

**CENTRAL COUNCIL OF INDIAN MEDICINE  
NEW DELHI  
SYLLABUS OF AYURVEDACHARYA (BAMS) COURSE**

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## 1.1 SANSKRIT

Theory- Two Papers– 100 Marks Each

Practical/ Viva voce – 50 Marks

Lectures - 150

Paper I

100 Marks

### 1. Vyakaranam

Sanjna, Ach-Sandhi, Hal-Sandhi, Visarga Sandhi, Ajanta Pullinga, Ajanta Streelinga, Ajanta Napunsaklinga, Halanta Pullinga, Halanta Streelinga, Halanta Napunsaklinga, Avyaya Prakaran, Bhavadi-Dashganah, Hyanta-Sannanta, Yannanta-yanluganta-atmnepada-parasmaipada-bhavakam

Karma-Kartu, Iakarartha prakriya, Kridanta prakarana (Kriya prakriya), Purvakridantam, Unadaya, Uttar-kridanta, Vibhaktyartha prakaran, Samasa prakaran (Kevala samas, Avyayi-bhavah, Tatpurush, Bahuvrihi, Dvandva, samasanta), Tadhita prakarnani, Streepratyaya Prakaranam.

**TEXT BOOK-** Laghu Siddhanta Kaumudi

### 2. Translation

- (i) Translation from English / Hindi / Regional language into Sanskrit  
Or Essay in Sanskrit related to Ayurveda
- (ii) Translation from Sanskrit to English, Hindi and Regional languages (Any desired official language)

### Reference Books

- (i) Anuvada Chandrika- Chakradhara Hansa Nautiyal
  - (ii) Sanskrita Ayurveda Sudha- Dr B. L. Gaur
  - (iii) Praudh Rachananuvada Kaumudi- Dr Kapil Dev Dwivedi
  - (iv) Ayurvedic Classical Texts be used as Exercise Material for Translation.
3. Identification of gramatical errors from the given excerpt and writing the gramatically corrected version - Material/ excerpt should be selected from the above reference books.

**Paper II**

**100 Marks**

**1. Vaidya Sadvrittam**  
**Prescribed Books :**

- (i) Vaidyakiya Subhashitani (1-20 chapters)  
By Dr. Bhaskar Govinda Ghanekar
- (ii) Ayurvediya Hitopdesha  
By Vaidya Ranjit Rai Desai
- (iii) Panchatantram- Aprikshitkarkam

Or

Verses from classics (Brihatrayi) related to Vaidya Sadvritta

**2. Order of reading classics** (Grantha-adhyayan krama parichaya)

Pathana Krama / sampradana parichaya, padavibhaga, arthanvaya krama, anvayartha, bhavartha, dhvanitartadi-prabhasana Karma parichaya Samastapada sarthak-vigraha, dhatu-dhatvartha, pratyaya-pratyayartha, subanta-tigantadi bhedana padakritya (anvayartha samarthanam) Nirupanam.

Material for practice (Exercise Material)

Sushrut Samhita-Sharir Sthana-Chapter-4 (Garbhavyakarana Shariram).

**PRACTICAL**

**Viva-voce**

**50 Marks**

## 1.2. PADARTHA VIGYANAM

Theory- Two Papers– 100 Marks Each

Practical/ Viva voce – 50 Marks

Lectures - 150

Practicals and Demonstration - 30

Paper I

100 Marks

### Padartha Vigyanam

#### 1.1 Ayurveda Nirupana

Definition and lakshana of Ayu, composition of Ayu, definition and lakshana of Ayurveda, definition and types of siddhanta, Introduction to basic principles of Ayurveda and their significance.

#### 1.2 Ayurveda Darshana Nirupana

Philosophical background of fundamentals of Ayurveda, Meaning of the word “Darshana” and its omnipresence, evolution of Darshana, their numbers and classification, general introduction of schools for Indian Philosophy with an emphasis on Nyaya, Vaisheshik and Sankhya Darshana. Ayurveda as unique and independent school of thought (philosophical individuality of Ayurveda), definition of Padartha, Lakshana of Padartha. Division and number of Padartha, Bhava and Abhava Padartha; Charak’s opinion regarding this; introduction & description of Karana-Padartha mentioned by Charak.

#### 2. Dravya Vigyanam

Definition, lakshana and number of Dravya, Panchabhuta; origin of Panmahabhuta, Parasparanupravesha (mutual conglomeration), types of panchikaran, Lakshana and types of Prithvi, Lakshana and types of Tejas, Lakshana and types of Jala, Lakshana and types of Vayu, lakshana of Akasha and its Aupadhika types, Kaala Nirupana, etymological derivation, definition and lakshana of the word ‘Kaala’, aupadhik types of Kaala, significance of Kaala in Ayurveda, Dik-nirupanam, significance of Dik and Aupadhik types, lakshana of Atma, description of Purusha mentioned in Ayurveda - Ativahika Purusha/ Sukshma Sharir/ Rashi Purusha/ Chikitsiya Purusha/ Karma Purusha/ Shaddhatvatmak Purusha, initiation of Atma towards perception of knowledge (Atmanah gyana Pravritti). Mano Nirupanam, Lakshana, synonyms of Manas, Mana as substratum of diseases (Manasah Vyadhyashryatram), Guna (qualities), Vishaya (subject), Karma (function), Ubhayaindriyatva and seat of Mana; contribution of Panmahabhuta and Triguna in physical constitution (Dehaprakriti) and mental faculty; disapproval of dravyatva of Tamas, practical study/application of Dravya in Ayurveda.

**3. Guna Vigyaniam**

Etymological derivation, definition and number of Guna, Vaishesika guna, Saarth-Shabda, Sparsha, Rupa, Rasa, Gandha, Adhyatma guna- Buddhi, Sukha, Dwesha, Ichha, Dwesa, Prayatna; Paradi Guna, Gurvadi guna- their introduction and clinical application.

**4. Karma Vigyaniam**

Definition, lakshana and types of Karma, types of Karma mentioned in Nyaya, Description of Karma in Ayurveda, practical study/ application of Karma in Ayurveda.

**5. Samanya Vigyaniam**

Definition, Lakshana, types of Samanya, practical study/ application of Samanya in reference to Dravya, Guna and Karma.

**6. Vishesa Vigyaniam**

Definition, lakshana and types of Vishesa, detailed description of the verse "Pravrittirubhayasyatu", practical study of Vishesa for clinical application in Ayurveda.

**7. Samavaya Vigyaniam**

Definition and Lakshana of Samavaya, practical study of Samavaya for clinical application in Ayurveda.

**8. Abhava Vigyaniam**

Definition and lakshana of Abhava Padartha, classification of Abhava- description of Pragabhava, Pradhwansabhava, Atyantabhava, Anyonyabhav and clinical significance of Abhava in Ayurveda.

**Pramana/ Pariksha Vigyaniam (Epistemology)**

1. **Pariksha Nirupana (means of getting knowledge)**  
Definition, significance and necessity of pariksha, Two types of anubhava-prama and aprama, Lakshana and types of prama and prameya, Lakshana, causes and types of Smriti (memory), Significance and importance of pramana. Enumeration of pramana according to different schools of philosophy, Four type of methods for examination in Ayurveda (chaturvidha pariksha vidhi), Pramana in Ayurveda, Incorporation of different pramana into three pramana, Use of word pariksha in reference to pramana in classics of Ayurveda and Practical application of methods of examination (pariksha vidhi) in treatment (chikitsa).
2. **Aptopdesha Pariksha/ Pramana Nirupana (Authoritative instruction/ Spiritual testimony)**  
Definition of aptopdesha, lakshana of apta, lakshana of sabda, and its types, shabdavritti - abhidha, lakshana, vyanjana, tatparyakhya; shaktigraha hetu, vakya Characteristic; Vakyartha gypanahetu- akanksha, yogyata, sannidhi.
3. **Pratyaksha Pariksha/ Pramana Nirupana (direct observation or perception)**  
Definition and lakshana of pratyaksha, Types of origin of pratyaksha jnana, Types of pratyaksha- nirvikalpaka- savikalpaka with description, Description of laukika and alaukika types and their further classification, Sannikarsha Characteristic, six types of sannikarsha, characteristics of sense organs (Indriyanam lakshanam), Classification of Indriya and enumeration. Description of panchapanchaka, establishment of origin of Indriya by panchamahabhuta (bhautikatwa of Indriya) and similarity in sources (tulyayonitva) of Indriya. Dominance of antahkaran, Hindrances in direct perception (pratyaksha anupalabdikaran), Detailed description of direct perception (pratyaksha) by various instruments/ equipments, necessity of other pramana in addition to pratyaksha, Practical study/ application of pratyaksha in physiological, diagnostic, therapeutics and research grounds.
4. **Anumana Pariksha/Pramana Nirupanam (Inference)**  
Definition and lakshana of Anuman. Introduction of anumiti, paramarsha, vyapti, hetu, sadhya, paksha, dristanta etc. Types of anumana mentioned by Charak Samhita & Nyaya Darshana. Characteristic and types of vyapti, Characteristic and types of hetu, description of ahetu and hetwabhasa. Characteristic and significance of tarka. Practical study/ application of anumana pramana in physiological, diagnostic, therapeutics and research grounds.

- 5. Yukti Pariksha/ Pramana (Epistemology of reasoning)**  
Definition and lakshana of yukti pariksha, discussion on yukti pramana. Importance & characteristic of yukti pariksha in Ayurveda. Practical study and utility of yukti pariksha in therapeutics and research.
- 6. Upamana Pramana Nirupanam (Analogy)**  
Definition and lakshana of upamana. Application of upamana in therapeutics and research.
- 7. Karya- Karana Siddhanta Nirupanam (Cause and Effect Theory)**  
Definition and lakshana of karya and karana. Types of karana. Significance of karya and karana in Ayurveda. Different opinions regarding manifestation of karya from karana - satkaryavada, asatkaryavada, parinamvada, arambhavada, paramanuvada, vivartavada, kshanabhangurvada, pilupaka, pitharpaka, anekantavada, swabhavoparamvada.
- 8. Srishti-Nirupanam**  
Srishti-laya nirupanam (evolution and devastation of universe), Description of tatvotpatti, Tatva-nirupanam, classification of tatva. Evolution of universe (life) according to Charak, Sushruta (Srishti-Vikaskrama); Ashtaprakriti, Shodashavikara and their description. Similarity and dissimilarity between kshetra-kshetragya, vyakta-avyakta, prakriti-purusha. Triguna nirupanam, Description of theories of rebirth and salvation (punarjanma & moksha)
- 9. Shastrartha Bodhaka**  
Shastra Lakshana, tantra guna, tantra dosha, detailed description of tantrayukti, Brief description of tachhilya and arthashraya.

## PRACTICAL

### Content of Practical

1. Panchabhautika nirupanam of Karya dravya and their introduction.
2. Examination of Bhautika / Samanya guna and introduction.
3. Examination of physical (Panchbhautika Prakriti and Deha prakriti) and Mental temperament composed by triguna (Trigunatmaka Manas prakriti).
4. Exposition or display of process of Indriyatha Sannikarsha in establishment of dravya and roga (dravya and rogavinishchaya).
5. Importance / significance of pariksha / pramana in examination of dravya, roga and rogi. (disease and patient).
6. Allotment of practical work according to syllabus.

### Distribution of Marks

1.	Assignment	10 - Marks
2.	Spotting	10 - Marks
3.	Viva voice	30 - Marks
	<b>Total</b>	<b>50 Marks</b>

### Reference Books

1.	Padartha Vigyan	Acharya Ramraksha Pathak
2.	Ayurvediya Padartha Vigyana	Vaidya Ranjit Rai
3.	Ayurved Darshana	Acharya Rajkumar Jain
4.	Padartha Vigyana	Kashikar
5.	Padartha Vigyana	Balwant Shastri
6.	Sankhya Tantra 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 Dhandha
13.	Ayurvediya Padartha Vigyan Parichaya	Vaidya Banwari Lal Gaur
14.	Ayurvediya Padartha Darshan	Pandit Shivhare
15.	Padhartha Vigyan	Dr Shailaja Srivastava
16.	Useful Parts of Charak, Sushrut and Vagbhata	

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### 1.3 AYURVED ITIHAS (History of Ayurveda)

Theory- One Paper - 100 Marks

Lectures - 60

1. Etymological derivation (Vyutpatti), syntactical derivation (Nirukti) and definition of the word Itihas, necessity of knowledge of history, its significance and utility, means and method of gaining knowledge viz. historical person (Vyakti), subject (Vishaya), time period (Kaal), happening (Ghatna) and their impact on Ayurveda.
2. Descent of Ayurveda, chronology of Ayurveda according to different Schools, introduction to eight branches of Ayurveda and concerned renowned texts. Introduction of the authors of these texts.
3. Eternity of Ayurveda (Shashvatvam and Anaditvam).
4. Status of Ayurveda in Vedic period, progression of Ayurveda upto tantra kaal. Knowledge about available topics of Ayurveda in purana and tantra etc.
5. Introduction of authors of classical texts during Samhita kaal and their contribution especially Atreya, Dhanwantari, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhabala, Vagbhata, Nagarjuna, Jivaka – introduction and contribution.
6. Chronological development of Charak Samhita, Sushrut Samhita and Kashyapa Samhita.
7. Introduction and establishment of time period of commentators of classical Samhita – Bhattar Harishchandra, Jejjata, Chakrapani, Dalhana, Nishchhalakara, Vijayarakshita, Gayadas, Arundatta, Hemadri, Gangadhara, Yonginderanath Sen, Haranchandra.
8. Introduction and time period of authors of compendium (Granthasamgraha kaala) – Acharya Bhavmishra, Sharangadhara, Vrinda, Madhavakara, Shodhala, Govind Das (Author of Bhaishajya Ratnawali), Basavraja etc.
9. Origin of Rasa Shastra and its development, introduction and time period of promoters of Rasa Shastra.
10. Vrikshayurveda Vigyana (Ayurveda for plant kingdom), Pashu chikitsa Vigyana (Ayurveda for animal kingdom), promoters of Ashva, Gaja chikitsa Vigynana, Shalihotra, Palkapya, Varahmir, Nakula, Ashvaghosh.
11. Introduction of authors of Modern era –Gan Nath Sen, Yamini Bhushan, Yadavji Tikramji Acharya, Ghanekar, Damodar Sharma Gaur, Priyavrat Sharma, Swami Laksmiram, Dr. P. M. Mehta, Daji Shastri Pade etc.
12. Globalisation of Ayurveda – Sumera, Babilonia, Asiria, Misra (Egypt), China, Persia, Arabia, Kamboja, Sri Lanka, Nepal, Thailand, Mauritius, Myanmar (Burma) etc. – expansion of Ayurveda in above mentioned civilisations.

13. Impact of Ayurveda on Hippocrates (Father of Allopathy), Invitation to Indian physicians by Yavans and translation of Ayurvedic text into Arabian language. Visit to Greece by Indian scholars, relation between Greece and India in ancient period (made by Alexandar) and expansion of Ashvavaidyaka in Greece.
14. Developmental actions for Ayurveda in post-independence period, development in educational trends, establishment of different committees. their recommendations, Central Council of Indian Medicine, Central Council for Research in Ayurveda and Siddha, foundation of department of AYUSH, its introduction and activities, Drug and Cosmetic Act, Ayurvedic Pharmacopeia Committees formation and activities of organisations and institutions like Rashtriya Ayurveda Vidyapeeta etc. Activities in field of Research in Ayurveda according to different subjects. Initiation for writing down a text, different councils of vaidya and their activities.
15. Publications of Ayurveda journals and magazines, WHO, status of Ayurveda on International grounds in present era.

#### **Reference Books**

- |     |   |                                 |
|-----|---|---------------------------------|
| 1.  | Upodghata of Kashyapa Samhita<br>Paragraph of acceptance of Indian medicine | Rajguru Hem Raj Sharma          |
| 2.  | Upodghata of Rasa Yogasagar   | Vaidya Hariprapanna Sharma      |
| 3.  | Ayurveda Ka Itihas  | Kaviraj Suram Chand             |
| 4.  | Ayurveda Sutra  | Rajvaidya Ram Prasad Sharma     |
| 5.  | History of Indian Medicine (1-3 part)                                       | Dr. Girindra 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 Commentaries (Chapters highlighting history)	Dr. G.J. Mulenbelt
14. Ayurveda Ka Brihat Itihasa	Vaidya Atridev Vidyalkara
15. Ayurveda Ka Vaigyanika Itihasa	Acharya Priyavrata Sharma
16. Ayurveda Ka Pramanika Itihasa	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
21. History of Indian Medicine from Premoryana to Kushana Period	Dr. Jyotirmitra
22. An Appraisal of Ayurvedic Material in Buddhist literature	Dr. Jyotirmitra
23. Mahayana Granthon mein nihita Ayurvediya Samagri	Dr. Ravindra Nath Tripathi
24. Jain Ayurveda Sahitya Ka Itihasa	Dr. Rajendra Prakash Bhatnagar
25. Ayurveda- Prabhashaka Jainacharya	Acharya Raj Kumar Jain
26. Charaka Chintana	Acharya Priyavrata Sharma
27. Vagbhata Vivechana	Acharya Priyavrata Sharma
28. Atharvaveda and Ayurveda	Dr. Karambelkara
29. Ayurvedic Medicine Past and Present	Pt. Shiv Sharma
30. Ancient Scientist	Dr. O.P. Jaggi
31. Luminaries of Indian Medicine	Dr. K.R. Shrikantamurthy
32. Ayurveda Ke Itihasa Ka Parichaya	Dr. Ravidutta Tripathi
33. Ayurveda Ke Pranacharya	Ratnakara Shastri
34. Ayurveda Itihasa Parichaya	Prof. Banwari Lal Gaur

## 1.4. ASHTANGA HRIDAYA (SUTRASTHAN)

**Theory- One Paper – 100 Marks**

**Practical/ Viva voce – 50 Marks**

**Lectures - 60**

For the convenience of learning, allotted marks for Sutrasthan of Ashtanga Hridaya has been divided into following two groups:

<b>1) Chapters specified for thorough study with Marks</b>	
Chapter First to Tenth and Fourteenth (1-10 & 14)	44 Marks
Chapter eleventh to thirteenth (11-13)	15 Marks
Chapter Sixteen to Twenty (16-20)	20 Marks
Twenty-seventh (27) and Thirtieth (30) chapters	7 Marks
<b>2) Chapters specified for Introductory study with Marks</b>	
Chapter Fifteenth (15)	04 Marks
Chapter Twenty two to Twenty six, Twenty eight & Twenty nine (22 – 26, 28 & 29)	10 Marks

### **PRACTICAL**

#### **Topic of chart preparation**

Ayurvedavatarana according to Ashtanga Hridaya, Ashtanga of Ayurveda, Agni, Prakriti, Koshta, Tridosha, Rasa-guna-virya-vipaka and prabhava of dravya, Ritucharya, Dinacharya, Vega-udirana and vidharana, Chatushpada of Chikitsa, Sadhyasadyata, different classification of dravya- toya, kshira, ikshu, etc. shooka, shimbi, mamsa, shaka, phala etc. Dosha samshodhana kaala, vridhhi- kshaya lakshana of Dosha, Dhatu and Mala, Dosha prakopa according to Ritu, Viruddhahara, Traya Upastambha.

#### **Parameters for Internal Assessment.**

Memorizing and describing two shlokas weekly, discipline, oral and written presentation and other activities.

Parameters for internal Assessment (15 Marks) Memorizing and describing two shlokas weekly, discipline, oral and written presentation and other activities.

### Distribution of Marks

1) For chart framing / Compilation	10 Marks
2) Recitation & writing of minimum ten shlokas among memorized shlokas (The shloka should be memorized alongwith Padavibhaga, Anvaya, Bhavartha and practical applicability.)	10 Marks
3) Viva-voce	15 Marks
4) Internal assessment (15 marks)	
(a) Memorizing two shlokas weekly (AT least 40 shlokas should be memorized as discussed above in a span of one year and six months)	5 Marks
(b) Passage writing	5 Marks
(c) Speech on any one topic related to Ashtanga Hridaya	5 Marks
<b>Total</b>	<b>50 Marks</b>

### Reference Books

Ashtanga Hridayam	Hindi Commentary by Lalchanda Vaidya English Commentary by K.R. Srikantamurthy
Ashtang Hridayam	Prof. Banwari lal Gaur.
Ashtang Hridayam by Vagbhata	Dr Vishwavasud Gaur.
Ashtang Hridayam by Vagbhata	Dr. Bulusu Sitaram.
Ashtang Hridayam by Vagbhata	Dr. T. Sreekumar

## 1.5 RACHANA SHARIR

Theory- Two Papers– 100 Marks Each

Practical/ Viva voce – 200 Marks

Lectures (1 hour) - 210

Practicals /Demonstration (1 ½ hour) - 210

Paper I 100 Marks

Part A 50 Marks

1. Detailed description of principles of 'Sharir' and their co-relation with modern medical science.
2. **Sharirprakrama**  
Description of Shaarir and Sharir, knowledge and importance of Shaarir and Sharir, 'Shadangatva' of Sharir, Anga pratyanga vibhaga, Preservation and Dissection Method of dead body, Divisions of Sharir.
3. **Knowledge of terminologies used in Sharir**  
Detail knowledge of terms, position, and Planes e.g. Urdhva (Superior), Adhah (Inferior), Nikatastha (Proximal) and Doorastha (Distal), Agrima (Anterior or Ventral), Abhi pristha or Paschima (Posterior), Madhyana (Median), Parshva (Lateral). Abhimadhyama (Medial) and Uttana (Superficial) and Gambhira (Deep) section, Anuprastha (Vertical) and Agra paschedasa (Horizontal), Tiryaka (Oblique) sections, Mamsa peshi (Muscles), Sira, Dhamani, Tantrika, Snayu (Ligaments), Kurcha, Kandra (Tendon), Jala (Plexuses), Asthi Sanghat (Complex Joints), Seemanta (Sutures of Skull), Rajju (Cords) and Sevani.
4. **Abhinivriti Sharir**  
Vyakta and Avyakta, Kshetra and Kshetrajna, Constitution of 'Purusha' according to dhatu bheda, Panchabhoutikatva and Sukshamatva of body, Karma Purusha, Trigunatamakratvam, Tridoshamayatvam, Doshadhatumalamulakatva of Sharir.
5. **Garbha Sharir (Embryology)**  
Definition of 'garbha' (embryo), 'Garbhottpadakbhava', Sukshma garbha sharir, micro anatomical description of 'Dhatu and Avayava' 'Shukra' Artava, Antahpushpa, Garbhadhana (fertilization) and Kosha vibhajana (Cell division), along with role of Tridosha and Panch mahabhuta in fetal development, 'Bija'-(sperm and ovum), Bijabhaga, Bijabhagavayava and Genetics in Ayurveda. Anuvamshika Siddhanta (principles of Hereditary), Linga bheda (Sex determination), Masanumasika Garbha Vridhi Krama (month wise development of Fetus), Garbhavidhikara bhava (factors affecting development and growth of embryo), Deha prakriti, Satwa prakriti' etc., Garbha poshana, Aparanirmana (formation of placenta), Nabhinadi nirmana (formation of umbilical cord), Ulva, Jarayu, Akritikara bhava, Matrapartantrata of garbha, Bhuta vyapara, formation of Stanya, Angapratyanga nirmana, Development of various systems, Developmental anomalies and their causes (Ayurveda and Modern Views).

- 6. Pramana Sharir:**  
Anthropometric -Values of body parts.  
Anguli, anjali, pramana and Sankhya Sharir.

**Part B**

**50 Marks**

- 7. Asthi Sharir (Osteology)**  
Number of bones (Charak, Sushrut and Modern Concept), Asthi swarupa and Asthi rachana (Structure and texture of bone), Detailed description of each bone - Ossification of bones, applied anatomy of each bone.
- 8. Sandhi Sharir (Arthrology)**  
Definition of Sandhi (joints), Types, structure of each Asthi sandhi (joint), specific description of 'Hanu' (temporomandibular) and Shakha sandhi (joints of extremities), vertebral joints, Definition of Asthi Sanghat, number and their applied value. Sevani (Sutural Joints), Snayu (Ligaments), movements of Joints and Clinical importance of the Sandhi (joints).
- 9. Sira, Dhamani, Srotas Sharir (Angiology)**  
(a) Sira-Dhamani Importance of Raktavaha Sansthan (cardiovascular system), Hridaya (Heart), Sira, Dhamani, Srotas. Definition of Sira, Dhamani, their course, branches, Description of Arteries and capillary, Accessory veins and Principle veins.  
(b) Srotas Sharir: Definition, types, their moola and Srotodusti.
- 10. Lasika Sansthan (Lymphatic system)**  
Introduction and study of Lasika pranali (Lymphatic channels), Lasika granthi (Lymphatic glands), Rasa kulya (thoracic duct), Payasvini (lacteals) and Courses of Lasika Vahini (Lymphatic Ducts).
- 11. Peshi Sharir (Myology)**  
Introduction and detail structure, shape, size, types and Importance of Peshi (muscles) - their attachments and origin, insertion, actions, nerve supply and its clinical application.

Part A

50 Marks

1. **Koshta**

Defining the terms like – Koshta, Ashaya and Koshtanga, their names and location, Koshtanga of Urah Pradesh (thoracic cavity organs), Udar Pradesh, Koshtanga (organs of abdominal cavity), Description of digestive organs and accessory digestive organs. Organs of Shwasa, Prashwasa (Respiratory system), Organs of Mutravaha Sansthan (Urinary system), Description of male and female prajananang (reproductive organs) and their details.

2. **Granthi Sharir**

Description of the structure of Bahya Srotas (Exocrine) and Nisrotasa granthi, detail study of granthi Sharir.

3. **Kala Sharir**

Definition of Kala, structural pattern and detail study of each Kala, study of Vishista Kala like Hridayavarana (Pericardium), Puppusavarana Kala (Pleura), Mastiskavarana Kala (Meninges), Udaravarana Kala (Peritoneum).

4. **Twak Sharir (Dermatology)**

Definition of Twak (Skin), its swaroop (structure), types and prayojana.

Part B

50 Marks

5. **Uttamangiya Tantrika Sansthan Sharir (Nervous System)**

Introduction, Definition, classification and importance of Mastishka (Brain)-

1. Brihatamastishka (Cerebrum), 2. Laghumastishka (Cerebellum), 3. Madhyamastishka (Mid brain), 4. Usnishaka (Pons), 5. Sushumna Shirsha (medulla oblongata), Sushumna Kanda (Spinal cord), Sheershanya tantrika (Cranial Nerves) and Sushmaniya Tantrika (Spinal Nerves), Parisarniya Tantrika (Peripheral nervous system). Description of Swatantra Nadi Samsthan (Autonomic nervous system), Anukampiya and Paranukampiya (Sympathetic and parasympathetic nervous system and nerve plexuses).

6. **Tantra Sharir (Neuro Anatomy)**

Shatchakra, Ida, Pingala, Saraswati etc.

7. **Marma Sharir**

Description of the term Marma, their numbers, locations, different types and their terminological values. Importance of trimarma, Charak & Sushrut concept.

8. **Anga Rekhankana Sharir - (Surface, Radiological and Imaging Anatomy)**

Anga Rekhankana (Surface marking), Vikirana Rachana Sharir (Radiological Anatomy).



