

Annexure-II**SUPPLEMENTAL NOTIFICATION No:16/2022 TO NOTIFICATION No:
08/2021****SCHEME AND SYLLABUS FOR THE POST OF MEDICAL OFFICER (AYURVEDA) IN AYUSH DEPARTMENT****SCHEME OF THE EXAMINATION**

WRITTEN EXAMINATION (OBJECTIVE TYPE) DEGREE STANDRAD				
PAPER	Subject	No. Of Questions	Duration in Minutes	Maximum Marks
Paper-I	General Studies & Mental Ability	150	150	150
Paper - II	Concerned Subject	150	150	300
Total				450
N.B: 1. As per G.O.Ms. No.235 Finance (HR-1, Plg & Policy) Dept,Dt:06/12/2016, for each wrong answer will be penalized with 1/3 rd of the marks prescribed for the question 2. Medium of Examination will be English only.				

SYLLABUS**PAPER-I: GENERAL STUDIES AND MENTAL ABILITY**

1. Events of national and international importance.
2. Current affairs- international, national and regional.
3. General Science and it applications to the day to day life Contemporary developments in Science & Technology and information Technology.
4. Social- economic and political history of modern India with emphasis on Andhra Pradesh. **(Starts from 1707 AD)**
5. Indian polity and governance: constitutional issues, public policy, reforms and e-governance initiatives with specific reference to Andhra Pradesh.
6. Economic development in India since independence with emphasis on Andhra Pradesh.
7. Physical geography of Indian sub-continent and Andhra Pradesh.
8. Disaster management: vulnerability profile, prevention and mitigation strategies, Application of Remote Sensing and GIS in the assessment of Disaster.
9. Sustainable Development and Environmental Protection
10. Logical reasoning, analytical ability and data interpretation.
11. Data Analysis:
 - a) Tabulation of data
 - b) Visual representation of data
 - c) Basic data analysis (Summary Statistics such as mean, median, mode, variance and coefficient of variation) and Interpretation
12. Bifurcation of Andhra Pradesh and its Administrative, Economic, Social, Cultural, Political, and Legal implications/problems

Paper – II**1. PADARTH VIGYAN****1.1 Ayurveda Nirupana**

Definition and lakshana of ayu, composition of ayu; definition and lakshana of Ayurveda; definition and types of siddhanta; introduction of basic principles of Ayurveda and their significance.

1.2 Ayurveda darshana nirupana

Philosophical background of fundamentals of ayurveda. meaning of the word "darsan" and its omnipresence: evolution of dasrana, their Numbers and classification; general introductions of schools of Indian Philosophy with an emphasis on nyaya, vaisheshik and sankhya Darsana. Ayurveda as unique and independent school of thought (philosophical individuality of ayurveda). definition of padartha. lakshana of padartha. Division and number of padarthas; bhava and abhava padartha: ckaraks opinion regarding these; introduction & description of karana-padarthas mentioned by charak.

2. Dravya Vigyaniam

Definition, lakshana and number of dravya, panchabhutas; origin of panchamahabhuta. parasparanupravesha (mutual conglomeration) types of panchikaram; 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; kala nirupana, etymological derivation, definition and of the word 'kala'; aupashik types of kala. significance of kala in ayurveda; dig-nirupanam, significance of dig and aupadhik types, lakshana of atma, description of purusha mentioned in ayurveda- Ativahika purusha/sukshma sharer/ rashi purusha/ chikitsiya purusha/ karma purusha/ saddhatvatmak purusha, initiation of atma towards perception of knowledge (atmanahjnana pravritti), mano niruocanam; lakshana, synonyms of manas, mana as substratum of diseases (manasah vyadhyahyatram); guna (qualities), Vishaya (Subject), Karma (functions), ubhayainadriyatva and seat of mana; contribution of panchamahabhuta 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 gunas, vaisesika guna(sartha)-Shabda, sparsha, rupa, rasa, gandha; adhyatma gunah-budhi, Sukha. Dukha,ichha,dwesha, prayatna; parade 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. Visheshavigyaniam

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

7. Samavaya Viyaniam

Definition and lakshana of samavaya. Practical study of samavaya for clinical application in ayurveda.

8. Abhava Vigyaniam

Definition and lakshana of abhav padartha, classification of abhav- description of pragbhava, Pradhvansabhava, atyantabhava, anyuanyabhav; clinical significance of abhava in ayurveda.

1. Pariksha nirupana (means of getting knowledge)

Definition, Significance and necessity of pariksha. Two types of anubhav-prama and aprama. Lakshana and type of prama and prameya. Lakshana, causes and types of smriti (memory). Significance and importance of praman. Enumeration of pramana according to different school of philosophy. Four types of methods of examination according to ayurveda (chaturvidha pariksha vidhi). Pramana in ayurveda. Incorporation of different pramans into three pramans. Use of word pariksha in reference to pramana in classics of ayurveda. 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, sabdvrittiabhidha, lakshana, Vyanjana, tatpatyakhya; shaktigraha hetu, vyakya Characteristic; vakyartha jnanahetu- akanksha, योग्याता, sannidhi.

3. Pratyaksha pariksha/ pramana nirupana (direct observation or perception)

Definition and lakshana of pratyaksha. Types of origin of pratyaksha jnana. Types of pratyaksha- nivikalpak- savikalpaka With description; description of laukika and alaukika types and their further classification. Sannikarsa Characteristic, six types of sannikarsa, characteristics of sense organs (indriyanam Characteristic lakshanam). Classification of Indriya and enumeration. Description of panchapanchaka, establishment of origin of indriya by panchamahabhuta (bhautikatwa of Indriya), and similarity in sources (tulpayonitva) of Indriya. Dominance of antahkaram, Hindrances indirect perception (pratyaksha) by various instruments/equipments; necessity of other pramans in addition

to pratyaksha. Practical study/ application of pratyaksha in physiological, diagnostic, therapeutics and research grounds.

4. Anumanapariksha/pramananirupanam(inference)

Definition and laksha of anumana. Introduction of anumiti, paramarsha, vyapti, hetu, sadhya, paksha, dristanta etc. Types of anumana mentioned by Charaka 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 (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- Karan siddhanta nirupanam (cause and effect theory)

Definition and lakshana of karya and karana. Types of karan. Signification of karya and karan in ayurveda. Different opinions regarding manifestation of karya from karansatkaryavada, asatkaryavada, parinamvada, arambhavada, paramanuvada, vivartavada, kshanabhang urvasa, pitharpaka, anekantavada, Swabhavoparamvada.

8. Srishti-nirupanam

Srishti-aya nirupanam (evolution and devastation of universe), Description of tatvotpatti, Tatva-nirupanam, classification of tatva. Evolution of universe (life) according to Charaka, Sushruta (srishti-vikaskrama); Astaprakriti, Shodashvilara and their description, similarity and dissimilarity between kshetra-kshetragya, vyaktaavyakta, prakriti-purush. 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 arthashya.

2. AYURVEDA KA ITIHAS (History of Ayurveda)

1. Etymological derivation (vyutpatti), syntactical derivation (nirukti) and definition of the word itihasa, necessity of knowledge of history, its significance and utility. Means and method of gaining knowledge viz. historical person (vyakti), subject (vishaya), time period, (kala), happening (ghatna) and their impact on ayurveda.
2. Decent of ayurveda, chronology of ayurveda according to different schools, introduction of eight branches of ayurveda and concerned renowned texts. Introduction of the authors of these texts.
3. Eternity of ayurveda (shashvatvam and anaditavam).
4. Status of ayurveda in Vedic period, progression of ayurveda upto tantra kala. Knowledge about available topics of ayurveda in puranas and tantras etc.
5. Introduction of authors of classical texts during Samhita kala and their contribution especially Atreya, Dhanwantri, Kashyapa, Agnivesha, Sushruta, Bhela, Harita, Charaka, Dridhbala, Vagbhatta, Nagarjuna, Jivaka- introduction and contribution.
6. Chronological development of Charaka Samhita, Sushruta Samhita and Kashyapa Samhita.
7. Introduction and establishment of time period of commentators of classical samhitas- bhattar Harishchandra, Jejjata, Chakrapani, Dalhana, Nishchalakara, Vijayarashita, Gayadas, Arundatta, Hemadri, Gangadhara, Yonginderanath sen, Haranchandra Chakravorty.
8. Introduction and time period of authors of compendium (granthasamgraha kala)- Acharya Bhavmishra, Sharangdhara, Vrinda, Madhvakara, Shodhala, Govind Das (Author of bhaisjya ratnawali), Vasavraja etc.
9. Origin of ras shastra and its development, introduction and time period of promoters of ras shastra.
10. Vrikshayurveda vijnana (Ayurveda for plant kingdom), pashu chikitsa vijnana (ayurveda

for animal kingdom), promoters of ashva, gaja chikitsa Vijnana; Shallhotra, Palkapya, Varahmir, Nakula, ashvaghosh.

11. Introduction of authours of modern era- Gan Nath sen, Yamimi 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, kamobja, Sri lanka, Nepal, Thailand, mauritius, Myanmar (Burma) etc.expansion of ayurveda in above mentioned civilizations.
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 Breece and india in ancient period (made by Alexandar), expansion of ashvavaidyaka in Greece.
14. Developmental actions for ayurveda in post-independence period, development in educational trends, establishment of different committee, their recommendations, central council of Indian Medicine. Central council for research and ayurveda and siddha, foundation of department of AYUSH, its introduction and activities, drug and cosmetic act, Ayurvedic Pharmacopoeia Committee formation and activities of organizations 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.
Publications of Ayurveda journals and magazines, WHO, status of Ayurveda on international grounds in present era.

3. ASHTANGA HRIDAYAM (SUTRASTHAN)

Ashtanga Hridayam: Hindi Commentary by Lalchanda Vaidya
: English Commentary by K.R.Srikantamurty

4. RACHANA SHARIR

1. Detailed description of principles of 'Sharir' and their co-relation with modern medical science.
2. **Shariropkrama**
Description of Sharir and Sharir, knowledge and importance of Sharir and Sharir, 'Shadangatva' of sharer, Anga pratyanga vibhaga, Preservation and Dissection Method if dead body, Divisions of sharir.
3. **Knowledge of terminologies used in sharir**
Detail knowledge of terms, position, and planes e.g Urdhava (Superior), Adhah (inferior), Nikatastha (Proximal) and Doorastha (Distal), Agrima (Anterior or Ventral), Abhi pristha or paschima (posterior), Madhyanuga (median), Parshava (lateral). Abhimadhyana (Medial) and Uttana (Superficial) and Gambhira (Deep) section, Anuprastha 9Vertical) and Agra Paschadasa (Horizontal), Tiryaka (Oblique) sections, mamsa peshi (Muscles), Sira, Dhamani. Tantrika, Snayu (Ligaments), Kurcha, kandra 9Tendon), Jala (Plexuses), Asthi Sanghat (Complex Joints), Seemanta (Sutures off Skull), Rajju (Cords) and Sevani.
4. **Abhinivriti Sharir**
Vyakta and Avyakta, Kshetra and Kshetraja Constitution of 'Purusha' according to dhatu bheda, Panchabhotikatva and sukshamatva of body, karma purusha, Trigunatmakatvama, Tridoshmayatvama, Doshada TUMALAMULAKATVA OF Sharir.
5. **Garbha Sharir (Embryology)**
Definition of 'garbha' (embryo), 'Garbhottpadakbhava', Sukshma garbha Sharir, micro anatomical description of 'dhatu and avayavas' 'Shukra' Artava, Antahpushap, Garbhadhana (fertilization) and kosha vidhajana (Cell division), along with role of Tridosh and panch mahabhut in fetal development, 'Bija'-Isperm and ovum), Bijabhaga, Bijabhagavayava and Genetics in ayurveda. Anuvamshika Siddhanta (principles of Hereditary), Linga bheda (Sex Determination), Masanumasika Garbha Virdhi Krama (month wise development of Fetus), Garbhavidhikara bhava, (factors effecting development and growth of embryo), Deha prakriti, Satwa prakriti, etc., Garbha poshana, Apra nirmana (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 and Causes (Ayurveda and Modern VVlews).
6. **Pramana Sharir:**
Anthropometric—Values of body parts.

