

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

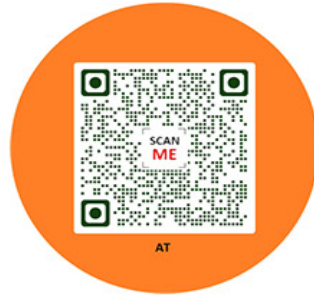
Agad Tantra evam Vidhi Vaidyaka

(SUBJECT CODE : AyUG-AT)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



**BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058**

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-AT

Summary

| | | | |
|-------------------------------------|-----|-----|----------|
| Total number of Teaching hours: 300 | | | |
| Lecture hours(LH)-Theory | | 100 | 100(LH) |
| Paper I | 100 | | |
| Non Lecture hours(NLH)-Theory | | 200 | 200(NLH) |
| Paper I | 60 | | |
| Non Lecture hours(NLH)-Practical | | | |
| Paper I | 140 | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | 100 | 60 | (Set SA) 10 | 30 |
| Sub-Total | 100 | 200 | | | |
| Total marks | 300 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

PREFACE

Agada Tantra, is one of the eight clinical branches (Ashtanga) of Ayurveda. This branch of clinical toxicity was considered as the stalwart of Ayurveda which popularized this science across several civilizations around the world. Many great explorers glorified the snake bite management existed in India and this paved way for the popularization of Ayurveda in several countries with Ayurvedic scriptures being translated to several languages and many scholars came to India to study this science. The subject encompasses the detailed study for several toxicological conditions ranging from animate, inanimate and other disease entities with an inherent toxic pathology that enables to apply the principles of Agada Tantra in several diseases of contemporary significance.

Poisons disrupts the homeostasis created by the three doshas. Agada Tantra details measures to re-establish the proper functioning of the dosha, dhatu, mala, srotas and to reinstate the vital force (Oja). To attain this, a judicious use of Agada formulations is necessary coupled with specific treatment procedures enshrined in the 24-fold treatments (Chaturvimsati Upakrama). A proper assessment of the patient with respect to the level of spread of poison in the body ascertained through the concept of Vega is utmost important as far as any successful management of poisoning is concerned. A thorough knowledge of all these is essential to adopt treatment of any poison or to extend it to any contemporary toxicological conditions like contact dermatitis, food poisoning etc. Current curriculum has been designed to unearth the scope of this subject as a clinical branch which aims at empowering an undergraduate student to understand the current clinical toxicological manifestations under the theoretical and practical/clinical framework of Agada Tantra.

The present curriculum of Agada Tantra equips an undergraduate student to grasp the clinical utility of these concepts through an effective teaching-learning process involving cognitive, psychomotor and affective domains. Students will be guided through effective teaching-learning methods to understand the concepts through state-of-the-art techniques like activity based learning, problem based learning and group activities. Effective evaluation techniques are also been incorporated to make the student community learn this subject in its entirety and utilizes the spectrum of its theoretical, practical and clinical aspects.

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Course Code and Name of Course

| Course code | Name of Course |
|-------------|---------------------------------|
| AyUG-AT | Agad Tantra evam Vidhi Vaidyaka |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-AT At the end of the course AyUG-AT, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|--|--|
| CO1 | Demonstrate application of fundamental concepts of Agada Tantra, Vyavahara Ayurveda and Vidhi vaidyaka in real life situations. | PO1,PO2 |
| CO2 | Diagnose and manage acute and chronic poisoning due to Sthavara, Jangama and Kritrima visha along with their contemporary relevance. | PO1,PO2,PO3,PO4, PO5 |
| CO3 | Demonstrate application of concepts of Dushivisha, Garavisha and Viruddha ahara in prevention, diagnosis and management of diseases. | PO1,PO2,PO3,PO4, PO5 |
| CO4 | Demonstrate application of principles of Agada Tantra and therapeutic administration of common Agada yoga and Visha dravya in Clinical practice. | PO2,PO3,PO4,PO5, PO9 |
| CO5 | Appreciate research updates in relevance to Agada Tantra and apply for healthcare promotion and social awareness. | PO6,PO7,PO8,PO9 |
| CO6 | Demonstrate application of professional skills of Forensic Medicine in handling medico legal issues. | PO2,PO3,PO6 |
| CO7 | Demonstrate professional and ethical behavior in discharging the medico-legal duties and responsibilities in abidance to the law. | PO5,PO6,PO8,PO9 |

Table 2 : Contents of Course

| Paper 1 | | | | | |
|----------------|---|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | Concepts of Agada Tantra (Clinical Toxicology) 1.1 Agada Tantra and Clinical Toxicology. 1.2 Scope of Agada Tantra. 1.3 Definition of visha and poison, synonyms, visha guna, difference between visha, madya and oja guna, visha gati, classification of visha and poison, sthavara and jangama visha adhishtana. 1.4 Difference between poison, venom and toxin. 1.5 Routes of administration of poison. 1.6 Mode of action of visha (visha gunanusara karma) and poison (Introduction to toxicokinetics) 1.7 Factors modifying the action of poison. 1.8 Visha vardhaka bhava and visha sankata 1.9 Vishavega, vegantara and sthavara visha veganusara lakshana and chikitsa. 1.10 Visha peeta and vishamukta lakshana. | 1 | 13 | 8 | 1 |
| 2 | Visha Chikitsa (Management of Poisoning) 2.1. Diagnosis of poisoning in living & dead 2.2. Chaturvimshati upakrama. 2.3. General principles of management of poisoning. 2.4. Duties of medical officer in case of suspected poisoning. | 1 | | 5 | 4 |
| 3 | Vishakta aahara pariksha and Viruddha ahara 3.1. Sources of exposure of visha with contemporary relevance. 3.2. Vishakta aahara pariksha. 3.3. Adulteration and tests for its detection. 3.4. Techniques used in the detection of poisons. 3.5. Viruddha-ahara with contemporary relevance. 3.6. Food poisoning and amavisha. | 1 | | 3 | 2 |
| 4 | Garavisha and Dooshivisha 4.1. Garavisha 4.2. Dooshivisha 4.3. Contemporary aspects of garavisha and dooshivisha. 4.4. Role of garavisha and dooshivisha in the manifestation of diseases 4.5. Research updates in garavisha and dooshivisha | 1 | 12 | 7 | 2 |
| 5 | Visha Upadrava and diseases caused due to exposure to Visha/poisons | 1 | | 4 | 2 |

| | | | | | |
|---|--|---|----|---|---|
| | <ul style="list-style-type: none"> • 5.1 Visha upadrava • 5.2 Drug-induced toxicity • 5.3 Occupational hazards. • 5.4 Allergic manifestations • 5.5 Endocrine disrupters | | | | |
| 6 | Environmental Toxicology <ul style="list-style-type: none"> • 6.1 Vishakta vayu, jala and bhumi (air, water and land pollution) • 6.2 Effect of biological, chemical and nuclear warfare. • 6.3 Ecotoxicology & biomagnification. • 6.4 Toxicovigilance. | 2 | 11 | 2 | 5 |
| 7 | Dermatological manifestations of visha/poisons. 7.1. Contact dermatitis and its management. 7.2. Signs and symptoms and management of abhyanga visha, lepa visha, vastra visha, paduka visha, abharana visha etc. with contemporary relevance. 7.3. Signs and symptoms and management of dermatological manifestations due to cosmetics, chemicals, occupational and other allergens. 7.4. Dermatological manifestation due to dooshivisha and garavisha. 7.5. Dermatological manifestation due to bites and stings. | 2 | | 6 | 2 |
| 8 | Therapeutic utility of Agada yoga <ul style="list-style-type: none"> • 8.1 Dooshivishari agada • 8.2 Bilwadi agada • 8.3 Dashanga agada • 8.4 Murvadi agada • 8.5 Panchashirisha agada • 8.6 Vishaghna mahakashaya (Charaka Samhita) • 8.7 Ekasara gana (Sushruta Samhita) | 2 | | 1 | 0 |
| 9 | Sthavara visha – Poisons of Plant origin 9.1. Cardiac Poisons - Vatsanabha, Karaveera, Digitalis, Tobacco and Cerbera odollam. | 2 | 17 | 4 | 2 |

| | | | | | |
|----|--|---|----|----|---|
| | 9.2. Neurotoxic Poisons- Kupeelu, Ahiphena, Dhattura, Bhanga. 9.3. Irritant Poisons - Jayapala, Gunja, Bhallataka, Arka, Snuhi, Langali. | | | | |
| 10 | Sthavara Visha – Poisons of Metallic origin 10.1. Arsenic. 10.2. Mercury. 10.3. Lead. 10.4. Copper | 2 | | 4 | 2 |
| 11 | Jangama Visha <ul style="list-style-type: none"> • 11.1. Sarpa visha 11.2. Loota visha 11.3. Vrishchika visha 11.4. Mushika visha and its contemporary relevance. • 11.5. Alarka visha and its contemporary relevance. 11.6. Keeta visha 11.7. Vector borne diseases. | 2 | | 10 | 6 |
| 12 | Kritrima visha <ul style="list-style-type: none"> • 12.1. Inorganic Acids – Sulphuric acid, Hydrochloric acid, Nitric acid. • 12.2. Organic Acids - Oxalic acid, Carbolic acid, Formic acid. 12.3. Alkalies - Potassium hydroxide and Sodium hydroxide. 12.4. Asphyxiants – Carbon monoxide, Carbon dioxide. 12.5. Non-metallic poisons – Phosphorous, cyanide 12.6. Hydrocarbons – Kerosene. 12.7. Agrochemical Poisoning – Organo-phosphorus compounds, Carbamates, Organo-chlorine compounds, Aluminium phosphide. 12.8. Household poisons. | 3 | 12 | 2 | 0 |
| 13 | Substances of abuse 13.1. Madya and madatyaya, Alcoholism. 13.2. Addiction - Alcohol, Bhang, Opioids, Tobacco and Digital addiction. 13.3. Drugs of abuse- Lysergic acid diethylamide (LSD) and 3,4-Methylenedioxy methamphetamine (MDMA). | 3 | | 4 | 3 |

| | | | | | |
|----|--|---|----|---|---|
| | 13.4. Narcotic Drugs and Psychotropic Substances (NDPS) Act. | | | | |
| 14 | Agada Tantra perspectives on cancer 14.1. Toxic carcinogens. 14.2. Toxicities due to chemo and radiotherapy and its Ayurvedic approach. 14.3. Agada and visha dravya prayoga in the prevention and management of cancer along with its research updates. | 3 | | 2 | 4 |
| 15 | Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): <ul style="list-style-type: none"> • 15.1 Forensic Medicine and Medical Jurisprudence. 15.2 Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code. | 1 | 10 | 1 | 0 |
| 16 | Vaidya sadvritta : Duties and Responsibilities of medical practitioner <ul style="list-style-type: none"> • 16.1 Vaidya sadvritta, medical ethics and code of conduct, Charaka oath and Hippocratic oath. • 16.2 NCISM - constitution, objectives and functions. • 16.3 Duties, rights and privileges of a registered medical practitioner. • 16.4 Consent, professional secrecy and privileged communication. • 16.5 Professional negligence, professional misconduct and unethical practices. • 16.6 Defenses in medical negligence suits. • 16.7 Medical records. • 16.8 Consumer Protection Act. | 1 | | 6 | 4 |
| 17 | Legal Procedures 17.1. Courts and their powers 17.2. Inquest, evidence and witnesses 17.3. Court procedures: summons, oath, recording of evidence and conduct money. 17.4. Conduct of a medical professional in the court of law. | 1 | | 4 | 4 |
| 18 | Personal identity | 1 | | 2 | 2 |

| | | | | | |
|----|---|---|----|---|---|
| | 18.1. Identification data 18.2. Age 18.3. Race, religion, sex. 18.4. Moles, tattoos, scars, occupational marks & hairs. 18.5. Hand writing, dactylography, DNA typing and superimposition | | | | |
| 19 | Thanatology 19.1. Death 19.2. Signs of death. 19.3. Medicolegal autopsy and exhumation. 19.4. The Transplantation of Human Organs and Tissues Act (THOTA). | 2 | 12 | 6 | 2 |
| 20 | Asphyxial deaths 20.1. Hanging. 20.2. Strangulation and suffocation 20.3. Drowning. | 2 | | 4 | 2 |
| 21 | Injury 21.1. Basics of injury 21.2. Mechanical injury 21.3. Firearm injury 21.4. Thermal injury 21.5. Dowry death | 2 | | 5 | 3 |
| 22 | Pregnancy, delivery and abortion <ul style="list-style-type: none"> • 22.1 Medico-legal aspects of pregnancy, delivery, infanticide and battered baby syndrome. • 22.2 Abortion, Medical Termination of Pregnancy (MTP) Act and Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act. • 22.3 Medico-legal aspects of artificial insemination and surrogacy. | 3 | 6 | 2 | 3 |
| 23 | Sexual offences 23.1. Rape 23.2. Medico-legal aspects of sexual offences 23.3. Protection of Children from Sexual Offences (POCSO) Act | 3 | | 2 | 1 |
| 24 | Forensic psychiatry. 24.1. Common symptoms associated with psychiatric disorders 24.2. Lucid interval | 3 | 7 | 2 | 2 |

| | | | | |
|--------------------|--|------------|---------------|--------------|
| | 24.3. Civil and criminal responsibilities of a mentally ill person 24.4. Mental Health Act (MHA) | | | |
| 25 | Forensic science laboratory 25.1. Hierarchy and major divisions of forensic lab services. 25.2. Newer techniques and recent advances - polygraphy, narcoanalysis, DNA profiling. | 3 | 1 | 0 |
| 26 | Laws, Acts, Rules and Regulations 26.1 Clinical Establishments Act 26.2 State AYUSH registration board rules and regulations. 26.3 Medicare Service Persons and Medicare Service Institutions (Prevention of violence and damage or loss to property) Act, 2008. 26.4 Drugs and Cosmetics Act and Rules – Schedules related to poison. 26.5 The Occupational Safety, Health and Working Conditions Code, 2020 26.6 Employees State Insurance Act, 1948. 26.7 Rights of Person with Disability Act, 2016. | 3 | 3 | 2 |
| Total Marks | | 100 | 100 hr | 60 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 | | | | | | | | | |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 Concepts of Agada Tantra (Clinical Toxicology) (Lecture :8 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define Agada Tantra and Toxicology. Describe the scope of Agada Tantra in the present era. | CK | MK | K | L&PP T | T-EMI,T- EW | F&S | I | |
| CO1 | Define visha and poison. Enlist its synonyms. | CK | MK | K | L&PP T | T-EMI | F&S | I | |
| CO1 | Differentiate between poison,venom and toxin. | CK | MK | K | L,L& PPT | P-VIVA | F&S | I | |
| CO1 | Describe classification of visha & poison | CK | MK | K | L&PP T | T-EMI,P- VIVA | F&S | I | |
| CO1 | Describe sthavara and jangama visha adhisthana. | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1 | Describe the routes of administration of poison. | CC | MK | K | L&PP T | T- EW,P- VIVA | F&S | I | |
| CO1 | Enlist visha guna and differentiate between visha, madya and oja | CK | MK | K | L&PP | T-EMI | F&S | I | |