**9. Indriya Sharir: (Sensory organs)**

Derivation of the word Indriya, its number, Description of Panch Gyanendriya, Panch Karmendriya and Ubhayendriya (Mana). Description of the Eye, Ear, Nose, tongue, Skin and Indriya Adhistan.

**PRACTICAL**

**Content of Practical**

1. Shava Samskarana and Mruta Shodhana (Dead Body Preservation and Dissection).
2. Shavachedana - Dissection of the whole body.
3. Sampurna Asthi Pradarshana - Demonstration of all bones, Practical demonstration of Komala Avayava (Macro and Microscopic structures of organs) and Koshtanga (Abdominal organs).
4. Practical knowledge of Anga Rekhankana, Surface Anatomy, Sharir Vikirana Radiography.

**Distribution of Marks**

1. Knowledge of the dissected organs.	25 Marks
2. Knowledge of the delicate organs.	25 Marks
3. Knowledge of bones.	25 Marks
4. Knowledge of Marma.	25 Marks
5. Surface Anatomy, Diagrams and Practical records.	25 Marks
6. Daily dissection Log Book	25 Marks
7. Spotting	25 Marks
8. Viva-Voce	25 Marks
<b>Total</b>	<b>200 Marks</b>

## Reference Books

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 Evum Chayankan Sharir Vikiran 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 and Prof. Suresh Chandra
9. Sharir Rachna Vigyan (English) Prof. D.G. Thatte
10. Ayurvedic Human Anatomy Prof. Dr. Giridhar M. Kanthi
11. Regional Anatomy B. D. Chaurasia
12. Rachana Sharir Vigyana Dr. Mahendra Sing
13. Chapters of Charak, Sushrut and Vagbhata Sharir Sthana
14. Gray's Anatomy

## 1.6. KRIYA SHARIR

Theory- Two Papers – 100 Marks Each

Practical/ Viva voce –100 Marks

Lectures (1 hour) - 210

Practicals and Demonstration (1 ½ hour) - 90

**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 Visheshha, Rasa-Virya-Vipaka etc. Description of Basics of Srotas.
2. Definitions and Synonyms of term 'Sharir', Definitions and Synonyms of term 'Kriya', Srishti Utpatti and its adaptation in generation of Sharir, Factors responsible for Srishti Utpatti, Difference and similarities between Prakriti and Purusha, Study of components of Purusha and in context to numerical variations (Purushabheda), Role of Shatdhatupurusha in Kriya Sharir and Chikitsa
3. **Dosha** – General introduction of dosha, Classification of Dosha into 'Sharir dosha and Manasa dosha', 'Prakrit Dosha and Vaikrit Dosha, Criteria for 'Dosha', Doshagati, Criteria for differentiation of types of Dosha (Doshabheda).
  - a. Vata Dosha – Vyutpatti (derivation), Utpatti, Nirukti (etymology) of term 'Vata', General locations, general properties and general functions of Vata, Five types of Vata with their specific locations, specific properties and specific functions (Prana, Udana, Samana, Vyana, Apana)
  - b. Pitta Dosha – Vyutpatti, Utpatti, Nirukti of term 'Pitta', General locations, general properties and general functions of Pitta, Five types of Pitta with their specific locations, specific properties and specific functions (Pachaka, Ranjaka, Alochaka, Bhrajaka, Sadhaka); Similarities and differences between Agni and Pitta
  - c. Kapha Dosha- Vyutpatti, Utpatti, Nirukti of term 'Kapha', General locations, general properties and general functions of Kapha, Five types of Kapha with their specific locations, specific properties and specific functions (Bodhaka, Avalambaka, Kledaka, Tarpaka, Shleshaka)
  - d. Etiological factors responsible for Vriddhi-Kshaya of each Dosha and manifestations of Vriddhi-Kshaya of each Dosha.

- e. Kriyakaala of Dosha in view point of Charak, Sushrut and Vagbhata and its clinical importance.

**4. Prakriti**

- a. Deha-Prakriti – Vyutpatti, Utpatti, Nirukti, various definitions and synonyms for term 'Prakriti', intra-uterine factors responsible for genesis of Prakriti, extra-uterine factors influencing Deha-Prakriti, classification of Deha-Prakriti, characteristics of each kind of Deha-Prakriti, clinical significance of Deha-Prakriti, Anukatva
- b. Manasa-Prakriti – classification, characteristics and clinical significance.

**5. Modern Physiology**

- a. Basic principles of Biochemistry. Study of basic components of food. Biochemical structure, properties, classification of proteins, fats and carbohydrates. Metabolism of proteins, fats and carbohydrates. Vitamins – sources, daily requirement, functions, manifestations of hypo and hyper-vitaminosis. Biochemical study of enzymes.
- b. Definition and mechanisms of maintenance of Homeostasis, Cell Physiology, Membrane Physiology, Resting membrane potential and action potential.
- c. Physiology of Respiratory system: Functional anatomy of respiratory system, Definition of ventilation, Mechanism of respiration, Exchange and transportation of gases, Neural and chemical control of respiration, Spirometry and lung function tests, Artificial respiration.
- d. Physiology of Cardio-Vascular system: Functional anatomy of cardiovascular system. Properties of cardiac muscles. 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, Regional circulations, Physiology of lymphatic circulation.
- e. Modern view of somato-types, biological personality and psychological traits of an individual.

**Part B**

**50 Marks**

**1. Sharir-Poshana**

- a. Ahara – definition and significance of ahara, classification of ahara-dravya, ahara-vidhi-vidhana, Ashta-ahara-vidhi-visheshayatana, ahara-parinamakara bhava
- b. Agni – Conceptual study of Agni, Vyutpatti, Nirukti, Synonyms of term 'Agni', classification of Agni, Location-properties and functions of Jatharagni, Bhutagni, and Dhatwagni. Role of Agni in Kriya Sharir and Chikitsa.

- c. Ahara-paka-prakriya – physiology of related organs (Maha-srotas), avasthapaka, nishthapaka, Maha-srotas-pachana kriya, sara-kitta vibhajana, saranushoshana and genesis of Vatadi Dosh during ahara-pachana
- d. Definition of term 'Koshta', criteria of classification of Koshta and characteristics of each kind of Koshta

## 2. Modern physiology

Functional anatomy of gastro-intestinal tract. Descriptive physiology of digestion and absorption in gastro-intestinal tract. Mechanism of secretion and composition of different digestive juices.

## Paper II

100 Marks

### Part A

50 Marks

#### 1. Dhatu

General introduction, definition and criteria of Dhatu, Utpatti (during garbhavastha and janmottara kaala), Vyutpatti, Nirukti of term 'Dhatu'; different theories related to Dhatuposhana, (dhatuposhana nyaya)

- i) Rasa Dhatu Vyutpatti, Nirukti, Sthana, Guna, Karma, Pramana of Rasa Dhatu. Physiology of Rasavaha Srotas, Formation of Rasa Dhatu from Ahara Rasa. Circulation of Rasa (Rasa-Samvahana), Description of Ashtavidha Sara (8 types of Sara). Characteristics of Twakasara Purusha. Conceptual study of mutual interdependence (ashraya-ashrayi bhava) between Rasa and Kapha. Manifestations of Kshaya and Vriddhi of Rasa.
- ii) Raktadhatu Vyutpatti, Nirukti, synonyms, Sthana, Guna, Karma and Pramana 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 between Rakta and Pitta.
- iii) Mamsadhatu Vyutpatti, Nirukti, synonyms, Sthana, Guna, Karma and Pramana of Mamsa Dhatu, Physiology of Mamsavaha Srotas, Formation of Mamsadhatu, characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsadhatu.
- iv) Medo Dhatu Vyutpatti, Nirukti, Sthana, Guna, Karma and Pramana of Medodhatu, physiology of Medovaha Srotas, formation of Medo dhatu, characteristics of Medosara Purusha and manifestation of Kshaya and Vriddhi of Meda.
- v) Asthi Dhatu Vyutpatti, Nirukti, synonyms, Sthana, Guna, Karma of Asthi Dhatu; 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.

- vi) Majja Dhatu Vyutpatti, Nirukti, types, Sthana, Guna, Karma and Pramana of Majja Dhatu, physiology of Majjavaha Srotas, formation of Majja dhatu, characteristics of Majja Sara Purusha, Rakta-Pitta-Majja relation, manifestations of Kshaya and Vriddhi of Majja dhatu.
- vii) Shukra Dhatu Vyutpatti, Nirukti, Sthana, Guna, Karma and Pramana of Shukra Dhatu, physiology of Shukravaha srotas and formation of Shukra dhatu; features of Shuddha and Dushita Shukra, characteristics of Shukrasara Purusha, manifestations of Kshaya and Vriddhi of Shukra dhatu.

## 2. Ojas

Vyutpatti, Nirukti, synonyms, definition, Utpatti Sthana, Guna, Karma and Pramana of Ojas, classification of Oja (Ojobheda), conceptual study of Vyadhikshamatva; Bala Vrudhikara Bhava, Balabheda, Relation between Shleshma, Bala and Ojas; Etiological factors and manifestations of Oja kshaya, Visramsa and Vyapat; physiological and clinical significance of Ojo Vayasthapana.

## 3. Upadhatu

- a. General introduction, Vyutpatti and Nirukti of the term 'Upadhatu'. Utpatti, Poshan, Sankhya, Praman, Guna, Sthana and Karma of Upadhatu.
- b. Stanya –Nirukti, definition, utpatti guna karma, praman of Stanya; characteristics and assessment of shuddha and dushita Stanya, manifestations of Vriddhi and kshaya of Stanya
- c. Artava –Nirukti, definition, Utpatti, Guna Karma of Artava, characteristics of shuddha and dushita Artava, difference between Raja and Artava, physiology of Artavavaha srotas and Artavachakra
- d. Tvak – Utpatti, Nirukti, Guna, Pramana, Karma and Bheda. Layer wise diseases of Tvak.

## 4. Modern physiology

- a. Haemopoetic system – composition, functions of blood and blood cells, Haemopoiesis- (stages and development of RBCs, WBCs and platelets); Introduction to bone marrow: composition and functions of bone marrow, Structure and functions of haemoglobin, mechanism of blood clotting, anticoagulants, study of platelets, physiological basis of blood groups, principles of blood transfusion, plasma proteins- synthesis and functions. Applied physiology: anaemia, jaundice, Basics of Immunity – Classification and Mechanisms, Hypersensitivity, Physiological basis of immunization.
- b. Muscle physiology – comparative study of physiology of skeletal muscles, cardiac muscles and smooth muscles. Physiology of muscle contraction.
- c. Physiology of adipose tissue, lipo proteins like VLDL, LDL and HDL etc.
- d. Calcium metabolism: hormonal control of calcium metabolism. Functions of vitamin D, parathormone and calcitonin. Bone and teeth.
- e. Structure and functions of skin, sweat glands and sebaceous glands.
- f. Physiological study of male and female reproductive systems. Spermatogenesis and oogenesis. Hormonal regulation of menstrual cycle. Physiology of pregnancy and lactation.

**Part B****50 Marks**

1. **Mala** - Vyutpatti, Nirukti of term 'Mala'; General introduction of Mala, Utpatti (during Garbhavastha and Janmottara Kaala),
2. **Aharamala** – Enumeration and formation of Aharamala.
  - a. Mutra –Vyutpatti, Nirukti, Pramana, Sthana, Guna, Karma, and physiology of Mutravaha srotas; formation of Mutra, manifestations of Vriddhi and Kshaya of Mutra
  - b. Purisha –Vyutpatti, Nirukti, Pramana, Sthana, Guna, Karma, and physiology of Purishavaha Srotas; formation of Purisha, manifestations of Vriddhi and Kshaya of Purisha.
3. **Sweda** –Vyutpatti, Nirukti, Pramana, Sthana, Guna, Karma, and physiology of Swedavaha Srotas; formation of Sweda, manifestations of Vriddhi and Kshaya of Sweda.
4. **Dhatu mala** – Utpatti, Nirukti, Sthana, Guna Karma, Samkhya, Pramana of each Dhatu Mala; etiological factors and clinical manifestations of each Dhatu Mala.
5. **Panchagyanendriya** – Physiological study of Panchagyanendriya, and physiology of Shabda, Sparsha, Roopa, Rasa, Gandha. Process of Dnyana-grahana; Indriya-Pancha-Panchaka; Physiological study of Karmendriya.
6. **Manas** – Utpatti, Vyutpatti, Nirukti, Synonyms, Swarooma, Sthana, Guna, Vishaya, Karma of Manas and physiology of Manovaha srotas; physiological and clinical significance of Manas.
7. **Atma** –Nirukti, Definition, Sthana, Guna, Karma and difference between Paramatma and Jeevatma; Characteristics of existence of Atma.
8. **Buddhi** – Sthana, Prakara, Karma of Buddhi; Physiology of Dhee, Dhriti and Smriti.
9. **Nidra** – Nidrotpatti, Nidrabheda, physiological and clinical significance of Nidra; Swapnotpatti and Swapnabheda.

## 10. Modern physiology

- a. General introduction to nervous system – neurons, mechanism of propagation of nerve impulse, physiological study of CNS, PNS, ANS; physiological study of sensory and motor functions of nervous system. Functions of different parts of brain - Cerebral Cortex, Hypothalamus, Limbic system, Midbrain, Pons, Medulla and Cerebellum. Physiology of special senses, Intelligence, Memory, Learning and Motivation, Physiology of sleep and dreams, Physiology of speech and articulation; EEG, Physiology of temperature regulation.
- b. Endocrine glands – General introduction to endocrine system, classification and characteristics of hormones, physiological study of all endocrine glands and their hormones.
- c. Urinary tract physiology – Functional anatomy of urinary tract, Functions of kidneys. Mechanism of formation of urine, Control of micturition, Renal function tests.

## PRACTICAL

### Content of Practical

#### A) Ayurvedic Practicals

1. Assessment of Dosha (Vridhhi Kshaya Lakshana)
2. Assessment of Dhatu –
  - a. Sharir Bala
  - b. Manasa Bala
3. Assessment of Mala –
  - a. Examination of Mala by Shabda, Sparsha, Roopa Rasa and Gandha
  - b. Mutra (Taila Bindu pariksha)
  - c. Purisha (Jale Nimajjati pariksha)
4. Assessment of Vaya
5. Anguli Pariksha
6. Assessment of Ayu in Charak-Samhita
7. Assessment of Agni
8. Assessment of Koshta
9. Assessment of Prakriti
10. Assessment of Sara
11. Satmya Pariksha
12. Nadi pariksha
13. Stanya pariksha



## B) Modern practicals

1. Use and care of compound microscope
2. Types, uses and care of balances
3. Collection of blood sample – prick, venepuncture method and bulbs, apparatus for collection
4. Preparation of blood film and staining
5. Estimation of Hemoglobin
6. Microscopic examination of blood
  - a. RBC count
  - b. WBC count
  - c. Differential leucocyte count
7. Packed cell volume (PCV) demonstration
8. ESR demonstration
9. Bleeding time
10. Clotting time
11. Blood grouping and Rh typing
12. Examination of Cardio-Vascular system
  - a. Pulse examination
  - b. Arterial blood pressure measurement
  - c. Examination of heart sounds
  - d. ECG demonstration
13. Examination of Respiratory system
  - a. Respiratory rate
  - b. Vital capacity of Lungs
  - c. Spirometry
14. Examination of CNS – Reflexes
15. Urine examination – Collection of urine, physical examination, chemical examination and microscopic examination.  
Test for normal constituents of urine  
Following chemical examinations for abnormal constituents :
  - a. Albumin test
  - b. Sugar test
  - c. Acetone bodies
  - d. Bile salts and bile pigments
  - e. Occult blood
16. Stool examination – Collection of stool, physical examination, chemical examination and microscopic examination
17. Semen Analysis
18. Measurement of body temperature
19. Study of instruments related to physiology practicals.

### Distribution of Marks

1. Record Book / Practical Book	10 Marks
2. Experiment	30 Marks
3. Spotting	20 Marks
4. Viva - voce	40 Marks
<b>Total</b>	<b>100 Marks</b>

### Reference Books

1. Ayurveda Kriya Sharir Vd. Ranjeet Roy
2. Abhinava Sharir Kriya Vigyana Acharya Priyavrata Sharma
3. Dosha Dhatu Mala Vigyana Shankar Gangadhar Vaidya
4. Prakrita Dosha Vigyana Acharya Niranjana Dev
5. Tridosha Vigyana Shri Upendranath Das
6. Sharira Tatva Darshana Hirlekar Shastri
7. Prakrita Agni Vigyana Niranjana Dev
8. Deha Dhatvagni Vigyana Vd. Pt. Haridutt Shastri
9. Sharir Kriya Vigyana (Part 1-2) Acharya Purnchandra Jain
10. Sharir Kriya Vigyana Shri Moreshwar Dutt. Vd.
11. Dosha Dhatu Mala Vigyana Basant Kumar Shrimal
12. Abhinava Sharir Kriya Vigyana Dr. Shiv Kumar Gaur
13. Pragyogik Kriya Sharir Acharya P.C. Jain
14. Physiology Gyton
15. Kaya Chikitsa Parichaya Dr. C. Dwarkanath
16. Concept of Agni Vd. Bhagwan Das
17. Physiology Chatterjee
18. Purush Vichaya Acharya V.J. Thakar
19. Kriya Sharir Prof. Yogesh Chandra Mishra
20. Sharir Kriya Vigyana Prof. Jayaram Yadav & Dr. Sunil Verma.
21. Useful parts of Charak, Sushrut, Vagbhata.

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## 2.1. CHARAK SAMHITA

(Purvardha: Sutra - Nidana - Vimana - Sharir - Indriya Sthana)

Theory- One Paper– 100 Marks

Practical/ Viva voce – 50 Marks

Lectures - 100

### Charaka Purvardha Distribution of theory marks according to Sthana

1.	Sutra Sthana	40 Marks
2.	Nidana Sthana	15 Marks
3.	Vimana Sthana	20 Marks
4.	Sharir Sthana	15 Marks
5.	Indriya Sthana	10 Marks

### PRACTICAL

#### Parameter for Internal assessment

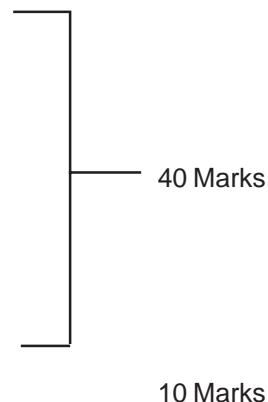
Memorizing and describing two shloka weekly, discipline, oral and written presentation and other activities.

#### Other activities include the following :

1. Memorizing two shloka weekly, (Monthly Ten shloka in professional year of 1 year and 6 months. A log book of memorized shloka, corrected and signed by the class teacher is to be submitted at the time of examination.  
(The shloka should be memorized as discussed above in span of one year and six months)
2. Passage writing
3. Speech related to Charak

#### Distribution of Marks

1. Table (Chart) preparation / Compilation
2. Presentation of any 10 Shlokas out of total memorized Shlokas (Written & Oral)
3. Analysis of Srotas, Discussion about Dhatu and their vriddhi and kshaya (Phenomenon of their increase and decrease). Ten proforma/ case sheets should be filled from IPD/OPD.
4. Assessment of Arishta. (Five proforma/case sheets should be filled from IPD/OPD.)
5. Viva Voce
6. Internal Assessment



**Total**

**50 Marks**

## REFERENCE BOOKS

1. Charak Samhita -Chakrapani Tika (Sanskrit Commentary)
2. Charak Samhita (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. Charak Samhita (English Commentary): Dr. Ram Karan Sharma & Vd. Bhagwan Dash  
or Acharya Priyavrata Sharma.

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## 2.2 SWASTHAVRITTA

Theory- Two Papers– 100 Marks Each

Practical/ Viva voce – 100 Marks

Lectures - 180

Practicals and Demonstration 50 Hrs

Paper I

100 Marks

Part A

50 Marks

### Vaiyuktika Swasthavrittam (Personal Hygiene)

#### 1. Introduction

- i. Definition of Swastha & Swasthya
- ii. Arogyalingani (Signs of Health)
- iii. Definition of Swasthavritta
- iv. Swasthavritta prayojanam Mahatvam (Objectives & Importance of Swasthavritta)
- v. WHO Definition of Health
- vi. Dimensions of health
  - a) Physical
  - b) Mental
  - c) Social
- vii. Concept of well being
  - a) Objective
  - b) Subjective
  - c) Standard of living
  - d) Quality of life

#### 2. Dinacharya

- i. Definition of Dinacharya
- ii. Aims and importance of dinacharya.
- iii. Brahma Muhurta evum Utthishta
- iv. Ushna Jalapana
- v. Sarirachinta
- vi. Malatyaga
- vii. Mukha prakshalana
- viii. Dantadhavana
- ix. Preparation of Ayurvedic powder and paste
- x. Jihvanirlekhana vidhi (Tongue cleaning)
- xi. Anjana
- xii. Pratimarsa Nasya
- xiii. Gandusha
- xiv. Kavaladharana
- xv. Dhoomapana
- xvi. Abhyangam
- xvii. Udvartanam
- xviii. Utsadana
- xix. Vyayama
- xx. Chankramana - Benefits of Walking, Jogging, Swimming, Gymnastics, Sports and games alongwith its application in health and disease
- xxi. Snanam
- xxii. Anulepanam
- xxiii. Vastradharanam
- xiv. Tambulasevanam

#### 3. Ratricharya

- i. Sandhyacharya
- ii. Ratribhojana vidhi
- iii. Shayanavidhi

#### 4. Ritucharya

- |  |                                    |
|--|------------------------------------|
| i. Importance of Ritucharya  | vi. Relation of Agni bala and ritu |
| ii. Ritu as per different acharyas                                   | vii. Ahara-Vihara, Pathya- Apathya |
| iii. Adana kaal & Visarga Kaal                                       | viii. a) Ritusandhi                |
| iv. Sanchaya, Prakopa- Prashamana of Dosha and their Utpatti in Ritu | b) Yamadamshtra different ritu     |
| v. Doshashodhana in samanya ritu                                     | c) Rituharitaki                    |
|  | d) Rituviparyaya                   |

#### 5. Sadvritta

- i. Description of Sadvritta and Achara Rasayana - their role in Prevention of psycho-somatic disorders
- ii. Social aspect of Psychology according to Ayurveda
- iii. Concept of Mental Health according to Ayurveda and Modern medicine

#### 6. Trayopastambha (Three pillars of health)

- i) Ahara Nirukti, Swarupa, Pramukhatvam, Ahara dravya Vargikaranam, Aharavidhi Vidhana, Dwadasha Ashanapravicharana, Ashtaharvidhi viseshayatanani, Aharaparinamakara bhava, Pathyahara, Apathyahara, Samasana, Adhyasana, Vishamasana, Bhojanapachana avadhi, Aharadushparinama, tajjanya vyadhaya, Santarpanajanya vyadhi, Apararpanjanya vyadhi, Viruddhahara and its effects, Proximate principles of Food, Nutritional requirements , Balance diet for (a) Workers –Sedentary /Moderate / Hard (b) Pregnant and lactating women (c) Children (d) Infants, Sources and deficiency diseases of Protein, Carbohydrate, Fat , Minerals and Vitamins, Shadrasabhojanasya mahatwam, Dietetic standards, National Nutritional programmes, Social aspects of nutrition, Food groups -Dhanya varga (Cereals and millets), Saka and Harita varga (Leafy and Non leafy vegetables), Kanda varga (roots and tubers), Phala varga (Fruits), Taila varga (Fats &Oils), Ikshu varga (Jaggery, sugar, honey ), Jala varga & Madhya varga (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 Vegetable hygiene, Sanitation of eating places, Preservation of food, Food handlers, Food borne diseases, Balanced diet, Food fortification, Food toxicants, Properties of Vegetarian and Non-vegetarian diet, Effects of Spices and condiments, Consumption of Alcohol and its effects and Ayurvedic diet in life style disorders-Diabetes, Hypertension, Obesity and Coronary heart Disease.
- ii). Nidra - Nirukti and Utpatti, Types of Nidra (sleep), Yogya nidra vidhi, Nidra – Swasthya sambandha, Duration of sleep according to age, Sleep in healthy and diseased persons, Properties of Yukta Nidra, Effects of Ratri Jagarana, Diwaswapna, Anidra, Atinidra , Ahara and Vihara causing disturbed sleep, Ahara and Vihara causing sound sleep
- iii) Brahmacharya - Brahmacharya vyakhya and Abrahmacharya vyakhya, Importance of

Brahmacharya and Abrahmacharya, Vyavaya sambandhi niyama, Effects of Ativyavaya, Veeryotpatti, Methods of Virya Raksha, Suretaspraha (Libido) through Vajikarana, Viryanasa phala and Menstrual Hygiene

7. **Roganutpadaniya** -Concept of vega- Adharaniya Vega and Dharaneeya Vega, Diseases due to vegadharana and their chikitsa, Upavasa, Rasayana for Swastha, Prajnaparadham, Sharir rakshanatmaka karyani and Sharir ahithakara karyani, Sharir Sodhanam

**Part B**

**50 Marks**

**Sarvajanika- Samajika Swasthavrittam (Public Health)**

**1. Janapadodhwamsa**

- i. Causes
- ii. Manifestations and control measures
- iii. Importance of Panchakarma and Rasayana
- iv. Vyadhikshamatva and the role of Rasayana

**2. Vayu (Air)**

- i. Vayu guna, Vayu swasthya sambandha
- ii. Composition
- iii. Air of occupied room
- iv. Discomfort and comfortable zone (Disinfection of air)
- v. Air movement
- vi. Air pollution – health and social aspects
- vii. Prevention and control of air pollution
- viii. Ventilation and its types
- ix. Vayu shuddhi prakara
- x. Mountain air & High altitude – Health problems.

**3. Jala (Water)**

- i. Jala mahatva – biological importance of water
- ii. Safe and wholesome water
- iii. Requirement and uses
- iv. Properties of water
- v. Types of water
- vi. Water sources
- vii. Water pollution
- viii. Water related diseases
- ix. Purification of Water (Jalasuddhi upayas)
- x. Hardness of Water
- xi. Water examination.
- xii. Shad jala dosha
- xiii. Water problems in India
- xiv. Rain Water Harvesting and water recycling

**4. Bhumi (Land & Housing)**

- i. Types of soil
- ii. Soil & Health
- iii. Bhumi shodhana
- iv. Nivasayogya bhumi
- v. Social goals of housing
- vi. Housing standards
- vii. Rural housing
- viii. Housing and health
- ix. Over crowding
- x. Pasu sala (Cattle shed)

**5. Prakasha (Lighting)**

- i. Requirements of good lighting
- ii. Natural Lighting
- iii. Artificial Lighting
- iv. Biological effects of lighting

**6. Dhvani pradushana (Noise) – Sources, Effects & control**

**7. Vikirana (radiation)- Sources, Effects & control**

**8. Apadravya nirmulana (Disposal of solid waste)**

- i. Different types of solid waste
- ii. Storage and collection of refuse
- iii. Methods of disposal of solid waste (Rural & Urban)
- iv. Bio- Medical waste management

**9. Malanishkasana vyavastha (Excreta disposal)**

- i. Unsewered area
- ii. Sewered area
- iii. Latrines for camps, fairs and festivals.