Anguli, anjali, pramana and Sankhya Sharir.

7. Asthi Sharir (Osteology):

Number of bones (Charaka, Sushruta 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):

(a) Definition of Sandhi (joints), Types, Structure of each Asthi sandhi (joint), various, Specific description of 'Hanu' (temporomandibular) and Shakha sandhis (joints of extremities) vertebral joints, Definition of Asthi Sanghat, number and their applied value. Servani (Sutural Joints) Snayu (Ligaments), movements of Joints and Clinical importance of the Sandhis (joints).

9. Sira, Dhamini, Srotas Sharir (Angiology)

(a) Sira-Dhamini

Importance of Raktavaha Sansthan (cardiovascular system), Hridaya (Heart), Sira, Dhamani, Srotasa. Definition of Sira, Dhamini, Their course, branches Description of Arteries and capillary. Accessory veins and Principal veins.

(b) Srotas Sharir: 1. Definition, types, their mool and Srotodusti.

10. Lasika Samsthan (Lymphatic system):

Introduction and study of Lasika pranali (lymphatic channels), Lasika granthi (lymphatic glands), Rasa kulya (thoracic duct), Payasvini (lacteals) and Courses of lasika vahinis (Lymphatic Ducts).

11. Peshi Sharir (Myology):

Introduction and detail Structure, shape, size and types and their Importance of Peshi (muscles)- their attachments and origin, insertion. actions nerve supply and its clinical application.

1. Koshtha:

Defining the terms like- Koshtha, Ashaya and Koshthanga, Their names and location, koshthanga of Uraha pardesh (thoracic cavity organs), Udara Pradesh Koshthanga (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, details, study of granthi sharir.

3. Kala Sharir:

Definition of kala, structure pattern and details study of each kalas, study of vishista Kalas like, Hridayavarana (pericardium), Puppasavarana kala (Plura), Mastiskavarana kala (Meninges), Unaravarana kala (peritoneum).

4. Twak Sharir (Dermatology)

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

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. Susuhumna Shirsha (medulla oblongate), Sushumana khanda (Spinal Cord), Sheershanya tantrika (cranial Nerves) and Sushmaniya Tantrika (Spinal Nerves), Parisarniya Tantrika (Peripheral nervous system). Description and Swatantra Nadi Samsthan (Autonomic nervous system), Anukampiya and paranukampiya (Sympathetic and parasympathetic nervous system nerve plexuses).

6. Tantra Sharir (Neuro Anatomy)

Satchakra Ida. Pingala. Saraswati etc.

7. Marma Sharir:

Description of the term Marma, their numbers. locations, different types and their terminological values. Importance of trimarmas Charaks & sushruta 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.

5. KRIYA SHARIR

1. Conceptual study of fundamental principles of Ayurvediya Kriya Sharir e.g. panchamahabhuta, Tridosha Triguna, Loka-Purusha Samya, SamanyaVishesa, rasaVirya- Vipaka etc. Description of Basics of Stotatas.
2. Definitions and Synonyms of term 'Sharir', Definitions and Synonyms of term 'Kriya', Srishti Utpatti and its adaptation in generation of shareena, 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 Doshas 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 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 do and manifestations of Vriddhi-Kshaya of each dosha.
 - e. Kriyakala of dosha in view point of charaka, Sushruta and Vagbhata and its clinical importance.
4.
 - a. Deha-Prakriti- Vyutpatti, Nirukti, Various definitions and synonyms for term 'Prakrit', Intra-uterine factors responsible for genesis of prakriti, extra-uterine factors influencing Deha-Prakriti, classification of Deha-Prakriti, characteristics of each kind of dehaPrakriti, clinical significance of Deha- Prakriti, Anukatva.
 - b. Manasa-Prakriti-classification, characteristics 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 requirements, functions manifestations of hypo and hypervitaminosis. 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.

1. Shareera-Poshana

- a . 1 . Ahara- definition and significance of ahara, classification of ahara- dravya, aharaVidhi-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 Sharira and Chikitsa.
- c. Ahara-paka-prakriya- physiology of related organs (Maha-stotas), avasthapaka, nishthapaka, maha-Srotas-pachan kriya, Sara-kitta Vibhajana, saranushoshana and genesis of vatadi dosha during ahara-pachana.
- d. Definition of term 'Koshtha', criteria of classification of koshtha and characteristics of each kind of koshtha.

2. Modern physiology

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

1. Dhatu

General introduction, definition and criteria of dhatu, utpatti (during garbhavastha and janmottara kala), Vyutpatti, Nrukti of term 'dhatu'; different theories related to dhatuposhana, 9dhatuposhhananyaya)

i). Rasa Dhatu

Vyutpatti, Nirukti, sthan, guna, karma. pramana of rasa Dhatu. Physiology of Rasavaha Srotasa. 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, sthan, guna, karma and pramana of Rakta dhatu; panchabhutikatva 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, sthan, guna, karma and pramana of mamsa dhatu, Physiology of Mamsavaha Sritasa. Formation of Mamsadhatu. Characteristics of Mamsasara Purusha, manifestations of Kshaya and Vriddhi of Mamsadhatu.

iv). Medo Dhatu

Vyutpatti, Nirukti, sthan, guna. karma and pramana of medodhatu, physiology of Medovaha Srotas, formation of Medo dhatu, characteristics of Medosara Purusha and manifestations of Kshaya and Vriddhi of Meda.

v). Asthi Dhatu

Vyutpatti, Nirukti, Synonyms, sthan, guna, Karma of Asthi dhatu; Physiology of Asthtvaha Srotas and formation of Asthi dhatu, characteristics of Asthisara purusha, Mutual interdependence of Vata and Asthi dhatu, manifestations of Kshaya and Vriddhi of Asthl dhatu.

vi). Majja Dhatu

Vyutpatti, Nirukti, types, sthan, guna Karma and pramana of Majja Dhatu, physiology of Majjavaha srotas, formation of majja dhatu, characteristics of Majja Sara purusha, Rakta -Majja relation, manifestations of Kahaya and Vriddhi of Shukra dhutu.

vii). Shukra Dhatu

Vyutpatti, Nirukti, sthan, guna, karma and pramana of Shukra dhutu, physiology of Shukravaha srotas and formation of shukra dhatu; features of shusha and Dushita Shukra, characteristics of Shukrasara Purusha, manifestations of Kahaya and Vriddhi of Shukra dhutu.

2. Ojas

Vyutpatti, Nirukti, Synonyms, definition. utpatti sthan, guna karma and pramana of Ojas, classification of Oja (Ojobheda), conceptual study of Vyadhikshamatva; Bala vrudhikara bhava, Balbheda, relation between shleshma, bala and Ojas; Etiological factors and manifestations of Oja Kshaya. Visramsas and Vyapat; physiological and clinical significance of Oja Vayasthapana.

3. Upadhatu

a. General introduction, Vyutpatti and Nirukti of the term 'Upadhatu', Utpatti, Poshan, Samkha, Praman, Guna, Sthan and Karma of upadhatu.

b. Stanya- Nirukti, definition, utpatti guna karma, praman of Stanya; characteristics 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, praman, Karma and bheda. Layer Wise diseases of Tvak.

4. Modern Phisiology:

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 grounds. Principles of blood transfusion, plasma proteins- Synthesis and functions. Applied physiology: ananemia, jaundice. Basics of Immunity- classification and Mechanisms.

b. Muscle physiology- comparative study of physiology of skeletal muscles, cardiac muscles and smooth muscles. physiology of muscle contraction.

c. Physiology of adipose tissue, lipe proteins like VLDL, LDL and HDL.

d. Calcium metabolism: hormonal control of caldum metabolism, functions of vitamin D, parathormore and calcitioin. Bone and teeth.

e. Structure and functions of skin, sweat glands and sebaceous glands.

f. Phosiological study of male and female reproductive systems. Spermatogenesis and oogenesis. Hormonal regulation of menstrual cycle. Physiology of pregnancy and lactation.

1. Mala – Vyutpatti, Nurukti of term 'mala' General Introduction of Mala, Utpatti (During garbhavastha and janmottara kala),

2. Aharamala- Enumeration and formation of Aharamala

a. Mutra- Vyutpatti, Nirukti, praman, sthan, Guna, Karma, and physiology of Mutranaha srotas; formation of Mutra, manifestations of Vriddhi and Kshaya of Mutra.

b. Purisha- Vyutpatti, Praman, sthan, Guna, Karma, and physiology of Mutranaha srotas; formation of Purisha, manifestations of vriddhi and Kshaya of purisha.

3. Sweda- Vyutpatti, Nirukti, Praman, sthan, guna, karma, and physiology of Swedavaha srotas; formation of sweda, manifestations of vriddhi and kshaya of Sweda.

4. Dhatu mala- Utpatti, Nirukti, sthan, guna karma, samkhya, praman of each dhatu mala; etiological factors and clinical manifestations of each dhatu mala.

5. Panchajnyanodriya- Physiological study of panchajnyanendriya, and physiолony of shadba, Sparsha, Roopa, Rasa, Gandha. Process of Dnyana grahann; Indriya-pancha;

Physiological study of Karmendriya.

6. **Manas-** Utpatti, Vyutpatti, Nirukti, Synonyms, Swaroop, sthan, guna, Vishaya, Karma of Manas, and Physiology of Manovaha srotas; physiological and clinical significance of Manas.
7. **Atma-** Nirukti, definition, sthan, guna karma and difference between Paramatma and Jeevatma; characteristics of existence of Atma.
8. **Buddhi-** Sthan, prakara, karma of Buddhi; physiological of dhe, dhriti and smriti.
9. **Nidra-** Nidrotpatti, Nidrabhedha, physiological and clinical significance of Nidra; Swapnotpatti and Swapnabhedha

8. 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 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.

6. CHARAK SAMHITA

1. Charaka Samhita—Chakrapani Teeka (Sanskrit Commentary)
2. Charaka Samhita (Hindi Commentary):
 - a. Vaidya Jayadev Vidyalankar or VD. Atridev Vidyalankar or
 - b. Prof. Gorakha Nath Chaturvedi & Kashinath Shastri or
 - c. Dr. Brahmanand Tripathy or
 - d. Dr. Ravidutta Tripathy.
3. Charaka Samhita (English Commentary);
Dr. Ram Karan Sharma & Vd. Bhagwan Dash or Acharya Priyavrata Sharma

7. SWASTHAVRITA

Vaiyaktika Swasthavrittam

I. Vyaktigata Swasthyam (Personal Hygiene)

i). Introduction

1. Definition of Swastha & Swasthya
2. Arogyalingani (Signs of Health)
3. Definition of Swasthavritta
4. Swasthavritta prayojanamavum (Objectives & Importance of Swasthavritta).
5. WHO Definition of Health.
6. Dimensions of Health
 - a. Physical b. Mental c. Social
7. Concept of well being
 - a. Objective b. Subjective c. Standard of living d. Quality of life

ii). Dinacharya.