| | | | | | | | | | |
|---|---|-----|----|----|---------------|--------------------|-----|---|------|
| | guna. | | | | T | | | | |
| CO1 | Describe the mode of action of visha (visha gunanusar karma) & poison (Introduction to toxicokinetics). | CC | MK | KH | L,L&PPT,L &GD | T-EMI,T- EW | F&S | I | |
| CO1 | Describe the factors modifying the action of poison. | CC | MK | KH | L&PPT | T- EW | F&S | I | |
| CO1 | Describe vishavardhaka bhava and visha sankata. | CC | MK | KH | L&PPT | T-EMI,T- EW,P-VIVA | F&S | I | |
| CO1 | Describe visha vega & vegantara | CK | DK | K | L&PPT | T-EMI,P-VIVA | F&S | I | |
| CO1 | Describe sthavara visha veganusara lakshana and chikitsa | CK | MK | K | L,L&PPT | T-EMI | F&S | I | |
| CO1 | Describe vishapeeta and vishamukta lakshana. | CK | MK | K | L&GD | T-EMI,P-VIVA | F&S | I | |
| Topic 2 Visha Chikitsa (Management of Poisoning) (Lecture :5 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2 | Describe the diagnosis of poisoning in living and dead. | CAP | MK | KH | L&PPT | T-EMI,T- EW,P-VIVA | F&S | I | |
| CO2 | Enumerate and discuss chaturvimshati upakrama | CC | MK | KH | L&PPT | T- EW,P-VIVA | F&S | I | |
| CO2 | Describe the general principles of management of poisoning. | CAP | MK | KH | L&PPT | T-EMI,P-VIVA | F&S | I | V-KC |
| CO2 | Describe the duties of medical officer in case of suspected poisoning. | CK | MK | K | L&PPT | T-EMI,P-VIVA | F&S | I | |
| Topic 3 Vishakta aahara pariksha and Viruddha ahara (Lecture :3 hours, Non lecture: 2 hours) | | | | | | | | | |

| | | | | | | | | | |
|-----------------|--|-----|----|----|------------------------------|---|-----|---|--|
| CO1,CO2,CO 3 | Explain the various sources of exposure of visha like anna, paana, vastra, abhyanga, lepa, paduka, abharana, etc. | CK | DK | K | L&PP T,L& GD | T- EW,CL- PR,M-CHT | F&S | I | |
| CO1,CO2,CO 3 | Describe the Ayurvedic methods of detection of food and beverages contaminated with visha. | CC | MK | KH | L&PP T,L_ VC,S DL,D | T- EW,P-VIV A,P-EXAM | F&S | I | |
| CO1,CO2,CO 3 | Define adulteration, describe the methods of detection of adulterants and its relevance in Agada Tantra. | CAP | DK | KH | L_ VC ,SDL, PT | T- EW,P-VIV A,P- EXAM,OSPE ,RK | F&S | I | |
| CO1,CO2,CO 3 | Describe the modern analytical techniques for the detection of poison (in contaminated articles) like chromatography, spectroscopy, etc. | CC | NK | KH | L&PP T,L& GD,L _VC | T- EW,P- VIVA,CL-PR | F&S | I | |
| CO1,CO2,CO 3 | Define viruddha ahara and explain its types. | CC | MK | KH | L&PP T,L& GD,B S | T- EW,P- VIVA,INT | F&S | I | |
| CO1,CO2,CO 3 | Discuss and illustrate the contemporary importance of viruddha ahara with examples | CAN | MK | KH | L&G D,BS, SDL | T- EW,QZ ,CL-PR | F&S | I | |
| CO1,CO2,CO 3 | Discuss the application of concepts of viruddha ahara in the prevention and management of diseases. | CAP | MK | KH | L&G D,BS, SDL | T- EW,P-VIV A,CR-RED | F&S | I | |
| CO1,CO2,CO 3 | Describe food poisoning, its types and management. | CC | MK | KH | L&PP T,L& | T- EW,P-VIV A,CR-RED | F&S | I | |

| | | | | | | | | | |
|---|---|-----|----|----|-----------------------------|------------------------|-----|---|--|
| | | | | | GD,L _VC, CD | | | | |
| CO1,CO2,CO3 | Discuss the clinical application of principles of Agada Tantra in the management of food poisoning. | CAP | MK | KH | L&G D,BS, CBL, SDL | T- EW,P- VIVA,CL-PR | F&S | I | |
| CO1,CO2,CO3 | Describe the concept of amavisha. | CC | MK | KH | L&PP T,L& GD,L _VC | T- EW,P- VIVA | F&S | I | |
| Topic 4 Garavisha and Dooshivisha (Lecture :7 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO3 | Describe the various definitions of garavisha. | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO3 | Describe the clinical presentations of garavisha. | CC | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO3 | Understand and explain the management principles of garavisha. | CC | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO3 | Describe the various definitions of dooshivisha. | CC | MK | KH | L&PP T | T- EW | F&S | I | |
| CO3 | Describe the clinical presentations of dooshivisha. | CC | MK | KH | L&PP T | T- EW | F&S | I | |
| CO3,CO4 | Describe the principles of management of dooshivisha. | CC | MK | KH | L&PP T,DIS | T- EW,P-REC | F&S | I | |
| CO3,CO4 | Discuss the application of the concept of dooshivisha and | CAP | MK | KH | L&G | P-VIVA | F&S | I | |

| | | | | | | | | | |
|---|---|-----|----|----|---------------------------|----------------------------------|-----|---|------|
| | garavisha and its management in day to day clinical practice. | | | | D | | | | |
| CO3,CO5 | Discuss the recent research updates in the concept of garavisha and dooshivisha. | CAN | MK | KH | L&G D,PE R | P-VIVA,CL- PR | F&S | I | |
| CO1,CO3,CO 4 | Describe garavisha and dooshivisha as an etiology for the diseases of present era. | CAP | MK | KH | DIS,B S,FC | P-VIVA,CL- PR | F&S | I | |
| Topic 5 Visha Upadrava and diseases caused due to exposure to Visha/poisons (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO3 | Describe visha upadrava. | CK | MK | K | L&PP T | T- EW,P- VIVA | F&S | I | |
| CO2,CO3,CO 4 | Define drug induced toxicity and discuss its Agada Tantra perspective. | CC | MK | KH | L&G D,L_ VC,B S | T- EW,T- OBT,P-VIVA | F&S | I | |
| CO2,CO3,CO 4 | Discuss the application of principles of Agada Tantra in drug induced hepatotoxicity, nephrotoxicity and neurotoxicity. | CAP | MK | KH | L&PP T,CB L | T- EW,P- VIVA,CL-PR | F&S | I | |
| CO2,CO3,CO 4 | Discuss various occupational poisons and their health hazards. | CC | MK | KH | L&PP T,PB L,SD L | T-OBT,P-VIV A,M-CHT,M- POS | F&S | I | H-SW |
| CO2,CO3,CO 4 | Discuss the application of principles of Agada Tantra in occupational diseases caused due to pollution, paints, pesticides, fertilizer and other chemicals. | CC | DK | KH | L&PP T,ML | QZ ,CL-PR,M- CHT,M-POS | F&S | I | |
| CO2,CO3,CO 4 | Define and discuss allergy, types of allergens and its understanding as per Ayurveda. | CC | MK | KH | L&PP T,DIS ,BS,C | INT,CR-RED | F&S | I | |

| | | | | | | | | | |
|---|---|-----|----|----|------------------------------|----------------------------|-----|----|--|
| | | | | | BL | | | | |
| CO2,CO3,CO4 | Discuss the application of the treatment principles of Agada Tantra in various allergic manifestations. | CAP | MK | KH | L&G D,BS, CBL | T-EMI,P-VIV A,PRN,CL-PR | F&S | I | |
| CO2,CO3,CO4 | Define and enlist endocrine disruptors and discuss its Agada Tantra perspectives. | CAP | DK | KH | L&PP T,DIS ,BS,C BL | CL-PR,M- CHT,COM | F&S | I | |
| Topic 6 Environmental Toxicology (Lecture :2 hours, Non lecture: 5 hours) | | | | | | | | | |
| CO4,CO5 | Define environmental toxicology. | CK | DK | K | L&PP T,DIS | PRN,M-POS | F&S | II | |
| CO3,CO4,CO5 | Describe the lakshanas and chikitsa of vishakta bhoomi, vishakta jala, and vishakta vayu. | CK | DK | K | L&PP T | P-VIVA,P- MOD | F&S | II | |
| CO4,CO5 | Define pollution. Describe various pollutants and explain water pollution, soil pollution, air pollution,along with their health hazards. | CK | DK | KH | L&PP T,BS | T- EW,T-CS,P RN,P-MOD | F&S | II | |
| CO4,CO5 | Describe the health effects of biological, chemical and nuclear warfare. | CK | NK | K | L&G D,SD L | PRN,QZ | F&S | II | |
| CO4,CO5 | Define ecotoxicology & biomagnification. | CK | NK | KH | L&G D,SD L | PRN,CL-PR | F&S | II | |
| CO4,CO5 | Explain the concept of toxicovigilance | CC | DK | K | FC,S DL | P-POS,CL- PR,CR-RED | F | II | |
| Topic 7 Dermatological manifestations of visha/poisons. (Lecture :6 hours, Non lecture: 2 hours) | | | | | | | | | |

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| CO3,CO4 | Describe the clinical presentations and diagnosis of paduka visha, abharana visha, vastra visha, lepa visha, abhyanga visha, etc. | CAP | MK | KH | L&PP T,DIS ,CBL, CD | T- EW,P- CASE,CL-PR | F&S | II | |
| CO3,CO4 | Discuss the management of paduka visha, abharana visha, vastra visha, lepa visha, abhyanga visha, etc. | CAN | MK | KH | L&PP T,DIS ,CBL, PER | T- EW,P-EXA M,P- CASE,CL-PR | F&S | II | |
| CO3,CO4 | Describe contact dermatitis and its types. | CK | MK | K | L&PP T | T- EW,P- VIVA | F&S | II | |
| CO3,CO4 | Discuss the application of treatment principles of Agada Tantra in the contact dermatitis. | CAP | MK | KH | L&PP T,CB L | P-VIVA,P- CASE,CL-PR | F&S | II | |
| CO3,CO4 | Discuss the dermatological conditions caused due to garavisha and dooshivisha. | CAP | MK | KH | L&PP T,DIS ,CBL, CD | T- EW,P-VIV A,P-CASE | F&S | II | |
| CO3,CO4 | Discuss the application of principles of treatment of garavisha and dooshivisha in the management of dermatological manifestations. | CAP | MK | KH | L&PP T,DIS ,CBL | P-VIVA,P- CASE,CL-PR | F&S | II | |
| CO3,CO4 | Discuss the daignosis and application of the treatment principles of Keeta visha in dermatological manifestations due to bites & stings. | CAP | MK | KH | L&PP T,DIS ,CBL, SDL | T- EW,P-VIV A,P-CASE,CL- PR | F&S | II | |
| Topic 8 Therapeutic utility of Agada yoga (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2,CO | Enlist ingredients and discuss the therapeutic utility of | CAP | MK | KH | L&PP | T- EW,P- | F&S | II | |

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| 3,CO4 | Doohivishari Agada, Bilwadi Agada, Dashanga Agada, Murvadi agada and Panchashririsha Agada. | | | | T,DIS ,CBL | CASE | | | |
| CO1,CO2,CO3,CO4 | Enlist and discuss the ingredients of vishaghna mahakashaya (Charaka Samhita) and ekasara gana (Sushruta Samhita). | CAP | MK | KH | L&PP T,BS, CBL, FC | T- EW,P- VIVA | F&S | II | |
| Topic 9 Sthavara visha – Poisons of Plant origin (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of vatsanabha. | CAP | MK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO2,CO4 | Mention therapeutic dose and enlist two important formulations of vatsanabha. | CK | NK | K | L | T-EMI,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of karaveera. | CAP | MK | K | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO2,CO4 | Mention therapeutic dose and enlist two important formulations of karaveera. | CK | NK | K | L | T- EW,T- ME Qs,P-VIVA,P- EXAM | F&S | II | |
| CO2,CO6 | Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of digitalis. | CAP | NK | K | L&PP T | T- EW,P- VIVA | F&S | II | |
| CO2,CO6 | Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of tobacco. | CK | MK | K | L&PP T | T- EW,P-ID | F&S | II | |
| CO2,CO6 | Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and | CK | DK | K | L&PP T | T- EW | F&S | II | |

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| | medicolegal aspects of Cerbera odollam. | | | | | | | | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of Kupeelu. | CK | MK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO2,CO6 | Mention therapeutic dose and enlist two important formulations of kupeelu. | CK | NK | K | L | T-EMI | F&S | II | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of ahiphena. | CK | MK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO2,CO6 | Mention therapeutic dose and enlist two important formulations of ahiphena. | CK | NK | K | L | T-EMI | F&S | II | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of dhatura. | CK | MK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO2,CO6 | Mention therapeutic dose and enlist two important formulations of dhatura. | CK | NK | K | L | T-EMI | F&S | II | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of Bhanga. | CK | MK | K | L&PP T | T- EW,P-VIV A,P-EXAM,P- ID | F&S | II | |
| CO2,CO6 | Mention therapeutic dose and enlist two important formulations of bhanga. | CK | NK | K | L | T-EMI | F&S | II | |
| CO2,CO4,CO6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of jayapala. | CK | MK | K | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO4 | Mention therapeutic dose and enlist two important formulations | CK | NK | K | L | T-EMI,P- | F&S | II | |

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| | of jayapala. | | | | | EXAM | | | |
| CO2,CO4,CO 6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of gunja. | CAP | DK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO4 | Mention therapeutic dose and enlist two important formulations of gunja. | CK | NK | KH | L | T- EW,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO4,CO 6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of bhallataka. | CAP | MK | KH | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| CO4 | Mention therapeutic dose and enlist two important formulations of bhallataka. | CK | NK | K | L | T-EMI,P-VIV A,P-EXAM | F&S | II | |
| CO2 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of arka and snuhi. | CK | DK | K | L&PP T | T- EW,P- VIVA | F&S | II | |
| CO2,CO4,CO 6 | Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of langali. | CK | NK | K | L&PP T | T- EW,P- VIVA,P-ID | F&S | II | |
| Topic 10 Sthavara Visha – Poisons of Metallic origin (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2 | Describe the mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance, medicolegal aspects of acute poisoning of 1. Arsenic 2. Mercury 3. Lead 4. Copper | CK | MK | K | L&PP T,PB L | T-EMI,T- MEQs,P- VIVA | F&S | II | |

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| | Write its therapeutic dose and enlist any four important formulations. | | | | | | | | |
| CO1,CO2 | Discuss the Ayurvedic concepts for the diagnosis and management of chronic heavy metal toxicity. | CC | DK | K | L&PP T,L& GD | T-EMI,T- MEQs,P- VIVA | F&S | II | |
| CO2,CO3,CO 4 | Discuss the toxicological implications of improperly prepared medicines with special reference to those containing metals, minerals and poisonous substances. | CAP | NK | KH | L&PP T,CB L,FC | P-VIVA | F&S | II | |
| Topic 11 Jangama Visha (Lecture :10 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2,CO5 | Describe sarpa bheda and enumerate the identification features of darvikara, mandali and rajimantha sarpa. | CAP | MK | KH | L&PP T,BS, CBL | T- EW,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO5 | Classify snakes and describe the features of venomous and non venomous snakes and identify their bites. | CAN | MK | K | L&PP T | T- EW,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO5 | Describe the fatal dose, fatal period, signs and symptoms of common cobra, king cobra, russel's viper, saw scaled viper, pit vipers and common krait. | CAN | MK | KH | L&PP T,DIS ,BS,C BL | T- EW,T-CS,P -VIVA,P- EXAM | F&S | II | |
| | Describe the samanya lakshana and samanya chikitsa of darvikara, mandali and rajimanth sarpa damsha. | CK | MK | K | L | T-EMI | F&S | II | |
| CO2,CO5 | Describe the management of snake bites according to recent WHO snake bite management guidelines. | CAN | MK | KH | L&PP T,CB L,PE R,CD | T- EW,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO5 | Describe the classification, diagnosis, samanya lakshana and chikitsa of lootavisha with its contemporary aspects. | CAN | MK | KH | L&PP T,CB | T- EW,P- VIVA | F&S | II | |