**10. Disaster Management**

**11. Occupational Health**

- i. Occupational Hazards
- ii. Occupational Diseases
- iii. Prevention of Occupational Diseases
- iv. ESI Act and factories Act.
- v. Offensive trades – Effects on health and precaution measures

**12. School Health Services**

- i. Health Problems of School Children
- ii. Aspects of School Health services
- iii. Duties of School Medical Officer
- iv. Maintenance of healthy environment.

**13. Epidemiology**

- i. Concept of Epidemiology transmission
- ii. Concept of disease
- iii. Concept of causation
- iv. Epidemiological triad
- v. Natural history of disease
- vii. Risk factors
- viii. Concept of prevention
- ix. Modes of intervention
- x. Incidence and prevalence
- xi. Dynamics of Disease
- xii. Mode of transmission
- xiii. Susceptible host
- xiv. Host defences
- xv. Immunizing Agents
- xvi. Disease prevention and control
- xvii. Disinfection
- xviii. Epidemiology of Communicable Diseases

a) Measles

b) Diphtheria

c) Pertusis



- |                  |                    |                                      |
|------------------|--------------------|--------------------------------------|
| d) Mumps         | e) Tuberculosis    | f) SARS                              |
| g) Influenza     | h) Pneumonia       | i) Cholera                           |
| j) Polio         | k) Viral Hepatitis | l) Typhoid                           |
| m) Leptospirosis | n) Dengue fever    | o) Chikungunya                       |
| p) Malaria       | q) Filariasis      | r) Leprosy                           |
| s) Rabies        | t) Tetanus         | u) Emerging and re-emerging diseases |

xix. Kuprasangaja vyadhi (STDs)

- |               |              |
|---------------|--------------|
| a) AIDS       | b) Syphilis  |
| c) Gonorrhoea | d) Chancroid |

xx. Ayurvedic paribhasha of sankramika roga

xxi. Non - Communicable disease epidemiology

- |                           |                            |                 |
|---------------------------|----------------------------|-----------------|
| a) Diabetes               | b) Obesity                 | c) Hypertension |
| d) Coronary Heart Disease | e) Rheumatic Heart disease | f) Cancer       |

**14. Disposal of Dead body**

- |            |           |                       |
|------------|-----------|-----------------------|
| a) Burning | b) Burial | c) Electric cremation |
|------------|-----------|-----------------------|

**15. Chikitsalaya Bhavana** (Hospital Building)

**16. Meteorology** (Ritu evum vatavarana Jnana)

**Yoga & Nisargopachara**

**Paper II**

**100 Marks**

**Part A**

**50 marks**

**Yoga**

**1. Etymology**

**2. Definitions**

**3. Development of Yoga (From ancient time to present time)**

**4. Different Streams of Yoga**

- i) Jnana Yoga ii) Bhakti Yoga iii) Raja Yoga iv) Hathayoga—features & objectives.

**5. Eight Branches of Yoga**

- i) Yama ii) Niyama

iii) Asana and its importance

- a) Suryanamaskara

- b) Standing postures
- i. Ardhakatichakrasana
  - ii. Padahasthasana
  - iii. Ardhashakrasana
  - iv. Trikonasana
- c) Sitting Postures-
- i. Padmasana
  - ii. Vajrasana
  - iii. Bhadrasana
  - iv. Sasankasana
  - v. Ushtrasana
  - vi. Paschimottanasana
  - vii. Suptavajrasana
  - viii. Gomukhasana
  - ix. Ardhamatsyendrasana
  - x. Sidhasana
- d) Supine postures-
- i. Pavanamuktasana
  - ii. Sarvangasana
  - iii. Matsyasana
  - iv. Halasana
  - v. Chakrasana
  - vi. Savasana
- e) Prone postures-
1. Bhujangasana
  2. Salabhasana
  3. Dhanurasana
  4. Makarasana
- f) Concept of Mitahara & Pathyahara
- v. Pranayama
- a) Benefits of Pranayama
  - b) Nadi shudhi pranayama
  - c) Time of practice -Avara-Pravara-  
Madhyama lakshanam
  - d) Pathyapathyahara during pranayama
  - e) Yuktayukta lakshana
  - f) Nadi Shudhi lakshanam
  - g) Kumbhakabheda :-
    - i) Suryabhedana
    - ii) Ujjayi
    - iii) Shitali
    - iiii) Sitkari
    - iv) Bhastrika
    - v) Bhramari
    - vi) Murcha
    - vii) Plavani
  - h) Shad chakra, ida, pingala and sushumna
  - i) Shadkarmani
  - j) Bandha and Mudras
- Pratyahara  
Dharana  
Dhyana  
Samadhi
- 6. Description of Yoga in Ayurveda**
- i. Manodosha chikitsa
  - ii. Sukha dukha nivrutti
  - iii. Yoga and moksha
  - iv. Mokshasyalakshana
  - v. Ashta Aiswarya
  - vi. Satyabudhhi
  - vii. Muktatma lakshana
- 7. Panchakosha theory**
- i) Annamayakosha
  - ii) Pranamayakosha
  - iii) Manomayakosha
  - iv) Vigyanamayakosha
  - v) Anandamayakosha
- 8. Integrated Approach of Yoga therapy**
- 9. Yoga package for LBA, Obesity, Asthma, Diabetes Mellitus.**
- 10. Effect of Yoga practice on physical and mental dosha.**

## Nisargopachara

### 1. Prakritika Chikitsa (Nature Cure)

- i. Definition & History
- ii. Aims and objectives
- iii. Relation of Ayurveda and naturopathy
- iv. Schools of Naturopathy – Western School
- v. Schools of Naturopathy – Indian School (Pancha bhutopasana)
- vi. Importance in present era

### 2. Jala Chikitsa

- i. Hot water treatment
- ii. Cold water treatment
- iii. Foot bath
- iv. Hand bath
- v. Spinal bath
- vi. Hip bath
- vii. Abdomen wet pack
- viii. Steam bath
- ix. Enema
- x. Whirlpool bath

### 3. Mrittika Chikitsa (Mud Therapy)

- i. Types of soil or mud
- ii. Doctrine of mud selection
- iii. Mud bath

### 4. Surya Kirana sevana (Sun bath-Haelio therapy & Chromotherapy)

### 5. Mardana (Massage) - Different methods of Mardana

### 6. Diet - Types

- i) Soothing
- ii) Eliminative
- iii) Constructive diets.
- iv) Positive
- v) Negative

### 7. Upvasa Chikitsa (Fasting)

- i. Importance
- ii. Types
- iii. Therapeutic effect

## Part B

50 Marks

### Community Health Care

### 1. Prathamika Swasthya Samrakshana ( Primary Health Care)

- i. Definition
- ii. Principle
- iii. Elements

- iv. Structure – at Village level, Sub centre level, PHC level, CHC level, Hospitals, Health Insurance, Private agencies, AYUSH, Voluntary health agencies in India and N.G.Os.
  - v. Role of Ayurveda in Primary Health Care in India
- 2. Parivara Kalyana Karyakrama (Family Welfare Programmes)**
- i. Demography
  - ii. Demographic Cycle
  - iii. Life Expectancy
  - iv. Family Planning
  - v. Methods of Family Planning.
- 3. Rasthriya Karyakrama (National Programmes)**
- i. Tuberculosis (RNTCP)
  - ii. Leprosy (NLEP)
  - iii. AIDS (NACP)
  - iv. Blindness (NPCB)
  - v. Polio (PPI)
  - vi. Diabetes (NDCP)
  - vii. Cancer (NCCP)
  - viii. National Rural Health Mission (NRHM)
  - ix. National Anti Malaria Programme
  - x. National Filariasis Control Programme
  - xi. UIP (Universal Immunisation Programme)
  - xii. RCH (Reproductive and Child Health programme)
  - xiii. National water supply and sanitation programme
  - xiv. Minimum needs programme
  - xv. All emerging National Health Programmes.
- 4. Matru- Shishu Kalyana Karyakrama (Mother and Child Welfare Programme)**
- i. Ante natal care
  - ii. Post natal care
  - iii. Neo natal care
  - iv. Child health problems
  - v. Indicators of MCH care
- 5. Preventive Geriatrics.**
- 6. International Health**
- i. Vishwa Swasthya Sangathana (World Health Organization)
  - ii. Objectives, Structure and function of WHO
  - iii. Alma- Ata declaration

- iv. National Health Policy and Importance of Ayurveda in it.
- v. United Nations agencies.
- vi. Health work of bilateral agencies

**7. Swasthya Prashasana (Health Systems in India)**

- i. Central level
- ii. State level
- iii. District level
- iv. AYUSH

**8. Health statistics**

- i. Definition of statistics/health statistics/vital statistics
- ii. Sources and uses of health statistics.
- iii. Data Collection, classification and Presentation
- iv. Mean
- v. Median
- vi. Mode
- vii. Health survey
- viii. Mortality rates, Morbidity rates and Fertility rates

**PRACTICAL**

**Content of Practical**

1. Vyaktigata swasthya-
  - i) Pratimarsa Nasya                      iv) Kavala
  - ii) Anjana                                      v) Gandusha
  - iii) Dhumapana                              vi) Udvartanam                      vii) Abhyangam
2. Aharadravya parichaya
3. Immunizing agents
4. Disinfectants
5. Family Planning appliances
6. Yogic kriya
  - i) Vamana Dhauti                      ii) Jala Neti                      iii) Sutraneti                      iv) Kapalabhati
7. Yogasana- Demonstration of 24 Asana explained in syllabus.
8. Pranayama & Meditation
  - i) Nadisuddhi                      ii) Ujjayi                      iii) Suryabhedana                      iv) Sitali
  - v) Sitkari                      vi) Bhastrika                      vii) Bhramari

9. Naturopathy Practical  
 i) Baths                      ii) Mud therapy      iii) Sunbath              iv) Fasting
10. Observe the functioning of  
 i) Water purification plant                      iv) Leprosy sanitorium  
 ii) Sewage treatment plant                      v) Industrial unit  
 iii) Pasteurization unit
- Lecture – Cum – Demonstration at  
 i) Rural Ayurvedic Dispensary                      ii) Primary Health Centre  
 iii) Maternity and Child Hospital
11. Health survey
12. There should be 5 case sheets of Pathyapathya, Yoga and Naturopathy together for Swastha persons and 5 case sheets of Communicable diseases.

#### **Distribution of Marks**

1. Personal Hygiene	20 Marks
2. Public and social health	20 Marks
3. Demonstration of Yoga	10 Marks
4. Naturopathy	10 Marks
5. Daily work	10 Marks
6. Viva – Voce	30 Marks
<b>Total</b>	<b>100 Marks</b>

#### **Reference Book**

Relevant portions of Charak, Sushrut, Vagbhata, Sharangadhara, Bhavaprakasha, Madhava Nidana, Yogaratnakara & Bhela Samhita.

Swasthviritta Samucchya	Pt. Rajeshwardutt Shastri
Swasthya Vigyan	Dr. Bhaskar Govind Ghanekar
Swasthya Vigyan	Dr. Mukund Swaroop Verma
Ayurvediya Hitopdesa	Vd. Ranjeet Rai Desai
Yoga and Ayurveda	Dr. Ramkumar Jain
Swasthviritta Vigyan	Dr. Ram Harsh Singh
Swasthvirittam	Dr. Brahmanand Tripathi
Ayurvediya Swasthviritta	Jahulkar
Hathayoga Pradipika	Swatmaram Yogendra

Yogic Yoga Paddhati	Bhartiya Prakratika Chikitsa Parishad
Yogic Chikitsa	Shri Kedar Nath Gupta
Prakritik Chikitsa Vidhi	Sharda Prasad
Prakritik Chikitsa Vigyan	Verma
Jansanakhya Shiksha Siddhant	Dr. Nirmal Sahani Updeysa
Health Administration in India	S.C. Seel
Swasthavrittam	Dr. Shiv Kumar Gaur
Health and Family Welfare	T.L. Devraj
Sachitra Yogasan Darshika	Dr.- Indra Mohan Jha
Preventive & Social Medicine	J.K. Park
Yogadeepika	Shri Ayyangar
Swasthavritta	Vaidya Sakad
Positive Health	Dr. L.P. Gupta
Biogenic Secrets of Food in Ayurveda	Dr. L.P. Gupa
Yoga & Yogic Chikitsa	Ram Harsh Singh
Smritigranthon mein nihita	Dr. Smt. Nigam Sharma
Swasthaparaka Samagri	
The Foundations of Contemporary Yoga	R.H. Singh
Yoga Siddhant Evum Sadhana	Harikrishna Shastri Datar
Dr. Reddy's Comprehensive guide to Swathavrittha	Dr. P. Sudhakar Reddy
Comprehensive guide on Pathyathyam	Dr. Bhajandas Swami

g # f

## 2.3 DRAVYAGUNA VIGYAN

Theory Two Papers– 100 Marks Each

Practical/Viva voce – 200 Marks

Lectures - 180

Practicals and Demonstration – 90

Paper I 100 Marks

Part A 50 Marks

- 1. Dravyaguna Shastra :** Lakshana and fundamental principles of Dravyaguna Shastra, General Introduction of Sapta padartha – (Dravya, Rasa, Guna, Virya, Vipaka,- Prabhava and Karma.) Pancha padartha (Rasa, Guna, Virya, Vipaka,- Prabhava).
- 2. Dravya :** Lakshana of Dravya, Panchabhautikatwa, Aushadhatva, Dravya Pradhanye yuktyah (arguments for importance of dravya). Classification of Dravya, according to Chetan-achetan (living – Non Living), karya-karana, Utpatti (Origin), Yoni (Mode of Origin), Rasa, Virya, Vipaka, Prayoga (Use), Dosha karma (Action on Dosha), method of Dravya classification according to Brihatrayee and according to Taxonomy.
- 3. Guna :** Etymological derivation, definition and Classification of Guna. Detailed knowledge of Gurvadi and Paradi Guna.
- 4. Rasa :** Etymological Derivation, definition, Meaning of “Rasa” in various contexts. Six Rasa ( Madhura, Amla, Lavana, Katu, Tikta, and Kashaya), Panchabhautik origin of Rasa, Nirvrittivisheshakrama (manifestation in general and particular), Ritu prabhava (effect of season ), Rasanurasayo bheda (Difference between rasa and anurasa) Lakshana (characteristics),Guna and Karma of Six Rasa., Kopana and Shamana of Dosha and dushya by Six rasa, Rasaskandha, Effects of excess usage of Rasa. Perception of Rasa (Rasopalabधि), Presentational use of Rasa in diet and medicine (Rasa sevan kramah).
- 5. Vipaka :** Etymological derivation and definition, difference between Avasthapaka and Vipaka, Types of Vipaka, (Dvividha-Trividha,Panchavidha) Guna and karma of Vipaka, Grades of Vipaka (taratamya), Vipakopalabधि hetu (Knowledge/Understanding of Vipaka). Differences between Rasa and Vipaka.
- 6. Virya :** Etymological derivation, definition and Nature of Virya, Number of Virya. (Dvividha & Ashtavidha), Panchabhauthikatva, Virya karmani, (Effects of Virya) General principles in determination of virya along with exceptions, Arguments for importance of virya along with exceptions.



7. **Prabhava** : Etymology and definition, Effects of Prabhava, Samanyapratyarabdha, Vichitrapratyarabdha, Arguments for predominance of prabhava.
8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength (balabal nirupana).
9. **Karma** : Nirukti lakshana swaroota and bheda of karma (Etymological derivation, definition, nature and types of action). Karma according to ancient and modern views. Define with mode of action of the following karma with examples –

- |                       |                       |                         |
|-----------------------|-----------------------|-------------------------|
| 1. Deepana            | 2. Pachana            | 3. Samshodhana          |
| 4. Samshamana         | 5. Anulomana          | 6. Sransana             |
| 7. Bhedana            | 8. Rechana            | 9. Chhedana             |
| 10. Lekhana           | 11. Grahi             | 12. Sthambhana          |
| 13. Madakari          | 14. Pramathi          | 15. Abhishyandhi        |
| 16. Vyavayi           | 17. Vikashi           | 18. Rasayana            |
| 19. Vajeeekarana      | 20. Jeevaneeya        | 21. Balya               |
| 22. Brimhana          | 23. Langhana          | 24. Medhya              |
| 25. Keshya            | 26. Chakshushya       | 27. Varnya              |
| 28. Dantya            | 29. Hridya            | 30. Sanjnasthapana      |
| 31. Vedanasthapana    | 32. Prajasthapana     | 33. Shonithasthapana    |
| 34. Raktaprasadana    | 35. Shukrala          | 36. Shukrajanana        |
| 37. Sukrarechaka      | 38. Sukrasthambhaka   | 39. Shukrashodhana      |
| 40. Stanyajanana      | 41. Stanyashodhana    | 42. Mutravirechaniya    |
| 43. Mutravirajaniya   | 44. Purishavirajaniya | 45. Purishasangrahaniya |
| 46. Swedasangrahaka   | 47. Swedana           | 48. Swedopaga           |
| 49. Snehana           | 50. Snehopaga         | 51. Vamana              |
| 52. Vamanopaga        | 53. Virechana         | 54. Virechanopaga       |
| 55. Sirovirechanopaga | 56. Asthapanopaga     | 57. Anuvasanopaga       |
| 58. Hikkaniagrahana   | 59. Trishnanigrahana  | 60. Chhardinigrahana    |
| 61. Dahaprashamana    | 62. Shitaprashamana   | 63. Angamardaprashamana |
| 64. Jvarahara         | 65. Shramahara        | 66. Shothahara          |
| 67. Shwasahara        | 68. Kasahara          | 69. Shoolaprashamana    |
| 70. Truptighna        | 71. Kandughna         | 72. Kushtaghna          |
| 73. Krumighna         | 74. Arshoghna         | 75. Vishaghna           |
| 76. Sandhaniya        | 77. Vranaropana       | 78. Ashmaribhedhana     |

**Part B****50 Marks**

10. Description of the following classes (Gana) of Dravya depending upon their similarity, morphology, properties, action, class, and effects: -
- Audbhida Gana (Vegetable origin)  
Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola, Kankapanchamoola, 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, Knowledge of Agraushadha Varga with example.
  - Jangama Gana (Animal origin)- Ksheerashtaka, Mutrashtaka, Pitta panchaka.
  - Parthiva Gana (Mineral origin) - Lavana Panchaka, Kshara dvaya, Kshara Ashtaka.
11. Basis of nomenclature of dravya, Basis and Derivation of synonyms. Ecology- Classification of geographical area (desha) and soil (bhumi), collection of dravya, Nature and quality of drug to be collected (swarupa of sangrahya dravya), Method of collection (Sangrahana vidhi), -Vegetable and Animal drugs according to part used. Period of collection according to virya, preservation of collected dravyas, Storehouse (bhashajagara).
12. Various impurities of dravya, their purification, Brief knowledge of, adulterants, Artificial/ synthetic drugs, concept of Substitution (abhavapratidinidhi dravya).
13. Brief knowledge of plant extracts, additives, excipients, preservative, food Colours.
14. Ideal drug (Prashasta bhashaja), Use of different parts of medicinal plants (bhashaja prayoga, prayojyanga), Incompatibility (knowledge of viruddhatwa), principles of preparation of Aushadha yoga, Consideration of vaya, bala, linga, agni, dosha, dushya, vyadhi, koshta, deha prakriti, Abhyasa, satwa, desha kaal and kalpana for deciding dosage of drugs (Matranishchiti).  
Anupana vyavastha, time of administration (Bhashaja sevana kaal), routes of drug administration (Bhashaja prayoga marga) Prescription writing.
15. Brief information about 6 Nighantu (Dhanwantari Nighantu, Shodala Nighantu, Kaiyyadeva Nighantu, Madanapala Nighantu, Bhavaprakasha Nighantu, Raja Nighantu)

**Paper II****100 Marks****Part A****50 Marks**

**A.** 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, Sushrut and Bhavaprakasha i.e. Habit and habitat/varieties, External morphology, Useful parts, Important phytoconstituents, Rasa panchaka, Action on Dosha, Dhātu, Mala, Therapeutic indications, Amayikaprayoga and Matra (Therapeutic administration and Dose), Name of important formulations, Adverse effects, remedial measures and Shodhana (as required)

- |                       |                   |                    |
|-----------------------|-------------------|--------------------|
| 1. Ahiphena           | 2. Agnimantha     | 3. Agaru           |
| 4. Amalaki            | 5. Apamarga       | 6. Aragvadha       |
| 7. Ardraka-sunti      | 8. Arjuna         | 9. Arka            |
| 10. Ashvagandha       | 11. Ashvagola     | 12. Asoka          |
| 13. Ativisha          | 14. Bakuchi       | 15. Baladvayam.    |
| 16. Bharangi          | 17. Bhallataka    | 18. Bibhitaka      |
| 19. Bijaka/Vijayasara | 20. Bilva         | 21. Brahmi         |
| 22. Bhrungaraj        | 23. Bruhati       | 24. Chandanadvaya, |
| 25. Chitraka          | 26. Dadima        | 27. Danti          |
| 28. Daruharidra       | 29. Dhanyaka      | 30. Dhataki        |
| 31. Draksha           | 32. Durva         | 33. Ela            |
| 34. Eranda            | 35. Gambhari      | 36. Gokshura       |
| 37. Guduchi           | 38. Guggulu       | 39. Haridra        |
| 40. Haritaki          | 41. Hingu         | 42. Jambu          |
| 43. Jatamamsi         | 44. Jatiphala     | 45. Jeerakadvaya   |
| 46. Jyotishmati       | 47. Kalamegha     | 48. Kampillaka     |
| 49. Kanchanara        | 50. Kankari       | 51. Kapikacchu     |
| 52. Karkatakshringi   | 53. Karpura       | 54. Katuki         |
| 55. Khadira           | 56. Kiratatikta   | 57. Kumari         |
| 58. Kupilu            | 59. Kumkum kesara | 60. Kushmanda      |
| 61. Lavanga           | 62. Kutaja        | 63. Lodhra         |
| 64. Madanaphala       | 65. Manjishtha    | 66. Maricha        |

67. Markandika	68. Musali	69. Musta
70. Nagakeshara	71. Nimba	72. Nirgundi
73. Palasha	74. Palandu	75. Pashanabheda
76. Patala	77. Patola	78. Pippali-pippalimula
79. Punarnava	80. Rasna	81. Rasona
82. Saireyaka	83. Shallaki	84. Saptaparna
85. Sarpagandha	86. Sariva	87. Shalaparni
88. Shalmali	89. Shankhapushpi	90. Shatavari
91. Shathapushpa	92. Shigru	93. Shirisha
94. Shyonaka	95. Thalisa patra	96. Tila
97. Trivrut	98. Tulasi	99. Tvak
100. Ushira	101. Vacha	102. Varuna
103. Vasa	104. Vata	105. Vatsanabha
106. Vidari	107. Vidanga	108. Yastimadhu
109. Yavani	110. Devadaru	

**B.** Brief knowledge of following drugs with respect to Sanskrit Name, Botanical Name, Family, Habit (Samanya swarupa), Parts used, Rasapanchaka and Indications

1. Agastya	2. Akarakarabha	3. Ajamoda
4. Amra	5. Amragandhiharidra	6. Ankola
7. Aparajita	8. Ashvatha	9. Asthishrunkhala
10. Avartaki	11. Babbula	12. Badara
13. Bakula	14. Bhumyamalki	15. Bimbi
16. Bijapooru	17. Bola	18. Chandrashura
19. Changeri	20. Chavya	21. Chakramarda
22. Champaka	23. Chirbilva	24. Chopachini
25. Dattura	26. Darbha	27. Dhanvayasa
28. Dronapushpi	29. Gandhaprasarini	30. Garjara
31. Gojihva,	32. Gorakshaganja	33. Gunja
34. Hinstra	35. Hrutpatri	36. Indravaruni
37. Ingudi	38. Irimeda	39. Isvari
40. Japa	41. Jati	42. Jayapala
43. Jeevanti	44. Kadali,	45. Kadamba
46. Kaidarya	47. Kamala	48. Kankola
49. Kakamachi	50. Karanja	51. Karira
52. Karpasa	53. Karavira	54. Karavellaka

- |                   |                    |                      |
|-------------------|--------------------|----------------------|
| 55. Kasha         | 56. Kasni          | 57. Kataka           |
| 58. Katphala      | 59. Kharjura       | 60. Kitmari          |
| 61. Koshataki     | 62. Kokilaksha     | 63. Kumuda           |
| 64. Kusha         | 65. Lajjalu        | 66. Langali          |
| 67. Latakaranja   | 68. Latakasturi    | 69. Madayantika      |
| 70. Mahanimba     | 71. Mandukaparni   | 72. Mashaparni       |
| 73. Mayaphala     | 74. Methika        | 75. Meshashrunji     |
| 76. Mudgaparni    | 77. Mulaka         | 78. Nagabala         |
| 79. Nala          | 80. Narikela       | 81. Nili             |
| 82. Padmaka       | 83. Parushaka      | 84. Parasika yavani  |
| 85. Parijata      | 86. Parisha        | 87. Parnabija        |
| 88. Parnayavani   | 89. Parpatata      | 90. Patalagarudi     |
| 91. Patha         | 92. Patranga       | 93. Pilu             |
| 94. Plaksha       | 95. Priyala        | 96. Prishniparni     |
| 97. Priyangu      | 98. Puga           | 99. Putiha           |
| 100. Putranjivaka | 101. Pushkaramoola | 102. Rajika/Sarshapa |
| 103. Rohitaka     | 104. Shala         | 105. Saptachakra     |
| 106. Sarala       | 107. Sarja         | 108. Shatahwa        |
| 109. Shaliparni   | 110. Shati         | 111. Sharapunkha     |
| 112. Shinsapa     | 113. Snuhi         | 114. Sringataka      |
| 115. Surana       | 116. Svarnakshiri  | 117. Tagara          |
| 118. Tailaparni   | 119. Talmuli       | 120. Taruni          |
| 121. Tavakshira   | 122. Tuvarka       | 123. Upakunchika     |
| 124. Udumbara     | 125. Vamsha        | 126. Vata            |
| 127. Varahikanda  | 128. Vruddadaru    | 129. Vrukshamla      |

**Part B**

**50 Marks**

**C.** Introduction, Guna, Karma and uses of following jantava dravya (drugs of animal origin).

- |                |              |                       |
|----------------|--------------|-----------------------|
| 1. Kasturi     | 2. Gorochana | 3. Gandhamarjaravirya |
| 4. Mrigasringa | 5. Bhunaga   | 6. Mukta              |
| 7. Pravala     | 8. Shankha   | 9. Shukti             |
| 10. Shambuka   | 11. Varatika | 12. Indragopa         |

**D.** Introduction, knowledge of guna-karma of following groups of Annapana varga:-

- |                |                 |                |
|----------------|-----------------|----------------|
| 1. Jala Varga  | 2. Dugdha Varga | 3. Madhu Varga |
| 4. Ikshu Varga | 5. Taila Varga  | 6. Madya Varga |

- |                  |                                    |                      |
|------------------|------------------------------------|----------------------|
| 7. Mutra Varga   | 8. Sukadhanya Varga                | 9. Simbidhanya Varga |
| 10. Phala Varga  | 11. Shaka Varga                    | 12. Mamsa Varga      |
| 13. Lavana Varga | 14. Kritannavarga (Processed food) |                      |

- E.** Introduction, Definition & scope of Pharmacology and Principles of general Pharmacology. Brief Knowledge of 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, Antihistamins, 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 etc.
- F.** Brief knowledge about WHO's "Essential Drug List"
- G.** Brief knowledge of Cultivation, Conservation of Medicinal plants and information about endangered species.