1. Definition of Dinacharya
2. Aims and importance of dinacharya
3. Brahma Muhurta avum Utthishta
4. Usha Jalapana
5. Sarirachinta
6. Malatyaga
7. Mukha Prakshalana
8. Dantadhavana
9. Preparation of Ayurvedic dental powder and paste,
10. Jihvanirlekhana vidhi (Tongue cleaning)
11. Anjana
12. Pratimarsa Nasya
13. Gandusha

14. Kabaladharana
15. Dhoomapana
16. Abhyangam
17. Udvardanam
18. Utsadana
19. Vyayama
20. Chankramana- Benefits of walking, jogging, Swimming, Gymnastics. Sports and games and its application in health and disease.
21. Snanam
22. Anulepanam
23. Vastradharanam
24. Tambulasevanam

iii). Ratricharya

1. Sandhyacharya 2. Ratribhajana Vidhi 3. Sayanavidhi

iv). Ritucharya

1. Importance of Ritucharya
2. Ritus as per different acharyas
3. Adana kala & Visargakala
4. Sanchaya. Prakopa-Prashama of Doshas and their Utpatti in Ritus.
5. Doshashodhana in samanya ritu
6. Relation of Agni bala and ritu
7. Ahara-Vihara, Pathya- Apathya in different ritus.
8. a. Ritusandhi b. Yamadamshtra c. Rituharitaki, d. Rituviaryay

vi). Sadvritta

1. Description of Sadvritta and Achara Rasayana— their role in prevention of psychosomatic disorders.
2. Social aspect of psychology accordingly to Ayurveda
3. Concept of mental Health according to Ayurveda and Modern medicine.

vi). Trayopastambhas (Three pillars of health)

1. Ahara

1. Nirukti, Swarupa, Pramukhatvam 2, Ahara dravya Vargekaranam. 3. Aharavidhi Vidhana, 4. Dwadasha Ashanapravicharana, 5. Ashtahavidhi viseshayatanani, 6. Aharaparinamakara bhava, 7. Pathyahara, 8. Apathyahara, 9, Samasana 10, Adhyasana, 11. Vishamasana, 12. Bhojamapachana, 13. Aharadushparinama tajjanya vuadhaya. 14. Santarpanjanya vyadhi 15. Apararpanjanya, 16. Viruddhahara and its effects, 17. Proximate principles of food. 18. Nutritional requirements, 19. Balance diet for a). Workers- Sedentary/ Moderate / hard b). Pregnant and lactating woman c). Children d). Infants, 20. Sources and deficiency diseases of Protein. Carbohydrate, fat, Minerals and Vitamins, 21. Sharabhajamasya mahatvam. 22. Dietetic standards, 23. National Nutritional Programmes, 24, Social aspects of nutrition, 25. Food groups Dhanya (Cereals and millets), saka and haritha Varga (Leafy and Non leafy vegetables), kanda varga (roots and tubers), Phala varga & Madya varga (fats & Oils), lkshu varga (Jiggery, sugar, honey), jala Varga & Madya varga (Beverages), Dugha varga (Milk and Milk Products), Masala and vyanjana dravyas (Speices & Condiments). Kritanna varga (prepared Food), 26. Food hygiene 27. Milk hygiene, 28. Milk and safe milk, 29. Source of infection (for milk). 30. Milk borne diseases 31. Clean and safe milk, 32. Pasteurization of milk 33. Meat hygiene. 34. Meat inspection 35. Slaughter house 36. Freshness of fish and egg. 37. Fruits and vegetable hygiene 38. Sanitation of eating places 39. Preservation of food. 40. Food handlers. 41. Food borne diseases 42. Balanced diet for 43. Food fortification 44. Food toxicants 45. Properties of Vegetarian and Non- Vegetarian diet 46. Effects of Spices and condiments 47. Consumption of Alcohol and its effects.

A.II Ayurvedic Diet in lift Style Disorders

- a. Diabetes
- b. Hypertension
- c. Obesity
- d. Coronary Heart Disease.

2. Nidra

1. Nirukti and utpatti
2. Types of Nidra (sleep)
3. Yogya nidra vidhi
4. Nidra- Swasthya sambandha
5. Duration of sleep according to age
6. Sleep in healthy and diseased persons
7. Properties of Yukta Nidra
8. Effects of Ratri jagrana
9. Diwaswapna

10. Anidra
12. Ahara and Vihara causing disturbed sleep
13. Ahara and Vihara causing sound sleep

3. Bramacharya

1. Brahmacharya Vyakhaya and abrahmacharya vyakhya
2. Importance of Brahmacharya and Abramachaya
3. Vyavaya sambandi niyamas
4. Effects of Ativyavaya
5. Veeryopatti
6. Methods of Virya Raksha, Surataspraha (Libido) through Vajeekarana
7. Viryanasa phala
8. Menstraul Hygiene.

Vii) Roganutpadaneeya:-

1. Concept of vega- Adharaneeya Vega and Dharaneeya Vega
2. Diseases due to vegadharana and their chikitsa
3. Upavasa
4. Rasayana for Swastha
5. Prajnaparadham
6. Sarira rakshanatmaka karyani
7. Sarira ahithakara karyani
8. Sareerasodhanam

8. SARVAJANIKA- SAMAJIKA SWASTHARITAM (Public Health)

I. Janapadodhwamsa

1. Causes
2. Manifestations and control measures
3. Importance of panchakarma and Rasayana
4. Vyadhikshamatva and the role of Rasayana

II. Vayu (Air)

1. Vayu guna, Vayu swasthya sambandha aspects
2. Composition pollution
3. Air of occupied room
4. Discomfort and comfortable zone (Disinfection of air)
5. Air movement
6. Air pollution- health and social
7. Prevention and control of air
8. Ventilation and its types
9. Vayu shuddhi prakara
10. Mountain air & High altitude- Health problems.

III. Jala (water)

1. Jala mahatva- biological importance of water
2. Safe and wholesome water
3. Requirement and uses
4. Properties of water
5. Type of water
6. Water sources
7. Water pollution
8. Water related diseases
9. Purification of water (jalsuddhi upayas)
10. Hardness of water
11. Water examination.
12. Shad jala dosha
13. Water problems of India
14. Rain Water Harvesting and water recycling

IV. Bhumi (land & Housing)

1. Types of soil
2. Soil & Health
3. Bhumi shodhana
4. Nivasayogya bhumi
5. Social goals of housing
6. Housing standards
7. Rural housing
8. Housing and health
9. Over crowding
10. Pasu sala (Cattle shed)

V. Prakasa (Lighting)

1. Requirements of good lighting
2. Natural Lighting
3. Artificial Lighting
4. Biological effects lighting

VI. Dhvani pradushana (Noise)- Sources, Effects & control

VII. Vikirana (radiation)- Sources, Effects & control

VIII. Apadravya nirmulana (Disposal of solid waste)

1. Different types of solid waste
2. Storage and collection of refuse
3. Methods or disposal of solid waste (Rural & Urban)
4. Bio-Medical waste management

IX. Malanishkasana vyavastha (Excreta disposal)

1. Unsewered area
2. Sewered area
3. Latrines for camps, fairs and festivals

X. Disaster management

XI. Occupational Health

1. Occupational Hazards
2. Occupational Diseases
3. Prevention of Occupational Diseases
4. ESI Act and factories Act.
5. Offensive trades- Effects on health and precaution measures

XII. School Health Services

1. Health Problems of School Children
2. Aspects of school health services
3. Duties of school Medical Officer
4. Maintenance of healthful environment

XIII. Epidemiology

1. Concept of Epidemiology transmission
2. Concept of disease
3. Concept of causation
4. Epidemiological triad
5. Natural history of disease
6. Risk factors
7. Concept of control
8. Concept of prevention
9. Modes of intervention
10. Incidence and prevalence
11. Dynamics of Disease
12. Modes of transmission
13. Susceptible host
14. Host defences
15. Immunizing Agents
16. Disease prevention and control
17. Disinfection
18. Epidemiology of Communicable Diseases
 - a. Measles b. Diphtheria c. Pertussis d. Mumps e. Tuberculosis f. SARSg. 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.
19. Kuprasangaja vyadhis (STDs)
 - a. AIDS b. Syphilis c. Gonorrhoea d. Chancroid
20. Ayurvedic paribhasha of sankramika rogas
21. Non-Communicable disease epidemiology
 - a. Diabetes b. Obesity c. Hypertension d. Coronary heart Disease e. Rheumatic Heart disease f. Cancer.

XIV. Disposal of Dead body

- a. Burning b. Burial c. Electric cremation

XV. Chikitsalaya Bhavana (Hospital Building)

XVI. Meteorology (Ritu evam vatavarana jnana)

9. YOGA

I. Etymology

II. Definitions

III. Development of yoga (From ancient time to present time)

IV. Different Streams of Yoga

- a) Jnana Yoga b) Bhakti Yoga c) Raja Yoga d) Hathayoga- features & objectives.

V. Eight Branches of yoga

1. Yama

2. Niyama

3. Asana and its importance

- a) Suryanamaskara

b) Standing postures-

1. Ardhatichakrasana 2. Padahasthasana 3. Ardhashakrasana 4. Trikonasana

C) Sitting Postures-

1. Padmasana 2. Vajrasana 3. Bhadrasana 4. Sasankasana 5. Ushtrasana 6. Paschimottanasana 7. Suptavajrasana 8. Gomukhasana 9. Ardhanatsyendrasana 10. Sidhasana

d) Supine postures-

1. pavanamuktasana 2. Sarvangasana 3. Matsyasana 4. Halasana 5. Chakrasana 6. Savasana

e. Prone postures-

1. Bhujangasana 2. Salabhasana 3. Dhanurasana 4. Makarasana f. concept of Mitahara & Pathyahara

4. Pranayama

a. Benefits of Pranayama b. Nadi sudhi pranayama c. Time of practice-Avara-Pravara Madhyama lakshanam d. Pathyapathyahara during pranayama e. Yuktayukta lakshana f. Nadi suddhi lakshanam

g. Kumbhakabheda

i. Suryabhedana ii. Ujjayi iii. Shitali iv. Sitkati v. Bhastrika vi. Bhramari vii. Murcha viii. Plavani

h. Shad chakras, ida, pingala and sushumna

i. Shadkarmani

j. Bandhas and Mudras

5. Pratyahara**6. Dharana****7. Dhyana****8. Samadhi****Vi. Description of yoga in Ayurveda**

1. Manodosha chikitsa 2. Sukha dukha nivrutti 3. Yoga and moksha 4. Mokshasyalakshana 5. Ashta Aiswarya 6. Satyabudhi 7. Muktatma lakshana

vii. Panchakosha theory

a. Annamayakosha b. Pranamayakosha c. Manomayakosha d. Vijnanamayakosha e. Anandamayakosha

VIII. Integrated Approach of Yoga therapy**IX. Yoga package for LBA, Obesity, Asthma, Diabetes.****X. Effect of yoga practice on physical and mental doshas.****10. NISARGOPACHARA****I. Prakritika Chikitsa (Natural Treatment)**

1. Definition & History
2. Aims and objectives
3. Relation of Ayurveda and naturopathy
4. Schools of naturopathy- Western School
5. Schools of Naturopathy- Indian School (Pancha bhutopasana)
6. Importance in present era.

II. Jala Chikitsa

1. Hot water treatment 2. Cold water treatment 3. Foot bath 4. Hand bath 5. Spinal bath 6. Hip bath 7. Abdomen wet pack 8. Steam bath 9. Enema 10. Whirlpool bath.

III. Mrittika Chikitsa (Mud Therapy)

1. Types of soil or mud
2. Doctrine of mud selection
3. Mud bath

IV. Surya kirana sevana (Sun bath-Haelio therapy & Chromotherapy)**V. Mardana (Massage)- Different methods of mardana****VI. Diet- Types**

1. Soothing 2. Eliminative 3. Constructive diets
a) Positive b) Negative

VII. Upvasa chikitsa (Fasting)

1. Importance 2 Types 3. Therapeutic effect

11. Community Health Care**I. Prathamika Swasthya Samrakshana (Primary Health Care)**

1. Definition
2. Principles
3. Elements
4. 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.
5. Role of Ayurveda in Primary Health Care in India.

II. Parivara kalyana karyakrama (Family Welfare programmes)

1. Demography
2. Demographic Cycle
3. Life Expectancy
4. Family Planning
5. Methods of Family Planning

III. Rasthriya Karyakrama (National Programmes)

1. Tuberculosis (RNTCP)
2. Leprosy (NLEP)
3. AIDS (NACP)
4. Blindness (NPCB)
5. Polio (PPI)
6. Diabetes (NCCP)
7. Cancer (NCCP)
8. National Rural Health Mission (NRHM)
9. National Anti Malaria programme
10. National Filaria Control Programme
11. UIP (universal Immunisation Programme)
12. RCH (Reproductive and Child Health programme)
13. National water supply and sanitation programme
14. Minimum needs programme
15. All emerging National health programmes.