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| CO2,CO5 | Describe the classification, diagnosis, samanya lakshana and chikitsa of vrischika damsha (Scorpion Sting) along with its contemporary aspects. | CK | MK | K | L&PP T,CB L,CD | T- EW,P-VIV A,P-EXAM | F&S | II | |
| CO2,CO4 | Describe leptospirosis and rat bite fever with special reference to mushika visha. | CK | NK | K | L,CB L | T- EW | F&S | II | |
| CO2,CO5 | Describe rabies and its management with special reference to alarka visha. | CK | DK | KH | L&G D,CB L | T- EW,P- VIVA | F&S | II | |
| CO2,CO5 | Describe the classification of keeta, samanya sakshana and chikitsa of keeta damsha with special importance to regional prevalence. | CAN | DK | KH | L&PP T,CB L | T- EW | F&S | II | |
| CO2,CO5 | Discuss the application of visha chikitsa in vector borne diseases like chikungunya, dengue and malaria. | CAP | DK | KH | L&PP T,DIS | P-VIVA | F&S | II | |
| Topic 12 Kritrima visha (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO2 | Describe the action of poison, fatal dose, fatal period, signs and symptoms, management, post mortem appearance and medico legal aspects of Inorganic acids - Sulphuric acid, Hydrochloric acid and Nitric Acid Organic acids - Oxalic acids, Carboic acids and Formic acid Alkalies | CK | MK | KH | L&PP T,PE R | T- EW,P-VIV A,P-EXAM | F&S | III | |
| CO2 | Describe the action of poison, fatal dose, fatal period, signs and | CK | DK | KH | L&PP T,PE | T- EW,P- VIVA | F&S | III | |

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| | symptoms, management, post mortem appearance and medico legal aspects of Asphyxiants - CO and CO2 Non Metal - Phosphorous Hydrocarbon - Kerosene | | | | R | | | | |
| CO2 | Describe the action of poison, fatal dose, fatal period, signs and symptoms, management, post mortem appearance and medico legal aspects of agrochemical poisons- organophosphorous compounds, carbamates, organochlorine compounds and aluminium phosphide and enlist the household poisons. | CAP | MK | SH | L&PP T,PB L | T- EW,P-VIV A,P-EXAM | F&S | III | |
| Topic 13 Substances of abuse (Lecture :4 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Define Mada and describe its stages. | CK | MK | K | L&PP T | T-EMI,T- MEQs,P- VIVA | F&S | III | |
| CO1,CO2 | Describe the types of madatyaya along with its management. | CK | MK | K | L&PP T | T-EMI,T- MEQs,P- VIVA | F&S | III | |
| CO1,CO2,CO 6 | Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post mortem appearance and medicolegal importance of acute ethanol poisoning. | CC | MK | KH | L&PP T | T-EMI,T-CS, T-OBT,P- VIVA | F&S | III | |
| CO1,CO2,CO 6 | Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post mortem appearance and medicolegal importance of acute methanol poisoning. | CC | MK | K | L&PP T | T-EMI,T- MEQs,P- VIVA | F&S | III | |
| CO2,CO4 | Discuss the application of principles of Ayurveda in the | CC | MK | KH | L&G | T- EW,P- | F&S | III | |

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| | management of chronic alcoholism. | | | | D,BS | VIVA | | | |
| CO2,CO4 | Discuss the signs & symptoms of alcohol withdrawal with its Ayurvedic approach. | CC | MK | KH | L&G D,BS, IBL | T- EW,P- VIVA | F&S | III | |
| CO2,CO4 | Discuss the signs & symptoms of withdrawal of bhang (cannabis), ahiphena/opium and its derivatives, tobacco, LSD and MDMA with its Ayurvedic approach. | CC | MK | KH | L&G D,BS, TUT | T- EW,P- VIVA | F&S | III | |
| CO2,CO4 | Discuss the reseach updates in Ayurveda in the management of conditions due to substances of abuse. | CC | MK | KH | L&G D | T-EMI,T- ME Qs,T-CRQs,P- VIVA | F&S | III | |
| CO7 | Describe the NDPS Act. | CK | DK | K | L&PP T | T- EW | F&S | III | |
| Topic 14 Agada Tantra perspectives on cancer (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2,CO4 | Discuss the concepts of Agada Tantra in oncology. | CC | MK | KH | L&G D,BS, PBL | T-EMI,T- MEQs,P- VIVA | F&S | III | |
| CO1,CO2 | Enlist the cancer causing toxic chemicals / substances (toxic carcinogens) and describe the process of mutation in genes and carcinogenesis. | CC | MK | K | L&G D | T-EMI,T- ME Qs,T-CRQs,P- VIVA,SA | F&S | III | |
| CO2,CO4 | Describe the chemotherapy induced common toxicities and Ayurvedic approach for its management. | CC | MK | KH | L&PP T,PB L | T-EMI,T- ME Qs,T-CRQs,P- VIVA,SA | F&S | III | |
| CO2,CO4 | Describe the radiotherapy induced common toxicity and Ayurvedic approach for its management. | CC | MK | KH | L&G D,PB L,SD L | T-EMI,T- ME Qs,T-CRQs,P- VIVA | F&S | III | |

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| CO2,CO4 | Discuss the role of visha and vishaghna dravya in the management of cancer along with its research updates. | CC | DK | KH | L&G D,BS | T-EMI,T- ME Qs,T-CRQs,P- VIVA | F&S | III | |
| Topic 15 Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO6,CO 7 | Define Forensic Medicine & Medical Jurisprudence. Give an introduction to Indian Penal Code (IPC), Criminal Procedure Code (CrPC) and Indian Evidence Act (IEA). | CC | MK | KH | L&G D | T- EW,P- VIVA,QZ | F&S | I | |
| Topic 16 Vaidya sadvritta : Duties and Responsibilities of medical practitioner (Lecture :6 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO6,CO 7 | Describe vaidya sadvritta, medical ethics, code of conduct, Charaka oath and Hippocratic oath. | CK | MK | K | L&PP T,L& GD,B S,PER | T- EW,P- VIVA | F&S | I | |
| CO1,CO6,CO 7 | Describe the constitution, objectives and functions of NCISM. | CK | MK | K | L&PP T,DIS | T- EW,P- VIVA | F&S | I | |
| CO6,CO7 | Describe the duties and rights and privileges of a registered medical practitioner. | CK | MK | K | L&PP T,DIS | T- EW,P- VIVA | F&S | I | |
| CO1,CO6,CO 7 | Describe consent, professional secrecy and privileged communication. | CC | MK | K | L&PP T,BS | T- EW | F&S | I | |
| CO1,CO6,CO 7 | Describe professional negligence, professional misconduct and unethical practices. | CC | MK | K | L&G D,CB L,PE R | T- EW,P- VIVA | F&S | I | |
| CO6,CO7 | Explain the defenses in medical negligence suits with appropriate case laws. | CAP | MK | K | L&PP T,L& GD,B | T- EW,P- VIVA | F&S | I | |

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| CO6,CO7 | Describe the maintainance of medical records and explain its significance. | CC | MK | K | L,FV | T- EW,P- VIVA | F&S | I | |
| CO7 | Describe the Consumer Protection Act. | CK | MK | K | L&PP T | T- EW,P- VIVA | F&S | I | |
| Topic 17 Legal Procedures (Lecture :4 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO6,CO 7 | Describe the types of courts along with their powers. Describe - Inquest, Evidence, Witness, Summons, Conduct money and procedure of recording of evidence in a court of law. Describe the conduct of a medical professional in the court of law. | CC | MK | KH | L&PP T,DIS ,SDL | T- EW,P- VIVA,CL-PR | F&S | I | |
| Topic 18 Personal identity (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO6 | Define identification and enlist the identification data. Describe the method of estimation of age based on Teeth, ossification of bones, secondary sexual characteristics and general development. | CC | DK | KH | L&PP T,L_ VC,D IS | T- EW,P- VIVA | F&S | I | |
| CO1,CO6 | Describe the medico-legal importance of age, tattoo marks and occupational marks. | CK | DK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO6 | Describe the medico-legal importance of race, religion, sex, moles and hair. | CC | DK | KH | L_ VC ,DIS, EDU | P-VIVA | F | I | |
| CO1,CO6 | Describe the medico-legal importance of handwriting, dactylography, DNA typing and superimposition as an identification data. | CK | NK | K | L,ED U | T- EW | F | I | |
| Topic 19 Thanatology (Lecture :6 hours, Non lecture: 2 hours) | | | | | | | | | |

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| CO6 | Define death and describe the stages and modes of death. Explain the immediate changes following death. | CC | MK | KH | L&PP T,L& GD,L _VC | T- EW,P- VIVA | F&S | II | |
| CO6 | Enlist and explain the early changes following death. Describe Algor mortis, rigor mortis and livor mortis with regards to their definition, mechanism, modifying factors and medico legal importance. | CC | MK | KH | L&PP T,L_ VC,D IS,SI M | T- EW,P- VIVA | F&S | II | |
| CO6 | Enlist the late changes following death and describe the definition, modifying factors and medico legal importance of putrefaction, mummification and adipocere formation. | CC | MK | KH | L&PP T,L_ VC,D IS | T- EW,P- VIVA | F&S | II | |
| CO6 | Define Autopsy and describe its types, its objectives, rules and procedure along with exhumation. | CC | MK | KH | L&PP T,L_ VC | T- EW,P- VIVA | F&S | II | |
| CO6 | Describe the Transplantation of Human Organs and Tissues Act. | CC | NK | KH | BS,S DL,P ER | T- EW,P- VIVA | F | II | |
| Topic 20 Asphyxial deaths (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO6 | Define hanging. Describe its classification, causes of death, post-mortem appearances and medico-legal aspects. | CK | MK | KH | L&PP T,DIS | T- EW,T- ME Qs,T-CS,P- | F&S | II | |

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| | | | | | | VIVA,P-MOD | | | |
| CO6 | Define strangulation and suffocation. Enlist their classification, post-mortem appearances and medico-legal aspects. | CK | MK | K | L&PP T,D- M | T- EW,T- ME Qs,PRN,M- MOD | F&S | II | |
| CO6 | Define Drowning, explain its classification, post-mortem appearances and medico-legal aspects. | CK | MK | K | L&PP T,L_ VC | T- EW,P-VIV A,PRN,P- CASE | F&S | II | |
| Topic 21 Injury (Lecture :5 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO6 | Define and classify Injuries. Describe the medico-legal aspects of injuries. | CK | MK | K | L&G D | T- EW | F&S | II | |
| CO6 | Describe the characteristics, age and medico-legal aspects of mechanical injuries. | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO6 | Describe firearm injuries, its characteristics and medico-legal aspects. Differentiate between entry and exit wound | CK | DK | K | L&PP T | T- EW | F&S | II | |
| CO6 | Define and classify thermal injury. Describe charecterstics and degrees of burns, rule of nine, post-mortem appearances, and medico-legal aspects. | CK | DK | K | L&G D | T- EW | F&S | II | |
| CO6 | Explain medico-legal aspects of dowry death. | CK | NK | K | L&G D | T- EW | F&S | II | |
| Topic 22 Pregnancy, delivery and abortion (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO6,CO7 | Define pregnancy, delivery, infanticide and battered baby syndrome along with their medico legal aspects. | CK | MK | K | L,L& PPT,L &GD | T- EW,T-CS,P -VIVA,P- EXAM | F&S | III | |
| CO6,CO7 | Define and classify abortion, MTP Act and PCPNDT Act. | CK | MK | K | L&PP T,D- | T- EW,T- ME Qs,T-CS,P- | F&S | III | |

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| | | | | | M,D | VIVA,PRN | | | |
| CO6,CO7 | Describe Surrogacy (Regulation) Act 2021 and the Assisted Reproductive Technology (Regulation) Act 2021. | CK | NK | KH | L,L&PPT | P-VIVA,O-QZ | F&S | III | |
| Topic 23 Sexual offences (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO6 | Describe classification of sexual offences. | CK | NK | KH | L&PPT | P-VIVA,PRN, QZ | F&S | III | |
| CO6 | Define rape. Describe the examination of rape victim and accused and its medico legal aspects. | CK | MK | KH | L&PPT, CBL | T- EW,P-VIVA, P-EXAM,PRN | F&S | III | |
| CO6 | Define the un-natural sexual offences and sexual perversion with their medico-legal aspects and give introduction to POCSO Act. | CK | NK | K | L&PPT, CBL | P-VIVA, QZ | F&S | III | |
| Topic 24 Forensic psychiatry. (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO6 | Describe the symptoms commonly associated with psychiatric disorders & the significance of lucid interval. | CK | DK | K | L&PPT, TUT | T-EMI, T-EW, P-VIVA | F&S | III | |
| CO6,CO7 | Describe the civil and criminal responsibilities of a mentally ill person. | CK | DK | K | L&PPT | T- EW, P-VIVA | F&S | III | |
| CO6 | Describe Mental Health Act | CK | NK | K | SDL, PER | T- EW, P-VIVA | F&S | III | |
| Topic 25 Forensic science laboratory (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO6 | 25.1. Hierarchy and major divisions of forensic lab services. 25.2. Newer techniques and recent advances - polygraphy, | CK | DK | K | L&PPT, ML | T-OBT, P-VIVA | F&S | III | |

| | | | | | | | | | |
|--|---|----|----|---|-----------------------|------------------------|-----|-----|--|
| | narcoanalysis, DNA profiling. | | | | | | | | |
| Topic 26 Laws, Acts, Rules and Regulations (Lecture :3 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO6,CO7 | Describe the 1. NCISM Rules and Regulations in force. 2. Clinical Establishments Act. 3. Medicare Service Persons and Medicare Service Institutions (Prevention of violence and damage or loss to property) Act, 2008. 4. The Drug and Cosmetic Act - schedules related to poison. 5. Rules and Regulations related to AYUSH State Registration Boards of concern state. | CK | DK | K | L&PP T,DIS ,SDL | T- EW,P- VIVA,CL-PR | F&S | III | |