## **PRACTICAL**

### **Content of Practical**

- Detailed knowledge of identification of following drugs: -
  - Kanda (stem) - Guduchi
  - Patra (leaves) - Swarnapatri, Vasa, Kumari
  - Pushpa (flower and Parts of flower)- Lavanga, Nagapuspa, Japa
  - Phala (fruit) - Pippali, Madanaphala, Vidanga
  - Beeja (seeds) – Eranda, Kapikacchu, Vidanga
  - Twak (bark) – Kutaja, Arjuna,
  - Moola (Root)- Punarnava, Aswagandha
  - Niryasa (exudate) - Hingu, Guggulu, Mocharasa
  - Jangama dravya (animal origin) - Madhu, Ghrita
- Collection of minimum 50 herbarium specimen from field visit.
- Compilation of a drug not less than 25 pages
- Concept based clinical study on single drugs (Minimum 5 from detailed and non-detailed list of drugs) in patients.

### Distribution of Marks

1. Compilation/Essay	10 Marks
2. Herbarium	10 Marks
3. Single drug therapy	10 Marks
4. Pharmacognosy record in Laboratory	10 Marks
5. Drug identification	80 Marks
6. Oral/(Viva-Voce)	80 Marks
<b>Total Mark</b>	<b>200 Marks</b>

### Reference Books

1. Abhinav Buti Darpan (Vol.1-2)	Vd. Roop Lal Vaishya
2. Aushadna Vigyana Shastra	Acharya Pt. Vishvanatha Dwivedi
3. Ayurvediya Aushadkarma vigyana	Acharya V.J. Thakur
4. Bedi Vanaspati Kosha	Prof. Ramesh Bedi
5. Bhaishajyaguna Vigyana	Dr. Alakhnarayan Singh
6. Bhav Prakash Nigantu (English)	Dr. K. R. Shreekanthamurthy
7. Bhav Prakash Nighantu	With Vd. Krishna Chandra Chunekar commentary
8. Bhrihad dravyagunadarshana	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 Vigyana	Dr. V.M. Gogate
17. Dravyaguna Vigyana (Vol. 1-5)	Acharya Priyavrata Sharma
18. Dravyaguna Shastram	Vaidya G.A. Phadake
19. Dravyaguna Vigyana	Dr. A.P. Deshpande
20. Dravyaguna Vigyana basic Principles	Prof.D.S.Lucas
21. Forgotten Healers (Indian Medicinal Plants)	Dr. Prakash Paranjape
22. Glossary of Vegetable Drugs in Brihatrayee	Thakur Balwant Singh & Vd. Krishna Chandra Chunekar

- |   |                                |
|---|--------------------------------|
| 23. Introduction to Dravyaguna                      | Acharya Priyavrata Sharma      |
| 24. Kriyatamaka 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. Uttarakand Ki Vanaspatiya                       | Dr. Gyanendra Pandey           |
| 37. Vanoaushadi Darshika                            | Thakur Balwant Singh           |
| 38. Vanoaushadi Nidarshika                          | Dr. Ram Sushil Singh           |
| 39. Vedic Vanaspatiyan                              | Dr. Dinesh Chandra Sharma      |
| 40. Dravyaguna Vigyana (Vol I-II)                   | Prof. D. S. Lucas.             |
| 41. Useful parts of Charak, Sushurut, and Vagbhata. |                                |

g # f



## 2.4 RASA SHASTRA AND BHAISHAJYA KALPANA

Theory Two Papers– 100 Marks Each

Practical/Viva voce – 100 Marks

Lectures - 180

Practicals and Demonstration – 90

Paper 1

100 Marks

### Rasa-Shastra

Part A

50 Marks

1. Definition and etymology of Rasa, History of Rasa Shastra, Rasa Shala, concept of Rasa Mandap, Importance of Rasaushadhi, Concept of Rasa-Rasayana, Concept of Rasa Darshan.
2. Brief Description and Application of Technical terminologies (Paribhasha prakarana) : Avapa, Nirvapa, Dhalana, Bhavana, Jarana, Murchana, Shodhana, Marana, Amrutikaran, Lohitikarana, Mruta Loha, Satwa Patana, Shuddhavarta, Beejavarta, Druti, Rudra bhaga and Dhanvantari bhaga, Apunarbhava, Niruttha, Rekhapurna, Varitara.
3. Dravya Varga : Amlavarga, Kshiratraya, Madhuratraya, Panchamrittika, Panchagavya, Panchamrita, Ksharashtaka, Dravakagana, Mitra panchaka, Rakta varga, Shweta varga, Lavanapanchaka.
4. Brief description of Yantras and their application Ulukhala Yantra, Khalwa Yantra, Kachchhapa Yantra, Urdhwa Patan, Addh Patan, Jarnarth Tula Yantra, Dola Yantra, Patana Yantra- Damaru Yantra, Vidhyadhara Yantra & Tiryak Patana Yantra, Patala Yantra, Palika Yantra, Puta Yantra, Valuka Yantra, Bhudhara Yantra, Sthali Yantra, Swedana Yantra, Electronic & Scientific weighing balance.
5. Brief description & application of Musha (Crucible) : Samanya Musha, Gostanimusha, Vajramusha, Mahamusha, Yoga musha, Vrintak Musha, Malla/ Pakwa musha. Different types of crucibles.

6. Brief description & applications of Koshti : Satwapatan Koshti, Chullika, Patala Kosthi, Gara Koshti, Angarakoshti and knowledge of various heating appliances viz. Gas stove, Hot plate and Heating mantle.
7. Definition and Types of Puta : Surya puta, Chandra puta, Govara puta, Lawakaputa, Kukkutaputa, Kapota puta, Varahaputa, Gajaputa, Mahaputa, Kumbhaputa, Balukaputa, Bhudharaputa, Laghu Puta, Baluka Puta.
8. Applications of Electric muffle furnace and fuel (diesel) dependent furnace.
9. Knowledge of Parada : Synonyms, Occurrence, natural and artificial sources of Parada, Hingulottha parada, Types of Rasa, Naisargika, Yougika, Aupadhika (Kanchuka) etc. Parada Dosh and characteristics of Grahya-Agrahya Parada. Samanya and Vishsha Shodhana of Parada. Parada astasamskara, Paradagati and Rasabandha.
10. Murchhana and Jarana of Parada, Preparation of Kajjali, Types of Rasaushadhi, Khalvi rasa e.g. Tribhuvana keerthi rasa, Sootshekhar rasa, Parpati kalpa, Rasa parpati, Tamra Parpati, Gagan Parpati, Kupipakva Rasa- Rasa karpura, Rasa sindhura, Sameerapannaga Rasa, Pottali kalpa - Hemagarbha pottali.

## Part B

**50 Marks**

Occurrence, Synonyms, Minerological identification, Natural and artificial sources, Types- Grahya and Agrahyata, shodhana, marana and other processing techniques. Properties, dose, therapeutic uses of commonly used single and compound formulations of dravya classified as under

1. **Maharasa** - Abhraka, Vaikrantha, Makshika, Vimala, Shilajatu, Sasyaka, Chapala and Rasaka.  
**Uparasa** - Gandhaka, Gairika, Kasisa, Kankshi, Haratala, Manahshila, Anjana and Kankustha  
**Sadharana Rasa** - Kampillaka, Gauri pashana, Navasadara, Mriddara shringa, Kaparda, Giri Sindura, Agnijara & Hingula.
2. **Dhatu**  
**Shuddha lauha**- Swarna (Gold), Rajata (Silver), Tamra (Copper), Loha (Iron) and Mandura  
**Putilauha** - Vanga (Tin), Naga (Lead), Yashada (Zinc).  
**Mishra lauha**- Kamsya (Bronze), Pittala (Brass) and Vartha Loha (Bell Metal).
3. **Ratna** - Manikyā (Ruby), Mukta (Pearl), Pravala (Coral), Tarkshya (Emerald), Pushaparaga (Topaz), Vajra (Diamond), Nilam (Sapphire), Gomeda (Zircon or Cinnamone stone), Vaidurya (Cats eye)

- Uparatna-** Vaikranta (Tourmaline), Suryakanta (Sun stone), Chandrakanta (Moon stone), Rajavarta (Lapis Lazuli), Parojaka (Turquoise), Sphatikamani, Trinakanta (Amber), and Palanka, Putika, Rudhir, Kamch (Glass).
4. **Sudha varga** – Sudha (Lime), Kaparda (Cowries), Sukti (Oyster Shell) , Shankh (Conch Shell), Badarashma (Silicate of Lime), Mriga shringa (Stag horn), Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fish bone), Kukkutand twak (Hen's Egg Shell).
  5. **Siktha varga-** Siktha (Silica), Dugdhapashana (Talc), Nagapashana/ Jaharmohara (Serpentine), Vyomashma, Sange Yeshab (Jade), Kousheyashm (Asbestos) and Akika (Agate).
  6. **Kshara varga** - Sarja kshara (Sodium bicarbonate), Yava kshara, Tankana kshara (Borax), Surya Kshara (Potassium Nitrate).
  7. **Miscellaneous** - Bola, Krishna Bola, Beeja Bola, Damool Akhawan (Khoon Kharabha Rakta Bandhini), Abresham, Gandhamarja Virya, Kasturi, Bhoonag, Mayurpiccha, Gandhabiroja, Shila rasa, Sarjarasa, Maducchishta.
  8. **Visha and Upavisha-** Introduction, collection and storage, classification, synonyms, shodhana, antidote, uses, therapeutic and toxic doses and formulations of following Visha and Upavisha- Vatsanabha, Kuchala, Jayapala, Dhattura Beej, Bhang, Bhallataka, Gunja, Arka, Snuhi. Langali, Karaveera Ahiphena and Chitrakmool.
  9. **Aushadhi Yoga Gyanam-** Arogya Vardhini Gutika, Karpura Rasa, Kasturi Bhairava Rasa, Kumara Kalyana Rasa, Garbhapala Rasa, Chandraprabha Gutika, Chandramrita Rasa, Pratapalankeshwara Rasa, Pravala Panchamrita Rasa, Anandbhairava Rasa, Yogendra Rasa, Rajmriganka, Ramabana Rasa, Laxmi Vilas Rasa, Vasanta Kusumakara, Vatakulantaka Rasa, Vasantamalati Rasa, Brihat Vata Chintamani Rasa, Shankha vati, Shwaskuthara Rasa, Hinguleswara Rasa, Hemagarbhapottali, Hridayarna Rasa , Swarnavanga, Makaradhwaja, Ayaskriti evum Loha Rasayana, Putapakwavaisham Jwarantaka Loha, Vatvidhvamsan Rasa, Kamadudha Rasa, Laghusutshekhar Rasa, Navayasa Loha, Saptamrita Loha.
  10. Brief knowledge of Standardization of Rasaushadhi.
  11. Concept of pharamcovigilance and its status in India, knowledge about Pharamcovigilance of Ayurvedic drugs.

**Practical Rasashastra**

**50 Marks**

**Minimum Fifty practicals to be performed**

1. **Rasa [ Parada]**
  - Hingulotta Parada (Nishkasan)
  - Shodhana of Parada
  - Kajjali preparation
  - Mugdha rasa
2. **Maharasa varga**
  - Shodhana of Abhraka
  - Dhanyabhraka nirmana
  - Shodhana of Makshika
  - Shodhana of Vimala
  - Shodhana of Shilajatu
  - Shodhana of Sasyaka./ Tuttha
3. **Uparasa varga**
  - Shodhana of Gandhaka
  - Shodhana of Gairika
  - Shodhana of Kasisa
  - Shodhana of Kankshi
  - Shodhana of Haratala
  - Rasa manikya nirman
  - Shodana of Manashila
4. **Sadharana rasa varga**
  - Shodhana of Hingula
  - Sodhana of Navasadar
  - Shodhana of Kapardika
5. **Sudha Varga**
  - Shodhana of Shankha
  - Shodhana of Shukti
  - Shodhana of Pravala mula
  - Shodhana of Godanti
6. **Dhatu varga**
  - Shodhana of Lauha
  - Shodhana of Mandura
  - Shodhana of Tamra
  - Shodhana of Naga
  - Shodhana of Vanga
  - Shodhana of Yashada

- |    |                     |   |
|----|---------------------|---|
| 7. | <b>Kshara Varga</b> | Shodhana of Tankana   |
| 8. | <b>Parpati</b>      | Preparation of Rasaparpati, Bola Parpati, Preparation of Swetaparpati                       |
| 9. | <b>Visha varga</b>  | Shodhana of Vatsanabha, Bhallataka, Kupilu, Dhattura beeja, Jayapala, Gunja, Chitrakamoola. |

#### **PRACTICAL FOR DEMONSTRATION**

- |    |                     |  |
|----|---------------------|--|
| 1. | <b>Bhasma</b>       | Abhraka bhasma<br>Swarna makshika bhasma<br>Tamra bhasma<br>Vanga bhasma,<br>Mandura bhasma<br>Kasisa bhasma<br>Shankha bhasma<br>Kapardika bhasma, Godanti Bhasma<br>Kukkutanda Twak Bhasma   |
| 2  | <b>Pishti</b>       | Pravala pishti<br>Jaharmohara / Akika pishti<br>Trina kantha mani pishti<br>Mukta pishti   |
| 3. | <b>Druti</b>        | Gandhaka druti   |
| 4. | <b>Formulations</b> | Rasasindura, Swarna Vanga.<br>Saptamrutha lauha<br>Navayas lauha<br>Chandanadi Louha<br>Sarvajwarhara Louha<br>Agnitundi vati<br>Tribhuvana Kirti Rasa<br>Punamava Mandura<br>Sootshekhara Rasa<br>Arogyavardhini vati<br>Laghusutashekhara Rasa<br>Laghmalini Vasanta Rasa<br>Sameer Pannaga Rasa |

## Bhaishajya Kalpana

Paper II

100 Marks

Part A

50 Marks

- 1. Derivation, History and Chronological (kramika vikasa) development of Bhaishjyakalpana.** Concept of Aushadha and Bhaishajya.
- 2. Fundamental principles of Bhaishajya Kalpana.**
- 3. Aushada nirmana shala** according to directions mentioned in Aushadha evum Prasadhana Adhinyama (Drug and Cosmetic act 1940 and Rules 1945).
- 4. Introduction and general knowledge of useful instruments-** Disintegrator, Pulveriser, Micropulveriser, Ball mill, End Runner, Edge Runner, Sieve-Shaker, Polishing pan, Granulator, Mixer, Grinder, Tablet making machine, Strip packing machine, Pouch packing machine, Pill making machine, Pill cutter.
- 5. Comparative study of "Mana"** (measurements) as per Ancient and Metric system of measurements, Rules of taking fresh and dry drugs, Grahyatva and Agrahyatva of plant material, Collection, storage and preservation methods of different Aushadhi dravyas, Examination methods, Preservation and Saviryata avadhi (potency period) of different Aushadhi kalpana, Concept of stability and shelf life in contemporary science.
- 6. Aushadha Matra, Anupana and Aushadh sevan kaala.**
- 7. Kashaya yoni- Pancha vidha kashaya kalpana :** Swarasa, Kalka, Kwatha, Hima, Phanta. Panch Kashaya Yonayah, Churna, Ushnodaka, Tandulodaka, Laksha rasa kalpana, Mantha, Aushadha siddha paniya, Arka, Panaka, Pramathya, Rasakriya, Phanita, Avaleha, Prasha, Ghana, Satva, Gudapaka, Sarkara, Ksheerapaka, Syrups. Vatika, Gutika, Chandrika, Vataka, Pinda, Modaka, Varti, Guggulu kalpana, Method of preparation of Tablets and Capsule. Masi kalpana, Lavana kalpana, Kshara kalpana and Kshara sutra.
- 8. Introduction, Definition, Preparation methods, doses and detailed description of uses and Anupana of following Yoga**  
Ardraka swarasa, Tulasi swarasa, Vasa putapaka swarasa, Nimba kalka, Rasona kalka, Punarnavasthaka kwatha, Rasna saptaka kwatha, Dhanyaka hima, Sarivadi hima, Panchakola phanta, Mustadi Pramathya, Kharjuradi mantha, Shadanga paniya, Ajamoda arka, Yavanyarka, Chinchapa panaka, Chandan panaka, Banapsha sharkara, Nimbu sarkara, Bhaskaralavan churna, Simhanad Guggulu, Yogaraj Guggulu, Lavangadivati, Lasunadi vati, Eladi vati, Sitopaladi Churna, Hingwashtaka Churna, Chitrakadi Gutika,, Sanjivani Vati, Triphala Guggulu, Kaishora Guggulu, Chyavanaprashavaleha, Vasavaleha, Vyaghri-Haritaki avaleha, Manibadra avaleha, Darvi Rasakriya, Guduchi Ghana, Kutaja Ghana vati, Haridra khanda, Narikela khanda, Soubhagya shunthi paka, Amruta satva, Ardraka satva, Phala varti, Chandrodaya varthi, Arka lavana, Narikela lavana, Triphala masi, Arjuna ksheerapaka, Rasona ksheerapaka.

## PART B

- 1. Sneha kalpana :** Sneha yoni, Types of sneha, sneha murchana vidhi, sneha paka vidhi, snehapaka prakara and their use. Snehapaka kaala, sneha siddhi lakshana, dose, use of ghrita and taila, Preparation and uses of Jatyadi Ghrita- Bramhighrita-Narayana taila - Panchaguna taila.
- 2. Sandhana Kalpana and its types :** Madya, Sukta - Asava - Arishta - Varuni - Sura (Prasanna - Kadambari - Medaka - Jagala - Bukkasa) Maireya - Surasava - Shukta – Kanjika, Tushodaka, Shidhu - Souvira kalpana their methods of preparation, properties, doses, uses and mode of administration, Siddha Sandhana Lakshana. Preparation, doses and mode of administration of Arjunarishta - Ashokarishta- Takrarishta - Dashamûlarishta, Draksharishta, Kutajarishta, Arvindasava, Kumaryasava, Chandanasava.
- 3. Pathya Kalpana :** Concept of Pathya Apathya, Manda, Peya, Vilepi, Yavagu, Anna, Bhakta, Odan, Yush, Kulattha Yusha, Krishara, Mansa rasa, Vesavar, Khad Yusha Kamblika, Raga, Shadav, Dadhi and Takra Varga – Takra, Udasvita, Katvar, Mathita, Chhachika.
- 4. Bahya Kalpana (Formulations used for External Applications)- Lepa** -Types of Lepas, its methods of preparation and mode of application. Udvartan and Avachurnan Method of preparation of Siktha Taila, Malahara – sarjaras Malahar, Gandhak Malahar, Upanaha, Atasi upanah, Shatadhouta and Sahastradhouta Ghrita.
- 5. Netrakalpa (Ophthalmic preparations)** – Seka, Drava, Anjana –Pindi, Ashchytana - Vidalaka - Tarpana - Putapaka etc.
- 6. Nasya Kalpana** - Classification of Nasya, Method of preparation, Properties and therapeutic uses of Navana, Avapidana, Dhmapana, Dhuma and Pratimarsha nasya.
- 7. Mukha kalpana** - Method of preparation, properties and therapeutic uses of Gandoosha - Kavala - Manjana (tooth powder), Pratisaran, Tooth paste.
- 8. Dhumapana kalpana**-Classification, Method of preparation, properties and therapeutic uses of Dhumapana, Dhupan- Vrana, Yoni, Arsha and Karna dhupan.
- 9. Basti kalpana**- Classification, Method of preparation of Basti yantra and Basti dravya, Types of Basti, Therapeutic properties and uses of Basti kalpana.
- 10.** Brief introduction of Ointments, Creams, Gels, Lotions, shampoos, soaps, Liniments.
- 11.** Brief knowledge of Standardization of Ayurvedic formulations.
- 12.** Brief introduction of Drug and Cosmetics Act 1940 and Rules 1945.

## Practical Bhaisajya Kalpana

50 Marks

### Following practicals to be performed-

- I. **Formulations-** Method of preparation, therapeutic uses, dose and anupana of the following
1. Swarasa- Ardraka swarasa, Tulasi swarasa, Kumari Swarasa, Vasa putapaka swarasa
2. Kalka- Nimba kalka, Rasona kalka.
3. Kwatha- Punarnavasthaka kwatha, Rasna Saphthaka 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- Chinchu 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, Ardraka satva
20. Varti- Phala varti, Chandrodaya varthi
21. Lavana- Arka lavana, Narikela lavana
22. Masi- Triphala masi
23. Ksheerapaka- Arjuna ksheerapaka, Rasona ksheerapaka
24. Kshara- Apamarga kshara, Snuhi kshara, Ksharasutra.
25. Manda – Ashtaguna manda, Laja manda
26. Peya, Vilepi, Yavagu, Krishra, Vesavara
27. Yusha - Mudga yusha, Saptamushtika yusha, Kulattha yusha
28. Takra varga – Takra, Udasvita, katvar, Mathita, Chhacchika, Dadhi
29. Aristha- Kutajarishtha, Takrarishtha
30. Asava - Kumaryasava, Kanakasava
31. Sukta kalpana- Kanji
32. Udaka- Tandulodaka
33. Upanaha- Atasi Upanaha
34. Bahya kalpana- Sarjarasa malahara, Gandaka malahara, Sikta taila nirmana, Dashanga lepa, Doshagna lepa.
35. Mamsarasa, Laksharasa
36. Sneha Kalpana Sneha Murchhana- Ghrita Murchana, Taila Moorchhana, Ghrita kalpana- Jatyadi, Triphala, ksheerashatphala ghrita- Taila kalpana-Panchaguna taila, Arka taila, Ksheerabala taila, Anu taila
37. Taila patana- Bhallataka taila patana, Jayapala taila patana
38. Dhupa- Dashanga dhupa, Arshogna dhupa
39. Modaka- Talisadi modaka, Abhayadi
40. Shodana- Guggulu, Hingu, Chitrak mool, Vriddha daru beeja
41. Kritrima Lavan nirman – Vida Lavan, Souvarchala lavan



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

### Distribution of Marks

1. Record Book	10 Marks
2. Experiment	30 Marks
3. Spotting	20 Marks
4. Viva-voce	40 Marks
<b>Total</b>	<b>100 Marks</b>

### Reference Books

1. Adyatan Rasa Shastra	R.K. Goyal
2. Abhinav Rasa Shastra	Vaidya Somadev Sharma
3. Asava Arishta Vigyanam	Dr. Pakshdhar Jha
4. Ayurvediya Rasa Shastra (Sachitra)	Chandrabhusan Jha
5. Ayurvediya Rasa Shastra	Badrinarayan Pandey
6. Rasa Bhaishajya Paribhasa	Sureshananda Thapaliyal
7. Ayurvediya Rasa Shastra	Prof. Siddhi Nandan Mishra
8. Ayurved Prakash	Vaidya Gujrat Mishra
9. Drugs and Cosmetic Act	
10. Paka Darpana	Dr. Indradev Tripathi
11. The Paka-darpana of King Nala	Dr. Madhulika critical study
12. Parada Vigyaniam	Vasudev M. Dwivedi
13. Pratyaksha Aushadh Nirmanam	Acharya VishwanathDwivdei
14. Bhaishjyakalpana Vigyanam	Dr. Ambikadatta Shastri
15. Rasa Tarangini	Sadanand Sharma
16. Rasa Darpan	Prof. Bhajan Das Swami
17. Rasa Bindu	Dr. Sanjay Sharma
18. Rasa Hridaya Tantra (Hindi)	Rameshwar Dayal Bajpai
19. Rasa Hridaya Tantra (English)	Prof. Harishankar Sharma
20. Rasa Bhaishajya Kalpana Vigyan	Vaidya Santosh Kumar Khandal
21. Rasa Mitra	Dr. Tryambak Nath Sharma
22. Rasa Ratna Samuchchaya	Dattatreya Ananta Kulkarni Krit Hindi Vyakhya.
23. Rasa Shastra Prayogiki	Srivastava, Yadav and Prof. Ramesh Saxena
24. Rasamritam	Vaidya Yadavji Tirkramji Acharya
25. Rasayan Sara	Vaidya Shyam Sunderacharya Vaishya
26. Rasendra Sampradaya	Vaidya Hajari Lal Sukul
27. Rasendra Sara Sangraha	Vaidya Gopal Krishna
28. Rasendra Sara Sangraha	Vaidya Satyarth Prakash
29. Vaidyak Paribhasa Pradeep (Hindi)	Dr. Indradev Tripathi

- |   |   |
|---|---|
| 30. Sharangdhar Samhita   | Dr. Avadh Bihari Agnihotri  |
| 31. Bharatiya Bhaishajya Kalpana Vigyana                                  | Vishwanath, Gananath Dwivedi                                      |
| 32. Bhaishajya Kalpana Vijnanam   | Dr. K Ramachandra Reddy.  |
| 33. Rasa Shastra (English)  | Prof. Damodar Joshi   |
| 34. Rasa Ratna Samuchchaya (English)                                      | Prof. Damodar Joshi   |
| 35. Rasendra Chintamani   | Publication of Govt. of India.                                    |
| 36. Useful parts of Charaka, Sushruta<br>and Vagbhata                     |   |
| 37. Ayurvedic formulary of India  | Part I and II   |
| 38. Pharmacopie standards for Ayurvedic<br>formulation published by CCRAS |   |
| 39. Bhaishjya Kalpana Vigyan  | Siddhi Nandan Mishra  |
| 40. Textbook of Rasashasra  | Dr. K Ramachandra Reddy.  |
| 41. Ashadhayoga Vigyanam  | Dr. K. Ramachandra reddy  |
| 42. Vaidyaka Paribhasha Pradipa   | (Enlgish Translation)<br>Dr. K. Ramachndra Reddy<br>Dr. P. Suresh |

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## 2.5 ROGA VIGYAN EVUM VIKRITI VIGYAN

Theory Two Papers – 100 Marks Each

Practical/Viva voce – 100 Marks

Lectures - 180

Practicals – 90

Paper I

100 Marks

Part A

50 Marks

### I. Dosha Dooshyadi Vigyanam

1. Definition and importance of Roganidana
2. Samanya Nidana and Samanya Lakshana of Dosha Prakopa and Dosha Kshaya.
3. Vikriti Vigyan of Pancha vidha Dosha Bheda.
4. Dosha Dhatu Ashraya Ashrayee Bhava.
5. Dhatu Kshaya Vriddhi Lakshana and Pradoshaja Vikara
6. Upadhatu Pradoshaja Vikara.
7. Mala Kshaya Vriddhi Lakshana and Pradoshaja Vikara.
8. Indriya Pradoshaja Vikara.
9. Hetu, Bheda and Lakshana of Agni Dushti.
10. Definitions and Samanya Lakshana of Ama
11. Sama and nirama Dosha, Dushya Lakshana.
12. Dosha Paka and Dhatu Paka Lakshana.
13. Concept, classification, diagnosis and general complications of Avarana
14. Dosha gati.
15. Detailed study of Srotomoola and Srotodushti Samanya and Vishishta Hetu Lakshana and Viddha Lakshana of all Srotas. Differences between Sroto Dushti and Kha Vaigunya.