IV. Matru — Shishu kalyana karyakrama (Mother and child welfare programme)

1. Ante natal care
2. Post natal care
3. Neo natal Care
4. Child health problems
5. Indicators of MCH care

V. Preventive Geriatrics.

VI. International Health

1. Vishwa Swasthya Sangathana (World Health Organization)
2. Objectives, Structure and function of WHO
3. Alma- Ata declaration
4. National Health Policy and Importance of Ayurveda in it.
5. United Nations agencies.
6. Health work of bilateral agencies.

VII. Swasthya prashasana (Health System in India)

1. Central level
2. State level
3. District level
4. AYUSH

VIII. Health Statistics

1. Definition of statistics /health statistics/vital statistics
2. Sources and uses of health statistics
3. Data Collection, classification and Presentation
4. Mean
5. Median
6. Mode
7. Health survey
8. Mortality rates, Morbidity rates and Fertility rates.

12. DRAVYAGUN VIGYAN

1. Dravyagunashastra Lakshana and fundamental principles of Dravyaguna Shastra, General Introduction of Sapta pasartha- (Dravya, Rasa, Guna, Virya, Vipaka, Prabhava and Karma) pancha padartha (Rasa, Guna, Virya, Vipaka, Prabhava)

2. Dravya Lakshana of Dravya, panchabhutikatva, Aushadhatva, Dravya Pradhanye yuktyah (arguments for importance of dravya). Classification of Dravya, according to Chetan-achetan (living-Non Living), karya-karan. Utpatti (Origin), Yoni (Mode of Origin), Rasa, Virya, Vipaka, Prayoga (Use), Dosha karma (Action on Dosha), method of Dravya classification according to Bhattrayi and according to Taxonomy.

3. Guna Etymological derivation, definition and Classification of Guna. Detailed knowledge of Gurvadi and Paradi Gunas.

4. Rasa Etymological Derivation, definition, meaning of "Rasa" in various contexts. 6 Rasas (madhura, Amla, Lavana, Katu, tikta, and Kashaya), Panchabhutik origin of Rasa, Nirvritivisheshakramh (manifestation in general and particular), Riru prabhava (effect of season), rasanurasayobheda (Difference between rasa and anurasa) Lakshana

(characteristic), Guna and Karma of 6 Rasa., Kopana and shaman of Dosha and dushya by 6 rasa, Rasaskandha, Effects of excess usage of Rasa. Perception of Rasa. (Rasopalabdhi), Presentational use of rasa in diet and medicine (rasa seven Kramah).

5. Vipaka Etymological derivation and definition, difference between Avasthapaka and Vipaka, Types of Vipaka, (Dvividha-Trividha, panchavidha) Guna and karma of Vipaka, (taratamya), Vipakopalabdhi hetu (Knowledge / Understanding of Vipaka). Differences between Rasa and Vipaka.

6. Virya Etymological derivation, definition and Nature of Virya, Numbers of Virya. (Dvividha & Ashtavidha), Panchabhuthikatva, 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, Samanyapratyabdha, Vichitratyabdha, Arguments for Predominance of prabhava.

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

9. Karma Nirukti lakshana swaropaa and bheda of karma (Esymological derivation, definition, nature and types of action). Karma according to ancient of the following karmas with examples-

1. Deepana 2. Pachana 3. Sanshodhana 4. Sanshamana 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. Vajeekarana 20. Jeevaneeya 21. Ballya 22. Brimhana 23. Langhana 24. Medhya 25. Kesya 26. Chakshushya 27. Varnya 28. Dantya 29. Hridya 30. Sanjnasthapana 31. Vedanasthapana 32. PraJasthapana 33. Sonithasthapana 34. Raktaprasadana 35. Shukrala 36. Sukrasodhana 37. Sukrarechaka 38. Sukrathambhaka 39. Sukrasodhana 40. Stanyajanana 41. Stanyashodhana 42. Mutravirechaniya 43. Mutravirajaniya 44. Pureeshavirajaneeya 45. Pureeshasangraheeya 46. Swedasangraha 47. Swedana 48. Swedopaga 49. Shehana 50. Snehopaga 51. Vamana 52. Vamanopaga 53. Virechana 54. Virechanopaga 55. Sirovirechanopaga 56. Asthanopaga 57. Anuvasanopaga 58. Hikkaniyana 59. Trishnanigraha 60. Chhardinigraha 61. Dahaprashamana 62. Shitaprashamana 63. Angamardaprashamana 64. Jvarahara 65. Shramahara 66. Shothahara 67. Swashara 68. Kasahara 69. Shoolaprashamana 70. Truptighna 71. Kandugna 72. Kushtagna 73. Krumighna 74. Arshoghna 75. Vishaghna 76. Sandhaniya 77. Vranaropana 78. Ashmaribhedhana

10. Description of the following classes (Ganas) of Dravyas depending upon their similarity.

morphology, properties, action, class and effects:-

a. Audbhida Ganas (Vegetable origin)

Brihatpanchamoola, Laghupanchamoola, Vallipanchamoola. Kantakapanchamoola. Triahpanchamoola, Madhyamapanchamoola, Jeevaneeya panchamoola, panchapallava, Panchavalakala, Triphala, Trikatu, Trimada, Chaturusana, panchakola, Shadoosana, Chaturbeeja, Jeevaniya gana. Ashtavarga, Trijataka, Chaturajataka, Katuchaturajataka Panchatikta, Amlapanchaka, Chaturbhadra, Trikarshika, Swalpatriphala. madhuratriphala. Mahavisha, Upavisha, Knowlegde of Agryoushadha Varga with example.

b. Jangama Ganas (Animal origin)- Ksheerashtaka, Mutrashtaka, Pitta Panchaka.

c. Parthiva ganas (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 (bhushajagara).

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 bshaja), Use of different part of medicinal plants (bshaja prayoga. prayojyanga), Incompatibility (knowledge of viruddhatwa), principles of preparation of Aushadha yoga,

Consideration of vaya, bala, lilnga, agni, dosa, dushya, vyadhi, Koshta, deha prakriti, Abhyasa, satwa, desha kala and kalpana for deciding dosage of drugs (Matranishchiti). Anupana vyavastha, time of administration (bhaisajya sevana kala), routes of drug administration (bhaishajya prayoga marga) Prescription writing.

15. Brief information about 6 Nighatus (Dhanwantari Nighantu, Shodala Nighantu, Kaiyyadeva Nighantu, Madanapala Nighantu, Bhavaprakasha Nighantu, Raja Nighantu),

1. Detailed knowledge of following drugs with respect to Basonym of drug, main Synonyms. Regional Name, Botanical Name, Family, classification of Dravya (Gana) as described in Charaka, Sushruta and Bhavaprakasha.

Habit and habitat/verities

External morphology

Useful parts

Important phytoconstituents

Rasa panchaka

Action on Dosha, Dhatu, Mala

Therapeutic indications

Amaikaprayoga and Matra (Therapeutic administration and Dose)

Name of important formulations

Adverse effects and remedial measures

Shodhana (as required)

1. Ahiphene 2. Agnimantha 3. Agar 4. Amalaki 5. Apamarga 6. Aragvadha 7. Ardrakasunti 8. Arjuna 9. Arka 10. Ashvagandha 11. Ashvagola 12. Asoka 13. Ativisha 14. Bakuchi 15. Baladvayam 16. Bharangi 17. Bhallataka 18. Bibhitaka 19. Bijak /Vijayasara 20. Bilva 21. Brahmi 22. Briungaraj 23. Bruhati 24. Chandanadvaya 25. Citraka 26. Dadima 27. Danti 28. Daruharidha 29. Dhanyaka 30. Dhataki 31. Draksha 32. Durva 33. Ela 34. Eranda 35. Gambhari 36. Gokshura 37. Guduchi 38. Guggulu 39. Haridha 40. Haritaki 41. Hingu 42. Jambu, 43. Jatamansi 44. Jatiphal 45. Jeerakdvaya 46. Jyotishmati 47. Kalamegha 48. Kampilla 49. Kanchanara 50. Kantakari 51. Kapikacchu 52. Karkataksringi 53. Karpura 54. Katuki 55. Khandira 56. Kiratatikta 57. Kumari 58. Kupilu 59. Kumkum kesara 60. Kushmanda 61. Lavang 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. Pippail-pippalimula 79. Purnanava 80. Rasana 81. Rasana 82. Saireyaka 83. Sallaki 84. Saptaparna 85. Sarpagandha 86. Sariva 87. Shalpatni 88. Shalmali 89. Shankhapuship 90. Shatavari 91. Shathapushpa 92. Shigru 93. Shirish 94. Shyonaka 95. Thalisa patra 96. Tila 97. Tivrut 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. Deodaru.

2. Brief knowledge of following drugs with respect to

Sanskrit Name

Botanical Name

Family

Habit (Samanya Swaroopa)

Part used

Rasapanchaka

Indications

1. Agastya 2. Akarakarabha 3. Ajamoda 4. Amra 5. Mragandhiharidra / Ankola 6. Aparajita 7. Ashvattha 8. Asthishrukhala 9. Avartaki 10. Babbula 11. Badara 12. Bakula 13. Bhumyamalki 14. Bimbi 15. Bijapoor 16. Bola, 17. Chandrashura 18. Changeri, 19. Chavya 20. Chakramarda 21. Champaka 22. Chirbliva 23. Chopachini 24. Dattura 25. Darbha 26. Dhanvayasa, 27. Dronapushpi 28. Gandhaprasarini 29. Garjara 30. Goghiva 31. Gorakshamajja 32. Gunja 33. Hismra 34. Hrutpatri 35. Indravaruni 36. Ingudi 37. Irimeda 38. Isvari 39. Japa 40. Jati 41. Jayapala 42. Jeevanti 43. Kadali, 44. Kadamba 45. Kaidarya 46. Kamala 47. Kankola 48. Kakamachi 49. Karanja 50. Karira 51. Karpasa 52. Karvira 53. Karavella 54. Kasha 55. Kasni 56. Kataka 57. Kataphala 58. Kharjura 59. Kitmari 60. Koshataki 61. Kokilaksha 62. Kumuda 63. Kusha 64. Lajjalu 65. Langali 66. Latakaranja 67. Latakasthuril 68. Madayantika 69. Mahanimba 70. Mandukaparni 71. Mashaparni 72. Mayaphala 73. Methika 74. Meshashrunji 75. Mudgaparni 76. Mulaka 77. Nagabala 78. Nala 79. Narikkala 80. Nili 81. Padmaka 82. Parushaka 83. Parasika yavani 84. Parijata 85. Parisha 86. Parnabija 87. Parnayavani 88. Parpatata 89. Patalagarudi 90. Patha 91. Patranga 92. Pilu, 93. Plaksha 94. Priyala 95. Prishniparni 96. Priyangu 97. Puga 98. Putiha 99. Putranjivaka 100. Pushkarmoola 101. Rajika 102. Sarshapa 102. Rohitaka 103. Sala 104. Saptachakra 105. Sarala 106. Sarja 107. Satapa 108. Shaliparni 109. Shati 110. Sharapunkha 111. Shinsapa 112. Snuhi 113, Sringataka 114. Surana, 115. Svarnakshiri 116. Tagara 117. Tailaparni 118. Talmuli 119. Taruni 120. Tavakshira 121. Tugaraka 122. Upakunchika 123. Udumbara 124. Vamsha 125. Vata 126. Varahikanda 127. Vruddadaru 128. Vrukshamla.

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

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

4. Introduction, knowledge of guna-karma of following groups of Annapanavarga:-

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. Mansa Varga 13. Lavana Varga 14. Kritannavarga (Processed food)

5. Introduction, Definition & scope of Pharmacology.

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, Oxytocic. Galactagogues, Contraceptives, Styptics, Antihistamins. Antimicrobial, Antibiotics, Antimalarial, Amoebicidal. Antifilarial, Anthelmintic. Antifungal. Vitamins, Minerals, Water imbalance and IV fluids, Vaccines. antivenom, antirabies serum, Local anti septics. drugs in ophthalmic practice, Anti cancer drugs and immunomodulators etc.