List of Practicals (Term and Hours)

| PRACTICALS (Marks-100) | | | |
|-------------------------------|---|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | Visha Chikitsa | 1 | 6 |
| 2 | Vishakta Ahara Pariksha | 1 | 6 |
| 3 | Dooshivisha, Garavisha, Visha Upadrava | 1 | 20 |
| 4 | Dermatological manifestation of visha | 2 | 20 |
| 5 | Environmental toxicology | 2 | 2 |
| 6 | Jangama Visha | 2 | 10 |
| 7 | Sthavara visha | 2 | 6 |
| 8 | Substance abuse | 3 | 8 |
| 9 | Legal Procedures | 1 | 2 |
| 10 | Vaidya Sadvritta | 1 | 2 |
| 11 | Personal Identity | 1 | 4 |
| 12 | Thanatology | 2 | 6 |
| 13 | Injury | 2 | 6 |
| 14 | Sexual offences | 3 | 2 |
| 15 | Field Visits (Field visits should be integrated along with the educational tour conducted by Dravyagunavijnan, Rasasatra and Swasthavrutha Departments) | 2 | 30 |
| 16 | Topics related to regional preference | 3 | 10 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Shows how/ Knows how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|---|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| Topic 1 Visha Chikitsa | | | | | | | | | |
| CO2 | Demonstrate the procedure of gastric lavage on mannequin. | CAP | MK | SH | D- M,D | P-EXAM,P- PRF,OSPE | F&S | I | |
| CO2 | Demonstrate the procedure of CPR on mannequin. | PSY- MEC | MK | D | D- M,D | P-EXAM,P- PRF,OSPE | F&S | I | |
| CO2 | Observe the different procedures for removal of absorbed poison. | CC | MK | KH | L_VC ,D | P-VIVA | F&S | I | |
| Topic 2 Vishakta Ahara Pariksha | | | | | | | | | |
| CO2 | Demonstrate adulteration detection test for urea in milk, boric acid in milk, artificial colour in turmeric, pulses and vegetables as per recent Food Safety and Standards Authority of India (FSSAI) guidelines. | PSY- SET | MK | D | D_L | P-PRF,RK | F&S | I | |
| CO2 | Demonstrate adulteration detection test for argemone oil in mustard oil and adulterants in Honey as per recent FSSAI guidelines. | PSY- SET | MK | D | D_L | P-PRF,RK | F&S | I | |
| Topic 3 Dooshivisha, Garavisha, Visha Upadrava | | | | | | | | | |

| | | | | | | | | | |
|--|--|-----|----|----|-------------------------------------|-------------|-----|----|--|
| CO3,CO4 | Diagnosis and management of diseases due to garavisha, dooshivisha and visha upadrava - drug induced toxicities. | CAP | MK | SH | L_VC ,CBL, SIM, CD | SP,OSCE ,RK | F&S | I | |
| CO3,CO4 | Diagnosis and management of diseases due to garavisha, dooshivisha and visha upadrava - occupational hazards. | CAP | MK | KH | L_VC ,PBL, CBL, SIM, CD | OSCE ,RK | F&S | II | |
| CO3,CO4 | Diagnosis and management of diseases due to garavisha, dooshivisha and visha upadrava - allergic manifestations. | CAP | MK | KH | L_VC ,PBL, CBL, SIM, CD | OSCE ,RK | F&S | I | |
| CO3,CO4 | Diagnosis and management of diseases due to garavisha, dooshivisha and visha upadrava - autoimmune diseases | CAP | MK | KH | L_VC ,CBL, CD | OSCE ,RK | F&S | I | |
| CO3,CO4 | Diagnosis and management of diseases due to garavisha, dooshivisha and visha upadrava - endocrine disruptors induced diseases. | CAP | MK | KH | L_VC ,CBL, CD | OSCE ,RK | F&S | I | |
| Topic 4 Dermatological manifestation of visha | | | | | | | | | |
| CO3,CO4 | Diagnosis and Management of Dermatological manifestations due to visha ex: contact poisoning (paduka visha, abharana visha etc.) | CAN | MK | SH | L_VC ,CBL, CD | OSCE ,RK | F&S | II | |
| CO3,CO4 | Diagnosis and management of dermatological manifestations due to visha - bites and stings. | CAP | MK | KH | L_VC ,CBL, CD | OSCE ,RK | F&S | II | |

| | | | | | | | | | |
|---|--|-------------|----|----|----------------------------------|-------------------------------|-----|----|--|
| CO3,CO4 | Diagnosis and Management of contact dermatitis based on the principles of Agada Tantra. | CAP | MK | KH | L_VC ,CBL, CD | OSCE ,RK | F&S | II | |
| Topic 5 Environmental toxicology | | | | | | | | | |
| CO5 | Social Awareness program related to environmental toxicology – Rally, street play, skit etc | AFT- VAL | DK | SH | RP | P-VIVA,M- CHT | F | II | |
| Topic 6 Jangama Visha | | | | | | | | | |
| CO2,CO4 | Demonstrate identification of poisonous and non poisonous snakes. | CAN | MK | KH | L&G D,L_ VC,D- M,FV | P-VIVA,P- EXAM,OSCE | F&S | II | |
| CO2,CO4 | Demonstration of the diagnosis of poisonous snake bite cases based on local and systemic clinical presentations. | CAP | MK | KH | L&G D,L_ VC,C BL,C D | P-VIVA,P- EXAM,RK | F&S | II | |
| CO2,CO4 | Demonstration of identification of vrishchika, loota and keeta based on regional prevalence and their diagnosis based on clinical presentations. | CAP | MK | KH | L&G D,L_ VC,C BL,C D | P-VIVA,P- EXAM,RK | F&S | II | |
| Topic 7 Sthavara visha | | | | | | | | | |
| CO2 | Demonstration of Identification of vatsanabha, karaveera and tobacco with their respective toxic parts. | CAN | MK | KH | D- M,D | P-VIVA,P- EXAM,OSPE ,RK | F&S | II | |
| CO2 | Demonstration of Identification of kupeelu, dhatura and bhanga | CAN | MK | KH | D | P-VIVA,P- | F&S | II | |

| | | | | | | | | | |
|-----------------------------------|---|-------------|----|----|--------------|-------------------------------|-----|-----|--|
| | and their respective toxic part. | | | | | EXAM,OSPE ,RK | | | |
| CO2 | Demonstration of Identification of jayapala, gunja, bhallataka, langali with their respective toxic parts. | CAN | MK | KH | D | P-VIVA,P- EXAM,OSPE ,RK | F&S | II | |
| CO2 | Demonstration of identification of arsenic, copper, mercury and lead. | CAN | MK | K | D-M | P-VIVA,P- EXAM | F&S | III | |
| CO2 | Demonstration of Identification of non metal and mineral compounds, acids, alkalis, agrochemicals, hydrocarbons and household poisons. | CK | MK | K | D | P-VIVA,P- EXAM,RK | F&S | III | |
| Topic 8 Substance abuse | | | | | | | | | |
| CO2,CO4 | Create public awareness on substance abuse and its ill effects. | AFT- VAL | MK | SH | RP,D | P-POS,QZ ,M- CHT | F | III | |
| Topic 9 Legal Procedures | | | | | | | | | |
| CO6,CO7 | Demonstration on issuing of fitness certificate, sickness certificate, birth and death certificate, and other relevant medical and medico legal certificates. | CAN | MK | D | PBL, W,PT | P- EXAM,OSPE ,RK | F&S | I | |
| CO6,CO7 | Demonstration of reporting of Leave against medical advice (LAMA), discharge against medical advice (DAMA) and discharge on patient request (DOPR) | CAP | MK | D | SDL | P-VIVA,RK | F | I | |
| Topic 10 Vaidya Sadvritta | | | | | | | | | |
| CO6,CO7 | Exposure to medical records department for understanding storage, maintenance and disposal of Medical records. | CK | DK | K | D,FV | P-VIVA | F&S | I | |
| Topic 11 Personal Identity | | | | | | | | | |

| | | | | | | | | | |
|---|---|-------------|----|----|------------------------------------|-------------------|-----|-----|--|
| CO6 | Demonstrate the method of sex determination based on pelvis. | CAP | MK | SH | EDU, SIM, D | P-PRF,OSPE | F&S | I | |
| Topic 12 Thanatology | | | | | | | | | |
| CO6 | Observe the procedure of medico-legal autopsy and preparation autopsy report. | CAP | MK | SH | L_VC ,D,FV | RK | S | II | |
| Topic 13 Injury | | | | | | | | | |
| CO6,CO7 | Demonstrate the difference between homicidal, suicidal and accidental injuries. | CAP | MK | SH | L&PP T,L_ VC,SI M,D- M | P-VIVA,P- EXAM | F&S | II | |
| CO6,CO7 | Demonstration of drafting of an injury report. | CAP | MK | D | D- M,D | P-EXAM,P- PRF | F&S | II | |
| Topic 14 Sexual offences | | | | | | | | | |
| CO5,CO6,CO 7 | Discuss the essentials of Protection of Women from Domestic Violence Act (PWDV Act) 2005 and The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act and Rules (PoSH Act) 2013. | AFT- VAL | DK | D | L&G D,BS, RP | C-INT,INT | F&S | III | |
| Topic 15 Field Visits (Field visits should be integrated along with the educational tour conducted by Dravyagunavijnan, Rasasatra and Swasthavrutha Departments) | | | | | | | | | |
| CO6,CO7 | (Visit to Forensic Science Laboratory) - (Mandatory) Appraise the functioning of a forensic science laboratory | CC | MK | KH | FV | P-VIVA,RK | F | III | |
| CO4,CO5 | (Visit to Food testing laboratory) Observe the instrumentation and procedure of food testing | CC | DK | KH | FV | RK,COM | F | I | |

| | | | | | | | | | |
|---|--|---------|----|----|----------|------------------|-----|-----|--|
| CO4,CO5 | (Visit to Pollution Control Board) - (Mandatory) Perceive the functioning of Pollution Control Board | CC | DK | KH | FV | P-VIVA,RK | F | II | |
| CO4,CO5 | (Visit to De-addiction centre)Observe the management of de-addiction cases | PSY-GUD | DK | KH | FV | RK | F | III | |
| CO7 | (Visit to the Court) - (Mandatory) Observe the procedure of court procedure and conduct of a medical practitioner as an expert witness | PSY-GUD | MK | KH | FV | RK | F | I | |
| CO6 | (Visit to mortuary for observation of autopsy)Observe the procedure of medico-legal autopsy | PSY-GUD | MK | KH | FV | P-VIVA,RK | F | II | |
| CO2 | (Visit to snake park) - (Mandatory)Observe live specimens of snake | CC | DK | KH | FV | P-VIVA,RK | F | II | |
| CO2,CO7 | (Visit to casualty) -(Mandatory) Watch the procedure of resuscitation and emergency management | CK | MK | KH | FV | RK | F | I | |
| CO4,CO5 | (Visit to occupational hazards centre)Observe the types and management of cases of occupational hazard | CK | DK | KH | FV | RK | F | II | |
| CO2 | (Visit to ASV manufacturing centre)Observe the steps and procedures involved in ASV manufacturing | CK | DK | K | FV | RK | F | II | |
| CO4,CO5 | Visit Cancer treatment centre. | CK | NK | K | FV | RK | F | III | |
| CO2,CO4 | Visit to department of entomology. | CC | NK | K | FV | RK | F | II | |
| CO2,CO5 | Visit to folklore vaidya using Agada tantra concepts in visha chikitsa. | CAP | DK | SH | FV | RK | F&S | II | |
| Topic 16 Topics related to regional preference | | | | | | | | | |
| CO2,CO3 | Discuss the topics related to regional preference like bites and stings, substance abuse, texts of regional importance, regional | CAP | NK | K | L&G D | P-VIVA,M- POS | F | III | |

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| visha chikitsa practices, regional medico-legal issues etc. | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|

Table 4a: List of Practical

| S.No | Name of practical | Term | Activity | Practical hrs |
|------|--|------|--|---------------|
| 1 | Visha Chikitsa | 1 | 1.1 Gastric lavage 1.2 Cardiopulmonary resuscitation (CPR) 1.3 Video demonstration or visit to the emergency care unit for procedures used for removal of absorbed poison. | 6 |
| 2 | Vishakta Ahara Pariksha | 1 | 2.1 Adulteration detection Tests 2.1.1 Urea in milk 2.1.2 Boric acid in milk 2.1.3 Artificial color in turmeric. 2.1.4 Artificial color in pulses and Vegetables. 2.1.5 Argemone Oil in Mustard oil 2.1.6 Adulteration in Honey | 6 |
| 3 | Dooshivisha, Garavisha, Visha Upadrava | 1 | 3.1 Case based teaching on diseases due to dooshivisha and garavisha - drug induced toxicity, occupational hazards, allergic manifestations, autoimmune diseases and endocrine disruptors. 3.2 Recording 10 cases based on case based teaching or OPD and IPD exposure. | 20 |
| 4 | Dermatological manifestation of visha | 2 | 4.1 Dermatological manifestations due to visha ex: contact poisoning (paduka visha, abharana visha etc.) and bites and stings. 4.2 Contact Dermatitis 4.3 Recording 10 cases based on case based teaching or OPD and IPD Exposure. | 20 |
| 5 | Environmental toxicology | 2 | 5.1 Social Awareness program – Rally, street play, skit etc. | 2 |
| 6 | JangamaVisha | 2 | 6.1 Identification of Poisonous and non poisonous snakes 6.2 Diagnosis based on bite marks of snakes 6.3 Diagnosis and Management of snake bite cases through audio/video case presentations or OPD/IPD exposure 6.4 Diagnosis and management of vrishchika, loota and keeta damsha cases through audio/video case presentations or | 10 |

| | | | | |
|-----------|-------------------|---|--|---|
| | | | OPD/IPD exposure. | |
| 7 | Sthavara visha | 2 | 7.1 Identification of various plant poisons, metal and mineral compounds, acids, alkalis, agrochemicals, hydrocarbons and household poisons. | 6 |
| 8 | Substance abuse | 3 | 8.1 Community Awareness programmes by students like rallies, street play etc. 8.1.1. Observation of international day against drug abuse and illicit trafficking. 8.1.2. World No tobacco day. | 8 |
| 9 | Legal Procedures | 1 | 9.1 Hands on training on Preparation of Medical & Medico legal reports. 9.1.1 Fitness & Sickness certificate. 9.1.2 Birth & Death Certificate and other relevant medical and medico legal certificates. 9.1.3 Leaving against medical advice (LAMA), Discharge against medical advice (DAMA), Discharge on patient request (DOPR) | 2 |
| 10 | Vaidya Sadvritta | 1 | 10.1 Exposure to the medical records department for understanding the storage, maintenance and disposal of medical records. | 2 |
| 11 | Personal Identity | 1 | 11.1. Sex determination based on pelvis. | 4 |
| 12 | Thanatology | 2 | 12.1 Procedure of autopsy: visit to mortuary or audio-visual demonstrations. | 6 |
| 13 | Injury | 2 | 13.1. Hands on training on assessment of accidental, suicidal, and homicidal injuries. 13.2. Preparation of injury report. | 6 |
| 14 | Sexual offences | 3 | 14.1 Introduction to Protection of Women from Domestic Violence Act (PWDV Act) 2005 and The Sexual Harassment of | 2 |

| | | | | |
|-----------------|---|---|--|------------|
| | | | Women at Workplace (Prevention, Prohibition & Redressal) Act and Rules (PoSH Act) 2013. | |
| 15 | Field Visits (Field visits should be integrated along with the educational tour conducted by Dravyagunavijnan, Rasasatra and Swasthavrutha Departments) | 2 | (It is mandatory to have 5 field visits) | 30 |
| 16 | Topics related to regional preference | 3 | Exposure to topics related to regional preference like bites and stings, substance abuse, texts of regional importance, regional visha chikitsa practices, regional medico-legal issues etc. | 10 |
| Total Hr | | | | 140 |