### II. Vyadhi Vigyanam

1. Definition, synonyms and classification of Vyadhi
2. Criteria for nomenclature of Diseases in Ayurveda (Vyadhinamakarana).
3. Bija, Bija Bhaga and Bija Bhaga Avayava Dushti.
4. Basic knowledge of Hereditary, Congenital, Acquired, Multifactorial, Traumatic and Environmental disorders.
5. Introduction to ICD Classification of Diseases of WHO and DSM classification.
6. Samanyaja and Nanatmaja Vikara. Nidanarthakara Vyadhi, Hetu Sankara, Lingasankara, Vyadhisankara, Sharirika, Manasika and Agantuja Vyadhi
7. Concept of Ashta Mahagada and introduction to Ashta Nindita.
8. Importance and knowledge of Rogamarga.
9. Definition and classification of Vyadhikshamatva.
10. Concept of Satmya, Asatmya and Viruddha ahara.
11. Ojas – types of Ojo Dosha / Vikriti- Oja and Vyadhi kshamatva.

### **III. Basic Pathology**

1. Introduction to pathology and its sub-divisions. Introduction to Cell Injury and Cellular adaptations
2. Definition and brief description of inflammation – Healing/repair.
3. Definition and brief description of oedema – shock – haemorrhage, Thrombosis and embolism, Ischemia and Infarction.
4. Immunity – types – different types of immune responses in the body – Basic knowledge of auto immune diseases, Acquired immune deficiency disease and hypersensitivity
5. Nomenclature and classification of tumors - difference between benign and malignant tumors.
6. Introduction to Nutritional disorders – disorders of macro and micro nutrients.
7. Introduction to infectious diseases
8. Introduction and classification of microorganisms such as virus-bacteria-fungus.

### **Part B**

**50 Marks**

### **IV. Nidana Panchaka Vigyanam**

1. Difference between Roga and Rogi Pariksha.
2. Importance of Nidan Panchaka.
3. Hetu - Definition, Synonyms and Classification.
4. Purva Rupa – Definition, Synonyms, Samanya and Vishistha Purva rupa.
5. Rupa - Definition, Synonyms, Samanya and Pratyatma Lakshana. Difference between Vyadhi and Lakshana.
6. Samprapti – Definition, Synonyms and Types
7. Samprapti Ghataka.
8. Shat Kriyakaala.
9. Relationship between Nidana Panchaka and Shat Kriyakaala.
10. Upashaya – Definition, Types and its importance in diagnosis.
11. Upadrava
12. Arishta Vigyan – Definition, Types and its importance.
13. Sadhyasadhyatwa – Types, their parameters and importance.
14. General diagnostic principles of Anukta Vyadhi (Cha - Viman IV)

### **V Pariksha Vigyanam**

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. Importance and methods of history taking, clinical examination and knowledge of Ancillary investigations.
6. Basic Knowledge of tools for Avayavika Pariksha - ECG, USG and Radio imaging.
7. Basic Knowledge of Laboratory Investigations pertaining to Metabolic and Endocrine disorders.

**Paper II**

**100 Marks**

**Part A**

**50 Marks**

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

**I. Diseases of Rasavaha Srotas**

- i) Jwara (Jwarabheda- Ama, Pachyamana and Nirama Jwara, Agantuka jwara, Punaravartaka Jwara, Vishama Jwara, Dhatugata Jwara, Charakokta Sannipata Jwara.
- ii) General mechanism of Fever, Introduction to the Aetiopathogenesis of Malaria, Typhoid, Dengue fever, influenza and Chikungunya.
- iii) Pandu, Amavata, Hridroga, Shotha
- iv) Introduction to Anaemia & its Classification, Rheumatic fever, Rheumatoid Arthritis, Angina, Ischaemic Heart Disease, Hypertension, Myocardial Infarction

**II. Diseases of Raktavaha Srotas**

- i) Kamala - Raktapitta - Vatarakta - Shitapitta – Maha Kushta – Visarpa – Shwitra and Introduction to Kshudra Kushta
- ii) Introduction to Hepatomegaly, Spleenomegaly, Leukaemia, Thalessemia, Sickle cell Anaemia.
- iii) Introduction to Urticaria, Psoriasis, Eczema, Pemphigus

**III. Diseases of Mamsavaha srotas**

- a) Introduction to Granthi, Arbuda and Arsha.

**IV. Diseases of Medovaha srotas**

- Sthoulya - Karshya – Prameha
- i) Introduction to Obesity and Diabetes Mellitus.

**V. Diseases of Asthi - Majjavaha srotas**

- 1) Sandhigatavata, Introduction to Asthi-majjaparipaka, Asthigata Vidradhi
- 2) Introduction to Osteo- Arthritis, Osteomyelitis, Osteoporosis.
- 3) Vatavyadhi
- 4) Akshepaka - Apatanaka - Ardita - Pakshaghata – Gridhrasi – Viswachi, Avabahuka, - Manyasthambha – Katigraha.
- 5) Introduction to Parkinson's disease, Stroke, Lumbago- Sciatica syndrome, Bell's Palsy, Ankylosing Spondylitis

**VI. Diseases of Sukravaha srotas**

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

**Part B**

**50 Marks**

**VII. Diseases of Pranavaha srotas**

- 1) Kasa - Shwasa - Hikka – Urahkshata – Shosha – Rajayakshma.
- 2) Introduction to the aetiopathogenesis of Pneumonia, Pleural effusion, Bronchitis, Bronchiectasis, Bronchial Asthma.

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

- 1) Agnimandya - Ajirna - Aruchi- Chhardi - Visuchika , Amlapitta- Shoola - Parinama Shoola – Annadrava Shoola- Grahani –Gulma- Udara Roga – Atisara - Pravahika
- 2) Introduction to Anaha, Adhmana, Atopa, Alasaka, Vilambika
- 3) Introduction to Peptic Ulcer, Irritable Bowel Syndrome, Diarrhoea, Dysentery, Constipation, Inflammatory Bowel Syndrome.

**IX. Diseases of Udakavaha Srotas**

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

**X. Diseases of Mutravaha srotas**

- 1) Mutrakrichha – Mutraghata.
- 2) Introduction to Urinary Tract Infection, Urolithiasis, Nephropathies and Renal failure.

**XI. Diseases of Swedavaha srotas**

- 1) Introduction to Khalitya, Palitya and Cosmetology.

**XII. Diseases of Manovaha Srotas/ Sanjnavaha Srotas**

- 1) Introduction to Vishada, Udvega, Bhaya, Bhrama, Anidra, Mada, Murchha, Sanyasa, Apasmara, Unmada, Atatwabhinivesha
- 2) Introduction to Depression, Anxiety neurosis, Phobia, Personality disorders.

**XIII. Upasargjanya Vyadhi (Communicable diseases)**

- 1) Romantika – Masurika – Upadamsha – Phiranga.
- 2) Introduction to Leprosy , Tuberculosis and AIDS.

**XIV. Krimi Vigyanam**

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

## PRACTICAL

### Content of Laboratory Practical

#### i Fundamental Principles of Laboratory Tests

Introduction to laboratory, Sterilization, glass wares, solutions reagents and safety procedures.

#### ii Haematology

- 1) Hb% 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) Introduction to rapid diagnostics of hematology.
- 9) Screening test for bleeding disorders- bleeding time (BT), Clotting time (CT), Prothrombin time (PT).
- 10) Blood grouping - ABO system, Rh typing (Rhesus system)

#### iii Urine Examination

- 1) Ayurveda anusara mutra pariksha.
- 2) Physical Examination - Volume, Reaction (PH) & Specific Gravity
- 3) Chemical Examination for  
- Proteins, Glucose, Phosphate, Ketone, Bile salts, Bile pigment
- 4) Microscopic Examination

#### iv Stool Examination

- 1) Ayurveda anusara purisha pariksha
- 2) Physical examination - Sama-Nirama Pariksha
- 3) Microscopic examination of ova & cyst etc.
- 4) Occult Blood Test

#### v Sputum Examination

- 1) Ayurveda anusara sthivana pariksha.
- 2) Physical, Chemical and Microscopic Examination of the sputum.
- 3) Sample collection and Demonstration of AFB.

#### vi Semen examination

- 1) Ayurvediya anusara Retas pariksha.
- 2) Semen examination & Demonstration of semen, sperms.

#### vii Biochemical Examination – (Demonstration)

Serum Glucose, Serum Bilirubin, Serum Urea, Lipid Profile, Serum Creatinine.

#### viii Demonstration of different staining techniques in microbiology.

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

#### x Demonstration of Aspiration techniques.

**xi Laboratory record** – maintenance of observation Diary and laboratory record book.

**Beside Practical (Clinical Methods)**

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

**Distribution of Marks**

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	Madhav Nidan (Madhukosha Commentary) Part 1 – 2	Pt. Yadunandan Upadhyay
2	Doshakaranatwa Mimamsa	Acharya P.V. Sharma
3	Nadi Darshan	Vd. Tara Shankar Mishra
4	Nadi Vigyanam	Vidyotini Hindi Tika
5	Nadi Vigyan	Shri Satya Dev Vashisht
6	Nadi Vigyan	Gangadhar Tika
7	Rogi Pariksha vidhi	Acharya Priyavrata Sharma
8	Ayurvediya Roga Vargikaran	Vd. Ramanath Dwivedi & Vd. Gurdip Singh
9	Ayurvediya Nidan Evum Chikitsa Ke Siddhanta	Prof. Ram Harsh Singh
10	Relevant portions of Charak Samhita, Sushrut Samhita and Vagbhata	



11	Text Book of Pathology	William Boyds.
12	Text Book of Pathology	Harsh Mohan
13	Text Book of Pathology	Dey and Dey
14	Text Book of Parasitology	Ramnik Sood
15	Clinical Pathology and Bacteriology	S.P. Gupta
16	Clinical methods in Ayurveda	K. R . S. Murthy
17	Parameswarappa's Ayurvediya Vikriti Vigyan and Roga Vikriti Vigyan	Dr. P.S. Byadgi.
18	Oxford Handbook of Clinical Examination and Practical Skills	Oxford Handbooks
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, Galem, Anderson, Cortan, Wick, Zumwelt
25	Clinical Laboratory medicine	Edited by Kenneth D Mc. Chately
26	General Pathology	Walter & Israel Churchill Living stone
27	A Comprehensive Dictionary of Pathology	Chris Newann
28	Practical Pathology	Dr. K. Uma Chaturvedi
29	Clinical examination	Douglas/Macleod's
30	Pathology Practical book for undergraduates	Harsh Mohan
31	Medical Laboratory Technology	R. Sood
32	Clinical Diagnosis and Management by Laboratory methods	Todd, Sanford and Davidson
33	Clinical Hematology In Medical Practice	Degruchy's
34	Robbins Basic Pathology	Kumar, Abbas, Fausto at al

## 2.6 AGADATANTRA, VYAVAHARAYURVED EVUM VIDHIVAIDYAK

**Theory One Paper – 100 Marks**

**Practical/Viva voce -100 Marks**

**Lectures - 100**

**Practicals / Demonstrations – 50**

**Paper I 100 Marks**

**Part A 50 Marks**

### **AGADATANTRA– VISHA CHIKITSA**

#### **(AYURVEDIC & CONTEMPORARY TOXICOLOGY)**

1. Derivation and definition of Agadatantra and Visha, Visha Utpatti, Visha Prabhava, Visha Pranaharana Kriya, Visha Guna, Visha Gati.
2. Origin and Classification of Visha:- Its sources, Difference between Visha, Madya and Oja guna, Visha Upadrava and Visha Mukta Lakshana.
3. Tests for detection of Visha, Visha Data Lakshana, Visha Peeta Lakshana, Signs and symptoms of Visha afflicted organs and personal effects. (Poisoning with Anjana, Lepa paduka, Abharana etc. - contact poisons).
4. Contamination of air, water, soil etc. (Visha mishrita – Vayu, Jala, Desha, Kaala and their management), their contemporary significance. Samuhika Vishaprayoga-Effects of chemical and Nuclear warfare
5. Signs and symptoms of poisons of plant kingdom and their management. Visha and Upavisha. Arka, Snuhi, Langali, Karaveera, Gunja, Ahiphena, Dhattura, Bhallataka, Vatsanabha, Kupeelu, Jayapala, Bang, Tobacco, Parthenium Historiferous, Chitraka Eranda, Digitalis and Cerebra Odollum. (Signs and symptoms, Fatal Dose, Fatal period, Treatment, Post Mortem appearances and Medico Legal importance).
6. Gara visha, Dooshi visha and Viruddhahara– their concepts, classification, management and contemporary significance. Essentials of Food poisoning.
7. Study of Chaturvimshatyupakrama of Charak.
8. Jangama Visha (Animal poisoning and zoonotic diseases) – Detailed study of Sarpa, Keeta, Lootha, Vrishchika, Mooshika, Alarka – Visha; Lakshana, Bheda, Chikitsa and their Sadhyasadyata (contemporary and classical views), Signs and symptoms,

classification, management, prognosis and medico legal importance Visha Sankata, Shanka Visha

- 9 Acids and Alkalis – Fatal Dose, Fatal period, signs and symptoms, cause of death, treatment, medico legal importance and postmortem appearance of – Sulphuric acid, Hydrochloric acid, Nitric acid, Hydrocyanic acid, Oxalic acid, Carboric acid, Formic acid and alkalis in general, treatment and safety measures.
- 10 Asphyxiants – Carbon monoxide, Carbon dioxide, Hydrogen sulphide;  
Stimulants – Antihistamines, Cocaine  
Hallucinogens – LSD  
Sedatives and Hypnotics – Barbiturates  
Petroleum – Kerosene Poisoning  
Organo phosphorus compounds - Aluminium phosphate, Zinc phosphide
- 11 Definition of Toxicology, classification of poisons, their actions and routes of administration, absorption, excretion, metabolism, diagnosis and general principles of treatment, duties of a medical practitioner in case of suspected poisoning.
- 12 Metallic and Nonmetallic poisoning General characters, Signs and symptoms, Fatal dose, Fatal period, Treatment, Medico Legal Importance and Postmortem Appearance of
  - i) Nonmetallic poisons – Phosphorous, iodine
  - ii) Metallic poisoning – Arsenic, Mercury, Lead, Copper, Zinc, Tin and Radiation metals.
- 13 Madya Visha and Madatyaya; Alcohol poisoning (Ethanol and Methanol)
- 14 Laws related to poisons - Poisons Act 1919, Dangerous Drug Act 1930, Drugs and Cosmetic Act 1940, Narcotic drugs and Psychotropic substances Act 1985, Pharmacy Act 1948, Criminal poisoning.

**VYAVAHAR AYURVED EVUM VIDHIVAIKYAK  
(FORENSIC MEDICINE AND MEDICAL JURISPRUDENCE)**

- 1 Introduction, Definition and concise history of Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhivaidyaka), Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.
- 2 Personal identity and its Medico legal aspects, Forensic Odontology, Forensic Serology and DNA profiling.
- 3 Death and its Medico Legal Aspects.
- 4 Medico Legal autopsy and exhumation.
- 5 Injuries and wounds and its medico Legal aspects.
- 6 Dowry deaths, their Medico Legal importance and laws in relation to it.
- 7 Asphyxial deaths and its Medico Legal importance.
- 8 Death due to heat, cold and starvation.
- 9 Virginity, Pregnancy, Delivery; Impotence & Sterility, Artificial Insemination, Legitimacy, Abortion, Infanticide battered baby and their Medico Legal importance. Medical Termination of Pregnancy Act.
- 10 Sexual offences, Sexual perversions and their Medico Legal aspects.
- 11 Forensic psychiatry.
- 12 Ethics as in classics. Types of physicians and methods of identification, Pranabhisara and Rogabhisara Physicians, Qualities of Physician, Responsibilities of Physicians, Chaturvidha Vaidyavrutti, Duties of physician to his patient, Vaidya Sadvritam, Apujya Vaidya, Accepting fees, Relationship with females.
- 13 Laws in relation to Medical practitioners: Indian Medicine Central Council Act, Code of Medical Ethics, General Principles, Duties of a Physician towards his patient, towards the profession at large, Professional Services of physicians to each other, duties of a Physician in consultation, duties of a Physician in cases of interference, duties of a Physician to the public, Physician's responsibility in criminal matters, duties of a patient, Professional negligence, Civil negligence, Criminal negligence, Medico Legal aspects of Acquired Immune Deficiency Syndrome, Rights of an unborn child, Transplantation of human organs Bill 1994, Pre Natal Diagnostic Testing Act, Donation of cornea, Malingering of feigned diseases, International code of Medical Ethics for Doctors. "Clinical establishment Act."

## PRACTICAL

<b>Practical Training period</b>	<b>50 Hours</b>
1. Post Mortem examination	10 Hours
2. Evidence in the court	10 Hours
3. Demonstrations in the Toxicology museum	10 Hours
4. Clinical postings	20 Hours

### Distribution of Practical Marks

1. Daily activities (Presented as Clinical Record/ Herbarium)	10 Marks
2. Post Mortem examination - Record	10 Marks
3. Compilation Work	10 Marks
4. Identification (spotting) and clinical case presentation	40 Marks
5. Viva – voce	30 Marks
<b>Total</b>	<b>100 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
- 7 Agad Tantra Dr. Shekher Namboodri
- 8 Agadatantra ki patyakram Edited By Dr Huparikar
- 9 Vishachikitsa Vaidya Balakrishnan Nair, Kerala  
(Ayurveda Toxicology English Translation)
- 10 Medical Ethics and Medical Laws in India Dr. H.S. Mehta
- 11 Toxicology Ayurvedic Perspective VPSV Ayurveda college Kottakkal
- 12 Kautilya Arthashastra (English) Prof. Kangle
- 13 Kautilya Arthashastra (Hindi) Dr. Raghunath Singh
- 14 Vyavahar Ayurveda Dr. Ayodhya Prasad Achal
- 15 Visha Chikitsa Dr. Balakrishna Nair.
- 16 Relevant topics from Manu Smriti

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### 3.1. CHARAK SAMHITA

(Uttarardha: Chikitsa – Kalpa - Siddhi Sthana)

Theory One Paper – 100 Marks

Practical/Viva voce – 50 Marks

Lectures - 100

The marks of theory examination are distributed as follows

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

### PRACTICALS

#### Parameters for internal Assessment

Memorizing and describing two shloka weekly, discipline, oral and written presentation and other activities.

Other activities include following:

(1) Memorizing two shloka weekly

(The shloka should be memorized along with Padvibhaga, Anvaya, Bhavartha and practical applicability. log book of memorized shloka, corrected and signed by the class teacher is to be submitted at time of examination.)

(2) Passage writing

(3) Speech related to Charak

#### Distribution of marks

1. Chart preparation / Compilation	}	40 Marks
2. Case sheet writing regarding treatment		
3. Prescription writing by examining the patients in OPD & IPD in hospital.		
4. Oral presentation (Presentation of 10 Shloka, orally and in writing related with Samprapti and Chikitsa Sutra)		
5. Viva - Voce		
6. Internal Assessment		10 Marks
<b>Total</b>		<b>50 Marks</b>

### Reference Books

1. Charak Samhita -Chakrapani Tika (Sanskrit Commentary)
2. Charak Samhita (Hindi Commentary)  
Vd. Jayadev Vidyalankar or Vd. Atridev Vidyalankar or  
Prof. Gorakh Nath Chaturvedi & Kashinath Shastri or  
Dr. Brahmanand Tripathy or  
Dr. Ravidutta Tripathy
3. Charak Samhita (English Commentary):  
Dr. Ram Karan Sharma & Vd. Bhagwan Dash or Acharya Priyavrata Sharma.

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### 3.2. KAYACHIKITSA

Theory Three Papers – 100 Marks Each

Practical/Viva voce – 150 Marks

Lectures - 300

Hospital Training - 9 Months

**Note:** Common to all papers of Kayachikitsa – Wherever the phrase “Management of diseases” occurs in the syllabus, it invariably should include different classical preparations which should include relevant Vati, Gutika, Bhasma/Pishti, Kupa Pakwa Rasayana, Ghrita, Taila, Avaleha, Churna, Kashaya and Lepa along with appropriate dose, time of administration, duration of treatment required and relevant Pathyapathya and post therapeutic advices.

**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.
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, Chikitsa Sutra and Management of 'Samanyaja and Nanatmaja' diseases, Roga-Anutpattikara Chikitsa, Roga Prashamana Chikitsa (Doshapratyanika, Vyadhipratyanika, Ubhayapratyanika), Doshopakrama, Chikitsa sutra and Management of Sthanartara 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.
4. Detailed description of Dvividhopakrama (Santarpana and Apatarpana) and Shadavidhopakrama (Rookshana, Snehana, Swedana, Sthambhana, Langhana and Brihana). 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.



**Part B****50 Marks**

5. Detailed description of Chikitsa Sutra and Management of Jwara and its types.
6. Relevant Ayurvedic management according to Samprapti ghataka 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). and Romantika (Measles).
7. Knowledge of National Health programmes and the relevant Ayurvedic management of the following diseases enlisted by World Health Organisation- Malaria, Filaria, Kala Azar, Leprosy, Tuberculosis, AIDS.
8. Introduction of general principles of maintenance of health and management of diseases of following systems of Medicine- Yoga, Naturopathy, Unani, Siddha Homeopathy, Accupuncture, Accupressure, Modern medicine, Physiotherapy and Rehabilitation.

**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 Udaka vaha Srotas such as- Shotha, Jalodara, Trishna, Acid - Base & Electrolyte Imbalance.
3. Chikitsa sutra and Management of the diseases of Annavaha Srotas such as – Agnimandya, Aruchi, Ajirna, Anaha, Atopa, Adhmana, Alasaka, Vilambika, Visuchika, Chardi, Grahani, Amlapitta, Gulma, Shoola, Bhasmaka and Acid peptic disorders.
4. Chikitsa sutra and Management of the diseases of Rasavaha Srotas such as - Pandu, Amavata, Madatyaya, Hridroga, Hridshoola, Hypotension, Hypertension.
5. Chikitsa sutra and Management of the diseases of Raktavaha Srotas such as - Raktapitta, Kamala, Kumbhakamala, Halimaka, Daha, Mada, Murcha, Sanyasa, Vatarakta, Plihadosh, Yakrut, Hepatitis, Cirrhosis of Liver, Leukaemia, Kushta Kilasa, Visarpa, Sheetapitta, Udarada, Kotha and medically manageable Kshudra Roga.

**Part B****50 Marks**

6. Chikitsa Sutra and Management of Mamsavaha Srotas and Medovaha Srotas such as-Gandamala, Mamsashosha, Arbuda, Apachi, Prameha, Sthoulya, Karshya, Diabetes Mellitus and Dyslipidaemia.
7. Chikitsa Sutra and Management of 'Asthi and Majjavaha Srotas such as Osteomyelitis (Asthimajja Vidradhi), Osteoporosis (Asthisousharya), Sandhigata Vata (Osteo Arthritis).
8. Chikitsa Sutra and Management of diseases of Mutravaha Srotas such as -Mutrakricha, Mutraghata, Ashmari, Cystitis, Nephritis, Nephrotic Syndrome, Renal Failure.
9. Chikitsa Sutra and Management of diseases of Purishavaha Srotas such as – Atisara, Pravahika, Arsha and Purishaj Krimi.
10. Chikitsa Sutra and Management of Sexually Transmitted Diseases, such as - Phiranga (Syphilis), Puyameha (Gonorrhoea), Upadamsha (Chanchroid).

**PAPER III****100 Marks****Part A****50 Marks**

1. Principles of treatment and management of Vata Vyadhi such as - Pakshavadha, Ekangavata, Sarvangavata, Ardita, Avbahuka, Kati Graha, Manyastambha, Gridhrasi, Vishwachi, Khalli, Khanja, Pangu, Padaharsha, Padadaha, Vatakantaka, Kroshtukashirsha and Types of Udavarta. Parkinsonism (Kampavata), Gatavata (Dhatu gata and Ashayagata), Avarana Vata.
2. Nidana and Chikitsa of Urusthambha, Gullian Barrie syndrome, Muscular Dystrophy, Myasthenia Gravis, Motor Neurone Diseases and Neuralgia.
3. Diseases of different Endocrine Gland -such as Thyroid, Parathyroid, Pituitary and Adrenal Glands and their Ayurvedic management.
4. 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.
5. Treatment of Motion Sickness. General introduction, types and Management of diseases caused by Vyadhi Kshamatwa Hinata (Immuno deficiency disorders and Auto Immune Disorders).

**Part B****50 Marks**

6. Derivation of the term 'Manas', its sthana (place), Guna (qualities) and Karma (functions). Introduction and Definition of Kama, Krodha, Lobha, Moha, Mada, Matsarya, Shoka, Bhaya, Vishada, Dainya, Harsha and Pragyaparadha.
7. Nidana and Chikitsa of the following disorders - Unmada-Apasmara-Atattvabhinivesha- Introduction and Management of Anxiety disorders, Stress induced disorders, Depression, Somatoform and Mood disorders, Psychosexual Disorders. Importance of Daivayapashraya, Sattwavajaya, Adravyabhuta Chikitsa. Medhya Rasayana in the management of Manasa Roga. Introduction to Bhuta Vidya with special reference to diagnosis and management of disorders in the field.
8. Management of Vardhakyajanita vikara, Indriyapradoshjoa vikara, Vibandha, Kandu, Alziemers Disease, Sleep disorders, General debility.
9. Etiopathogenesis and Modern management of following diseases – Anthrax, Chicken Pox, Chikun Guniya, Dengue Fever, Encephalitis, Influenza, Leptospirosis, Measles, Meningitis, Mumps, Plague, Pleurisy, Pneumonia, Small pox, Swineflu, Tetanus, Typhoid, Viral Fever, Yellow fever.
10. Nutritional deficiency disorders, Acid - Base & Electrolyte Imbalance and related clinical conditions.
11. 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.
12. Derivation, definition and synonyms of Rasayana, historical 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 kalpa, Poorvakarma and specific schedules to be followed after Kutipravesha, benefits of Kutipravesika Rasayana, duration of application, Rasayana yoga and directions for their use. Determination of dose of Rasayana according to age. Rules and regulation after Rasayana therapy, Indications of Rasayana therapy, Importance of Vitamins in Rasayana therapy, Vitamin deficiency diseases and their treatment.
13. Vajikarana - Derivation, definition, synonyms, necessity, benefits, Historical importance and indications of Vajikarana. Appreciation of females, Criticism of childless men, Symptoms of good Shûkra (Semen), Vajikaran Dravya and Aushadhi.
14. Properties, doses, methods of administration, ingredients and methods of formation of Rasayana & Vajikarana formulation.
15. Classification and importance of Vajikarana Dravya.