6. Brief knowledge about WHO's "Essential Drug List"

7. Brief knowledge of Cultivation, Conservation of Medicinal plants and information about endangered species.

13. RASASHASTRA EVUM BHAISHAJYAKALPANA

Rasa-Shastra

1. Definition and etymology of Rasa, History of rasashastra, 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, Amrutikaram. Lohitikarana, Mruta Loha, Satwa Patana, Shuddhavarta, Beejavarta, Druti, Rudra bhaga and Dhanvantari bhaga, Apunarbhava, Niruttha, 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, Addha Patan, Jaranarth Tula Yantra, Dola Yantra, Patana Yantra- Damanu Yantra, Vidhyadhara yantra & Tiryak patina Yantra, Patala Yantra, Palika Yantra, Puta Yantra, Valika 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 & application of koshti Satwapatan Kosthi. Chullika, Patala Kosthi. Gara Kosthi 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, Kumbhapputa, Balukaputa, Bhudharaputa, Laghu puta, Baluka puta.

8. Applications of Electric muffle furnace and fuel (diesel) dependant furnace.

9. Knowledge of Parada Synonyms, Occurrence, Natural and artificial sources of Parada, Hingulottha parada, Types of Rasa, Naisargika, Yougika, Aupadhika (kanchuka) etc. Parada Dosha and characteristics of Grahya-Agrahya parade. Samanya and Vishesh 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.

Occurrence, Synonyms, Mineralogical identification, Natural and artificial sources, Types- Gragya and Agrahyata, shodhana, Marana and other processing techniques. Properties, dose, therapeutic uses of commonly used single and compound formulations of dravyas 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, Mirddara 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- Manikya (Ruby), Mukta (Pearl), Pravala (Coral), Tarkshya (Emerald), Pushaparaga (Topaz), Vajra (Diamond), Nilam (Sapphire), Gomeda (Zircon or Cinnamome stone), Vaidurya (Cats eye).

Uparatna- Vaikranta (Tourmaline), Suryakanta (Sun stone), Chandrakanta (Moon stone), Rajavarta (Lapis Lazuli) Lal, 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 (Staghorn), Khatika, Godanti (Gypsum) and Samudraphena (Cattle Fish Bone), Kukkutand twaka (Hen's Egg Shell).

5. Siktha Varga- Siktha (Silika), 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 Kshar (potassium Nitrate).

7. Miscellinious- Bola, Krishna Bola, beeja Bola, Damool Akhawan (Khoon Kharabha Rakta Bandhini), Abresheem, 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 and Ahiphena, Chitrakmool.

9. Aushadhi Yoga Gyanam- Arogya vardhini gutika, Karpura rasa. Kasturi, bhirava rasa, kumara kalyana rasa, Garbhapala Rasa, Chandraprabha Gutika, Chandramrita Rasa, Pratapalankeshwara Rasa, Pravala panchamrita Rasa, Anandbhairava Rasa, Yogendra Rasa, Rajmriganka, Ramabana Rasa, Laxmivilasa Rasa, Vasanta Kusumakara, Vatakulantaka Rasa, Vasantamalat Ras. Brihat Vata Chintanmani Rasa, Shankha Vati, Shwaskuthata Rasa, Hinguleswara Rasa, Hemagarbhapottali, Hridyamava Rasa, Swarnavanga, makaradhwaja, Ayaskritil evam Loha Rasayan Putapakwavishamjvrantaka Loha. Vatvidhvamsan Rasa. Kamadugha Rasa. Laghusootshekhsar Rasa, Navayasa loha, Saptamrita loha.

10. Brief knowledge of Standardization of Rasaushdhi.

11. Concept of Pharamcovigilance and status in India, knowledge about Pharamcovigilance of Ayurvedic drugs.

14. BHAISHAJYA KALPANA

1. Derivation, history and chronological (kramika vikasa) development of Bhaishjyakalpana. Concept of Aushadha and Bhesaja.

2. Fundamental principles of Bhaishjyakalpana.

3. Aushada nirmana shala according to directions mentioned in Aushadha evam Prasadhana Adhinyama (Drug and Cosmetic act 1940 and Rules 1945).

4. Introduction and general knowledge of useful instrument- Disintegrator, Pulveriser, Micropulveriser, Ball mill, End Runner, Edge Runner, Sieve- Shaker, Polishing pan, Granulator, Mixer, Grinder, Tablet making machine, strip packing machine, puch packing machine, pill making machine, Pill cutter.

5. Comparative study of "Mana" (measurements) as per Ancient and metric system of measurements. Ruels of taking fresh and dry drugs, Grahyatva and Agrahyatva of plant material. Collection, storage and Preservation methods of different avadhi (potency period) of different Aushadhi kalpanas. Concept of stability and shelf life in contemporary science.

6. Aushadha Matra, Anupana and Aushadh sevan kala.

7. Kashaya yoni- Pancha vidha kashaya kalpana Swarasa, kalka, Kwatha, Hima, Phanta, Panch kashaya Yonayah, Churna, Ushnodaka, Tandulodaka. Laksha rasa kalpana. Mantha, Anushadha siddha paniya, Arka. panaka, Pramathya. rasakriya. Phanita, avaleha. Prasha, Ghana, Satva, guddapaka, sarkara, Ksheerapaka, Syrups. Vatika. Gutika. Chandrika. vataka. Panda, modaka, varti, Guggulu kalpana, Method of preparation of Tablets and Capsule. Masi kalpana, lavana kalpa, Kshara kalpana and Kshara sutra.

8. Introduction, definition, preparation methods, doses and detailed description of uses and anupana of following Yogas

Ardraaka swarasa, Tulasi swarasa, Vasa putapaka swarasa, Nimba kalka, Rasona kalka. Punarnavasthaka kwatha, Rasna saphthaka kwatha. Dhanyaka hima. Sarivadi hima, Panchakola phanta, Mustadi Pramathya, Kharjuradi mantha, Shadanga paniya, Ajamoda arka, Yavanyarka, Chinchu panaka. Candana 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. Mahibadra avalehya, 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.

1.Sneha kalpana Shena yoni, Types of sneha, sneha murchana vidhi, sneha paka vidhi, snehapaka prakara and their use. Snehapaka kala, sneha siddhi lakshanas, dose, use of ghrita and taila. Preparation and uses of Jatyadi Ghrita- BramhigherNarayana tailla- Panchaguna taila.

2.Sandhana kalpana and its types Madya, Sukta- Asava- Arishta- Varuni- Sura (prasanna- Kadambari- Medaka- Jagala- Bukkasa) Maireya- Surasava- ShuktaKanjika, Tushodaka, Shidhu- Souvira kalpana their methods of preparation, properties, doses, uses and mode of administration, Siddha Sandhana Lakshana. Preparation, dose and mode of administration of Arjunarishta- Ashokarishta- TakraishtaDashamularishta, 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, AshchyoutanaVidalaka- Trapana- 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 power), pratisaran, Tooth paste.

8. Dhumapana kalpana- Classification, Method of preparation, properties and therapeutic uses of Dhamapana. Dhoopan- Vrinda, Yoni, Arsha and Karna dhoopan.

9. Vasti kalpana- Classification, Method of preparation of Vasti yantra and vasti dravaya. Types of Vasti. Therapeutic properties and uses of vasti kalpana.

10. Brief introduction of Ointments, Creams, Gels, Lotions. Shampoos, Soaps, Liniments.

11. Brief knowledge of Standardization of Ayurvedic formulations.

12. Brief introduction of Drugs and Cosmetics Act 1940 and Rules 1945.

15. ROGA VIGYAN EVUM VIKRITI VIGYAN

1. Dosh Dooshyadi Vigyanam

1. Definition and importance of Roganidana

2. Samanya nidana and samanya lakshana of dosha prakopa and dosha kshaya.

3. Vikriti Vijnana of pancha vidha dosha bheda.

4. Dosh 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, Bhuda and lakshana of agni dushti.

10. Definitions and samanya lakshana of Ama.

11. Sama and nirama dosha, dushya lakshanas.

12. Dosh paka and dhatu paka lakshana.

13. Concept, classification, diagnosis and general complications of Avarana

14. Dosh gati.

15. Detailed Study of srotomoola and srotodushti samanya and vishishta hetu and lakshana and viddha lakshana of all Srotas. Differences between sroto dushti and kha

vaigunya.

2. 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 Dosa-vikriti- Ojas and Vyadhi kshamatva.

3. Basic Pathology

1. Introduction to pathology and its sub-divisions. Introduction to Cell Injury and Cellular adaptations
2. Definition and brief description of inflammation—Health Irepair.
3. Definition and brief description of oedema- shock. heamorrhage. Thrombosis and embolism. Ischemua 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 clasrftcatton 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 clasrftcatvon of microorganisms such as virus-bacteria- fungus.

4. Nidana Panchaka Vigyanam

1. Difference between roga and rogi pareeksha.
2. Importance of Nidana 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. Samprati- definition, synonyms and types
7. Samprapti ghataka
8. Shat kriyakala
9. Relationship between nidana panchaka and shat kriyakala.
10. Upashaya- definition, types and its importance in diagnosis.
11. Upadrava
12. Arishta vijnana- definition, types and its importance.
13. Sadhyasadhyatwa- types, their parameters and importance.
14. General diagnostic principles of Anukta vyadhi (Cha Viman IV)

5. Pareeksha Vigyanam

1. Importance and knowledge of Aptopadeshadi, dharshandi Trividha. Chaturvidha, and Shadvidha Pariksha.
2. Importance and Knowledge of Ashtasthan 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.
Systematic study of Nidana panchaka of following diseases (Including upadrava, arishta and sadhyasadhyata)

1. Diseases of Rasavaha Srotas

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

2. Diseases of Raktavaha Srotas

1. Kamala- Raktapitta- Vattarakta- Shitapitta- Maha Kushta- Visarpa- Shwitra and Introduction to Kshudra kushta.
2. Introduction to Hepatomegaly, Splenomegaly, Leukaemia, Thalessemia, Sickle cell anaemia.
3. Introduction to Urticaria. Psoriasis, Eczema, pemphigus.

3. Diseases of Mamsavaha Srotas

Introduction to granthi, arbudha and arshas.

4. Diseases of Medovaha srotas

Sthoulya- Karshya- Prameha

1. Introduction to Obesity and Diabetes Mellitus.

5. 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, Apabahuka,- Manyasthambha- Katigraha.
5. Introduction to Parkinson's disease, Storke, Lumbago- Sciatica syndrome, Bells palsy, Ankylosing Spondylitis

6. Diseases of Sukravaha srotas

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

7. Diseases of Pranavaha srotas

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

8. 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, Diarrhea, Drsentry, Constipation, Inflammatory bowel Syndrome.

9. Diseases of Udakavaha Srotas

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

10. Diseases of Mutravaha srotas

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

11. Diseases of Swedavaha srotas

1. Introduction to Khalitya, Palitya and Cosmetology.

12. 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.

13. Upasargajanya Vyadhis (Communicable diseases)

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

14. Krimi Vigyanam

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

16. AGADATANTRA VYAVAHARAYURVED EVUM VIDHIVAIDYAK

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.- cintact poisons).

4. Contamination of air, water, soil, etc. (Visha mishrita- Vayu, Jala, Desha, Kala 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, Bhang, Tobacco, Parthenium historiferous, Chitraka Eranda, digitalis cerebra odollum. (Signs and symptoms, Fatal Dose, Fatal period, Treatment, post mortem appearances and Medico legal importance).

6. Gara visha, Dooshi visha and, Viruddahara- their concepts, classification, management and contemporary significance. Essentials of Food poisoning.