Activity

| CO | Topic name | Activity Details | Hours# |
|---------|--|---|--------|
| CO3,CO4 | Survey of personal care products. | Students shall be divided into small groups and are asked to collect the information about common personal care products like soaps, shampoos, deodorants, cosmetics etc. Then they should be asked to enlist the chemicals used in them and discuss about the health hazards associated with their use. Then students can be asked to present their findings in the form of class seminar or Charts or Posters or small videos. | 4 |
| CO5 | Community teaching by students - awareness among adolescent about Protection of Women from Domestic Violence Act (PWDV Act) 2005 and The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act and Rules | After undergoing orientation/sensitization regarding Protection of Women from Domestic Violence Act (PWDV Act) 2005 and The Sexual Harassment of Women at Workplace (Prevention, Prohibition & Redressal) Act and Rules (PoSH Act) 2013, the students will have to visit nearby schools/colleges in small teams/groups and create awareness amongst them. This can be done as part of NSS activity or exclusive visits to schools/colleges. | 2 |

| | | | |
|---------|---|--|---|
| | (PoSH Act) 2013. | | |
| CO2,CO4 | Observation of international day against drug abuse and illicit trafficking | Community awareness programmes by students like rallies, street play etc. | 3 |
| CO2,CO4 | No Tobacco Day | Community Awareness programmes by students like rallies, street play, skit, flash mob etc. | 3 |
| CO5 | Environmental toxicology | Poster presentation competition related to environment, rallies, skit, flash mob on World Environment Day. | 2 |
| CO6,CO7 | Vaidya sadvritta | Exposure to Medical records department for maintainance, storage and disposal of medical record, finding out errors in medical case records. | 2 |
| CO6 | Forensic psychiatry | Seminar/ guest lecture on how to deal with adolescent psychiatric issue | 2 |
| CO2,CO4 | Chronic toxicity of heavy metals. | Group discussion and case based learning by taking example of published case reports. | 1 |
| CO2,CO4 | World Cancer Day to raise awareness of cancer risk and cancer prevention | Poster Competition / Quiz Competition / Group Discussion | 4 |
| CO6,CO7 | Legal procedure- Recording of evidence and duties of a physician in the court of Law. | Mock court / role play | 4 |
| CO2 | Sarpa Visha | <p>1. Identification of poisonous and non poisonous snakes -</p> <p>Group Discussion/ Brainstorming - Specimens (Photos) of poisonous and non poisonous snakes with their features shall be given to small group of students and asked to identify the snakes.</p> <p>2. Clinical diagnosis of snake bites</p> | 2 |

| | | | |
|---------|--|--|---|
| | | <p>Group Discussion - Specimens (Photos) showcasing local and systemic signs and symptoms of poisonous (Hemotoxic and Nuerotoxic) snake bite shall be given to small group of students and asked to diagnose the case.</p> <p>CBL - Presentation of recorded cases or the Case reports or studies published in reputed journals.</p> <p>Brainstorming/Quiz - The same pictures may be shown with MCQ's and Quiz session can be conducted among the groups of students</p> | |
| CO2 | Vrischika visha, luta visha and keeta visha. | <p>Group Discussion - Specimens (Photos) showcasing local and systemic signs and symptoms of Vrischika Visha (Scorpion Sting), Loota Visha (Spider Bite) and Keetavisha (Insect bite) and differentiating with snake bites shall be given to small group of students and asked to diagnose the case.</p> <p>CBL - Presentation of recorded cases or the Case reports or studies published in reputed journals.</p> <p>Brainstorming/Quiz - The same pictures may be shown with MCQ's and Quiz session can be conducted among the groups of students.</p> | 2 |
| CO3,CO4 | Dooshivisha, garavisha and visha upadrava | <p>Group Discussion - Photographs/case reports/ simulated cases showcasing various drug induced toxicities, occupational hazards, allergic manifestations, autoimmune diseases and diseases due to endocrine disruptors shall be given to small group of students and asked to assess the dosha, diagnose and discuss the plan of treatment.</p> | 4 |

| | | | |
|---------|--|--|---|
| | | <p>CBL - Presentation of recorded cases or the Case reports or studies published in reputed journals.</p> <p>Brainstorming/Quiz - The same pictures may be shown with MCQ's and Quiz session can be conducted among the groups of students.</p> | |
| CO3,CO4 | Dermatological manifestation of visha. | <p>Group Discussion - Photographs/case reports/simulated cases showcasing various dermatological presentations of poison, bites and stings and contact dermititis shall be given to small group of students and asked to assess the dosha, diagnose and discuss the plan of treatment.</p> <p>CBL - Presentation of recorded cases or the Case reports or studies published in reputed journals.</p> <p>Brainstorming/Quiz - The same pictures may be shown with MCQ's and Quiz session can be conducted among the groups of students.</p> | 4 |

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 18 |
| 2 | Lecture with Power point presentation | 106 |
| 3 | Lecture & Group Discussion | 32 |
| 4 | Lecture with Video clips | 13 |
| 5 | Discussions | 22 |
| 6 | Brainstorming | 22 |
| 7 | Inquiry-Based Learning | 1 |

| | | |
|----|------------------------|----|
| 8 | PBL | 6 |
| 9 | CBL | 26 |
| 10 | Flipped classroom | 4 |
| 11 | Edutainment | 2 |
| 12 | Mobile learning | 2 |
| 13 | Simulation | 1 |
| 14 | Self-directed learning | 15 |
| 15 | Demo on Model | 2 |
| 16 | Tutorial | 2 |
| 17 | Presentations | 9 |
| 18 | Practical | 1 |
| 19 | Case diagnosis | 5 |
| 20 | Demonstration | 2 |
| 21 | Field visit | 1 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand Total |
|--------------|--------|--------|-------------------------------|------|-------------------|----|-----------|-------------|
| | | | Practical | Viva | Elective (Set SA) | IA | Sub Total | |
| AyUG-AT | 1 | 100 | 100 | 60 | 10 | 30 | 200 | 300 |

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|---------------------|---------------------------------|---------------------------|---------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE ** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|--|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|--------------------------|
| | A 4 | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (.../30) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-AT

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

6 F Distribution of theory examination

| Paper 1 | | | | | | |
|----------------|---|-------------------|--------------------|---------------------|----------------------|-----------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | Concepts of Agada Tantra (Clinical Toxicology) | 1 | 13 | Yes | Yes | Yes |
| 2 | Visha Chikitsa (Management of Poisoning) | 1 | | Yes | Yes | Yes |
| 3 | Vishakta aahara pariksha and Viruddha ahara | 1 | | Yes | Yes | No |
| 4 | Garavisha and Dooshivisha | 1 | 12 | Yes | Yes | Yes |
| 5 | Visha Upadrava and diseases caused due to exposure to Visha/poisons | 1 | | Yes | Yes | No |
| 6 | Environmental Toxicology | 2 | 11 | Yes | Yes | No |
| 7 | Dermatological manifestations of visha/poisons. | 2 | | Yes | Yes | No |
| 8 | Therapeutic utility of Agada yoga | 2 | | Yes | Yes | No |
| 9 | Sthavara visha – Poisons of Plant origin | 2 | 17 | Yes | Yes | Yes |
| 10 | Sthavara Visha – Poisons of Metallic origin | 2 | | Yes | Yes | Yes |
| 11 | Jangama Visha | 2 | | Yes | Yes | Yes |
| 12 | Kritrima visha | 3 | 12 | Yes | Yes | Yes |
| 13 | Substances of abuse | 3 | | Yes | Yes | Yes |
| 14 | Agada Tantra perspectives on cancer | 3 | | Yes | Yes | No |
| 15 | Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): | 1 | 10 | Yes | No | No |

| | | | | | | |
|--------------------|---|---|------------|-----|-----|-----|
| 16 | Vaidya sadvritta : Duties and Responsibilities of medical practitioner | 1 | | Yes | Yes | No |
| 17 | Legal Procedures | 1 | | Yes | Yes | No |
| 18 | Personal identity | 1 | | Yes | Yes | Yes |
| 19 | Thanatology | 2 | 12 | Yes | Yes | Yes |
| 20 | Asphyxial deaths | 2 | | Yes | Yes | Yes |
| 21 | Injury | 2 | | Yes | Yes | Yes |
| 22 | Pregnancy, delivery and abortion | 3 | 6 | Yes | Yes | No |
| 23 | Sexual offences | 3 | | Yes | Yes | No |
| 24 | Forensic psychiatry. | 3 | 7 | Yes | Yes | No |
| 25 | Forensic science laboratory | 3 | | Yes | Yes | No |
| 26 | Laws, Acts, Rules and Regulations | 3 | | Yes | Yes | No |
| Total Marks | | | 100 | | | |

6 G Blue print of paper I

| Paper No:1 | | |
|-------------|---|---|
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <ol style="list-style-type: none"> 1. Concepts of Agada Tantra (Clinical Toxicology) 2. Visha Chikitsa (Management of Poisoning) 3. Vishakta aahara pariksha and Viruddha ahara 4. Garavisha and Dooshivisha 5. Visha Upadrava and diseases caused due to exposure to Visha/poisons 6. Asphyxial deaths 7. Dermatological manifestations of visha/poisons. 8. Therapeutic utility of Agada yoga 9. Kritrima visha / Sthavara Visha – Poisons of Metallic origin 10. Jangama Visha 11. Substances of abuse 12. Agada Tantra perspectives on cancer 13. Vaidya sadvritta : Duties and Responsibilities of medical practitioner / Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): 14. Legal Procedures / Injury 15. Pregnancy, delivery and abortion / Thanatology 16. Environmental Toxicology / Personal identity 17. Forensic psychiatry. / Forensic science laboratory 18. Laws, Acts, Rules and Regulations 19. Sthavara visha – Poisons of Plant origin 20. Sexual offences |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <ol style="list-style-type: none"> 1. Vishakta aahara pariksha and Viruddha ahara / Visha Upadrava and diseases caused due to exposure to Visha/poisons / Garavisha and Dooshivisha 2. Visha Chikitsa (Management of Poisoning) / Therapeutic utility of Agada yoga / Dermatological manifestations of visha/poisons. 3. Kritrima visha / Sthavara visha – Poisons of Plant origin / Environmental Toxicology / Sthavara Visha – Poisons of Metallic origin 4. Jangama Visha / Concepts of Agada Tantra (Clinical Toxicology) / Vaidya sadvritta : Duties and Responsibilities of medical |

| | | |
|-----------|--|---|
| | | <p>practitioner</p> <p>5. Environmental Toxicology / Agada Tantra perspectives on cancer / Substances of abuse</p> <p>6. Asphyxial deaths / Personal identity / Injury</p> <p>7. Pregnancy, delivery and abortion / Sexual offences / Personal identity</p> <p>8. Forensic psychiatry. / Forensic science laboratory / Laws, Acts, Rules and Regulations</p> |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. Visha Chikitsa (Management of Poisoning) / Concepts of Agada Tantra (Clinical Toxicology)</p> <p>2. Jangama Visha / Garavisha and Dooshivisha</p> <p>3. Kritrima visha / Sthavara visha – Poisons of Plant origin / Sthavara Visha – Poisons of Metallic origin / Substances of abuse</p> <p>4. Thanatology / Asphyxial deaths / Personal identity / Injury</p> |

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|------|---|-------|
| 1 | <p>Spotting (15 specimens of 4 marks each) 1.1. Snake – 2 specimens</p> <p>1.1.1 Identification - 1 mark</p> <p>1.1.2 Differentiating features of poisonous/ non-poisonous snake – 1 mark</p> <p>1.1.3 Important clinical signs - 1 mark</p> <p>1.1.4 Ayurvedic management - 1 mark</p> <p>1.2. Mineral poisons/ Kritrima visha (1 specimen each)-2 specimens</p> <p>1.2.1. Identification - 1 mark</p> <p>1.2.2 Identification of symptom clusters mimicking other diseases and their differential diagnosis - 2 marks</p> <p>1.2.3 Method of detoxification and Antidotes - 1 mark</p> <p>1.3. Toxic plants– 2 specimens</p> <p>1.3.1 Identification with scientific, family and sanskrit names 1 mark</p> <p>1.3.2 Mode of use in Visha cases – 1 mark</p> <p>1.3.3 detoxification method, Class of poison and Active principles present in the plant - 1 mark</p> <p>1.3.4 Antidotes used against the specimen - 1 mark</p> <p>1.4. Antitoxic plants – 3 specimens</p> <p>1.4.1 Identification with scientific, family and sankrit names - 1 mark</p> <p>1.4.2 Mode of use in visha - 1 mark</p> <p>1.4.3 Active principles - 1 mark</p> <p>1.4.4 Important formulations - 1 mark</p> <p>1.5. Injuries – 2 specimens</p> <p>1.5.1. Identify the injury - 1 mark</p> <p>1.5.2. Identify the weapon/criminal act causing such injury - 2 mark</p> <p>1.5.3. Medico-legal importance - 1 marks</p> <p>1.6. News item – paper cuttings or other medico-legal case scenarios – 2 specimens</p> <p>1.6.1. Identify the crime – 1 mark</p> | 60 |

| | | |
|---|---|----|
| | <p>1.6.2. Relevant IPC/CrPC sections associated with the crime – 1 mark</p> <p>1.6.3. Relevant Act related to the crime – with sub-questions related to its sub-sections, punishment etc. - 2 marks</p> <p>7. Jangama visha – other poisonous creatures – 2 specimens</p> <p>1.7.1. Identification – 1 mark</p> <p>1.7.2. Adhishtana/samanya lakshana/ chikitsa – 2 marks</p> <p>1.7.3. specific formulations/doses – 1 mark (Sub-questions mentioned against each item is for a purpose of example only. Different questions may be framed on the various aspects of the guidelines provided)</p> | |
| 2 | Practical Records | 10 |
| 3 | Medical and Medico-legal Certificate Writing Students will be provided with a case-scenario based on which they are asked to write a medical certificate for a specific purpose. Evaluation guidelines should be based on the essential criteria in the format of a valid medical certificate. | 10 |
| 4 | Short Case Case scenarios with pictures to diagnose a specific case of poisoning and specific questions asked regarding its clinical examination, investigations, treatment, prognosis etc. | 10 |
| 5 | <p>Clinical Applications of Agada</p> <ul style="list-style-type: none"> • Identification of Agada for a case scenario detailed – 2 marks • Select the ingredients of the formulation from a group of drugs and identify using scientific names and answer sub-questions based on its preparation, anupana, dose etc. – 8 marks | 10 |
| 6 | <p>Viva Questions will be asked on the following topics</p> <ul style="list-style-type: none"> • Agada Tantra (2 questions 5 marks each) - 10 marks • Forensic Science (Vyavaharayurveda) (2 questions 5 marks) - 10 marks • Jurisprudence (Vidhivaidyaka) (2 questions 5 marks) - 10 marks • Toxicology (2 questions 5 marks each) - 10 marks • Concepts of Agada Tantra in cancer and substance abuse (one question from each) (2 questions 5 marks each) - 10 marks • Viva on Compilation and Communication skills (2 questions 5 marks each) - 10 marks | 60 |

| | | |
|--------------------|--------------------|------------|
| 7 | Electives (Set SA) | 10 |
| 8 | IA | 30 |
| Total Marks | | 200 |

References Books/ Resources

| S.No | Book | Author(s)/Resources |
|------|---|--|
| 1 | Concise Forensic Medicine & Toxicology | KS Narayana Reddy, Jaypee Medical Publisher |
| 2 | Essentials of Forensic Medicine & Toxicology | K S Narayana Reddy, Jaypee Medical Publisher |
| 3 | Principles of Forensic Medicine & Toxicology | Rajesh Bardale, Jaypee Medical Publisher |
| 4 | Modern Medical Toxicology | VV Pillay, Jaypee Medical Publisher |
| 5 | Recent Advances in Forensic Medicine and Toxicology (Volume 1 & 2) | Gautam Biswas, Jaypee Medical Publisher |
| 6 | Textbook on Medicolegal Issues: Related to Various Medical Specialties by Satish Tiwari Mahesh Baldwa Mukul Tiwari Alka Kuthe | Jaypee Medical Publisher |
| 7 | Manual on Doctor and Law | RN Goel Narendra, Malhotra Shashi Goel, Jaypee Medical Publisher |
| 8 | Jaypee's Video Atlas of Medicolegal Autopsy | Sujith Sreenivas C Prasannan K Thomas Mathew, Jaypee Medical Publisher |
| 9 | Jaypee Gold Standard Mini Atlas Series Forensic Medicine by Ashesh Gunwantrao Wankhede | Jaypee Medical Publisher |
| 10 | MODI's Textbook of Medical Jurisprudence and Toxicology | K Kannan, Jaypee Medical Publisher |
| 11 | A Text book of Agada Tantra | Dr Shobha Bhat, Chaukamba Orientalia |
| 12 | Agada Tantra | Dr Ramesh Chandra Tiwari, Chaukamba Orientalia |
| 13 | Text Book of Agad Tantra Evam Vyavaharayurveda | Dr Sandeep Charak Dr.Piyush Gupta Dr Divya Tiwari, Ayurveda Sanskrit Hindi Pustak Bhandar. |
| 14 | Ayodhyaprasad Achal's Agada Tantra | Dr Jina Patnaik, Chaukamba Surbharati Prakashan |
| 15 | Illustrated Agada Tantra | Dr PVNR Prasad, Chaukamba Sanskrit Series Varanasi |
| 16 | Textbook on Agada Tantra | <u>DR V P JOGLEKAR, RASHTRIYA SHIKSHAN MANDAL, PUNE</u> |
| 17 | Review of Forensic Medicine and Toxicology by Dr Gautam Biswas | Jaypee Medical Publisher |
| 18 | Toxicology - An Ayurvedic Perspective | Department of Agadtantra, Vaidyaratnam PS Varier Ayurveda College, Kottakkal |

Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
| | | |

| | | |
|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
| | | |

| | | |
|----|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRy | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
| | | |
| | | |

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

Dravyaguna Vigyan

(SUBJECT CODE : AyUG-DG)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



**BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058**

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-DG

Summary

| | | | |
|-------------------------------------|-----|-----|----------|
| Total number of Teaching hours: 400 | | | |
| Lecture hours(LH)-Theory | | 150 | 150(LH) |
| Paper I | 75 | | |
| Paper II | 75 | | |
| Non Lecture hours(NLH)-Theory | | 250 | 250(NLH) |
| Paper I & II | 75 | | |
| Non Lecture hours(NLH)-Practical | | | |
| Paper I & II | 175 | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | 100 | 70 | - | 30 |
| Paper II | 100 | | | | |
| Sub-Total | 200 | 200 | | | |
| Total marks | 400 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

PREFACE

The Bachelor of Ayurveda education shall produce graduates having profound knowledge of Ashtanga Ayurveda. One of the chatushpada has been mentioned is Dravya. The revised syllabus of Dravyaguna along with the contemporary advances supplemented with knowledge of scientific and technological advances in Dravyaguna along with extensive practical training

Fundamentals of Dravyaguna involves a thorough knowledge of various principles and concepts of Rasapanchaka (fivefold analysis of medicinal substances) and Karma (pharmacological action). It refers to classical Ayurvedic texts, provides suitable examples, and includes contemporary interpretations to facilitate better understanding. Most commonly used dravyas by clinicians are included in curriculum.