## PRACTICAL

<b>Hospital Training Period</b>	<b>9 Months</b>
1. General patient training	5 Months
2. Department of Manas roga	15 Days
3. Department of Communicable diseases	15 Days
4. Department of X-Ray and Laboratory	1 Month
5. Emergency Services in Kayachikitsa	2 Months

### Distribution of Practical Marks

1. Daily routine work	15 Marks
2. Compilation/Project Report	20 Marks
3. Patient examination	45 Marks
4. Viva-voice	70 Marks
<b>Total</b>	<b>150 Marks</b>

### Reference Books

1. Bhaishajya Ratnawali	Kaviraj Ambikadutta Shastri
2. Yogaratnakar	Pt. Brahma Shankar Mishra & Dr. Indradev Tripathi
3. Yogratnakar (English)	Dr. Nirmal Saxsena
4. Chakradutta	Dr. Jagdishwar Prasad Tripathi
5. Chakradutta (English)	Acharya Priyavrat Sharma
6. Chikitsadarsh	Vd. Rajeshwar Dutta Shastri
7. Chikitsa Pradip	Vd. Bhaskar Viswasnath Gokhle
8. Chikitsa Kalika	By Tissatacharya, Hindi and English translation by Acharya Priyavrat Sharma
9. Kayachikitsa	Dr. Ganga Sahay Pandey
10. Kayachikitsa	Acharya Ramraksh Pathak
11. Kayachikitsa	Prof. Banwari Lal Gaur
12. Kayachikitsa	Prof. Shiv Charan Dhyani

13.	Kayachikitsa	Vd. Tara Shankar Mishra
14.	Rasayogasagar	Vd. Hariprapanna Sharma
15.	Siddha Bhaishaiya Manimala	Ram Krishna Bhatt
16.	Siddhayoga	Vrinda Madhav
17.	Madhavchikitsa	Madhavkar
18.	Siddha Prayoga Latika	Vd. Gulraj Sharma Mishra
19.	Vishikhanupravesha Vigyan	Vd. Gulraj Sharma Mishra
20.	Kaya Chikitsa Samanvaya	Dr. Anant Ram Sharma
21.	Siddha Vaidyakam	V.V. Natraj Shastri
22.	Tamil ka Siddha Sampradaya	Prof. Ram Niwas Sharma
23.	Sahasrayogam (Keraliya Ayurveda Chikitsa)	Prof. Ram Niwas Sharma & Dr. Surendra Sharma
24.	Vaidya Chintamani	Ballabhacharya
25.	Vaidya Jeevan	Lolimbaraja
26.	Chamatkar Chintamani	Lolimbaraja
27.	Pathya-Apathya-Vinirmaya	Vishwanath Kaviraj
28.	Ayurvediya Pathyapathya Vigyan	Dr. Badri Prasad Shah
29.	Yoga Chandrika	Laxman Pandit, Dr. Asha Kumari, Prof. Premvati Tiwari
30.	Atyayik Vyadhi Nidana Chikitsa	Dr. Bramhadutt Sharma
31.	Atyayik Vyadhi Nidana evum Pratikara	Dr. Anant Ram Sharma, Dr. Krishna Chandra Verma & Dr. Sanjay Sharma
32.	Ayurvediya Panchkarma Chikitsa	Acharya Mukandi Lal Dwivedi
33.	Ayurvediya Panchkarma Vigyan	Dr. Haridas Shridhar Kasture
34.	Keraliya Panchakarma	Dr. T.L. Devraj
35.	Ayurvedic Remedies for common disease	Dr. T.L. Devraj
36.	Panchakarma Chikitsa Vigyan	Dr. R.A. Prasad & Dr. G.K. Gurjar
37.	Panchakarma Chikitsa	Prof. Divakar Ojha
38.	Holistic Principle of Ayurvedic Medicine	Prof. Ram Harsh Singh
39.	Kayachikitsa	Prof. Ram Harsh Singh
40.	Madak Dravyajanya roga evum unki Chikitsa	Dr. Priya Kumar Chobe

41.	Vasava Rajiyam	Vd. Goverdhan Sharma Changani
42.	Manas Roga Vigyan	Dr. Balkrishna Amar Ji Pathak
43.	Ayurvediya Manas Vigyan	Prof. Ram Harsh Singh
44.	Adhunik Manas Rog Vigyan	Dr. Rajendra Prasad Bhatnagar
45.	Psychiatry in Brihatrayee	Dr. Kanta Prasad Shukla
46.	Psychopathology in Indian Medicine	Dr. Satyapal Gupt
47.	Yoga against Spinal pain	Pt. Shiv Sharma
48.	Hathayoga Pradipika	
49.	Hikmat Prakash	
50.	Prakritika Chikitsa	Sh. Vithal Das Modi
51.	Rasayan and Vajikarana	Vd. Mohan Lal Pathak
52.	Rasayan and Vajikarana	Vd. Upadhyaya (Jaipur)
53.	Science of Longevity by Ayurveda	Prof. Subhash Ranade
54.	Adhunik Chikitsa Shastra	Dharmdatta Vaidya
55.	Chikitsa Tatva Deepika	Acharya Mahaveer Prasad Pandey
56.	Kayachikitsa	Prof. Ajay Kumar Sharma
57.	Useful parts of Charak, Sushrut and Vagbhatta	

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### 3.3 SHALAKYA TANTRA

Theory Two Papers – 100 Marks Each

Practical/Viva voce – 100 Marks

Lectures - 210

Hospital Training – 4 Months

Paper I

100 Marks

#### I. Introduction

- Shalakyatantra nirukti, Parichayam, Ithihasam
- Netra rachana shariram (Mandala, Patala, Sandhi, Drushti Vichara) and Netra & Chakshu Kriya Sharir ancient and modern view. Netrapariksha, Netraparikshanopayogi Yantra Shastradi gyanam.
- Netraroganam – Samanya Hetu (Nija and agantuja), Purvarupa, Samprapti, Rupa and chikitsa.
- Classification of Netraroga as per Ayurvedic and Modern view point and its importance.

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

- Seka, Aschotana, Pindi, Vidalaka Tarpana, Putapaka, Anjana and importance of Panchkarma in Shalaky Chikitsa.
- Basic fundamentals of Shalaky Shalya Chikitsa e.g. Purva-Pradhana- Paschat karma, Ama-Pachyaman-Pakva Vrana shotha, Vranitopasana, Pranashtashalya, & Vranbhandhana. Methods and concepts of sterilization, asepsis and antisepsis as per ancient and modern view point.
- Knowledge about the eight surgical procedures i.e. Lekhana, Chedana, Bhedana, Vyadhana etc. Shalya karma;
- Parasurgical procedures - Agni, Kshara and Raktamokshana with special reference to Netra Chikitsa.
- Essential diagnostic and therapeutic modern pharmacological agents required in Shalaky Chikitsa

#### III. Sandhigata Roga

Etiology, pathology, classification, clinical features and management of diseases of Sandhigata roga (junctional areas of the eye) as detailed in literature of Ayurveda. Acute and Chronic Dacryocystitis, Epiphora, Blepharitis, Lacrimal cyst – aetiology, pathology, signs & symptoms and management. Knowledge about Dacryocystectomy and Dacryocystorhinostomy

#### **IV. Vartmagata Roga**

Etiology, Pathology, Classification, Clinical features and Management of diseases of Vartma (lids disorders) of the eye as detailed in literature of Ayurveda. Hordeolum Externum, Chalazion, Ptosis, Trachoma, Trichiasis, Entropion, Ectropion, Lagophthalmus, Blepharospasm and Lid growth – Etiology, signs and symptoms and management.

#### **V. Suklagata Roga**

- a) Etiology, pathology, Classification, Clinical features and Management of diseases of Shuklagata Mandala (Sclera and Conjunctiva) of the eye as detailed in literature of Ayurveda.
- b) Conjunctival degenerative disorders like Pterygium, Scleritis, Episcleritis Sub-Conjunctival Hemorrhage, Xerosis their etiology, signs & symptoms and management.

#### **VI. Krishnagata Roga**

- a) Etiology, Pathology, Classification, Clinical features and Management of diseases of Krishnagata Mandala (Cornea and Iris) as detailed in literature of Ayurveda.
- b) Ulcerative and Non Ulcerative Keratitis, Corneal Opacity, Staphyloma, Hypophion Ulcer & Uveitis, their aetiology, pathology, symptoms and management.

#### **VII. Sarvagata Roga**

- a) Etiology, Pathology, Classification, Clinical features and Management of Sarvagata Roga (diseases affecting all parts of the eye) as detailed in literature of Ayurveda.
- b) Abhishyanda as a cause of all eye diseases. Conjunctivitis, Glaucoma, Dry Eye Syndrome, Panophthalmitis, Etiology, Pathology, Signs & Symptoms and management.
- c) Aupasargika (contagious) Netra Roga:- Etiology, signs and symptoms, diagnosis and treatment.

#### **VII. Drishtigata Roga**

- a) Etiology, pathology, classification, clinical features and management of diseases of drishtigata roga (vision / visual apparatus) as detailed in literature of Ayurveda along with exogenous diseases like Sanimittaja and Animittaja Linga nasha.
- b) Refractive errors, Strabismus, Cataract, Retinitis pigmentosa, Amblyopia, Central serous retinopathy, Eale's disease, Hypertensive & Diabetic Retinopathies, Age related Macular degeneration, Optic Neuritis and Optic atrophy, – Etiology, pathology, signs and symptoms and management, Nayanabhigata- ocular trauma as per ancient and modern view point.



### **VIII. Miscellaneous Diseases**

- a) Xerophthalmia and other malnutritional eye disorders.
- b) Introduction to Eye bank, Eye donation, Corneal Transplantation.
- c) Netraswasthyarakshanopaya- Preventive Ophthalmology and Community Ophthalmology.

### **PAPER II**

**100 Marks**

#### **I Samanya Chikitsa**

- a) Instruments and technology used in the diagnosis and treatment of diseases of Shira, Ear, Nose & Oral cavity
- b) Study of therapeutic procedures like Sveda, Kavala, Gandusa, Dhuma, Rakta Mokshana, Murdhni Taila, Nasya, Pratisarana, Karna Purana, Mukha Lepa used in the treatment of Shira, Ear, Nose, Dental, Periodontal, Oral cavity and Throat diseases.

#### **II Shiro Roga**

- a) Importance and Superiority of Shira.
- b) Generalised and specific etiology, pathology, classification, clinical features and management of diseases of Shira and Kapala (Intracranial and Extracranial) as detailed in literature of Ayurveda.
- c) Headache, its differential diagnosis and treatment along with diseases of Scalp.

#### **III Karna Roga**

- a) Anatomical and Physiological considerations of Karna (Ear) & Shravanendriya in Ancient and Modern Medical literature, Examination of Ear.
- b) Generalised and specific etiology, pathology, classification, clinical features and management of diseases of Karna as detailed in literature of Ayurveda.
- c) Karna sandhana (Auroplasty), fundamentals, method and Vaikritpaham.
- d) Otagia, ASOM, CSOM, Deafness, Otomycosis, Tinnitus, Meniere's disease, Foreign body in ear and Sound pollution, Etiology, pathology, Clinical features and management Tympanoplasty.

#### **IV Nasa Roga**

- a) Anatomical and Physiological considerations of Nasa (Nose) & Ghranendriya in Ancient and Modern Medical literature. Examination of Nose.
- b) Generalised and specific etiology, pathology, classification, clinical features and management of diseases of Nasa (Nose) as detailed in literature of Ayurveda.
- c) Nasa Sandhana (Fundamentals and methods of Rhinoplasty).
- d) Rhinitis, Epistaxis, Nasal Polyp, DNS, Nasal trauma, foreign body in the nose Etiology, pathology, clinical features and management

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

- a) Mukha roga- ayatana- Anatomical sites of diseases of Oral cavity
- b) Anatomical and Physiological considerations of Mukha (Oral cavity) in Ancient and

Modern Medical literature, Examination of Oral cavity.

- c) Mukha and Danta Swasthya ancient and modern concepts.
- d) Generalised Etiology, Pathology, Clinical picture and Treatment of Mukharoga (Diseases of oral cavity)

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

- a) Anatomical and Physiological considerations of Oshtha (Lips) in Ancient and Modern Medical literature. Examination of Lips.
- b) Etiology, pathology, classification, clinical features and management of diseases of Oshtha (Lips) as detailed in literature of Ayurveda.
- c) Oshtha sandhana- Labioplasty, Hare lip, Retention cyst, Cracked lips.

**VII Danta Roga (Dental Diseases)**

- a) Anatomical and Physiological considerations of Danta (Tooth) in Ancient and Modern Medical literature. Examination of Teeth.
- b) Etiology, pathology, classification, clinical features and management of diseases of Danta (Teeth) as detailed in literature of Ayurveda.
- c) Danta Utpatana- Tooth extraction using Jalandhara Bandha Yoga as well as by using instruments. Danta purana ancient and modern methods. Danta rakshana.
- d) Dental Caries, Dental Tartar, causes and treatment.

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

- a) Anatomical and Physiological considerations of Dantamula (Periodontia) in Ancient and Modern Medical literature. Examination of Dantamula- Periodontum.
- b) Etiology, pathology, classification, clinical features and management of diseases of Dantamula (Periodontia) as detailed in literature of Ayurveda.
- c) Gingivitis, Apical abscess, Periodontitis (Pyorrhoea), Periodontial abscess and Mandibular sinus

**IX Jihwa Gara Roga (Diseases of Tongue)**

- a) Anatomical and Physiological considerations of Jihwa (Tongue) in Ancient and Modern Medical literature, Examination of Tongue.
- b) Etiology, pathology, classification, clinical features and management of diseases of Jihwa (Tongue) as detailed in literature of Ayurveda.
- c) Glossitis, Tongue Tie, Ranula, Benign and Malignant Tumors of tongue

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

- a) Anatomical and Physiological considerations of Talu (Palate) in Ancient and Modern Medical literature. Examination of Palate.
- b) Etiology, pathology, classification, clinical features and management of diseases of Talu (Palate) as detailed in literature of Ayurveda.
- c) Palatitis, Cleft palate, Uvulitis and Tumors of the palate.

**XI Kantha And Gala Gata Roga (Diseases of Pharynx & Larynx)**

- a) Anatomical and Physiological considerations of Kantha and Gala (Pharynx and Larynx) in Ancient and Modern Medical literature. Examination of pharynx and Larynx.
- b) Etiology, pathology, classification, clinical features and management of diseases of Kantha and Gala (Pharynx and Larynx) along with swara bheda - (altered voice)

- quality) as detailed in literature of Ayurveda.
- c) Pharyngitis, Laryngitis, Tonsillitis, Carcinoma of Larynx, Pharynx, Diphtheria, Adenoiditis, foreign body in the throat- etiology, pathology and treatment of these diseases.

**XII Sarvasara Mukha Roga (Generalised mucosal affections of the oral cavity)**  
 Etiology, pathology, Classification, Clinical features and Management of diseases of Generalised mucosa of the oral cavity as detailed in literature of Ayurveda.  
 Stomatitis, HIV and Herpes infection of oral cavity

**XIII Miscellaneous Diseases**  
 Anatomy and physiology of Salivary, Thyroid and Para thyroid glands , their diseases and treatment. Dysphagia, Cervical lymphadenopathy, Manyastambha (Sternocleidomastoiditis).

## PRACTICAL

### Content of Practical

Identification, Uses, Demonstration of surgical instruments and method of sterilization.  
 Training of case taking, bedside clinics and case presentation.  
 Training in para- surgical procedures-

- 1) Kshara karma
- 2) Agnikarma
- 3) Raktamokshana
- 4) Training of ward procedures. Application of bandages, wound management, IV, Retrobulbar, Peribulbar, Facial, IM, Subcutaneous and Intradermal injections.
- 5) Training of minor procedures
  - a) Incision and drainage
  - b) Excision
  - c) Sutures
- 6) Observation of surgical procedures
  - a) Pterygium
  - b) Cataract
  - c) Cyst removal

### Hospital Training Peiod

- |    |                   |                 |
|----|-------------------|-----------------|
|    |                   | <b>4 Months</b> |
| 1) | OPD & IPD         | 1½ Months       |
| 2) | Operation Theatre | 1½ Months       |
| 3) | Kriyakalpa        | 1 Month         |

### Distribution of marks

- |    |                               |          |
|----|-------------------------------|----------|
|    |                               |          |
| 1) | Daily Record                  | 10 Marks |
| 2) | Identification of Instruments | 20 Marks |
| 3) | Short Case                    | 10 Marks |
| 4) | Long Case                     | 20 Marks |
| 5) | Viva - voce                   | 40 Marks |

**Total**

**100 Marks**

### Reference Books

- |   |                                |
|---|--------------------------------|
| 1. Shalakya Tantra                                    | Dr. Rama Nath Dwivedi          |
| 2. Shalakya Vigyan                                    | Dr. Ravindra Chandra Choudhary |
| 3. Abhinava Netra Chikitsa                            | Acharya Vishva Nath Dwivedi    |
| 4. Netra Chikitsa Vigyan                              | Dr. Ravindra Chandra Choudhary |
| 5. Netra Roga Chikitsa                                | Dr. Munje                      |
| 6. Netra Roga Vigyan                                  | Dr. Hans Raj                   |
| 7. Parson's Diseases of Eye                           |                                |
| 8. Diseases of ENT Log and Turner                     |                                |
| 9. Shalakya Tantra                                    | Shiv Nath Khanna               |
| 10. Useful portions of Charak, Sushrut, Vagbhata etc. |                                |

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### 3.4 SHALYA

Theory Two Papers – 100 Marks Each

Practical- Viva voce – 100 Marks

Theory Lectures - 210

Hospital Training - 6 Months

**Paper I** **100 Marks**

**PART A** **50 MARKS**

1. Introduction to Shalya Tantra - Historical background and progress made.
2. Definition of Shalya, Shalya Tantra and its importance.
3. Description of Yantra, Shastra, Anushastra – Definition, number, types, uses, Dosha, Guna, Karma. Relevant modern instruments.
4. Nirjantukarana – Sterilization – Methods, Types and O.T. fumigation
5. Sangyahanana– Anaesthesia - Definition, Types, anaesthetic agents, indications, contraindications, procedures, complications and management.
6. Trividha Karma – Purva Karma, Pradhana Karma and Paschat Karma.
7. Ashtavidha Shastra Karma - Operative procedures
8. Yogya Vidhi - Experimental Surgery.
9. Marma – Nirukti, types, description and importance.
10. Kshara and Kshara Karma – Nirukti, Pradhanyata, Guna, Dosha, Karma, Prakara, Nirmana Vidhi, Yogya, Ayogya, Vidhi and Upadrava Chikitsa. Knowledge of Kshara Varti, Taila and Pichu.
11. Kshara Sutra – Preparation, indications, contraindications and method of application, complications and their management.
12. Agnikarma - Mahatva, Upakarana, Vyadhi, Vidhi, Akrti bheda, Yogya, Ayogya and Upadrava Chikitsa.
13. Raktamokshana – Mahatva, Prakara-Siravyadha, Pracchanna, Shringa, Alabu, Jaloukavacharana (Jalouka parichaya) – Yogya, Ayogya, Vidhi and Upadrava Chikitsa.
14. Bandha Vidhi – Prayojana, Dravya, Yogya, Ayogya, Prakara, Abandya and Upadrava. Pichu, Plota, Kavalika, Vikeshika.
15. Sandhana Karma - Karna, Nasa, Oshtha Sandhana Vidhi. Principles and procedures of reconstructive and cosmetic surgery.
16. Pranasta Shalya and Nirharana Upaya.
17. Fluid, electrolyte and Acid Base Balance, Nutrition –
  - i) Introduction to physiology of fluids and electrolytes
  - ii) Dehydration and over hydration,

- iii) Specific electrolyte loss and symptomatology and management of Acidosis, Alkalosis and Acid balance.
  - 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 – pre-operative, post-operative and intravenous alimentation.
18. Rakta Mahatwa, Raktasrava- Prakara and lakshana. Raktastambhana - Haemostasis.
  19. Blood Transfusion –Blood groups, components, compatibility, indications, contraindications and complications with management.
  20. Knowledge about Vranitagara and Rakshakarma.
  21. Knowledge of antibiotics, analgesics, anti-inflammatory and emergency drugs in surgical practice.
  22. Knowledge of diagnostic techniques – X-ray, Imaging techniques, Ultra Sonography, CAT Scan, MRI, Biopsy/ Cytological study.

## Part B

50 Marks

23. Knowledge of Shat Kriya Kaala in surgical practice.
24. 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
  - v Dagdha Vrana - Burns and scalds
  - vi Marmaghata - Shock
  - vii Kotha – Gangrene
  - viii Granthi- Cyst.
  - ix Arbuda – Tumour.
25. **Vrana** – Nirukti and Prakara
  - i Nija Vrana – Nidana, Samprapti, Vrana Vasthu, Prakara, Lakshana, Vrana Pariksha – Sthana, Akrti, Srava, Gandha, Vedana. Vrana Avastha- Dustavrana, Shuddha Vrana, Ruhyamana Vrana, Samyak Roodha Vrana, Vyadhi Janya Vrana, Vrana Sadhya-Asadhyatha and Vrana Upadrava.
  - ii Vrana Chikitsa – Pathya-apathya and Shashti Upakrama.
  - iii Ulcer types and their management
  - iv Wound healing stages and management.
  - v Agantuja Vrana : i) Sadhyo vrana - Traumatic wounds – Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
    - ii) Management of bites and stings
26. **Twak Vikara** Nidana, Samprapti, Lakshana and Chikitsa of Pramehapidaka- Diabetic carbuncle, Chippa -Paronychia, Kadara – Corn, Vrana Granthi – Keloid.
27. **Manya Vikara** – Nidana, Samprapti, Lakshana and Chikitsa of Galaganda - Goitre, Gandamala, Apachi –Lymphadenitis, Pashanagardhabha – Parotitis.

28. **Sira Vikara** - Venous disorders – Superficial and Deep venous thrombosis, haemangioma, varicose veins, Venous Ulcers and their management.
29. **Dhamani Vikara** - Arterial disorders – Nidana, Samprapti, Lakshana and Chikitsa of Aneurysm, Burger's disease, Raynaud's disease.
30. **Snayu Vikara** - Diseases of tendons and ligaments – Tendonitis, tenosynovitis, ganglion and their management.
31. Principles of Amputation.
32. Surgical practice in AIDS - HIV and hepatitis patients.

## Paper II

100 Marks

### Part A

50 Marks

1. **Asthi Bhagna** - Fracture: 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, carpals, metacarpals, phalanges, femur, patella, tibia, fibula, tarsals, metatarsals, vertebrae, ribs, mandible, pelvis and skull bones.
2. **Sandimoksha** - Dislocation: Prakara, Samanyalakshana, Upadrava and Chikitsa. Dislocation of following joints with clinical features, diagnosis, complications and management of shoulder, elbow, wrist, hip, knee, ankle, mandible, vertebrae and Phalanges.
3. **Diseases of bone** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of - Congenital anomalies Osteomyelitis, cysts, tumours and tuberculosis.
4. **Cranio-cerebral injuries** – Mechanism, Pathology, Investigations, Complications and management. Cerebral concussion, Contusion and Laceration. Acute extradural haematoma, Acute Intracerebral and Chronic Subdural Haematoma.
5. Brain tumors and their management.
6. **Diseases of breast** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of - Sthan Vidradhi- Breast Abscess, Sthan Arbuda- Breast tumors and their management.
7. **Diseases of chest** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of - Pleural Abscess, Pleural Effusion, Tumors, Pleurisy and their management.
8. **Diseases of esophagus** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and management of - Congenital Anomalies, Oesophagitis, ulcer, Varices, Tumors and their management.
9. **Gulma Roga** – Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
10. **Diseases of stomach and duodenum** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of - Congenital Pyloric Stenosis, Peptic Ulcer, Tumors and their management.
11. **Diseases of small intestine** - Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of - Mickel's Diverticulitis, Tuberculosis, Obstruction, Perforation and their management.

12. **Diseases of large intestine** - Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of – Tuberculosis, Obstruction, Perforation, Tumor, Appendicitis, Crohn's disease, Ulcerative Colitis and their management.
13. **Udara Roga** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and management of - Jalodara - Ascities, Chidrodara – Perforation and Peritonitis, Badhagudodara – Obstruction and their management.
14. **Diseases of Rectum and Anal Canal** – Aetiopathogenesis, classification, Clinical Features, Diagnosis, Complications and Management of - Congenital Disorders, Arsha -Haemorrhoids, Rectal Polyp, Parikartika - Fissure in Ano, Bhagandara – Fistula-in-Ano, Guda Vidradi - Anorectal abscess, Gudabhramsa - Rectal prolapse, Sanniruddaguda - Anal stricture, Incontinence. Gudarbuda - tumor and their management.
15. **Abdominal Injuries and management**

#### Part B

50 Marks

1. **Diseases of Liver** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and management of Abscess, cysts, tumors, Obstructive Jaundice and Yakritdalyodar –Hepatomegaly.
2. **Diseases of Gall Bladder** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Cholecystitis, Cholelithiasis, tumors.
3. **Diseases of Pancreas** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Pancreatitis, Pseudo Pancreatic Cyst, Tumors.
4. **Diseases of Spleen** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Pleehodara – Spleenomegaly, Spleenic rupture.
5. **Diseases of Kidney** - Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Congenital Anomalies, Polycystic Kidney, Perinephric Abscess, Tumor, Renal Calculus, Renal Injury.
6. **Diseases of Ureter** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Calculus, Obstruction.
7. **Diseases of Urinary bladder** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Congenital anomalies, Ashmari -Vesicle Calculus, Cystitis, Tumor and Injury.
8. **Mutragata & Mutrakricha**- Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management. Retention of urine.
9. **Diseases of Prostate** - Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Prostatitis, Prostatic Abscess, Benign Prostatic Hypertrophy, Carcinoma of Prostate.



10. **Diseases of Urethra** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Urethritis, Stricture and Rupture.
11. **Diseases of Penis** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Niruddhaprakasha -Phimosis, Parivartika - Paraphimosis, Avapatika - Prepuceal Ulcer, Arbuda- Tumor, Lingarsha -Venereal Warts.
12. **Diseases of Scrotum and Testis** – Aetiopathogenesis, classification, Clinical Features, Diagnosis, Complications and management of Mutravridhhi - Hydrocele, Vrushana Shotha- epididymo-orchitis, Vrushana Granthi- Epididymal cyst, Scrotal Filaria, Shukrashmari - Seminal Calculus, Torsion of Testis, Ectopic Testis, Undescended Testis and Tumors .
13. **Vridhhi Roga** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management.
14. **Antra Vridhhi** – Aetiopathogenesis, Classification, Clinical Features, Diagnosis, Complications and Management of Hernia - Inguinal, femoral, Epigastric, Umbilical, Incisional and rare forms of Hernia.

## PRACTICAL

### Content of Practical

1. Identification, uses, demonstration of surgical instruments and method of sterilization.
2. Training of case taking, bed side clinics and case presentation.
3. Demonstration and Practical training in Anaesthesia.
4. Training of following Parasurgical procedures
 

i Kshara Karma	ii Agnikarma
iii Kshara Sutra	iv Raktamokshana
5. Training of following ward procedures
 

i Application of bandages and splints.	ii Catheterization
iii. Wound management	iv Ryle's tube aspiration
v. Injections -Intramuscular / Intravenous / Subcutaneous / Intradermal	
6. Training / Practice of following procedures
 

i Incision and drainage of abscess	ii. Excision
iii Sutures	iv Circumcision
v Hydrocele	vi Hernial repair
vii Haemorrhoidectomy	viii Fistulectomy
ix Fissurectomy	x Exploratory Laparotomy
7. Training of surgical emergencies and management.