7. Study of chaturvimshatyupakrama of Caraka.

8. Jangama Visha (Animal poisoning and zoonotic diseases)- Detailed study of sarpa, keeta. Lootha, vrischika, mooshika, Alarka- ViSha; Lakshana, Bheda. chikitsa and their Sadhyasadhyata. (contemporary and classical views), (Signs and symptoms, classification, management prognosis and medico legal importance) Visha Sankata, Shankha 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 and Nitric acid, Hydrocyanic acid, Oxalic acid, Carbolic 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

Aluminum phosphate, Zine 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 practitioners 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

1. Nonmetallic poisons- Phosphorous, iodine
2. Metallic poisoning- Arsenic, Mercury, Lead, copper, Zinc, Tin and Radiation

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 substance Act 1985, Pharmacy Act 1948, Criminal poisoning.

17. VYAVAHARAYURVED EVUM VIDHIVADYAK

(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 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 sadvrittam. apoojya 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 Testinif Act, donation of cornea, Malingering of feigned diseases, international code of medical ethics for doctors.

18. CHARAK SAMHITA

(Uttarardha: Chikitsa- Kapla- Siddhi Sthan)

1. Charaka Samhita- Chakrapani Teeka (Sanskrit Commentary)
2. Charaka Samhita (Hindi Commentary)
Vd. Jayadev Vidyalkar or Vd. Atridev Vidyalkar or

Prof. Gorakh nath Chaturvedi & Kashinath Shastri or
Dr-Brahmanand Tripathy or
Dr.Ravidutta Tripathy
3. Charaka Samhita (English Commentary):
Dr. Ram Karan Sharma & Vd. Bhagwan Dash or Acharya Priyavrata Sharma.

19.KAYACHHIKISA

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, Bhasmas/Pishti, Kuti Pakwa Rasayana, Ghrita,

Taila, Avaleh, Churnas, kashayas and lepas along with appropriate dose, time of administration, duration of treatment required, and relevant Pathyapathya and post therapeutic advices.

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 Kriyakala 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, Visramsas and vyapat) and its management. Chikitsasutra and Management of Sama-Nirama states. Chikitsasutra and Management of 'Samanyaja and Nanatmaja' diseases. Rogaanutpattikara chikitsa, Roga Prashamana Chikitsa (doshapratyanika, vyadhipratyanika, Ubhayapratyanika). Doshopakrama, Chikitsa sutra and management of Sthanantara doshas (Ashayapakarsha, Anuloma/Pratiloma gati of doshas. Vimarga gamana of Doshas). Knowledge of Lina dosha & its management. Diagnosis, Chikitsa sutra and management of Avarana and of dhatu pradoshaja diseases. Importance of Dosha, Dushya, Bala, kala, Agni, Prakriti, Vaya, Sattva Satmya, Desha, Ahara and stage of diseases in treating diseases.
 4. Detailed description of Dvidhopakrama (Santarpana and Apatarpana) and Shadavidhopakrama (Rookshana. Snehana, Swedana, Sthambhana, Langhana, and Brihmana). Detailed description of Shodhan. Shamana and Nidana Parivarjana. Knowledge of Oushadha matra, sevna kala and Anupana. Definition and knowledge of Pathya-Apathya with examples of diseases of various systems.
 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 principals of maintenance of health and management of diseases of following systems of Medicine-yoga, Naturopathy, unani, Siddha, homoeopathy, Acupuncture, Acupressure, Modern medicine, Physiotherapy and Rehabilitation.
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 and 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, Hridashoola, Hypotension, Hypertension.
 5. Chikitsa sutra and management of the diseases of Raktavaha Srotas such as— Raktapitta, Kamala. Kumbhakamala, Halimaka, Daha, Mada, Murcha. Sanyasa, Vatarakta. Plihadosha, Yakridosha, Hepatitis, Cirrhosis of Liver, Leukaemia, Kushta Kilasa. Visarpa, Sheetapitta, Udarada, Kotha and medically manageable Kshudra Rogas.
 6. Chikitsa Sutra and Management of Mamsavaha Srotas and Medovaha Srotas such as-Gandamala, Mamsahosha, Arbuda, Apachi, Prameha, Sthulya, Karshya, Diabetes Mellitus and Dyslipidaemias.
 7. Chikitsa sutra and management of Asthi and Majjavaha Srotas such as Osteomyelitis (Asthimaja Vidradhi) Osteoporosis, (Asthisoshirya), Sandhigata Vata (Osteo Arthritis).
 8. Chikitsa sutra and management of the diseases of Mutravaha Srotas such as Mutrakrichchra, Mutraghata. Ashmari, Cystitis, Nephritis, Nephrotic

Syndrome, Renal Failure.

9. Chikitsa sutra and management of the diseases of Purishavaha Srotas such as Atisara, Pravahika, Arsha and Purishja Krmi.

10. Chikitsa sutra and management of Sexually transmitted diseases, such as Phiranga (Syphilis), Puyameha (Gonorrhoea), Upadamsha (Chancroid).

1. Principles of treatment and management of Vata Vyadhis such as- Pakshavadha, Ekangavata, Sarvangavata, Ardita, Ababhuka, Kati Graha, Manyastambha Gridhrasi, Videhrasi, 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 Neuron Diseases and Neuralgias.

3. Diseases of different Endocrine Glands- 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 introduction, types and management of diseases caused by Vyadhi Kshamatwa hinata (Immuno deficiency disorder and Auto Immune disorders).

6. Derivation of the term Manas, its sthan (place), Guna (Qualities) and Karma Introduction and Definition of Kama, Krodha, Lobha, Moha, mada, Matsarya, Shoka, bhaya, Vishada, Dainya. Harsha and Prajnaparadha.

7. Nidana and Chikitsa of the following disorders- Unmada- Apasmara Aatlvabhinvesha- 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 vikaras, indriyapradoshaja vikaras, Vidhandha, endu, Alzheimers 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 Haemorrhages, 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. Achara Rasayana. Procedures of Kutipravesika Kalpa, Poorvakarma and specific schedules to be followed after Kutipravesika, 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 shukra (Semen). Vajikarna Dravya and

aushadhi.

14. Properties, doses, methods of administration, ingredients and methods of formatjonof Rasayana & Vajikarana formulation.
15. Classification and importance of Vajikarana Dravyas.

20. SHALAKYA TANTRA

1. INTRODUCTION

- a. Shalakyatantra nirukthi, Parichayam, Ithihasam
- b. Netra rachana shareeram 9Mandala, patala, Sandhi, Drushti Vichara) and Netra & Chakshu Kriya shareera ancient and modern view. Netrapareeksha, Netrapareekshanopayogi Yantra Shastradi jnanam.
- c. Netraroganam- Samanya Hethu (Nija and agantuja), Poorvaroopam, Samprapti, Rooka and chikitsa,
- d. Classification of netraroga as per Ayurvedic and Modern view point and its importance.

II. NETRA SAMANYA AND VISHISHTA CHIKITSA- KRIYA KALPA

- a. Seka, Aschyotana, Pindi, Vidalaka Tarpana, Putapaka, Anjana and importance of Panchkarma in shalakyachikitsa.
- b. Basic fundamentals of shalakyachikitsa e.g. poorva-pradhana-pachhchat karma, Ama-pachyaman-pakva vrana shotha, vranitopasana, Pranashtashlya, & Vranbhandhana, Methods and concepts of sterilization, asepsis and antisepsis as per ancient and modern view point.
- c. Knowledge about the eight surgical procedures i.e. Lekhana, Chedana, Bhedana, Vyadhana etc. Shalya karma;
- d. Parasurgical procedures- Agni, kshara and Raktamokshana with special reference to netrachikitsa.
- e. Essential diagnostic and therapeutic modern pharmacological agents required in shalakyachikitsa.

III. SANDHIGATA ROGAS

Etiology, Pathology, classification, clinical features and management of diseases of sandhigata rogas (junctional areas of the eye) as detailed in literature of Ayurveda.

Acute and chronic Dacryocystitis, Epiphora, Blepharitis, Lacrimal Cystaetiology, Pathology, signs & symptoms and management. Knowledge about Dacryocystectomy and dacryocystorhinostomy.

IV. VARTMAGATHA ROGAS

- a. 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 growths- Etiology, signs and symptoms and management.

V. SUKLAGATAROGAM

Etiology, pathology, classification, clinical features and management of diseases of shuklagata mandala (Sclera and Conjunctive) of the eye as detailed in literature of Ayurveda

Conjunctival degenerative disorders like pterygium, Scleritis, Episcleritis SubConjunctival hemorrhage, Xerosis their etiology, signs & Symptoms and management.

VI. KRISHNAGATA ROGAS

- 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, Hypophyon Ulcer & Uveitis, their aetiology, pathology, symptoms and management.

VII. SARVAGATA ROGAS

- a. Etiology, pathology, classification, clinical features and management of sarvagata rogas (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, sign & symptoms and management.
- C. Aupasargika (contagious) Netra Roga:- Etiology, Sign and symptoms, diagnosis and treatment.

VIII. DRISHTIGATA ROGA

- a. Etiology, pathology, classification, clinical features and management of diseases of drishtigata rogas (vision / visual apparatus) as detailed in literature of Ayurveda along with exogenous diseases like sanimittaja and animittaja linga nasha.

Refractive errors, Strabismus, Cataract, refinitis pigmentosa, Amblyopia, Central serous retinopathy, Eale's diseases, Hypertensive & Diabetic Retinopathies, Age related Macular degeneration, Optic Neuritis and Optic atrophy, - Etiology, Pathology, signs and symptoms and management.

Nayanabhighata- Ocular trauma as per ancient and modern view point.

IX. 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.

1. 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.

2. 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.

3. KARNA ROGA

- a. Anatomical and Physiological considerations of Karna (Ear) & Sravanendriya 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 and Vaikritpaham.
- d. Otagia, ASOM, CSOM, Deafness, Otomycosis, Tinnitus, Meniere's diseases, Foreign body in ear and sound pollution, etiology, pathology, clinical features and management. Tympanoplasty.

4. 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.

5.MUKHA ROGA (DISEASES OF ORAL CAVITY)

- a. Mukha roga- ayatana- Anatomical sites of diseases of oral cavity.
- b. Anatomical and Physiological considerations of much (Oral cavity) in Ancient and Modern Medical literature. Examination of Oral cavity.
- c. Mukh and Danta Swasthya ancient and modern concepts.
- d. Generalised etiology Pathology Clinical picture and Treatment of Mukharoga

(Diseases of oral cavity)

6. 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).
- c. Oshtha sandhana- Labioplasty, Hare lip, Retention cyst, Cracked lips.

7. 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 usin instruments. Danta poorana ancient and modern methods. Danta rakshana.
- d. Dental carries, dental tartar, causes and treatment.

8. DANTA 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), Periodontal abscess and Mandibular sinus.

9. JIHWA GATA ROGA (DISEASES OF TONGUE)

- a. Anatomical and Physiological considerations of Jihva (Tongue) in Ancient and Modern Medical literature. Examination of Tongue.
- b. Etiology, pathology, classification, Clinical features and management of diseases of Jihva (Tongue) as detailed in literature of Ayurveda.
- c. Glossitis, Tongue tie, Ranula, Benign and malignant tumors of tongue

10. 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.

11. 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) 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.

SARVASARA MUKHA ROGA (generalized 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

MISCELLANEOUS DISEASES

Anatomy and physiology of salivary, thyroid and para thyroid, their diseases and treatment.

Dysphagia, Cervical lymphadenopathy, Manyastambha (Sternocleidomastoiditis).