The current syllabus focuses greater emphasis on understanding the fundamentals with a scientific interpretation and clinical application. The repetitive topics such as Ahara varga, Nighantu, and Jangama dravyas is avoided since they are covered in Samhita adhyayana (study of classical texts), Itihasa (history), and ethical considerations related to the clinical use of animal-origin drugs.

Additionally, newer areas in Ayurveda related to medicinal plants, such as cultivation techniques, collection methods, and various regulatory guidelines from organizations like NMPB (National Medicinal Plants Board), CCRAS (Central Council for Research in Ayurvedic Sciences), API (Ayurvedic Pharmacopoeia of India), GCTM (Global Centre for Traditional Medicine), PCIMH (Pharmacopoeia Commission for Indian Medicine & Homoeopathy), pharmacovigilance, Vrikshayurveda (science of plant life), Ethno medicine, Network pharmacology, and Bioinformatics, have been incorporated. This information is crucial for the sustainable use of medicinal plants and a better understanding of their properties.

Practical sessions in Dravyaguna focus on understanding fundamental concepts such as Mahabhuta (five elements), Guna (properties), Rasa (taste), and Virya (potency) with Parameters commonly used in physicochemical analysis. The curriculum also addresses challenges faced by the herbal drug industry, including the issue of adulteration, by incorporating quality check parameters. Furthermore, the students gain practical experience in plant identification through visits to various natural and cultivated plant habitats.

The revised curriculum for Dravyaguna reflects commitment to equipping students with the knowledge and skills necessary to excel in the field of Ayurvedic pharmacology. Hope that this curriculum will inspire and empower students to become proficient Ayurvedic practitioners who can contribute to the holistic well-being of individuals and society as a whole.

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Course Code and Name of Course

| | |
|--------------------|-----------------------|
| Course code | Name of Course |
| AyUG-DG | Dravyaguna Vigyan |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-DG At the end of the course AyUG-DG, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|--|--|
| CO1 | Demonstrate the application of principles of <i>Dravyaguna</i> in clinical practice. | PO1,PO2,PO8 |
| CO2 | Analyze and justify the fundamental principles of <i>Dravyaguna</i> in relevance to contemporary sciences. | PO1 |
| CO3 | Analyze and interpret <i>Rasa Panchaka</i> of <i>Dravya</i> with their application in clinical practice. | PO5,PO9 |
| CO4 | Interrelate the knowledge on Karma (pharmacological actions) with <i>Rasa panchaka</i> and basic contemporary clinical pharmacology. | PO2 |
| CO5 | Demonstrate and Justify the ability to select the specific <i>Dravyas</i> , Prashata Bheshaja with different dosage forms in different clinical conditions. | PO3,PO7,PO9 |
| CO6 | Demonstrate knowledge of quality control methods of drug. | PO3 |
| CO7 | Demonstrate knowledge and skills about <i>Apamishrana</i> (adulterants), <i>Abhava pratinidhidravya</i> (substitutes), <i>Prashastabheshaja</i> (ideal drug) and plant extracts. | PO5,PO6 |
| CO8 | Identify the medicinal plants and orient about conservation, cultivation, sustainable utilization & Pharmacovigilance | PO4,PO6 |
| CO9 | Demonstrate fundamental principles of applied Pharmacology. | PO2 |

Table 2 : Contents of Course

| Paper 1 Fundamental Dravyaguna | | | | | |
|---------------------------------------|---|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | 1.Dravyaguna Vigyana | 1 | 1 | 1 | 1 |
| 2 | 2.Dravya <ul style="list-style-type: none"> • 2.1 Panchabhoutikatwa of Dravya • 2.2 Classification of Dravya based on Utpattibheda, Yonibheda, Prayogabheda, Prabhavbheda, Doshagnabheda, Rasabheda and Karmbheda | 1 | 6 | 5 | 4 |
| 3 | 3. Guna <ul style="list-style-type: none"> • 3.1 Panchabhoutikatva, characteristics and classification • 3.2 Gurvadiguna and its karma on Dosha, Dhatu and Mala, clinical application and research updates • 3.3 Paradiguna with examples, clinical applications and research updates | 1 | 11 | 4 | 2 |
| 4 | 4. Rasa <ul style="list-style-type: none"> • 4.1 Meaning of “Rasa” in various contexts • 4.2 Shadrassa in relative correlation with taste of chemical constituents • 4.3 Rasotpatti and Panchabhoutika constitution of Shadrassa • 4.4 Rasopalabdhi and pathway of taste perception & sites of taste receptors in the body • 4.5 Rasa -Lakshana, Guna & Karmas of each Rasa on Dosha, Dhatu and Mala • 4.6 Atiyogalakshana, • 4.7 Clinical application and Research updates of Shadrassa • 4.8 Anurasa • 4.9 Rasa Sevanakrama of Aushadha | 1 | 11 | 7 | 4 |

| | | | | | |
|---|---|---|----|---|---|
| 5 | 5. Vipaka <ul style="list-style-type: none"> • 5.1 Trividha Vipaka • 5.2 Vipak karma on Dosha, Dhatu and Mala • 5.3 Clinical application and Research updates • 5.4 Vipakopalabdhi (Determination of Vipaka) & Taratamya (Degree of variation) | 1 | 6 | 3 | 1 |
| 6 | 6. Virya <ul style="list-style-type: none"> • 6.1 Difference between Guna and Virya • 6.2 Karmas of Virya on Dosha, Dhatu and Mala • 6.3 Clinical application and Research updates • 6.4 Viryaopalabdhi (Determination of Virya) and understanding of Virya with respect to actions of active constituents | 1 | 6 | 2 | 2 |
| 7 | 7. Prabhava <ul style="list-style-type: none"> • 7.1 Samanapratyayarabdha and Vichitrapratyayarabdha • 7.2 Clinical application of Prabhava and Research updates | 1 | 5 | 2 | 1 |
| 8 | 8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava <ul style="list-style-type: none"> • Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength- Pharmacodynamics | 1 | 1 | 1 | 2 |
| 9 | 9. Karma <ul style="list-style-type: none"> • 9. Individual Karma, correlation with contemporary pharmacological action, examples, clinical application and research updates • 9.1 Deepana • 9.2 Pachana | 1 | 11 | 9 | 5 |

| | | | | | |
|----|---|---|----|----|---|
| | <ul style="list-style-type: none"> • 9.3 Samshodhana • 9.4 Samshamana • 9.5 Anulomana • 9.6 Sransana • 9.7 Bhedana • 9.8 Rechana • 9.9 Chhedana • 9.10 Lekhana • 9.11 Grahi • 9.12 Sthambhana • 9.13 Madakari • 9.14 Pramathi • 9.15 Abhishyandi • 9.16 Vyavayi • 9.17 Vikashi • 9.18 Rasayana • 9.19 Vajeekarana • 9.20 Medhya | | | | |
| 10 | 10. Karmas of Dashemani Gana | 1 | 5 | 12 | 3 |
| 11 | 11. Principles of General Pharmacology <ul style="list-style-type: none"> • 11 Drug definition, drug dosage forms, route of drug administration, pharmacokinetics (ADME), pharmacodynamics, Drug dose, principles of drug action, mechanism of drug action & bio-availability • 11.1 Drugs Acting on Central Nervous System: Anaesthetics, Sedative Hypnotics, Antiepileptics, Antiparkinsonian, Antidepressants, Antianxiety Drugs, Opioid - Analgesics Drugs • 11.2 Drugs Acting on Peripheral (somatic) Nervous System: Skeletal Muscle Relaxants, Local Anaesthetics • 11.3 Autacoids and Related Drugs: Nonsteroidal, Anti-inflammatory (NSAIDs)/Antipyretic and Analgesics Drugs • 11.4 Drugs for Respiratory Disorders:Bronchodilators, Aerosols/ Inhalants Expectorants, Antitussive Drugs • 11.5 Cardiovascular Drugs: Antihypertensive, Antianginal Drugs • 11.6 Drugs Acting on Kidney: Diuretics • 11.7 Drugs Affecting Blood: Haematinics, Coagulants, Anticoagulants, Hypolipidaemic Drugs | 3 | 20 | 15 | 1 |

| | | | | | |
|----|---|---|---|---|---|
| | <ul style="list-style-type: none"> • 11.8 Gastrointestinal Drugs: Antacid, Carminatives, Digestants, Antiemetics, Laxatives, Antidiarrhoeal, Hepatoprotective Drugs • 11.9 Antibacterial Drugs: Antibiotics, Antitubercular Drugs • 11.10 Antifungal, Antiviral, Antimalarial and Antihelmintic Drugs • 11.11 Hormones and Related Drugs: Thyroid Hormone, Thyroid Inhibitors, Insulin, Oral Anti-diabetic, Hormonal Contraceptives, Uterine Stimulants, Uterine Relaxants Drugs • 11.12 Miscellaneous Drugs: Antiseptics and Disinfectants, Vaccines, Vitamins, Water imbalance and IV fluids | | | | |
| 12 | <p>12. Mishraka Gana</p> <ul style="list-style-type: none"> • 12. Mishrakagana: its composition, guna karma and therapeutic uses. • 12.1 Brihatpanchamoola. • 12.2 Laghupanchamoola. • 12.3 Vallipanchamoola. • 12.4 Kantakapanchamoola. • 12.5 Trinapanchamoola. • 12.6 Panchavalkala. • 12.7 Triphala. • 12.8 Trikatu. • 12.9 Trimada. • 12.10 Chaturusana. • 12.11 Panchakola. • 12.12 Shadusana • 12.13 Chaturbeeja. • 12.14 Trijataka. • 12.15 Chaturajataka. • 12.16 Panchatikta. • 12.17 Chaturbhadra. • 12.18 Trikarshika. | 3 | 6 | 6 | 2 |
| 13 | <p>13. Nomenclature of dravya as per Nighantu, Vedic taxonomy and Botany</p> | 3 | 1 | 0 | 2 |
| 14 | <p>14. Prashasta Bshesaja, Bshesaja Pariksha and drug evaluation method with correlation as per Pharmacognosy</p> | 3 | 1 | 1 | 2 |

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|--------------------|--|---|------------|--------------|--------------|
| 15 | 15. Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection practices) | 3 | 1 | 1 | 0 |
| 16 | 16. GCP (Good cultivation practices), seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants. | 3 | 1 | 1 | 0 |
| 17 | 17. Abhava Pratinidhi Dravya (substitutes) | 3 | 1 | 1 | 1 |
| 18 | 18. Classifications and techniques of aqueous and alcoholic extracts | 3 | 1 | 0 | 2 |
| 19 | 19. Adverse drug reaction and Pharmacovigilance with recent updates | 3 | 1 | 1 | 2 |
| 20 | 20. NMPB (National Medicinal Plant Board), CCRAS (Central Council of Research in Ayurveda Sciences), API (Ayurvedic Pharmacopeia of India), GCTM (Global Centre for Traditional Medicine), PCIMH (Pharmacopeia Commission of Indian Medicine and Homeopathy) | 3 | 1 | 1 | 0 |
| 21 | 21. Vrikshayurveda and Ethno-medicine | 3 | 1 | 1 | 1 |
| 22 | 22. Network pharmacology and Bioinformatics | 3 | 2 | 1 | 1 |
| Total Marks | | | 100 | 75 hr | 39 hr |

| Paper 2 Applied Dravyaguna | | | | | |
|-----------------------------------|--|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 23 | 1. Bheshjavacharaniya (Criteria's to be considered for selection of drugs in vyadhis) | 2 | 5 | 1 | 6 |
| 24 | 2.1 Dravya (Drug) Nama-Guna-Karma Jnana | 2 | 55 | 45 | 10 |

- Amalaki
- Aragwadha
- Arjuna
- Ashoka
- Ashwagandha
- Ativisha
- Bala
- Beejaka
- Bhallataka
- Bharangi
- Bhrungaraja
- Bhumyamalaki
- Bilva
- Brahmi
- Chandana
- Chitraka
- Dadima
- Dhataki
- Dhamasa
- Eranda
- Gokshura
- Guduchi
- Guggulu
- Haridra
- Haritaki
- Hingu
- Jambu
- Jatamansi
- Jyotishmati
- Kanchanara
- Kantakari
- Kapikachhu
- Karkatshruni
- Katuki
- Khadira
- Kumari
- Kutaja
- Latakaranja
- Lodhra
- Agnimanth
- Ahiphena (NK)
- Ajamoda (DK)
- Apamarga (DK)
- Asthishrunkhala
- Bakuchi
- Bruhati
- Chakramarda
- Dhanyaka
- Ela
- Gambhari

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|----|---|---|----|----|----|
| | <ul style="list-style-type: none"> • Japa • Jatiphala • Jeeraka (DK) • Kalamegha • Kampillaka • Kulatha (NK) • Kumkum • Lajjalu • Lavanga | | | | |
| 25 | 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana <ul style="list-style-type: none"> • Madanphala • Mandukaparni • Manjishta • Maricha • Meshashrunji • Methika • Musta • Nagkeshar • Nimba • Nirgundi • Palasha • Pashanabheda • Patha • Pippali • Punarnava • Rasna • Rasona • Sarapagandha • Sairayak • Sariva • Shallaki • Shalmali(Mocharasa) • Shankhapushpi • Shatavari • Shigru • Shunthi • Talisapatra (NK) • Trivrut • Tulasi • Twak • Usheera • Vacha • Varuna • Vasa • Vatsanabha | 3 | 40 | 29 | 20 |

