ayurvedic dispensary/Hospital**

Diseases more prevalent in rural and remote areas and their management. Teaching of health care methods to rural population and also various immunization programmes.

### **Assessment**

After completing the assignment in various sections, they have to obtain a certificate from the head of the Section in respect of their devoted work in the section concerned and finally submitted to Principal /Head of the Institute so that completion of successful internship can be granted.

### **4.3 Model of Internship Mark lists**

*Internship completion certificate:* Issued from the concerned Institution

### **4.4 Extension rules**

Period of absence should be compensated with extension for the same period in the concerned section / department.

### **4.5 Details of training given**

As given in clause 4.2

## **5.ANNEXURES**

**5.1 Check Lists for Monitoring:** Log Book, Seminar Assessment etc. to be formulated by the curriculum committee of the concerned Institution.