21. SHALYA

1. Introduction to Shalya Tantra- Historical background and progress made.
2. Definition of Shalya, Shalya Tantra and its importance.
3. Description of Yantras, Shastras. Anushastras- Definition, number, types, uses, Doshas, Gunas, Karmas. 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- Poorva 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, Upakrama, Vyadhis, Vidhi, Akruiti bheda, Yogya, Ayogya and Upadrava Chikitsa.
 13. Raktamolshana- Mahatva, Prakara- Siravyadha, Pracchanna, Shringa, Alabu, Jaloukavacharana (Jalouka parichaya)- Yogya, Ayogya, Vidhi and Upadrava Chikitsa.
 14. Bandha Vidhi- Proyojana, Dravya, Yogya, Ayogya, Prakara, Abandya and Upadrava. Pichu, Plota, Kavalika, Vikeshika.
 15. Sandhana Karma- Karni, Nasa, Oshtha Sandhana Vidhi. Principles and procedures of reconstructive and cosmetic surgery.
 16. Pranasta Shalya and Nirharana Upayas.
 17. Fluid, electrolyte and Acid Base Balance, Nutrition-
 - a. Introduction to physiology of fluids and electrolytes.
 - b. Dehydration and over hydration,
 - c. Specific electrolyte losses and symptomatology and management of Acidosis, Alkalosis and Acid balance.
 - d. Electrolyte changes in specific diseases like pyloric stenosis intestinal obstruction and anuria.
 - e. Various replacement fluids in surgery, mode of administration and complications.
 - f. Nutrition- Pre-operative, post-operative and intravenous alimentation.
 18. Rakata Mahatwa, Raktasrava- Prakara and laksahana. RaktastambhanaHaemostasis.
 19. Blood Transfusion- Blood groups, components, compatibility, indications, contraindications and complications with management.
 20. Knowledge about Vranitaga 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.
 23. Knowledge of Shat Kriya Kala in surgical practice.
 24. Nirukti, Nidana, Samprati, Prakara, Lakshana, Sadhya- asadhyata, Upadrava and Chikitsa of the following disorders.
 - a. Vranashotha- Inflammation
 - b. Vidhradi- Abscess.
 - c. Pidika- Boils.
 - d. Nadi Vrana- Sinus.
 - e. Dagdha Vrana- Burns and scalds.
 - f. Marmagata- Shock.
 - g. Kotha- Gangrene.
 - h. Granthi- Cyst.
 - i. Arbuda- Tumour.
- 25.Vrana- Nirukti and Prakara**
- a. Nija Vrana- Nidana, Samprapthi, Vrana vasthu, Prakara, Lakshana, Vrana Pariksha- Sthan, Akruiti, Srava, Gandha, Vedana. Vrana Avastha- Dustavrana, Shuddha Vrana, Ruhyamana Vrana, Samyak Roodha Vrana, Vyadhi Janya Vrana, Vrana Sandhya-asadhyatha and Vrana Upadrava.
 - b. Vrana Chikitsa- Pathya-apathya and Shashti Upakramas.
 - c. Ulcer types and their management.
 - d. Wound healing stages and management.
 - e. Agantuja Vrana
 - i. Sadhyo vrana- Traumatic- Nidana, Prakara, Lakshana, Upadrava and Chikitsa.
 - ii. Management of bits and strings
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- Nidina, Samprapti, Lakshana and Chikitsa of Aneurysm, Burgers disease, Raynauds disease.
 30. Snayu Vikara- Diseases of tendons and ligaments- Tendinitis, tenosynovitis, ganglion and their management.
 31. Principles of Amputation.
 32. Surgical practice in AIDS- HIV and hepatitis patients.
1. Asthi Bhagna- Fracture: Prakara including pathological fracture, Samanya Lakshana, Upadrava and Chikitsa. Description of fracture of following bones clinical features, diagnosis, complications and management- scapula, clavicle, humerus, radius, uina, carplas, metacarpals, phalanges, femur, patella, tibia, fibula, tarsals, metatarsals, venebrae, 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 anomolies Osteomyelitis, cysts, tumous and tuberculosis.
 4. Cranio-cerebral injuries- mechanism, Pathology, investigations, complications and management. Cerebral concussion, contusion and laceration. Acute extradural heamatoma, 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 Anamolies, 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 Feature, Diagnosis, Complications and management of— Congenital pyloric stenosis, peptic ulcer, tumous and their management.
 11. Diseases of small intestine Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of- Mickels Diverticulitis, Tuberculosis, obstruction, perforation and their management.
 12. Diseases of large intestine Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Tuberculosis, obstruction, perforation, tumor, appendicitis, crohn's disease, ulcerative colitis and their management.
 13. Udara rogas- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of- Jalodara- Ascitis, Chidrodara- Perforation and Peritonitis, Badhagudodara- Obstruction and their management.
 14. Diseases of rectum and anal canal- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of- Congentital disorders, arshas Haemorrhoids, Rectal polyp, Parikartika- Fissure in ano, Bhagandara- Rectal prolapsed, Sanniruddaguda- Anal stricture, Incontinence. Gudarbuda- tumor and their management.
 15. Abdominal Injuries and management.
 16. Diseases of liver- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Abscess, cysts, tumors, obstructive jaundice and Yakritdalyodar- Hepatomegaly.
 17. Diseases of gall bladder- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Pancreatitis Cholecystitis, cholelithiasis, tumors.
 18. Diseases of pancreas- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Pancreatitis, pseudo pancreatic cyst, tumors.
 19. Diseases of spleen- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Pleehodara- Spleenomegaly, Spleenic rupture.
 20. Diseases of kidney- Aetiopathogenesis, classification. Clinical Feature, Diagnosis, Complications and management of Congenital anomalies, polycystic kidney, perinephric abscess, tumor, renal calulus, renal injury.

21. Diseases of Ureter- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Calculus, obstruction.
22. Diseases of Urinary bladder- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Congenital anomalies, Ashmari-Vesicle Calculus, Cystitis, tumor, and Injury.
23. Mutragata & Mutrakrichra- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management. Retention of Urine.
24. Diseases of Prostate- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Prostatitis, Prostatic abscess, benign prostatic hypertrophy, carcinoma of prostate.
25. Diseases of Urethra- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Urethritis, Stricture and upure..
26. Diseases of Penis- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Niruddhaprakasha- Phimosis, Parivartika Paraphimosis, Avapatika- Prepuceal ulcer, Arbuda- tumor, Lingarsha- Veneral warts.
27. Diseases of Scrotum and Testis- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Mutravridhhi- Hydrocele, Vrushana shotha- epididimo- orchitis, Vrushana granthi- epididimal cyst, Scrotal filarial, Shukrashmari- Seminal calculus, torsion of testis, ectopic testis, undescended testis and tumors.
28. Vridhhi Roga- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management.
29. Antravridhhi- Aetiopathogenesis, classification, Clinical Feature, Diagnosis, Complications and management of Hernia- Inguinal, femoral, epigastric, Umbilical, incisional and rare forms of Hernias.

22. PRASUTI TANTRA EVUM STRI ROGA

Prasuti Tantra

Introduction and scope of Prasutitantra (obstetrics).

Stri Sharir Vigyana

Etymological origin of the word stree, Vayobhedena stree sangnya. (Nomenclature of Stree according to age). Normal and abnormal conditions of Asthisandhi peshi Sahita Stree shroni (Soft & Bony Pelvis) and its obstetrical importance, Shroni mapana (Pelvic assessment)- Artavvaha and Stanyavaha strotamsi. Tryavarta yoni (Female internal and external genitalia). Stree vishishta peshi marmani.

Rajo Vigyana

Description of Raja, artava and concept of shukra in stree. Prathama Rajo darshana (Menarche), Rituchakra- Rajakala- Ritukala- Rituvyatitakala- Menstrual cycle and their regulation by endocrine glands- Rajasvala Chatya. Ritumati Lakshana, Ritumaticharya, Importance of Ritukala in Garbha dgarana.

1. Garbha vignyana

A. Garbhasya paribhasha, Garbhadhanvidhi, 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), garbhasthiti, asana, uday (lie, position, presentation), fetal skull, Garbha vikriti.

B. Apari (Placenta) Garbha Nabhinadi (Umbilical cord), Garbhodaka (Amniotic fluid), Jarayu (Foetal membranes)- Formation, development, function, normalcies and their abnormalities.

-Ulba (Vernix caseosa).

2. Garbhinivigyan

a. Lakshana of Sadhyograhita garbha, lakshanas of vyakta garbha, Garbhini nidana (diagnosis of pregnancy) Pumsavana vidhi,

b. Garbhini vyavastha: Garbhini Paricharya (ante Natal care, examination investigation and management), Garbha upaghatakara bhava, Dauhrida.

c. Garbha Vyapada: Garbhasrava and Garbhapata (abortions), Upavishtaka, Nagodara / Upashushaka, Leena garbha, Antarmrita garbha (intrauterine Foetal death), Garbha shosha, Mithyagarbha (pseudocyesis), Raktagulma. Hydatiform mole. Ectopic pregnancy, I.U.G.R, Bahugarbhata, Rh- incompatibility- causes, clinical features, complications and treatment.

3. Garbhini Vyapad / Garbha Vyapad

A. Garbhini- Alpabala vyadhaya (Minor ailments of pregnancy)- Hrilasa (Nausea), Chatdi (emesis), Aruchi, Atisara (Diarrhoea), Vibandha (Constipation), arsha, Udavarta, Pada Sotha, parikartika, Vaivarnya (Discoloration), Kikkisa etc.
B. 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.

Prasava Vigyana (parturition)

Prakrit Prasava (Normal labour): Prasava Paribhasha, (definition of prasava) Prasavahetu, Prasavakal, 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)

Akalaprasava (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 (Sandhyasadhyta), treatment Aushadhi, Mantra, Shastra, Yantrachikitsa Garbha stithi parivartana (version), forceps delivery, Ventouse Muladharachhedan (Episiotomy) Udarapatanapurvaka gardha nirharana ceasarean section.

Aparasanga (Retention of placenta), prasavottara raktasrava (PPH). Its causes, clinical features and treatment.

Maternal distress. prasavajanya janananga abhigata, uterine inversion, amniotic fluid embolism etc.

Sutika Vigyana- Sutika Paribhasha, Sutika Kala, changes during Sutika avastha (Sharirika and manasika), Sutika paricharya.

Sutika Roga- Number of sutika rigas. Causes, Clinical features, prognosis and treatment of sutika jwara, Sotha and Makkala and other complications.

Stanya Vigyana- stana stanya pareeksha, Stanya sampat, Stanya dusti, Stanyyakshaya, 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.

Congenital malformations of female genital tract.

23. STRI ROGA

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, laxana, and its chikitsa. Normal semenogram

Vandhytva (Infertility- causes, types, investigations and management) Yoni Kanda, Yoni

Arsha, Granthi and arbudas of yoni (Benign and malignant tumours of genital tract).
Pelvic infections including sexually transmitted infections and their management.
Rajonivrutti

Stanaroga

Stanagranthi, stanavidradhi (abscess), stanashopha (mastitis) their etiopathology, clinical features, diagnosis, prognosis, treatment and complications.

Sthanik chikitsa-

-Snehana, svedana, uttarabasti, pichu, varti, lepana, dhoopana, dhavana, dahana, Ksharakarma etc. Practical knowledge of all these procedures along with indications, complications and management.

-Importance of panchakarma in stree roga.

Shastra karma

Surgical procedures their indications, Contraindications, purvakarma (pre-operative), Pradhanakarma (operative), Paschatakarma (post operative), Complications and managements.

Garbhashayamukha vistrutikarana (Cervical dilatation) & Garbhashaya lekhanam (curettage), Garbhashaya mukhadahana (cauterization of Cervix), Swasthane garbhashaya sthapana (repair of genital prolapsed), Arshanitharana samanya gyana (Hysterectomy), Female surgical sterilization.

Removal of different types of cysts, Marsupialisation, PAP smear, endometrial and cervical biopsy.

Stree roga sambandhita pramukha aushadhi. Prasuti stree roga chikitsa upayogi yantra shastra parichaya and vyadhivinishchaya upaya (investigative and diagnostic aids).

Basic knowledge of laparoscopy, 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.

24.KAUMARBHRITYA

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

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), Nabhinala 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, Mansila evam Samajikavikas (Physical, Mental and Social growth & development of child 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. Poahana (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, Upaveshana, Annaprashana, kamavedhana. Choodakarma. Upanayana and Vadarambha.
 15. Dantotpatti evam Danta Raksha Vidhi (Dentition and dental care): Dantasampat (Characteristics of healthy teeth), Danta Nisheka evam Dantodbeda (Eruption of teeth). Dantodhedjanya 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, time to time.