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|--------------------|---|--|------------|--------------|--------------|
| | <ul style="list-style-type: none"> • Vibhitaki • Vidanga • Yashtimadhu | | | | |
| Total Marks | | | 100 | 75 hr | 36 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 Fundamental Dravyaguna | | | | | | | | | |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 1.Dravyaguna Vigyana (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO3 | Define Dravyaguna Vigyana. | CK | MK | K | L&PP T | P-VIVA | F&S | I | |
| CO1,CO3 | Explain the role of Dravyaguna Vigyana in clinical practice. | CC | MK | KH | L&G D | P-VIVA,C- INT | F&S | I | |
| Topic 2 2.Dravya (Lecture :5 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO5,CO 8 | Classify Dravya based on Utpatti, Yonibheda, Prayogabheda & Prabhavbheda. | CK | MK | K | L&PP T,LS | T-OBT,P- VIVA,P-POS | F&S | I | |
| CO1,CO5,CO 8 | Classify Dravya based on Doshagnabheda, Rasabheda, Karmbheda (Dashemani & Sushrutokta Gana) | CK | MK | K | L&PP T,LS | T-OBT,P- VIVA,P-POS | F&S | I | |
| CO1,CO3 | Describe Panchabhoutikatwa of Dravya. | CC | MK | KH | DIS,P ER | T- EW,T- OBT,P-VIVA | F&S | I | |
| Topic 3 3. Guna (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
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|---|---|-----|----|----|---------------------------|---------------------------------|-----|---|--|
| CO1,CO2,CO3 | Define Guna and describe its Panchabhoutikatva. | CK | MK | K | L&PP T,DIS ,LS | T- EW,P-VIV A,PRN,QZ | F&S | I | |
| CO1 | State characteristics of Gurvadi Guna. | CK | MK | K | L&PP T,SD L | P-VIVA,PRN, QZ | F&S | I | |
| CO1,CO2,CO3 | Discuss Gurvadiguna in context to its Karma on Dosha, Dhatu and Mala with examples. | CC | MK | KH | L&PP T,L& GD,F C | T- EW,P-VIV A,PRN,OSPE | F&S | I | |
| CO1,CO2,CO3 | Enumerate & Summarize, clinical application of Gurvadi Guna with research updates. | CC | MK | KH | L&G D,BL, LS | T- EW,P- VIVA,PRN | F&S | I | |
| CO1,CO2,CO3 | Enlist Paradiguna with examples. | CK | MK | K | L&G D,PE R | T-EMI,P-VIV A,PRN,P-POS | F&S | I | |
| CO1,CO2,CO3 | Interpret clinical applications of Paradiguna. | CAP | MK | KH | L&PP T,DIS | T-EMI,P-VIV A,PRN,QZ | F&S | I | |
| CO1,CO2,CO3 | Discuss research updates of Paradiguna. | CC | MK | KH | L,TP W,LS | T-EMI,P-VIV A,PRN,CR- RED | F&S | I | |
| Topic 4 4. Rasa (Lecture :7 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO2,CO3 | Define Rasa and interpret Meaning of “Rasa” in various contexts. | CK | MK | K | L&G D | P-VIVA,PUZ, M-CHT,INT | F&S | I | |
| CO1,CO2 | Classify and compare shadarasa in relative correlation with taste of chemical constituents. | CK | MK | K | L&PP T,ED | P-VIVA,PUZ, M-CHT,INT | F&S | I | |

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| CO1,CO2 | State Rasa Utpatti and Panchabhoutika constitution of Shadrasa. | CK | MK | K | L&G D,PE R | P-VIVA,PUZ, M-CHT,INT | F&S | I | |
| CO1,CO2 | Discuss Rasopalabdhhi. | CC | MK | KH | L&G D,SD L | P-VIVA,PUZ, M-CHT,INT | F&S | I | |
| CO1,CO2,CO 3 | Interpret pathway of taste perception & sites of taste receptors in the body | CC | MK | KH | L&PP T,L_ VC | T- EW,T-OBT ,P-VIVA,PRN ,PUZ,INT | F&S | I | |
| CO1,CO2 | Describe Guna and Lakshana of each Rasa. | CC | MK | KH | L&PP T | T-EMI,T- EW, P-VIVA,PRN, INT | F&S | I | |
| CO1,CO2 | Explain karma of each rasa on Dosha, Dhatu and Mala with examples. | CC | MK | KH | L&PP T,BS | T-EMI,T- EW, P-VIVA,PUZ, M-CHT,INT | F&S | I | |
| CO1,CO2 | Discuss Atiyoga of each rasa. | CC | MK | KH | L&PP T,PB L,PE R | T-EMI,P-VIV A,PRN,PUZ,I NT | F&S | I | |
| CO1,CO2,CO 3 | Interpret Clinical application of each rasa. | CAP | MK | KH | L&PP T,DIS ,SDL, LS | T-EMI,T- EW, T-OBT,P- VIVA,INT | F&S | I | |
| CO1,CO2 | Discuss research updates of Shadrasa. | CC | MK | KH | DIS,S DL,L S | T- EW,P-VIV A,PUZ,INT,C R-RED | F&S | I | |

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| CO1,CO2 | Define Anurasa. | CK | MK | K | L,LS | T-EMI,P-VIVA,INT | F&S | I | |
| CO1,CO2 | Interpret relevance of Anurasa in clinical practice. | CAP | MK | KH | L&G D,FC | T-EMI,P-VIVA,PUZ,INT | F&S | I | |
| CO1,CO2 | Describe with justification Rasa sevanakrama as Aushadha. | CC | MK | KH | L&PP T,DIS | T-EMI,T- EW, P-VIVA,PRN, M-CHT,M- POS | F&S | I | |
| Topic 5 5. Vipaka (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define Vipaka. | CK | MK | K | L | P-VIVA | F&S | I | |
| CO1 | State Vipaka lakshana. | CK | MK | K | L&G D | P-VIVA,INT | F&S | I | |
| CO1 | Describe the action of Trividha Vipaka on Dosha, Dhatu and Mala with examples. | CC | MK | KH | L&PP T,TP W,FC | T- EW,P-VIVA,PRN | F&S | I | |
| CO1,CO3 | Interpret clinical application of Vipaka. | CAP | MK | KH | L&PP T,DIS ,SDL, LS | P-VIVA,QZ | F&S | I | |
| CO2 | State Research updates of Vipaka. | CK | MK | K | L&PP T | P-VIVA,CR- RED | F&S | I | |
| CO1 | Explain Vipakopalabdhhi (Determination of Vipaka) and Taratamya (Degree of variation). | CC | MK | KH | L&PP T,FC | P-VIVA,PUZ, M-CHT | F&S | I | |
| Topic 6 6. Virya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Define the lakshanas of Virya. | CK | MK | K | L,SD | P-VIVA,INT | F&S | I | |

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| CO1 | Differentiate Guna and virya. | CC | MK | KH | L&PP T,RP | P-VIVA,P- EXAM,O-QZ | F&S | I | |
| CO1 | Discuss Karma of Virya on Dosha, Dhatu and Mala. | CC | MK | KH | L&PP T,SD L,PL | P-VIVA,O- QZ,M-CHT | F&S | I | |
| CO1,CO3 | Explain clinical application of Virya. | CC | MK | KH | L&PP T,GB L,TU T | P-VIVA,O- QZ,INT | F&S | I | |
| CO2 | Discuss research updates of Virya. | CC | MK | KH | L&G D,DIS ,SDL | P-VIVA,P-EX AM,O-QZ,CR- RED | F&S | I | |
| CO1 | Discuss Viryaopalabdhi (Determination of Virya). | CC | MK | KH | L&G D | P-VIVA,QZ | F&S | I | |
| Topic 7 7. Prabhava (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define and explain Prabhava with examples. | CC | MK | KH | L&PP T | P-VIVA | F&S | I | |
| CO1 | Describe Samanapratyayarabdha and Vichitrapratyayarabdha with examples. | CC | MK | KH | L&PP T,DIS ,TBL, BL | T- EW,P- VIVA,INT | F&S | I | |
| CO3 | Explain clinical application of Prabhava. | CC | MK | KH | L&G D,FC, LS | T- EW,P-VIV A,CR-RED | F&S | I | |
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| CO1,CO2 | Discuss research updates of Prabhava. | CC | MK | KH | L&G D,SD L | T- EW,P-VIV A,CR-RED | F&S | I | |
| Topic 8 8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Interpret the interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength- Pharmacodynamics. | CAP | MK | KH | L&PP T,TP W,PL | P-VIVA,CL- PR | F&S | I | |
| Topic 9 9. Karma (Lecture :9 hours, Non lecture: 5 hours) | | | | | | | | | |
| CO1 | Define Karma. | CK | MK | K | L | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1 | Discuss Karma lakshana. | CC | MK | KH | L&G D | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1,CO2,CO 4,CO5 | Explain Deepan karma in relation with Appetizers. | CC | MK | KH | L&G D,BL | T- EW,T-OBT ,P-VIVA,QZ | F&S | I | |
| CO1,CO2,CO 3,CO4 | Critically analyze Deepan dravyas with its gunas and application in various clinical conditions. | CAP | MK | KH | L&PP T,PB L,GB L | T-OBT,P- VIVA,QZ ,DEB | F&S | I | |
| CO1,CO2,CO 3,CO4 | Explain Pachan karma in relation with Digestives. | CC | MK | KH | L&PP T | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1,CO2,CO 3,CO4 | Critically analyze Pachan dravyas with gunas and discuss its application in various clinical conditions. | CAN | MK | KH | L&PP T,PB L,PE R | T-EMI,T- OBT,P-VIVA | F&S | I | |
| CO1,CO2,CO | Explain Samshodhan karma in relation with contemporary | CC | MK | KH | L_VC | T-OBT,P- | F&S | I | |

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| 4 | pharmacological action. | | | | ,PL | VIVA,QZ | | | |
| CO1,CO3,CO4 | Discuss Samshohan karma and its clinical application. | CC | MK | KH | PBL,RP,PER | T- EW,T-CS,T-OBT,P-VIVA | F&S | I | |
| CO1,CO2,CO3,CO4 | Explain Samshamana karma in relation with contemporary pharmacological action. | CC | MK | KH | L&GD,BL | T-EMI,T-OBT,P-VIVA | F&S | I | |
| CO1,CO2,CO3,CO4 | Describe Samshamana karma and its clinical application. | CC | MK | KH | L&PPT,CBL,PL | T-EMI,T-CS,P-VIVA,QZ | F&S | I | |
| CO1,CO2,CO3 | Explain Anuloman karma in relation with Carminative. | CC | MK | KH | L_VCDIS | T-EMI,T-OBT,P-VIVA,DEB | F&S | I | |
| CO1,CO3 | Describe Anuloman karma and its clinical application. | CC | MK | KH | L&PPT,PBL,LS | T-OBT,P-VIVA,QZ | F&S | I | |
| CO1,CO2,CO3,CO4 | Explain Sransana karma in relation with contemporary pharmacological action. | CC | MK | KH | L&PPT | T-EMI,T-OBT,P-VIVA,DEB | F&S | I | |
| CO1,CO3 | Discuss Sransan karma and its clinical application. | CC | MK | KH | L&PPT,PBL,LS | T-OBT,P-VIVA,QZ,DEB | F&S | I | |
| CO1,CO2,CO3,CO4 | Explain Bhedana karma in relation with strong laxative action | CC | MK | KH | L_VCF | T-EMI,T-OBT,P-VIVA,DEB | F&S | I | |
| CO1,CO3 | Discuss Bhedan karma and its clinical application. | CC | MK | KH | L&PPT,DIS | T-OBT,P-VIVA,QZ | F&S | I | |
| CO1,CO2,CO3,CO4 | Explain Rechan karma in relation with Purgative. | CC | MK | KH | L&PPT | T-EMI,T-OBT,P-VIVA | F&S | I | |

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| CO1,CO3 | Discuss Rechan karma and its clinical application. | CC | MK | KH | L&PP T,DIS | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1,CO3 | Discuss Chhedan karma and its clinical application. | CC | MK | KH | L&PP T,CB L,LS | T-EMI,T- OBT,P-VIVA | F&S | I | |
| CO1,CO2,CO 3,CO4 | Explain Lekhan karma in relation with contemporary pharmacological action. | CC | MK | KH | L&G D,BL | T-EMI,T- OBT,P-VIVA | F&S | I | |
| CO1,CO3 | Discuss Lekhan karma and its clinical application. | CC | MK | KH | L&PP T,DIS ,PL | T-OBT,P- VIVA,QZ ,DEB | F&S | I | |
| CO1,CO2,CO 3,CO4 | Explain Grahi karma in relation with contemporary pharmacological action bowel binding. | CC | MK | KH | L_VC | T-EMI,T- OBT,P-VIVA | F&S | I | |
| CO1,CO3 | Discuss of Grahi karma and its clinical application. | CC | MK | KH | L&G D,TB L | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1,CO2,CO 3,CO4 | Explain Stambhan karma in relation with contemporary pharmacological action. | CC | MK | KH | L&PP T,FC | T-EMI,T-OBT ,P-VIVA,DEB | F&S | I | |
| CO1,CO3 | Discuss Stambhan karma and its clinical application. | CC | MK | KH | L&G D,PB L | T-EMI,T-OBT ,P-VIVA,DEB | F&S | I | |
| CO1 | Discuss Madakari karma with examples. | CC | MK | KH | L,DIS | T-OBT,P- VIVA,QZ | F&S | I | |
| CO1,CO3 | Discuss Pramathi karma and its clinical application. | CC | MK | KH | L&PP T,DIS | T-EMI,T- OBT,P-VIVA | F&S | I | |
| CO1 | Discuss Abhishyandi karma with examples. | CK | MK | K | L,DIS | T-EMI,T-OBT | F&S | I | |

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|--|--|-----|----|----|-----------------------------|--|-------------|---|--|--|
| | | | | | | | ,P-VIVA,DEB | | | |
| CO1 | Discuss Vyavayi karma with examples. | CC | MK | KH | L,PE R | T-EMI,T-OBT ,P-VIVA,DEB | F&S | I | | |
| CO1 | Discuss Vikashi karma with examples. | CC | MK | KH | L,DIS | T-OBT,P- VIVA,QZ | F&S | I | | |
| CO1,CO2 | Explain Rasayan karma in relation with Rejuvenators. | CC | MK | KH | L&PP T,DIS ,BL | T-EMI,P- VIVA,QZ | F&S | I | | |
| CO1,CO3 | Analyze types of Rasayan dravyas with its gunas and discuss its clinical application with research updates. | CAN | MK | KH | L&G D | T-EMI,T-OBT ,P-VIVA,DEB ,CR-RED | F&S | I | | |
| CO1,CO2 | Explain Vajeekaran karma in relation with Aphrodisiacs. | CC | MK | KH | L&G D,PL | T-OBT,P- VIVA,QZ | F&S | I | | |
| CO1,CO2,CO 3 | Critically Analyze the types of Vajeekaran dravyas with their guna karmas and discuss its clinical application with research updates | CAN | MK | KH | L&PP T,PB L,ML, LS | T-OBT,P- VIVA,QZ ,DEB,CR- RED | F&S | I | | |
| CO1,CO2 | Explain Medhya karma in relation with contemporary pharmacological actions. | CC | MK | KH | L&PP T | T-EMI,T-OBT ,P-VIVA,DEB | F&S | I | | |
| CO1,CO2,CO 3 | Critically analyze Medhya dravya and discuss its clinical application with research updates. | CAN | MK | KH | L&PP T,PL, PER | T-OBT,P- VIVA,QZ ,WP,CR-RED | F&S | I | | |
| Topic 10 10. Karmas of Dashemani Gana (Lecture :12 hours, Non lecture: 3 hours) | | | | | | | | | | |
| CO1,CO8 | Discuss Charakokta Dashemani karmas with their rasa, guna, vipak, virya, dhosha karma, botanical identity & pharmaco- | CC | MK | KH | L&PP T,DIS | P-VIVA,P- REC,QZ ,M- | F&S | I | | |