<b>Hospital Training Period</b>	<b>6 Months</b>
1. OPD / IPD	4 Months
2. Operation theatre	1 Month
3. Emergency casualty	1 Month

#### **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
<b>Total</b>	<b>100 Marks</b>

#### **Reference Books**

- |   |  |
|---|--|
| 1. Sushrut Samhita  |  |
| 2. Ashtang Sangraha   |  |
| 3. Ashtanga Hridaya.  |  |
| 4. Charak 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. Bhagna 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.Sizoria & Dr. Praveen Kumar Chowdary.               |
| 15. Adhunika Shalya Chikitsa Siddanta                         | 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 mangement 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. S. Sankaran
22. Shalya Vigyan (Sachitra)	Anantram Sharma
23. Anushastra Karma	Dr. D.N. Pande
24. Concept of Vrana is Ayurveda	Dr. Lakshman Singh
25. Significance for Poorva Karma in in Surgical Patient	Dr. Lakshman Singh
26. Sangyahan Prakash	Dr. D.N. Pande
27. Short Practice of Surgery	Bailey and Love's Surgery
28. A concise Text Book of Surgery	S. Das
29. A manual on Clinical Surgery	S. Das
30. A System of Surgical Diagnosis	Prof. Tribhuvan. N. Patel
31. A Practical Guide to Operative Surgery	S. Das
32. Drugs and Equipment for Anesthesia	Arun Pal
33. Manual of Surgical Instruments	M. M. Kapur and Procedures
34. Ward Procedures	Mansukh B. Patel and Yogesh P. Upadhyay
35. Primary Anesthesia	Maurice king
36. Synopsis of Anesthesia	Lee
37. Clinical Anatomy/ Surgical Anatomy	Snell
38. Surgical Instruments	V.G.Kale
39. Outline of Orthopedics	J.C.Adams
40. Outline of Fracture	J.C. Adam
41. Undergraduates' Surgery	A.K.Nan
42. Text book of Surgery	Surgeons Association of India
43. Principles & Practice of Agnikarma	Dr. Anandkumar & Dr.Kanchan Shekokar

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### 3.5.PRASUTI TANTRA EVUM STRI ROGA

Theory Two Papers – 100 Marks Each

Practical- Viva Voce – 100 Marks

Theory Lectures - 150

Hospital Training – 3 Months

**Paper I** **Prasuti Tantra** **100 Marks**

**Part A** **50 Marks**

**Introduction and scope of Prasuti Tantra (obstetrics).**

#### **Stri Sharir Vigyan**

Etymological origin of the word Stri, Vayobhedena Stri sangnya. (Nomenclature of Stri according to age). Normal and abnormal conditions of Asthisandhi peshi Sahita Stri Shroni (Soft & Bony Pelvis) and its obstetrical importance, Shroni mapana (pelvic assessment) – Artavvaha and Stanyavaha strotamsi. Tryavarta yoni (Female internal and external genitalia). Stri Vishishta Peshi Marmani.

#### **Rajo Vigyan**

Description of Raja, Artava and concept of Shukra in Stri. Prathama Rajo Darshana (Menarche), Rituchakra - Rajakaal- Ritukaal – Rituvyatitakaal- Menstrual cycle and their regulation by endocrine glands – Rajasvala Charya. Ritumati Lakshana, Ritumaticharya, Importance of Ritukaal in Garbha dharana.

#### **Garbha Vigyan**

- i) Garbhasya paribhasha, Garbhadhanavidhi, Garbhavakranti, Garbha Sambhava samagri (factors essential for conception), Garbhakara bhava, Panchabhautika composition of Garbha, Garbhalingotpatti, Garbhasya Avayavotpatti, Masanumasika Vridhi of Garbha (Monthwise development of foetus), Garbha Varnotpatti (Origin of complexion in foetus), Garbha Poshana (Nutrition of Garbha), Garbhangasamstithi (attitude), Garbhastithi, Asana, Uday (lie, position, presentation), fetal skull, Garbha Vikriti.
- ii) Apra (Placenta) Garbha Nabhinadi (Umbilical cord), Garbhodaka (Amniotic fluid), Jarayu (Foetal membranes)- Formation, Development, Function, Normalcies and their abnormalities. Ulba (vernix caseosa).

## Garbhinivigyan

- i) Lakshana of Sadhyograhita Garbha, Lakshana of Vyakta Garbha, Garbhini Nidana (Diagnosis of Pregnancy), Pumsavana vidhi,
- ii). Garbhini vyavastha: Garbhini Paricharya (Ante Natal care, examination investigation and management), Garbha Upaghatakara Bhava, Dauhrida.
- iii. Garbha Vyapada: Garbhasrava and Garbhapata (abortions), Upavishtaka, Nagodara / Upashushka, Leena garbha, Antarmrita garbha (Intrauterine Foetal death), Garbha shosha, Mithyagarbha (Pseudocyesis), Raktagulma, Hydatid form mole. Ectopic pregnancy I.U.G.R, Bahugarbhata, Rh-incompatibility – causes, clinical features, complications and treatment.

## Garbhini Vyapad / Garbha Vyapad

- i) Garbhini - Alpabala vyadhaya (Minor ailments of Pregnancy) – Hrilasa (Nausea), Chhardi (emesis), Aruchi, Atisara (Diarrhoea), Vibandha (Constipation), Arsha, Udavarta, Pada Shotha, Parikartika, Vaivarnya (Discoloration), Kikkisa etc.
- ii) Garbhini - Balavan Vyadhaya (Major Diseases of Pregnancy) Pandu (Anaemia), Jwara, Shotha (oedema), pregnancy induced Hypertension, Toxemias of Pregnancy, Prasava Poorva Rakta Srava (Antepartum Haemorrhage) Causes, Clinical Features, Complications and Treatment of all diseases, High risk Pregnancies.

## Part B

50 Marks

## Prasava Vigyan (Parturition)

**Prakrit Prasava (Normal Labour):** Prasava Paribhasha, (Definition of Prasava) Prasavahetu, Prasavkaala, Sutikagara;- Nirmana, Sangrahaniya Dravyani, Sutikagara, Pravesavidhi, Labour Room, Garbhasan, Prasavavastha; Prajayani/ Upasthita Prasava/ Prajanishyamana/ Asannaprasava Avastha, Avi. Mechanism of Labour, Prasavaparicharya - clinical features and management of normal labour, Partogram, Jatamatraparicharya, (care and resuscitation of newborn).

## Prasava Vyapad (Disorders of Labour)

Akaala Prasava (Preterm labour), Kalatita Prasava (post term labour), Vilambita Prasava (prolonged labour) Induction and augmentation of labour Yoni Samvarana, Cervical Dystocia, Cephalo Pelvic Disproportion, Fetal Distress. Mudagarbha; - Definition, Etiopathology, Clinical features, Types, Prognosis (Sadhyasadhyta), Treatment Aushadhi, Mantra, Shastra, Yantrachikitsa Garbha stithi parivartana (version), Forceps Delivery, Ventouse Delivery. Muladharachhedan (Episiotomy), Udarapatanapurvaka garbha Nirharana, Ceasarean Section. Aparasanga (Retention of Placenta), Prasavottara Raktasrava (PPH), Its causes, clinical features and treatment, Maternal distress, Prasavajanya Janananga Abhighata, Uterine Inversion, Amniotic Fluid Embolism etc.

**Sutika Vigyan** – Sutika Paribhasha, Sutika Kaal, Changes during Sutika avastha (Sharirika and Manasika), Sutika paricharya.

**Sutika Roga** – Number of Sutika Roga, Causes, Clinical features, Prognosis and treatment of Sutika Jwara, Shotha and Makkala and other complications.

**Stanya Vigyan** – Stana Stanya Pariksha, Stanya Sampat. Stanya Dusti, Stanyakshaya, Stanyavidhi – their causes, clinical features and treatment.

**Atyayika Chikitsa in Prasuti** (Emergency care in Obstetrics) Pharmacotherapeutics of the drugs used in Obstetric emergencies, PNDT Act, MTP Act.

**Paper II** **STRI ROGA** **100 Marks**

**Part A** **50 Marks**

Congenital malformations of female genital tract.

**Artava vyapad**

Artava Vriddhi, Kshaya, Ashta Artava Dushti, Asrigdara, Abnormal Uterine Bleeding, Anartava (Amenorrhoea), Alpartava (hypo and Oligomenorrhoea).

**Yoni vyapadani** –Sankhya, Nidana, Lakshana, Upadrava evam Chikitsa with all possible modern correlations.

**Shukra vigyana**

Description of Shukra, Shukra Vriddhi, Kshaya, Shukra Dusti their Hetu, Lakshana and its Chikitsa, Normal Semenogram.

**Vandhyatva** (Infertility – Causes, Types, Investigations and Management) Yoni Kanda, Yoni Arsha, Granthi and Arbuda of Yoni (Benign and Malignant tumours of Genital Tract) Pelvic Infections including Sexually Transmitted Infections and their Management, Rajonivrutti

**Part B** **50 Marks**

**Stanaroga**

Stanagranthi, Stanavidradhi (Abscess), Stanashopha (Mastitis) their Etiopathology, Clinical features, Diagnosis, Prognosis, Treatment and Complications.

**Sthanik Chikitsa-**

- i) Snehana, Svedana, Uttarabasti, Pichu, Varti, Lepana, Dhupana, Dhavana, Dahana, Ksharakarma etc. Practical knowledge of all these procedures along with indications, complications and management.
- ii) Importance of Panchakarma in Stri Roga.

## Shastra Karma

- i) Surgical procedures their Indications, Contraindications, Purvakarma (Pre-Operative), Pradhanakarma (Operative), Paschatakarma (Post-operative), Complications and Management.
- ii) Garbhashayamukha Vistrutikarana (Cervical Dilatation) & Garbhashaya Lekhana (Curettage), Garbhashaya Mukhadahana (Cauterization of Cervix), Swasthane Garbhashaya Sthapana (Repair of Genital Prolapse), Arshanirharana (Excision of Polyp), Granthi evum Garbhashaya Nirharanasya Samanya Gyana (Hysterectomy), Female Surgical Sterilization.
- iii) Removal of different type of Cysts, Marsupilisation, PAP smear, Endometrial and Cervical Biopsy.

Stri roga Sambandhita Pramukha Aushadhi. Prasuti & Stri Roga Chikitsa Upayogi Yantra Shastra Parichaya and Vyadhivinishchaya Upaya (Investigative and Diagnostic Aids ).

Basic knowledge of Laproscopy, Hysteroscopy, Hysterosalpingography, USG, X-RAY, Colposcopy. Garbhanirodhaka Upaya.

Parivar Niyojana, Reproductive and Child Health Care. AIDS/HIV control programme and importance of current National Programme.

## PRACTICAL

### Content of Practical

1. History taking and examination of antenatal and gynecological cases.
2. Observation of 10 labour cases.
3. Practical knowledge of performing Sthanika Chikitsa
4. Observation of surgical procedures mentioned above.
5. Identification, uses, demonstration of surgical instruments and method of Sterilization.

### Distribution of Marks

1. Case Record	10 Marks
2. Case Taking (2 Cases)	30 Marks
3. Identification of drugs and models	20 Marks
4. Viva - voce	40 Marks
<b>Total</b>	<b>100 Marks</b>

### Reference Books

1. Abhinava Prasuti Tantra Vd. Damodar Sharma Gaur
2. Prasuti Vigyan Acharya Ramanath Dwivedi
3. Prasuti Vigyan Dr. Mrinmayi Mukharjee
4. Prasuti Vigyan Dr. Alakh Narayan Singh
5. Prasuti Vigyan Manjari Dwivedi
6. Prasuti Vigyan Vaidya Nirmala Tai Rajwade
7. Prasuti Tantra & Stri Roga Dr. Premvati Tiwari
8. Abhinava Prasuti Vigyan Ayodhya Prasad Achal
9. Stri Roga Vigyan Vd. Ramanath Dwivedi
10. Abhinava Striroga Vigyan Dr. Rajendra Bhatnagar
11. Abhinava Striroga Vigyan Ayodhya Prasad Achal
12. Stri Roga Chikitsa J.S. Chauhan
13. Janasankhya Siddhanta aur  
Upadeyata Dr. Nirmal Sahani
14. Theory of Population in Outline D.I. Vallentev
15. Text Book of Gynaecology C.S. Dawn
16. Text Book of Obstetrics C.S. Dawn
17. Ayurvedic Concepts in Gynaecology Vaidya Nirmala Joshi
18. Navya Prasuti Vigyanam Dr. Pooja Bharadwaj
19. Useful parts of Charak, Sushrut,  
Vagbhata & Sharangdhara.

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### 3.6. KAUMARBHRITYA

Theory One Paper – 100 Marks

Practical Viva Voce 100 Marks

Lectures - 90

Hospital Training – 1 Month

Paper I

100 Marks

#### Kaumarbhritya Parichaya Evum Balaka Paricharya

#### (Introduction to Ayurvedic Pediatrics and Child Care)

Part A

50 Marks

1. General introduction of Kaumarbhritya (Ayurvedic Pediatrics): Definition, importance, description and etymological interpretations of terminologies used in Kaumarbhritya.
2. Vayobheda (Classification of age): Garbha, Bala, Kumara; Kshirada, Kshirannada & Annada etc.
3. Importance of Kashyapa Samhita in Kaumarbhritya.
4. Navajata Shishu Paricharya (Neonatal Care): Care of the Samaya-purvajata Shishu (Preterm), Purnakalika Shishu (Full term), and Samaya-Paschatajata Shishu (Post term neonate), Nabhinata Chhedana (Cutting of umbilical cord), Complications of improper cutting of umbilical cord and its treatment, Rakshoghna Karma (Protective measures).
5. Prana Pratyagamanam (Neonatal Resuscitation): Methodology; complications and their management (Ayurvedic and modern view).
6. Navajata Shishu Parikshana (Examination of new born): Ayu Parikshana (including Lakshanadhyaya) Modern approach of Neonatal Examination including gestational age assessment
7. Kumaragara (Nursery, NICU and Pediatric Ward).
8. Navajat Shishu Poshana (Nutritional aspects including neonatal feeding): Specific feeding schedule as per Ayurvedic texts and modern concept; Stana Sampat (Characteristics of normal breast), Stanya Sampat (Properties of normal breast milk) Stanyotpatti and Prasuti (Physiology of lactation), Stanya Sangathana (Composition of breast milk), Stanya Parikshana (Examination of breast milk), Stanya-Piyusha (Colostrum); Stanya-Pana-Vidhi (Method for breast feeding), Stanyakshaya-Stanyanasha (Inadequate production and absence of breast milk), Stanyabhava Pathya Vyavastha (Alternative feeding in the absence of breast milk), Various other feeding methods.
9. Stanyadosha (Vitiation of Breast milk), Stanya Shodhana (Purification of breast milk), Stanya Janana and Vardhanopakrama (Methods to enhance breast milk formation).

10. Dhatri (Wet nurse): Dhatri Guna and Dosha (Characteristics of wet nurse), Concept of human milk banking
11. Garbha Vridhi Vikasa Krama : Samanya Parichaya (General introduction to normal fetal growth from conception to full term maturity), Sharirika Vriddhi, Mansika evum Samajika Vikas (Physical, mental and social growth & development of child), Important mile stones during infancy and early childhood with special reference to gross & fine motor, language and personal – social development., Anthropometry-measurement and their interpretation.
12. Importance of Kreedabhumi (play ground) and Kreedanaka (toys), Kumaradhara (child care taker)
13. Poshana (Nutrition): Normal requirements of nutrients for newborn, infant and children, common food sources, Satmya and Asatmya Ahara (Compatible and incompatible diet)
14. Sanskaras: Jatakarma, Namakarana, Nishkramana, Upveshana, Annaprashana, Karnavedhana, Chudakarma, Upanayana and Vedarambha.
15. Dantotpatti evum Danta Raksha Vidhi (Dentition and dental care): Dantasampat (Characteristics of healthy teeth), Danta Nisheka evum Dantodbheda (Eruption of teeth), Dantodbhedjanya Vikara (Dentition disorders).
16. Vyadhikshamatva: General concepts of Bala (Immunity) and methods of Bala Vriddhi.
17. Lehana (Electuaries): Importance, uses and various types of Lehana.
18. 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. Balaroga Samanya Chikitsa Siddhanta (General principles of treatment in children), Balaroga Parikshavidhi- Shadvidha, Ashtavidha, Dashavidha Pariksha evum Shishu Vedana Parigyan (Examination of diseased child and Diagnostic methods-Ayurvedic and modern).
2. Aushadhi Matra Nirdharana- According to Vaya, Bhara evum Aushadhi Kalpana (drug doses according to age, weight and drug preparations)
3. Specific therapeutic procedures in children: Panchkarma procedures specific to pediatric age group.
4. Prasava Kaleena Abhigata (Birth injuries): Shwasavrodha (Asphyxia), Upashirshaka (Caput Succidanum and Cephalohaematoma), Shastraghatajanya: Facial Paralysis, Erb's Paralysis, Bhagna (fractures).

5. 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), Tracheoesophageal Fistula (TOF), Spina bifida, Meningocele, Meningomyelocele, Pyloric Stenosis.
6. Anuvanshika Vyadhi (Hereditary diseases): Down syndrome, Turner Syndrome, Myopathy, Thalassaemia, Sahaja Prameha (Juvenile Diabetes).
7. Prasavottara Vyadhi (Neonatal disorders): Navajata Kamala (Neonatal Jaundice), Navajata Netrabhishyanda (Neonatal conjunctivitis), Nabhiroga (Umbilical disorders), Mastishkaghata (Cerebral Palsy), Rakta Vishamayata (Neonatal Septicaemia), Rakta Vaishamyata (Rh-Incompatibility), Raktasravi Vikara (Haemorrhagic Disorders), Ulvaka Roga.
8. Dushta Stanyapanajanya Vyadhi (Disorders due to Vitiated Milk): Cow's Milk Allergy, Charnadala (Infantile atopic dermatitis), Kshiralasaka, Kukunaka (Conjunctivitis), Ahiputana (Napkin Rashes)
9. Kuposhanajanya Vyadhi (Nutritional disorders): Karshya, Phakka, Balashosha and Parigarbhika (Protein Energy Malnutrition), Vitamin and Micronutrient deficiency disorders, Hypervitaminosis.
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, Poliomyelitis, Rajayakshma (Tuberculosis), Jivwanujanya Yakrit Shotha (Hepatitis)
11. Srotas Vikara:
  - a. Pranavaha Srotas: Pratishyaya (common cold), Kasa (Cough), Shwasa (Respiratory distress syndrome), Tamaka Shwasa (Bronchial Asthma), Utpullika, Swasanaka Jwara (Pneumonia/Pneumonitis, Bronchiolitis), Gala shotha (Pharyngitis, Laryngitis), Talukantaka (Tonsillitis)
  - b. Annavaha Srotas: Ajirna (Indigestion), Atisara (Diarrhoea), Chhardi (Vomiting), Vibandha (Constipation), Mukhapaka (Stomatitis), Gudapaka (Proctitis), Parikartika (Anal fissure), Udarshula (Infantile Colic), Pravahika (Dysentry), Gudabhransa (Rectal Prolapse)
  - c. Rasavaha Srotas: Jwara (Fever), Pandu (Anemia), Mridbhakshanajanya Pandu (Anaemia associated with clay eating/ Pica).
  - d. Raktavaha Srotas: Kamala (Jaundice), Raktapitta (Haemorrhagic disorders), Krimija Hridroga ( Infectious cardiac diseases including Rheumatic Heart Disease), Uchcha-Raktachapa (Hypertension), Yakridpleehodara (Hepatosplenomegaly).
  - e. Mamsa-Medovaha Srotas: Apachi (Lymphadenitis), Galaganda (Goitre), Gandamala (Cervical Lymphadenopathy), Sthaulya (Obesity)
  - f. Mutravaha Srotas: Mutraghata (Anuria), Mutrasanga (Retention of urine) Mutrakriccha (Dysuria), Vrikkashotha (Glomerulonephritis and Nephrotic syndrome)
12. Anya Bala Vikara (Miscellaneous Pediatric Disorders)
  - Pangutwa (Locomotor disorders), Vamanatwa (Dwarfism), Jadatwa (Mental disorders),

- Apasmara (Epilepsy), Unamada, Akshepa (Convulsions), Nirudhaprakasha (Phimosis), Kushta (Skin disorders), Madhya Karna Shotha (Otitis media), Karnasrava (Otorrhoea)
13. Behavioral Disorders of Children, their management and counseling: Breath holding spell, Shayyamutra (Bed wetting), Autism, ADHD (Attention Deficit and Hyperactive Disorders)
  14. Atyayika Balaroga Prabandhana (Pediatric Emergency Management): Shock and Anaphylaxis, Fluid and Electrolyte Management, Drowning, Poisoning, Foreign body aspiration, Status epilepticus, Hemorrhage, Acute Renal Failure, Febrile Convulsion, Status Asthmaticus
  15. Balagraha: General description, types, clinical features and management
  16. Various Ayurvedic & modern procedures and investigations in pediatric practice

## **PRACTICAL**

### **Content of Practical**

1. Clinical training of above mentioned disorders of children.
2. Navajata Shishu Paricharya (Care of the newborn)
3. Pranapratyagamana Vidhi (Resuscitation procedure of new born)
4. Vaccination
5. Panchakarma Vidhi (Panchakarma procedures)
6. Knowledge of various equipments such as phototherapy unit, overhead radiant warmer, special resuscitation equipments, Panchakarma and their application
7. Knowledge of IV fluid administration, blood sampling
8. Breast feeding technique

### **Distribution of Marks**

Clinical work (record of clinical cases)	20 Marks
Examination of Patient	40 Marks
Spotting	10 Marks
Viva - voce	30 Marks
<b>Total</b>	<b>100 Marks</b>

### **Reference Books**

- |  |   |
|--|---|
| 1. Kashyapa Samhita  | Complete Hindi translation by Satyapal Vidhyalankara English translation by Prof. Premvati Tiwari |
| 2. Essential Paediatrics   | O.P. Ghai   |
| 3. Text Book of Paediatrics  | Nelsan  |
| 4. Care of New Born  | Meharban Singh  |
| 5. Clinical Methods in Paediatrics   | Meharban Singh  |
| 6. Paediatric Emergencies  | Meharban Singh  |
| 7. Diseases of New Born  | Scheffers   |
| 8. Kaumarbhritya related references from Charak Samhita, Sushrut Samhita Vagbhata etc. |   |

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### 3.7. PANCHAKARMA

Theory One Paper – 100 Marks

Practical Viva-voce – 50 Marks

Lectures - 100

Hospital Training – 3 Months

Paper I 100 Marks

Part A 50 Marks

#### I. Introduction

- 1) Introduction to Panchakarma, their importance and utility in the treatment.
- 2) Relation of Panchakarma with Shodhana therapy (Purification therapy).
- 3) Threefold Karma :-
  - i) Poorva Karma (Pre operative procedure):- General knowledge, importance and utility of Poorva karma (Pachana, Deepana, Snehana & Swedana)
  - ii) Pradhana Karma (Operative Procedure)
  - iii) Pashchat Karma (Post Operative Procedure)
- 4) Usefulness of Shodhana (Purification Therapy) according to the seasons.
- 5) General precautions (Pariharya Vishaya) during Panchakarma.
- 6) Relevance of Panchakarma in present era.
- 7) Specifications of Panchakarma theatre and necessary equipments

#### II. Snehana

- 1) Etymology and Definition of Sneha and Snehana (Oleation therapy)
- 2) Types of Sneha, Qualitative utility of Sarpi, Taila, Vasa and Majja
- 3) Different categories of Snehayoni (sources).
- 4) Need of Rukshana before Snehana and Samyak Rukshana Lakshana.
- 5) Types of Snehana – Bahya and Abhyantara (external and internal oleation therapy), Snehapaka.
- 6) Knowledge of Yamaka Sneha, Trivrit Sneha, Maha Sneha, Panchaprasrutiki Sneha, Achcha Sneha, Pravicharana Sneha, Sadya Sneha, Avapidaka Sneha, Shodhana, Shamana and Brimhana Sneha, Hrasiyasi, Hrasva, Madhyama and Uttama Sneha
- 7) Indications and contraindications for Snehana.
- 8) Sneha Procedures:  
Abhyantara Shodhananga Sneha Vidhi:  
**Purvakarma:** Roga and rogi pariksha, including relevant diagnostic techniques, Koshta pariksha and Agni nirnaya, preparation of the rogi & fixation of dose.

**Pradhana karma:** Administration of Sneha & Anupana, Observation-Jeeryamana/Jeerna/Ajeerna/Asnigdha Lakshana, Samyak Yoga, Ayoga/Atiyoga Lakshana, Vyapat & their management according to Ayurveda & Modern System of Medicines.

**Pashchat karma:** Pariharya Vishaya & Planning of Shodhana. Shamana and Brimhana Snehana Vidhi, Chirakaleena Sneha Vyapat and their management.

- 9) Diet and regimen during Snehana
- 10) Introduction to Bahirparimarjana Chikitsa.
- 11) Detailed knowledge about procedure and utility of following Bahyasnehana (External oleation therapy) – Abhyanga, Samvahana, Mardana, Unmardana, Utsadana, Padaghata, Murdhni Taila, Pichu, Karna Poorana & Akshi Tarpana
- 12) Snehana Karmukata.
- 13) Digestion and Metabolism of Fat.

### III. Swedana

- 1) Etymology and Definition of Sweda and Swedana (Sudation).
- 2) Swedana dravya and their properties.
- 3) Methods to protect the vital organs (varjya anga) during Swedana Procedure. Ten Types of Niragni Sweda, Different types of Sagni Sweda
- 4) Knowledge of Shodhananga and Shamana Sweda.
- 5) Indication and contra- indications of Swedana.
- 6) Detailed Knowledge about Utility of below mentioned Swedana procedures:- Patrapinda Sweda, Shashtika Shalipinda Sweda, Churna Pinda Sweda, Jambheera Pinda Sweda, Dhanya Pinda Sweda, Kukkutanda Sweda, Anna lepa, Valuka Sweda, Ishtika Sweda, Nadi Sweda, Bashpa Sweda, Ksheera Bashpa Sweda, Avagaha Sweda, Parisheka Sweda (Pizichil, Dhanyamla Dhara, Kashaya Dhara, Ksheera Dhara) & Upanaha Sweda.
- 7) Features of Samyak Yoga (Proper Sudation), Atiyoga (Excessive Sudation), Heenayoga (Inadequate Sudation) and Vyapat of Swedana and their Management.
- 8) Diet and regimen during and after Swedana.
- 9) Swedana Karmukata (Mode of action of Swedana Chikitsa).
- 10) Introduction to Bahirparimarjana Chikitsa: Lepa, Gandusha, Kavala, Shiro Lepa (Tala potichil), Talam, Udvartana, Takra Dhara, Kati, Basti, Janu, Basti, Greeva and Urobasti (Tarpana)
- 11) General Knowledge about current Sudation techniques (Sauna bath, Steam bath, Infrared therapy).

### IV. Vamana

- 1) Etymology, Definition and Introduction of Vamanakarma
- 2) Importance and Utility of Vamana Karma
- 3) Koshta Nirnaya and Agni pariksha in Vamana Karma.
- 4) Indications and Contraindications for Vamana.
- 5) General properties of Vamaka Dravya
- 6) Preservation and Knowledge of Vamaka and Vamanopaga dravya.