25. Samanya Chikitsa Siddhanta and Balaroga

(General Principles of Treatment and Management of Pediatric Disorders)

1. Balaroga Samanya Chikitsa Siddhanta (General Principles of treatment on children), Balaroga parikshavidhi- Shadvidha, Ashtavidha, Dashavidha Pariksha evam Shishu Vedana Parigyana (Examination of diseased child and Diagnostic methods- Ayurvedic and modern).
2. Aushadhi Matra Nirddharana- According to Vaya. Bhar Evam 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), Upasheershaka (Caput Succidaneum and Cephalohaematoma), Shastraghatajamy: Facial paralysis, Erds 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 9 Juvenile Diabetes);
7. Prasavattara Vyadhi (Neonatal disorders): Navajata kamala (Neonatal Jaundice), Navajata Netrabhishyanda (Neonatal conjunctivitis), Nabhiroga (Umbilical disorders), Rakta Vaishamyata (Rh-Incompatibility). Raktasravi Vikara (Haemorrhagic Disorders), Ulvaka Roga.
8. Dushta Stanyapanajanya Vyadhi (Disorders due to vitiated Milk): cows Milk Allergy, Charmadala (Infantile atopic dermatitis), Kshiralasaka, Kukunaka (Conjunctivitis), Ahiputana (Napkin Rashes).
9. Kuposhanajanya Vyadhi (Nutritional disorders): karshya, phakka, Balashosha and parigarbhaika (Protein Energy Malnutrition). Vitamin and Micronutrient deficiency disorders, Hydervitaminosis.
10. Apasatgika Vyadhi (infectious Diseases): Kamamula Shotha (Mumps), Romantika (Measles), Rubella, Masurika (Chicken Pox), Rohini (Diphtheria). Kukkura-kasa (Whooping Cough), Dhanurvata (Tetanus), Krimiroga (Worm Infestations), Antrika Jwara (typhoid), Jivwanujanya Yakrit Shotha (Hepatitis)
11. Srotas Vikara:
 - a. Pranavaha Srotas: Pratishyaya (Common Cold), Kasa (Cough), Shwasa (Respiratory distress syndrome), Tamaka Shwasa (Bronchial Asthma), Utpullaka. 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). Udatshoola (Infantile Colic), Pravahika (Dysentery),

- Gudabhransa (Rectal Prolapse)
- c. Rasavaha Srotasa: Jwara (Fever), Pandu (Anemia), Mridbhakshanajanya Pandu (Anemia associated with clay eating/Pica).
- d. Raktavaha Srotas: Kamala (Jaundice), Raktapitta (Haemorrhagic disorders), Krimgja Hridroga (Infections cardiac diseases including Rheumatic Heart Disease) Uchecha Raktachapa (Hyperter) Yakridpleehodara 9 Hepatosplenomegaly
- e. Mamsa-Medovaha Srotas: Apachi (Lymphadenitis), galaganda (Goitre), Gandamala (Cervical lymphadenopathy), Sthaulya (Obesity).
- f. Mutravaha Srotasa: Mutraghata (anuria), Mutrasanga (Retention of Urine) Mutrakriccha (Dysurea), Vrikkashotha (Glomerulonephritis and Nephrotic syndrome)
12. Anya Bala Vikara (Miscellaneous pediatric disorders)
Pangutwa (Locomotor disorders), Vamanatwa (Dwarfism), Jadatwa (Mental disorders), Apsmara (Epilepsy), Unamada, Akshepa (Convulsion), Nirudhaprakasha (Phimosis), Kushtha (Skin disorders), Madhya Karna Shotha (Otitis media), Karnasrava (Otorrhoea)
13. Behavioral disorders of children. their management and counseling; Breath holding spell, Shayyamura (Bed wetting), Anutism, ADHA (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.

26. PANCHAKARMA

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, Shehana & 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 presenera.
7. Specifications of Panchakarma theatre and necessary equipments.

II. SNEHANA

1. Etymology and definition of sheha and shehana (Oleation therapy)
2. Types of Sneha, Qualitative utility of Sarpi, Taila, vasa and Majja.
3. Different categories of Snehayonis (Sources).
4. Need of Rukshana before shehana and Samyak rukshana lakshanas.
5. Types of Snehana- Bahya anad 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. Shaman and Brimhana Sneha, Hrasiyasi, Hrasva, Madhyama And Uttama Sneha.
7. Indications and contraindications for Snehana.
8. Sheha Procedures:

Abhyanta Shodhananga Sneha Vidhi:
Poorvakarma: Roga and rogi pareeksha, including relevant diagnostic techniques, Koshta Pareeksha and Agni nimaya, Preparation of the rogi & fixation of dose.

Pradhana Karma: Adminitration of sneha & Anupana, Observation- Jeeryamana Jeerna/Ajeerna/Asnigdha Lakshanas, Samyak Yoga, Ayoga/Atiyoga Lakshanas, Vyapats & Their management according to Ayurveda & modern Systems of Medicine.

Pashcaht karma: Adminitration of Sheha & Anupana, Observation Brimhana Snehana Vidhi, Chirakaleena Sneha Vyapats, and their management.

9. Diet and regimens during Snehana
10. Introduction to Bahirparimarjana Chikitsa.
11. Detailed knowledge about procedure and utility of following Bahyasnehanas (Exteral oleation therapy)- Abhyanga, Samvahana, Mardana, Unmardana, Utsadana, Padhaghata, Murdhni Taila, Pichu, Karna Poorana & Akshi Tarpana
- 12 Snehana Kamukata,

13. Digestion and Metabolism of Fat

III. Swedana

1. Etymology and definition of Swada and Swedana (Sudation)
2. Swedana dravyas 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 utiliyi of below mentioned Swedana procedures:- Patrapinda Sweda, Shashfika Shalipinda Sweda, Churna Pinda Sweda, Jambheera Pinda Sweda, Dhanya Pinda Sweda, Kukkutanda Sweda, Anna lepa valuka Sweda, Ishtika Sweda, Nadi Sweda, Bashps Sweda, Ksheera Bashpa Sweda, Avagaha Sweda, Arisheka Sweda (Pizichil, Dhanyamla Dhara, Kashay Dhara, Ksheera Dhara) &Upanaha Sweda.
- 7.Features of Samyak Yoga (Proper Sudation, Atioga (Excessive Sudation), Heenayoga (Inadequate Sudation and Vyapat of Swedana and their management.
8. Diet and regiment during and after Swedana.
9. Swedana karmukata (Mode of action of Swedana Chikitsa).
- 10.Introduction to Bahirparimarjana, Chikitsa: Study Lepa, Gandusha Kavala, ShiroLepa (Tala potichil) Talam, Udvartana, Takra Dhara, Kati, Janu, Basti, Breeva 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. Kosta nirnaya and Agni pareeksha in Vamana Karma.
4. Indications and Contraindications for Vamana.
5. General Properties of Vamaka Dravyas.
6. Preservation and Knowledge of Vamaka and Vamanopaga dravyas.
7. Detailed study of Madana Phala, Kutaja, Yashti, Vacha and Nirmba.

Poorva karma: Snehana & Swedana Diet & regimen prior to Vamana Karma preparatjon of formulaüon for Vamana karma Dose & Method of Administration.

Poorva karma: Shehana & Swedana Diet & regimen during vishrama kala prior to Virechana Karma

Pradhana karma: Administration of durgs and Observation, and Assistance of Vegas, Upavehas and matra. Knowlegde of Laingiki, Antiki and Maniki Shuddhi, Fatures of Samyak Yoga (Proper Shuddhi), Atiyoga (Excessive Shuddhi), Ayoga (inadequate Shuddhi) and their management.

Pasnchat karma: Samsarjana (Peyadi, Tarpana and Rasa Samsarjana Krama) Pariharya vishaya & Parihara kal Vyapats & their management according to Ayurveda & modern Sysyetms of Medicines.

8. Vamana karmukata (Mode and of Vamana)

V. VIRECHANA KARMA

1. Etymology, definition, introduction, Utillity & Classification of Virechana karma
2. Knowlegde of Anulomana, Sramsana, Bhedana, rechana, karma with examples,
3. General properties of Virechana Dravyas.
4. Detailed study of following Virechana drugs trivrut, Eranad, Aragvadha, katuki and Jaipala
5. Knowledge of Virechana kalpanas, their properties, dose, anupana and method of administration,
6. Knowlegde of Koshta Nirnaya and Agni vivechana.
7. Indications & Contra-indications for Virechana
8. Significance of Vamana before Virechana.

9. Virechana Vidhi (Procedure for Virechana)

Poorva karma: Shehana & Swedana Diet & regimen prior to Virechan Karma.

Pradhanan Karma: Administration of durgs and Anupana, Observation, Assessment of Vegas, Upavegs and Matra. Knowledge of Laingiki, Antiki and Maniki Shuddhi, Features of Samyak yoga (Proper Shuddhi), Atiyoga (Excessive Shuddhi), Heenayaga (Inadequate Shaddhi) and their management.

Pasnchat karma: Samsarjana (Peyadi, Tarpana and Rasa Samsarjana Krama) Pariharya vishaya & Parihara kal Vyapats & their management according to Ayurveda & modern Sysyetsms of Medicines.

10.Virechana karmukata (Mode of action virechana).

VI.BASTI

1. Etymology, definition, introduction, utility, and importance of Basti karma.
2. Types of Basti based on karma, Sankhyas, Adhisthan & Matra.
3. Knowledge of differencet Basti yantras, their significance and utility.
4. Indications & Contra-indications for Anuvasana Basti and Asthapana Basti.
5. Adimistration of Baasti:

Poorvakarma: (Pre-operative procedure): Preparation of Basti dravyas fixation of dose Preparation of Ptient.

Pradhana karma (Operative procedure): Basti Pranidhana Vidya (Administrative of Asthapana. Anuvasana and Matra Basti) Observation of Basti pratyagamana, Samyakyoga, Atiyoga, heenayoga lakshanas and their management.

Paschat Karma (post Operative procedure): Pariharya vishaya, Parihara kala Diet and regiment after Basti.

7. Detailed knowledge of basti Vyapats and their management.
8. Study of following Vishishta Bastis:
Piccha Basti, Ksheera Basti, Yapana Basti, Madhutailika Basti, Erandamooladi Nirooha Basti, Panchaprasrutika Basti, Kshara Basti, Vaitarana Basti, Krimighna Basti, Lekhana Basti, Sarvarigahara Nirooha Basti, Vataghna Basti, Pittaghna Bastit and Kaphaghna Basti.
9. Knowlegde of Uttara Basti, Impportance of Uttara Basti, Uttara Basti Yantra, dravyas and their dosage in Uttara Basti.
10. Detailed knowledge of administration of Uttara Basti into mutrashaya (Intra Vesical) and Garbhashaya 9Intra uterine)
11. Basti karmukata (mode of action Basti)

Vii. Nasya

1. Etymology, definition, introduction & Signification of Nasya Karma.
2. Knowledge about dravyas (Medicines) used for Nasya Karma.
3. Classification and Nasya in detail
4. Indications and contraindications of Nasya.
5. Knowledge of dosage of Dravyas (Medicines) and time of administration in differencet type of Nasya.
6. Nasya Procedure

Poorvakarma (Pre-Operative Procedure): Prepartation of Patient.

Pradhana Karma (Operative procedure): Administration of Nasya.

Paschat karma (Post operative Procedure): Parithara Kala, 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 duriné Narsya karma.
- 9.Administration of Navana, Marsha, Pratimarsha, Avapeedaka, Dhmapana and Dhooma Nasyas.
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. Rakta Mokshana karmukata (Mode of Rakta mokshana).
4. Basic Knowledge of Physiotherapy.
5. knowledge of emergency management in complications such as water & Electrolyte imbalance, hypovolemic shock, Haematemesis, Epistaxis, bleeding per rectum, acute abdomen etc.

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