- 7) Detailed study of Madana Phala, Kutaja, Yashti, Vacha and Nimba.  
**Purva karma:** Snehana & Swedana, Diet & regimen prior to Vamana Karma Preparation of formulation for Vamana Karma Dose & Method of Administration.  
**Pradhana karma:** Administration of Drugs and Observation, and Assistance of Vega, Upavega and Matra. Knowledge of Laingiki, Antiki and Maniki Shuddhi, Features of Samyak yoga (Proper Shuddhi), Atiyoga (Excessive Shuddhi), Ayoga (Inadequate Shuddhi) and their management.  
**Pashchat Karma:** Samsarjana (Peyadi, Tarpana and Rasa Samsarjana Krama) Pariharya Vishaya & Parihara Kaal Vyapat & their management according to Ayurveda & Modern System of Medicine
- 8) Vamana Karmukata (Mode of action of Vamana).

#### V. Virechana Karma

- 1) Etymology, Definition, Introduction, Importance, Utility & Classification of Virechana Karma.
- 2) Knowledge of Anulomana, Sramsana, Bhedana, Rechana, Karma with examples.
- 3) General properties of Virechana Dravya.
- 4) Detailed study of following Virechana drugs Trivrut, Eranda, Aragvadha, Katuki and Jayapala
- 5) Knowledge of Virechana kalpanas, their properties, dose, anupana and method of administration.
- 6) Knowledge of Koshta Nirnaya and Agni Vivechana.
- 7) Indications & Contra-indications for Virechana
- 8) Significance of Vamana before Virechana.
- 9) Virechana Vidhi (Procedure for Virechana)  
**Purva karma:** Snehana & Swedana Diet & regimen prior to Virechan Karma.  
**Pradhana karma:** Administration of drugs and Anupana, Observation, Assessment of Vegas, Upavegas and Matra. Knowledge of Laingiki, Antiki and Maniki Shuddhi, Features of Samyak yoga (Proper Shuddhi), Atiyoga (Excessive Shuddhi), Heenayoga (Inadequate Shuddhi) and their management.  
**Pashchat karma :** Samsarjana (Peyadi, Tarpana and Rasa Samsarjana Krama) Pariharya Vishaya & Parihara Kaal Vyapat & their management according to Ayurveda & Modern Systems of Medicine.
- 10) Virechana Karmukata (Mode of action of Virechana).

#### VI. Basti

- 1) Etymology, Definition, Introduction, Utility, and Importance of Basti Karma.
- 2) Types of Basti based on Karma, Sankhya, Adhistan & Matra.
- 3) Knowledge of different Basti yantra, their significance and utility.
- 4) Indications & Contra-indications for Anuvasana Basti and Asthapana Basti.
- 5) Knowledge of Anuvasanopayogi and Asthapanopayogi dravya.
- 6) Administration of Basti:  
**Purva Karma** Preparation of Basti dravya, Fixation of dose, Preparation of Patient.  
**Pradhana Karma :** Basti Pranidhana Vidhi (Administration of Asthapana, Anuvasana

and Matra Basti) Observation of Basti Pratyagamana, Samyakyoga, Atiyoga, Heenayoga lakshana and their management.

**Paschat Karma** : Pariharya vishaya, Parihara Kaal Diet and regimen after Basti.

- 7) Detailed Knowledge of Basti Vyapat and their management.
- 8) Study of following Vishishta Basti: Piccha Basti, Ksheera Basti, Yapana Basti, Madhutailika Basti, Erandamooladi Nirooha Basti, Panchaprasrutika Basti, Kshara Basti, Vaitarana Basti, Krimighna Basti, Lekhana Basti, Sarvarogahara Nirooha Basti, Brimhana Basti, Vataghna Basti, Pittaghna Basti and Kaphaghna Basti.
- 9) Knowledge of Uttara Basti, Importance of Uttara Basti, Uttara Basti Yantra, dravya and their dosage in Uttara Basti.
- 10) Detailed knowledge of administration of Uttara Basti into mutrashaya (Intra Vesical) and Garbhashaya (intra uterine).
- 11) Basti karmukata (Mode of action of Basti).

## VII. Nasya

- 1) Etymology, definition, introduction & Significance of Nasya Karma.
- 2) Knowledge about dravya (Medicines) used for Nasya karma,
- 3) Classification of Nasya in detail
- 4) Indications and contraindications of Nasya
- 5) Knowledge of dosage of Dravya (Medicines) and time of administration in different type of Nasya.
- 6) Nasya Procedure  
**Purva Karma** : Preparation of Patient.  
**Pradhana Karma** : Administration of Nasya.  
**Paschat Karma** : Parihara Kaal, Diet and regimen after Nasya.
- 7) Detailed Knowledge of features of Samyakyoga (Proper), Ayoga (Inadequate), Atiyoga (Excessive) of Nasya and their management.
- 8) Pathya-Apathya during Nasya karma
- 9) Administration of Navana, Marsha, Pratimarsha, Avapeedaka, Dhmapana and Dhuma Nasya
- 10) Nasya Karmukata (Mode of action of Nasya Therapy)

## VIII. Rakta Mokshana and Vyayamopachara

- 1) Definition, Utility and Significance of Raktamokshana, Knowledge of different Techniques of Raktamokshana
- 2) Indications and contraindications for Raktamokshana
- 3) Raktamokshana Karmukata (Mode of Raktamokshana)
- 4) Basic Knowledge of Physiotherapy
- 5) Knowledge of emergency management in complications such as Water & Electrolyte imbalance, hypo- volaemic shock, Haematemesis, Epistaxis, Bleeding per Rectum, Acute abdomen etc.



### Distribution of Marks

1.	Practical Record Book	10 Marks
2.	Procedure	15 Marks
3.	Viva-voce	25 Marks
	<b>Total</b>	<b>50 Marks</b>

### Reference books

1	Charak Samhita with Commentary of Ayurveda Dipika by Chakrapanidatta & Jalpakkalpataru by Gangadhara	Agnivesha
2	Sushrut Samhita with the Nibhandha Samgraha Commentary of Dalhana & Nyayachandrika Panjika of Gayadasa on Nidana Sthana	Sushruta
3	Ashtanga Hridaya with Sarvanga Sundara & Ayurveda Rasayana Commentaries	Vagbhata
4	Ayurvediya Panchakarma Chikitsa	Dr Mukundilal Dwivedi
5	Panchakarma Vigyan	Dr Haridas Shreedhar Kasture
6	Illustrated Panchakarma	Dr.G Srinivasa Acharya
7	Clinical Panchkarma (English)	Dr. P.Yadaiah
8	Prayogika Panchkarma (Hindi)	Dr. P. Yadaiah
9	Vivida Vyadhiyome Panchkarma (Hindi)	Dr. P. Yadaiah
10	The Panchkarma Treatment of Ayurveda with Kerala Specialties	Dr. T.L. Devaraj
11	Panchkarma Therapy	Dr. R.H. Singh
12	Principles and Practice of Basti	Dr. Vasudevan Dr. L. Mahadevan
13	Clayton's Physiotherapy	
14	Teddy's Physiotherapy	
15	Harrison's Principle of Internal Medicine	
16	Guyton's Physiology	
17.	Principles & Practice of Basti	Dr. M.R.V. Nampoothri.

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**CENTRAL COUNCIL OF INDIAN MEDICINE  
NEW DELH**

**List of Experts Participated in the National Workshop To Review the  
Syllabus of UG & PG Heldon 77 to 20 Feb. 2009 at Bangalore**

<b>SANSKRIT</b>		<b>RACHANA SHARIR</b>	
1.	<b>Prof Radheshyam Kalawatiya.</b> Rajasthan Ay. Uni. <b>Jodhpur</b>	22.	<b>Dr D G Thatte.</b> Bhadevan, <b>Lucknow</b>
2.	<b>Dr K Leela</b> JSS Ay. Med. Coll. <b>Mysore</b>	23.	<b>Prof. Govind Raju U</b> SDM College <b>UDUPI</b>
3.	<b>Sri M N Panduranga</b> SDM , <b>HASSAN-</b> (Karnataka)	24.	<b>Shiv Prasad Tiwari</b> SSMD Ayu. College, <b>MOGA</b>
4.	<b>Prof Shivmony Nair</b> Sri Sri Coll. of Ay. <b>Bangalore</b>	25.	<b>Dr. Mukund Pandurang Erande</b> Sumatibhai Ay. Col. <b>Hadapsar</b>
5.	<b>Dr. Shivaram Gayatri</b> Govt. Ay. Coll. <b>Bangalore</b>	26.	<b>Dr. S.S. Gupta</b> Govt. Ayurved College, <b>Patna</b>
6.	<b>Dr. Srikar Hegde</b> Sri Sri Coll. of Ay. <b>Bangalore</b>	27.	<b>Dr. Alka Jayavanth Kumar</b> JSS Ay. Med. College <b>MYSORE</b>
7.	<b>Dr. P K Upadhyay</b> Lal. B.S. Govt. Maha. <b>HANDIA</b>	28.	<b>Dr. Sanjay Pandit</b> Bharti Vidyapeeth's, <b>Pune</b>
8.	<b>Dr. Rajesh D.A</b> Govt. Ay. Col. <b>Thiruvanathapuram</b>	29.	<b>Prof Madhukar Paranjpe</b> Ashtang Ayurved Mah. <b>PUNE</b>
9.	<b>Smt S S Shinde Seth C.M.A.</b> Vaidyak Mahavidyalaya, <b>SATARA</b>	30.	<b>Vaidya Sharma G B</b> Government Ay. Coll. <b>Nanded</b>
10.	<b>Dr Basappa S. Hebballi</b> KLE, Society, <b>BELGAUM</b>	31.	<b>Dr. B.K. Sharma</b> Government Ay. College <b>Raipur</b>
11.	<b>Dr M C Bhatha</b> State Ayurved College, <b>LUCKNOW</b>	32.	<b>Prof H H Awasthi</b> BHU <b>VARANASI</b>
12.	<b>Dr. C.S. Somayaji</b> Ayurved Academy, <b>Bangalore</b>	33.	<b>Dr R P Misra</b> Ay. Cong. Panjabi Bagh, <b>N. Delhi</b>
<b>SAMHITA</b>		34.	<b>Prof N Muralidhara</b> Sri Sri Coll. of Ay. <b>Bangalore</b>
13.	<b>Dr. Banwari Lal Gaur</b> Vice Chancellor University of <b>JODHPUR</b>	35.	<b>Prof. Kanthi.</b> SDM College of Ayurved <b>Udupi</b>
14.	<b>Dr. Mahesh Vyas</b> IPGTR, <b>JAMNAGAR</b>	36.	<b>Dr. VK Sridhar Holla</b> SDM College of Ayurved, <b>Udupi</b>
15.	<b>Dr. N. Anjaneyamurthy</b> Govt. Ay. College, <b>Mysore</b>	37.	<b>Dr. Rakesh Kumar Sharma</b> Rajasthan Ay. Uni. <b>Jodhpur</b>
16.	<b>Dr. D.K. Kataria</b> Government Ay. Coll. <b>Raipur</b>	<b>KRIYA SHARIR</b>	
17.	<b>Dr. Kedar Lal Meena</b> NIA, <b>Jaipur</b>	38.	<b>Prof. Mahendra Singh Meena</b> NIA, <b>JAIPUR 302002</b>
18.	<b>Prof. Baldev Kaumr</b> NIA, <b>Jaipur 302002</b>	39.	<b>Dr. Sangeeta Gehlot</b> BHU, <b>VARANASI</b>
19.	<b>Prof. Ramareddy</b> SV Ayurved College, <b>Tirupati</b>	40.	<b>Dr. N. S. Tripathi</b> BHU, <b>VARANASI</b>
20.	<b>Dr. S. Swaminathan</b> Shri J. S. Ay. College, <b>Naszarapet</b>	41.	<b>Vd. Shyamkuwar BH</b> Govt. Ay. College, <b>NANDED</b>
21.	<b>Dr. Sambamurthy GG</b> Sisri- <b>Karnataka</b>	42.	<b>Prof. MB Nandini Dilip</b> Tilak Ayurved Maha., <b>PUNE</b>

43.	<b>Dr. Y. Suresh</b> G.E.S. Ay. Coll. <b>Kolhapur</b>	65.	<b>Prof. G.S. Hiremath</b> Shri DGM Ay. College <b>GADAG</b>
44.	<b>Dr. K.S. Malini</b> Retd. Principal Govt. Ay. H. Coll. <b>Bangalore</b>	66.	<b>Dr. K. Nishteswar</b> Dr. NRS Govt.AMC <b>Vijayawada</b>
45.	<b>Dr. Rajesh Sharma</b> College of Ayurved, <b>Jodhpur</b>	67.	<b>Dr. H.T. Sreenivas</b> Govt. Ay. College, <b>Bangalore</b>
<b>SWASTHAVRITTA</b>		68.	<b>Dr. D. N. Nagendraiah</b> Govt. Ay. College, <b>Bangalore</b>
46.	<b>Prof. Joby P.J.</b> VPS Varier Ayu. Coll. <b>Edarikode</b>	69.	<b>Dr. K. S. Radha Krishna</b> Govt. Ay. College, <b>MYSORE</b>
47.	<b>Dr. Kamlesh Kumar Sharma</b> NIA, <b>JAIPUR</b>	70.	<b>Dr. M.B. Gururaja</b> Bapuji AMC, <b>SHIMOGA</b>
48.	<b>P.Suddhakar Reddy</b> JSS Ay. Med. College, <b>MYSORE</b>	71.	<b>Prof. D. S. Lucas</b> Retd. Prof Govt. Ay. Med. Coll. <b>BANGALORE</b>
49.	<b>Prof Dilp Kumar</b> VPS Varier AMC, <b>Edarikode</b>	72.	<b>Prof. K. S. Jayashree</b> Prof. Govt. Ay. Med. Coll. <b>BANGALORE</b>
50.	<b>Dr. B.R. Doddamani</b> SDM College, <b>UDUPI</b>	73.	<b>Dr. Mita Kotecha</b> NIA <b>JAIPUR</b>
51.	<b>Dr. Jayan</b> Govt. AMC, <b>Thiruvananthapuram</b>	74.	<b>Prof. P.R. Swaminathan</b> Shri JS Ay. Coll. <b>Naszarapet</b>
52.	<b>Prof. K. Venkateshwara</b> SDM College <b>UDUPI</b>	75.	<b>Dr. M. Vidyasagar</b> ALN Rao Ay. Coll. <b>Koppa</b>
53.	<b>Prof. Mihir Hajarnawis</b> Tilak Ayurved <b>PUNE</b>	76.	<b>Dr. Satish K. Jaimini</b> UANC, <b>Jaipur</b>
54.	<b>Vaidya Patil Y.R.</b> Govt. Ay. College, <b>NANDED</b>	77.	<b>Dr. L. Sucharita</b> Indian Institute Med. Coll., <b>Bangalore</b>
55.	<b>Dr. B.H. Thakkar</b> JS Ayurved College, <b>NADIAD</b>	78.	<b>Dr. B.R. Ramakrishna</b> Sushrutha Ay. Coll. <b>Bangalore</b>
56.	<b>Dr. Kishor M. Pimparkar</b> Radha Krishna, Ay. Maha, <b>Akola</b>	79.	<b>Dr. J.P.Sharma</b> MMM Govt. Ay. Mah. <b>Udaipur</b>
57.	<b>Prof. Mrs. Sajitha K</b> Sri Sri Coll. of Ay., <b>Bangalore</b>	<b>Rasashastra &amp; Bhaishajya Kalpana</b>	
58.	<b>Dr. Y.D. Bansal</b> Govt. Ayurveda <b>PAPROLA</b>	80.	<b>Prof CB Jha</b> BHU, <b>Varanasi</b>
59.	<b>Dr. Mali M.D</b> <b>Sangli, Islampur</b>	81.	<b>Dr. Rangesh Paramesh</b> Rajaji Nagar, <b>Bangalore</b>
60.	<b>Dr. Uttamrao D. Mahajan AMC,</b> <b>Chalishgaon, Jalgaon</b>	82.	<b>Prof KRC Reddy</b> BHU, <b>Varanasi</b>
61.	<b>Dr. Chaturvedi suresh</b> 48 Mahait Ruwed, <b>Mumbai</b>	83.	<b>Dr. K.G. Modh.</b> Govt. Ayurved Maha., <b>BARODA</b>
<b>DRAVYAGUNA</b>		84.	<b>Prof. T.N. Nagaraj</b> JSS Ay. Med. College, <b>MYSORE</b>
62.	<b>Prof. P.P. Sharma</b> IPGTR <b>JAMNAGAR</b>	85.	<b>Prof. Prabhakara Upadhyaya</b> Shri DM College of Ay. <b>UDUPI</b>
63.	<b>Dr. M. A. Shajahan</b> Govt. Ay. Coll. <b>Thiruvananthapuram</b>	86.	<b>M.C. Patil</b> Shri DGM Ay. College <b>GADAG</b>
64.	<b>Dr. Shivamurti K.</b> K.L.E, <b>BELGAUM</b>	87.	<b>Dr. Pallavi P. Dindore</b> B.M.Kankanwadi Ay. Coll. <b>Belgaum</b>

88.	<b>Dr. Medhavi Lal Sharma</b> Govt. Ay. College, <b>UDAIPUR</b>	111.	<b>Dr. Sri Krishna Khandel</b> NIA, <b>JAIPUR</b>
89.	<b>Prof. L. K. Dwivedi</b> NIA, <b>JAIPUR</b>	112.	<b>Dr. Pavan Kumar Godatwar</b> NIA, <b>JAIPUR</b>
90.	<b>Prof. Sarshetty</b> Ayurved College, <b>BIJAPUR</b>	113.	<b>Prof. M.R. Patel</b> Parul Inst. of Ay. <b>VADODARA</b>
91.	<b>Dr. M Chandrashekar</b> Govt. Ayurved College, <b>Bangalore</b>	114.	<b>Dr. Karanvir Singh</b> SMS Memorial Mahila <b>Sonepat</b>
92.	<b>Dr. Jagadeesh M.S.</b> Govt. Ayurved College, <b>Bangalore</b>	115.	<b>Vd. Pradeep Nandgaonkar</b> Seth G. R. Ay. Mah. <b>Sholapur</b>
93.	<b>Dr. K. Malathi</b> Shri Kalabhairaveshwara Ay. Coll. <b>Bangalore</b>	116.	<b>Dr. R. Jayaraj</b> JSS Ay. College, <b>MYSORE</b>
94.	<b>Dr. Shantabai K.</b> VPS Varier Ay. College, <b>Edarikode</b>	117.	<b>Dr. Dalip Sharma</b> Govt. Ay. College, <b>Paprola</b>
95.	<b>Prof. P. K. Prajapati</b> IPGT&RA, <b>JAMNAGAR</b>	118.	<b>Dr. MD Sheba</b> Vaidyaratnam Ay. Coll. <b>Ollur</b>
96.	<b>Dr. B. B. Joshi</b> Ayurved Mahavidyalaya, <b>Old Hubli</b>	<b>AGAD TANTRA</b>	
97.	<b>Dr. Giriraj Mishra</b> College of Ayurveda, <b>Jodhpur</b>	119.	<b>Prof U N Prasad</b> Principal Govt. Med. Coll. <b>SDM UDUPI</b>
98.	<b>Prof Shobha</b> Govt. T. Ayurved College <b>Bellary</b>	120.	<b>Prof. Sreekrishnan C.M.</b> VPS Varier Ay. Coll. <b>Kottakkal</b>
99.	<b>Dr. Jyotsna Taklikar</b> LRP Ayurved college <b>Islampur</b>	121.	<b>Prof Krishnan Nair</b> Govt Ay College, <b>Tripunthura</b>
100.	<b>Dr. S.N Bhat</b> Sanjaynagar, <b>Banglore</b>	122.	<b>Dr. Ashwani Kumar</b> Govt. Ayurved Mah. <b>Patiala</b>
101.	<b>Prof. S.S. Savarikar</b> Ayurved college , <b>Mumbai</b>	123.	<b>Dr. J. G. Vishwanathaiiah</b> Ramakrishna Nagar, <b>MYSORE</b>
<b>ROGANIDAN</b>		124.	<b>Prof. Sarat Kumar Mahapatra</b> Gopabandhu Ay. Maha., <b>PURI</b>
102.	<b>Prof M S Baghel, Director</b> IPGT&RA, Jamnagar, <b>Gujrat</b>	125.	<b>Prof. Vishnu Prabhakar Joglekar,</b> Tilak Ay. <b>PUNE</b>
103.	<b>Prof. B.V. Prasanna</b> Shri DM College of Ayurved <b>UDUPI</b>	126.	<b>Dr. S.R. Inchulkar</b> Govt. Ay. College, <b>RAIPUR</b>
104.	<b>Dr. G.B. Patil</b> Shri DGM Ay. College, <b>GADAG</b>	127.	<b>Dr. Vinod Kumar Gotecha</b> Amrita AMC, <b>Kollam</b>
105.	<b>Dr Gopakumar</b> Govt. Ay. College <b>Trivandrum</b>	128.	<b>Vaidya Shah Kisan Vithaldas</b> <b>PUNE</b>
106.	<b>Dr. Dipali J. Amle</b> CSM Ay. College, <b>Aurangabad</b>	129.	<b>Dr. R. R. Veena</b> Sri Sri Coll. of Ay. <b>Bangalore</b>
107.	<b>Dr. Zona</b> Shri DM Coll. of Ay., <b>UDUPI</b>	130.	<b>Vd. Shri. Rajanwal Dharam Pal</b> Manjara AMC, <b>Latur</b>
108.	<b>Dr. M.A. Vyas</b> JSAMC, <b>NADIAD</b>	131.	<b>Prof. P. V. Raj</b> Sh. JGCH AMC, <b>Ghataprabha</b>
109.	<b>Dr. U.V. Purad</b> Shri DGM Ay. College, <b>GADAG</b>	<b>KAYACHIKITSA</b>	
110.	<b>Dr. Sreekumar</b> Govt. AMC, <b>Thiruvanathapuram</b>	132.	<b>Prof Ajay kumar Sharma,</b> Director, NIA, <b>Jaipur</b>

133.	<b>Vd. S. R. Deshmukh</b> Vidarbha Ay. Mah., Amrawati	<b>SHALAKYA</b>	
134.	<b>Prof B G Gopinath</b> Sri Sri Coll. of Ay. Bangalore	158.	<b>Dr. B.N. Mukhopadhyaya</b> BHU VARANASI (U.P.)
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139.	<b>Dr. Ramdas Maganti</b> Shri J.S.Ay.Coll., Naszarapet	163.	<b>Dr. K.S. Dhiman</b> IPGTR JAMNAGAR
140.	<b>Dr. G. R. Vasthrad</b> Govt. T. Ay. College Bellary	164.	<b>Dr. Manjush Rajgopalan</b> IPGTR JAMNAGAR
141.	<b>Dr. Anupama Shinpi</b> Tilak Ayurved Maha. PUNE	165.	<b>Dr. R.G. Dole</b> Bharti Vidyapeeth's, Pune
142.	<b>Dr S N Gupta</b> JS Ayurved Maha., NADIAD	166.	<b>Dr. B. N. Ramesh</b> Govt. Ay. College, Bangalore
143.	<b>Dr P.G.Subbanagouda</b> Ayurved Mah. OLD HUBLI	167.	<b>Dr. Sumithra T Gowda</b> Govt. Ay. College, Bangalore
144.	<b>Dr M L Naidu</b> Dr. NRS Govt. AMC, Vijayawada	168.	<b>Dr. G. Gopinath</b> Govt. Ay. College MYSORE
145.	<b>Dr. Sharadamani K.R.</b> Govt. Ay. College, Bangalore	169.	<b>Dr. T.R. Shantala Priyadarshini</b> Govt. Ay. College MYSORE
146.	<b>Dr. S.G. Mangalagi</b> Govt. Ay. College, Mysore	170.	<b>Prof. Hemant Khushwa</b> NIA JAIPUR
147.	<b>Dr. Aruna</b> Govt. Ay. College, MYSORE	<b>SHALYA TANTRA</b>	
148.	<b>Dr. K. Naseema Akthar</b> Govt. Ay. College, Mysore	171.	<b>Prof. Kulwant Singh Retd.</b> JIAR, JAMMU
149.	<b>Dr. G. N. Shakunthala</b> Govt. Ay. Coll., MYSORE	172.	<b>Dr. S. Bannigol</b> Ayurved Mah., OLD HUBLI
150.	<b>Dr. Gajanan Hegade</b> Govt. Ay. College, MYSORE	173.	<b>Dr. Prasanna Rao</b> SDM Ay. Med. Coll. HASSAN (Karnataka)
151.	<b>Dr. Adarsh Kumar</b> AYUSH, NEW DELHI	174.	<b>Dr. Thomas T.</b> Govt. AMC, Thiruvananthapuram
152.	<b>Dr. Subhash Babu</b> Govt. Ay. Coll. Trivendrum	175.	<b>Vd. V.H. Kulkarni</b> Seth C. Mutha Ay. Col. Satara
153.	<b>Dr. Parmanand Upadhaya</b> College of Ay., Jodhpur	176.	<b>Dr. R. Vijayasarithi</b> Govt. Ay. College, Bangalore
154.	<b>Dr. P.V. Giri</b> Ay. College Ollur Trichur	177.	<b>Prof. R.K. Hibare</b> Govt. Ay. College, Bangalore
155.	<b>Dr. S.M Angadi</b> Retd. Director Dept. of Aysh Bangalore	178.	<b>Prof. R.C. Pant</b> State Ayurved College, Lucknow
156.	<b>Dr. N.S. Swathi</b> KVG, Sullia (Karnataka)	179.	<b>Dr. M.J. Pathak</b> JS Ayurved Maha., NADIAD
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182.	<b>Dr. P. Hemant Kumar</b> SDM Coll. of Ayurveda <b>HASSAN</b>	<b>KAUMAR BHRITYA</b>	
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190.	<b>Dr. M.V. Sanghi</b> YMT, <b>Mumbai</b>	213.	<b>Prof. M.R.V. Namboodri</b> Govt. AMC, <b>Thiruvananthapuram</b>
191.	<b>Dr. Lakshman Singh</b> BHU, <b>Varanasi</b>	214.	<b>Prof. U. Shreekanth</b> SDM, Ay. Med. Coll <b>UDUPI</b>
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<b>PRASUTI &amp; STRIROGA</b>		216.	<b>Dr. P. Yadiah</b> Shri R.T. Ay. Maha, <b>AKOLA</b>
193.	<b>Prof. Ved Prakash Sharma.</b> NIA, <b>Jaipur</b>	217.	<b>Dr. Rajendra S. Huprikar</b> Tilak Ayurved Maha., <b>PUNE</b>
194.	<b>Prof. Sujata Kadam</b> Tilak Ayurved Maha., <b>PUNE</b>	218.	<b>Dr. G. Vinod Kumar</b> Govt. AMC, <b>Thiruvananthapuram</b>
195.	<b>Prof. Mamata K.V.</b> Shri DM Coll. of Ay., <b>UDUPI</b>	219.	<b>Dr. H.M. Shukla</b> Govt. Ayurved College, <b>RAIPUR</b>
196.	<b>Prof. K.B. Mahapatra</b> Gopabandhu Ay. Coll. <b>PURI</b>	220.	<b>Dr. Radhey Shyam Sharma</b> NIA, <b>JAIPUR</b>
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199.	<b>Vd. M.S.Ghorpade</b> Sumati BS Ay. M. <b>Hadapsar</b>	<b>FINAL WORK OUT BY THE FOLLOWING EXPERTS</b>	
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