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| | therapeutic action of individual drugs. | | | | ,FC,R EC | CHT,M-POS | | | |
| Topic 11 11. Principles of General Pharmacology (Lecture :15 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO4,CO9 | Define Pharmacology and discuss Principles of general Pharmacology. | CK | MK | K | L&PP T | PRN,QZ | F&S | I | |
| CO4,CO9 | Discuss drug definition, drug dosage forms and route of drug administration. | CC | MK | KH | L_VC | T- EW,P- VIVA,QZ | F&S | I | |
| CO4,CO9 | Explain pharmacokinetics (ADME) drug and pharmacodynamics. | CC | MK | KH | L_VC ,DIS | P-VIVA,PRN | F&S | I | |
| CO4,CO9 | Discuss Drug dose, Principles of drug action, Mechanism of drug action & Bioavailability | CC | MK | KH | L_VC ,PER | P-VIVA,QZ | F&S | I | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on CNS with examples of Anaesthetics, Sedative-Hypnotic, Antiepileptic, Antiparkinsonian, Antidepressants, Antianxiety and Opioid Analgesics Drugs | CC | MK | KH | L&PP T,PB L,PrB L,FC | T- EW,T-OBT ,P-VIVA,QZ ,C-INT | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Peripheral (somatic) Nervous System with examples of Skeletal Muscle Relaxants and Local Anaesthetics Drugs. | CC | MK | KH | L&PP T,PB L,FC | T- EW,T-OBT ,P-VIVA,QZ | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Autacoids and Related of Nonsteroidal Antiinflammatory (NSAIDs), Antipyretic and Analgesics Drug | CC | MK | KH | L&PP T,PB L,FC | T- EW,T-OBT ,P-VIVA,PRN | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Respiratory Disorders - | CC | MK | KH | L&PP T,PB | T-OBT,P- VIVA,PRN | F&S | III | |

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|-----|---|----|----|----|-----------------------------|----------------------------|-----|-----|--|
| | Bronchodilators, Aerosols/ Inhalants, Expectorants and Anti tussives Drugs | | | | L,BL | | | | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Cardiovascular Drugs as Antihypertensive and Antianginal Drugs | CC | MK | KH | L_VC ,FC | T-OBT,P- VIVA,PRN | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Kidney as Diuretics | CC | MK | KH | L&PP T,TP W,BL | T-OBT,P- VIVA,QZ | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting as Haematinics, Coagulants, Anticoagulants and Hypolipidaemic Drugs | CC | MK | KH | L&PP T,PB L,BL | T- EW,T- OBT,P-VIVA | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Gastrointestinal tract as Antacid, Carminatives, Digestants, Antiemetics, Laxatives, Antidiarrhoeal and Hepatoprotective Drugs | CC | MK | KH | L&PP T,L& GD,L _VC | T- EW,T-OBT ,P-VIVA,QZ | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting as Antibiotics and Antitubercular. | CC | MK | KH | L&PP T,FC, GBL | T- EW,P- VIVA,QZ | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting as Antifungal, Antiviral, Antimalarial and Anthelmintic Drugs | CC | MK | KH | L&PP T,PB L,GB L | T- EW,T-OBT ,P-VIVA,QZ | F&S | III | |
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on Hormones and Related Drugs as Thyroid Hormone, Thyroid Inhibitors, Insulins, Oral Antidiabetic, Hormonal Contraceptives, Uterine Stimulants and Uterine Relaxants Drugs. | CC | MK | KH | L&PP T,BL, PER | T- EW,T-OBT ,P-VIVA,PRN | F&S | III | |

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|--|---|----|----|----|-----------------------|-------------------------------------|-----|-----|--|
| CO9 | Define, Describe mode of action & Discuss types with examples of following drugs acting on as Antiseptics , Disinfectants, Vaccines, Vitamins, Water imbalance and IV | CC | MK | KH | L&PP T,BL, PER | T- EW,T- OBT,P-VIVA | F&S | III | |
| Topic 12 12. Mishraka Gana (Lecture :6 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO3 | Explain Brihatpanchamoola composition. | CC | MK | KH | L&PP T,ED U | T- EW,P-VIV A,P-POS,QZ ,M-CHT | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Brihatpanchamoola. | CC | MK | KH | L&PP T,DIS ,TBL | T- EW,P-VIV A,P-POS,QZ ,M-CHT | F&S | III | |
| CO1,CO3 | Explain Laghupanchamoola composition. | CC | MK | KH | L&G D | T- EW,P-VIV A,P-POS,QZ ,M-CHT | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Laghupanchamoola. | CC | MK | KH | L&PP T,DIS ,PL | T- EW,P-VIV A,P-POS,QZ | F&S | III | |
| CO1,CO3 | Explain Vallipanchamoola composition. | CC | MK | KH | L&PP T | T- EW,P-VIV A,P-POS,QZ ,M-CHT | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Vallipanchamoola. | CC | MK | KH | L&G D,PE R | T- EW,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Kantakapanchamoola composition. | CC | MK | KH | L&PP T,BS, | T- EW,P- VIVA,QZ | F&S | III | |

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| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Kantakapanchamoola. | CC | MK | KH | L&PP T,LS, PER | P-POS,QZ ,M- CHT | F&S | III | |
| CO1,CO3 | Explain Trinapanchamoola composition. | CC | MK | KH | L_V VC ,PER | P-VIVA,P- EXAM,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Trinapanchamoola. | CC | MK | KH | L&PP T,CB L,PL | T- EW,P- VIVA,M-CHT | F&S | III | |
| CO1,CO3 | Explain Panchavalkala composition. | CC | MK | KH | L&PP T,BL, GBL | P-VIVA,P- POS,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Panchavalkala. | CC | MK | KH | L&PP T,FC | T-CS,T-OBT, P-VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Triphala composition | CC | MK | KH | L,DIS | T- EW,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Triphala. | CC | MK | KH | L&PP T,PE R | T-OBT,P-VIV A,P- EXAM,QZ | F&S | III | |
| CO1,CO3 | Explain Trikatu composition. | CC | MK | KH | L&PP T,PL | T-EMI,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Trikatu | CC | MK | KH | L&PP T,PL | T-OBT,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Explain Trimada composition | CC | MK | KH | L,DIS | T- EW,P- VIVA,QZ | F&S | III | |

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|---------|---|----|----|----|-----------------------|-----------------------------------|-----|-----|--|
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Trimada. | CC | MK | KH | L&PP T,DIS ,TUT | T- EW,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Chaturusana composition. | CC | MK | KH | L&PP T | T-OBT,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Chaturusana. | CC | MK | KH | L&PP T,FC | P-VIVA,P- POS,QZ | F&S | III | |
| CO1,CO3 | Explain Panchakola composition. | CC | MK | KH | L&PP T,L_ VC | P-VIVA,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Panchakola. | CC | MK | KH | L&PP T,DIS | T- EW,T-CS,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Shadusana composition. | CC | MK | KH | L&PP T,PL | T-OBT,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Shadusana | CC | MK | KH | L&PP T,FC | T- EW,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Chaturbeeja composition. | CC | MK | KH | L&PP T,L_ VC | T-OBT,P-VIV A,P-EXAM | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Chaturbeeja | CC | MK | KH | L&PP T,PE R | T- EW,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Trijataka composition. | CC | MK | KH | L_ VC ,DIS, SDL | T-OBT,P-VIV A,P-EXAM,P- POS | F&S | III | |

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| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Trijataka | CC | MK | KH | L&PP T,PL | T- EW,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Explain Chaturajataka composition. | CC | MK | KH | L_VC ,PER | T-OBT,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Chaturajataka. | CC | MK | KH | L&PP T,DIS | T- EW,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Explain Panchatikta composition. | CC | MK | KH | L&PP T,FC | T-OBT,P-VIV A,P-REC,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Panchatikta. | CC | MK | KH | L&PP T,PL | T- EW,P- VIVA,P-POS | F&S | III | |
| CO1,CO3 | Explain Chaturbhadra composition. | CK | MK | K | L,DIS | T-OBT,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Chaturbhadra. | CC | MK | KH | L&PP T,FC | T-EMI,P- VIVA,QZ | F&S | III | |
| CO1,CO3 | Explain Trikarshika composition. | CC | MK | KH | L,DIS | T-OBT,P-VIV A,P-EXAM | F&S | III | |
| CO1,CO3 | Describe Guna karma and combined therapeutic effect of Trikarshika. | CC | MK | KH | L&PP T,DIS ,PL | T-OBT,P- VIVA,QZ | F&S | III | |
| Topic 13 13. Nomenclature of dravya as per Nighantu, Vedic taxonomy and Botany (Lecture :0 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Describe the Nomenclature of dravya as per Raj Nighantu. | CC | MK | KH | L&PP T,FC, RP | P-VIVA,PRN, P-ID,QZ | F&S | III | |
| CO1 | Explain the Nomenclature of dravya as per Vedic taxonomy. | CC | MK | KH | L&PP T | P-VIVA,P- ID,QZ | F&S | III | |

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| CO1 | Discuss the Nomenclature of dravya as per botany. | CC | MK | KH | L&PP T,BL, PER | P-VIVA,P- ID,QZ | F&S | III | |
| Topic 14 14. Prashasta Bhashaja, Bhashaja Pariksha and drug evaluation method with correlation as per Pharmacognosy (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO5 | Describe Prashasta Bhashaja. | CC | MK | KH | L&G D,PL | P-VIVA,QZ | F&S | III | |
| CO1,CO5 | Explain Bhashaja Pariksha of Charaka samhita vimana sthana. | CC | MK | KH | L&G D,SD L,LS | P-VIVA,QZ ,M-CHT | F&S | III | |
| CO1,CO5 | Discuss drug evaluation method in correlation with Pharmacognosy. | CC | MK | KH | L&PP T,DIS | P-VIVA,QZ | F&S | III | |
| Topic 15 15. Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection practices) (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Discuss Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection practices). | CC | DK | KH | L&PP T,PE R | P-VIVA,PUZ, CHK | F&S | III | |
| CO1,CO2 | Discuss Drug collection methods as per GFCP (Good Field collection practices). | CC | DK | KH | L&PP T,DIS ,PrBL | P-VIVA,PUZ, CHK | F&S | III | |
| Topic 16 16. GCP (Good cultivation practices), seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants. (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO2 | Discuss good cultivation practices, seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants. | CC | DK | KH | L&PP T,L_ VC,F C | P-VIVA,M- POS | F&S | III | |

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| Topic 17 17. Abhava Pratinidhi Dravya (substitutes) (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO7 | Discuss the concept of Abhava pratinidhi dravya (substitutes) as per Bhavaprakasha. | CC | MK | KH | L&G D,BS, EDU | P-VIVA,QZ | F&S | III | |
| Topic 18 18. Classifications and techniques of aqueous and alcoholic extracts (Lecture :0 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO6 | Appraise the techniques of aqueous and alcoholic extracts of medicinal plants. | CC | DK | KH | L_VC ,D | P- VIVA,DOPS | F&S | III | |
| Topic 19 19. Adverse drug reaction and Pharmacovigilance with recent updates (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO8 | Explain adverse drug reaction and pharmacovigilance in ayurveda with recent updates. | CC | MK | KH | L&PP T,L& GD,L S | P-VIVA,PRN, QZ ,M-CHT | F&S | III | V-RS |
| Topic 20 20. NMPB (National Medicinal Plant Board), CCRAS (Central Council of Research in Ayurveda Sciences), API (Ayurvedic Pharmacopeia of India), GCTM (Global Centre for Traditional Medicine), PCIMH (Pharmacopeia Commission of Indian Medicine and Homeopathy) (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO2 | State NMPB (National Medicinal Plant Board), CCRAS (Central Council of Research in Ayurveda Sciences), API (Ayurvedic Pharmacopeia of India), GCTM (Global Centre for Traditional Medicine) and PCIMH (Pharmacopeia Commission of Indian Medicine and Homeopathy). | CK | NK | K | SDL | P-VIVA,QZ ,INT | F&S | III | |
| Topic 21 21. Vrikshayurveda and Ethno-medicine (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2 | Explain concept of Vrikshayurveda and Ethno medicine. | CC | NK | KH | L&G D,ML ,PER | P-VIVA,CR- RED | F&S | III | |
| Topic 22 22. Network pharmacology and Bioinformatics (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |

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| CO2 | Describe Network Pharmacology and Bioinformatics. | CC | NK | KH | L&G D,SD L,LS | P-VIVA,CR- RED | F&S | III | |
|-----|---|----|----|----|---------------------|-------------------|-----|-----|--|

| Paper 2 Applied Dravyaguna | | | | | | | | | |
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| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 1. Bheshjavacharaniya (Criteria's to be considered for selection of drugs in vyadhis) (Lecture :1 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO5 | Interpret the selection of appropriate drugs in different vyadhis as per criteria's mentioned in Bheshjavacharaniya (as per As. Sa. Su 23) | CAP | MK | KH | L&PP T,CB L,PrB L,SD L | T- EW,P- VIVA,QZ | F&S | II | H-RN ,H- SW |
| Topic 2 2.1 Dravya (Drug) Nama-Guna-Karma Jnana (Lecture :45 hours, Non lecture: 10 hours) | | | | | | | | | |
| CO3 | Specify useful parts with its Rasapanchaka of following drugs. | CK | MK | K | L&G D,CB L,FC | T-OBT,P- VIVA | F&S | II | |
| CO4 | Describe karma,agryakarma and dosha karma of following drugs. | CC | MK | KH | L&PP | T-EMI,T-OBT | F&S | II | |

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| | | | | | T,DIS ,ML | ,P-VIVA,QZ | | | |
| CO5 | Explain Amayikaprayoga used in Vyadhi (Disease) pertaining to various Srotas and Vyadhiavastha (Stage). | CC | MK | KH | L&G D,BS, CBL | T-EMI,T- OBT,P-VIVA | F&S | II | |
| CO5 | Indicate the Kalpana (dosage form), Matra (Dose), Anupana (Vehicle), Marga(Route), Sevana kala (Time of administration), Kalavadhi (Duration) and Pathya-pathya) of following drugs. | CAP | MK | KH | L&PP T,DIS ,GBL | T-EMI,T-OBT ,P-VIVA,PRN | F&S | II | V-RS, H-SW |
| CO2 | Enlist active phyto-constituents & important formulations Discuss research updates of following drugs. | CK | MK | K | L&PP T,ML | T-OBT,P-VIV A,CR-RED | F&S | II | |
| CO8 | Enlist botanical name & family. Explain main synonyms as per Bruhatryees and Bhavaprakasha.Vernacular name (Hindi,English and local name) of following drugs. | CK | MK | KH | L&PP T,DIS | T-OBT,P- VIVA,QZ ,O- QZ | F&S | II | |
| CO8 | Demonstrate external morphology-habit, root, leaf, stem, flower, inflorescence, fruit, seed and officinal useful parts of following drugs. | CC | MK | KH | L_VC ,DIS, BS | T-OBT,P- VIVA,O-QZ | F&S | II | |
| CO7 | Describe varieties, grahyagrahyatwa Adulterants, substitute and toxic effects of following drugs wherever applicable | CC | MK | KH | L&G D | T- EW,T-OBT ,P-VIVA,QZ | F&S | II | H-AT |
| Topic 3 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana (Lecture :29 hours, Non lecture: 20 hours) | | | | | | | | | |
| CO3 | Specify useful parts with its Rasapanchaka of following drugs | CK | MK | K | L&PP T,DIS | T-EMI,T-OBT ,P-VIVA,QZ | F&S | III | |
| CO4 | Describe karma, agryakarma and dosha karma of following drugs. | CC | MK | KH | L&PP T,DIS ,BS | T-OBT,P- VIVA,QZ | F&S | III | |
| CO5 | Explain Amayikaprayoga used in Vyadhi (Disease) pertaining to | CC | MK | KH | L&PP | T-OBT,P- | F&S | III | |

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|-----|---|-----|----|----|-----------------------|----------------------------|-----|-----|---------------|
| | various Srotas and vyadhiavastha (Stage). | | | | T,DIS ,CBL | VIVA,QZ | | | |
| CO5 | Indicate the Kalpana(dosage form), Matra (Dose), Anupana (Vehicle), Marga (Route), Sevana kala (Time of administration), Kalavadhi (Duration) and Pathya-pathya) of following drugs. | CAP | MK | KH | L&PP T,DIS ,ML | T-EMI,P- VIVA | F&S | III | V-RS, H-SW |
| CO2 | Enlist active phyto-constituents & important formulations. Discuss research updates of following drugs. | CK | MK | K | L&G D,BS | T-EMI,T-OBT ,P-VIVA,QZ | F&S | III | |
| CO8 | Enlist botanical name & family. Explain main Synonyms as per Bruhatryees and Bhavaprakasha. Vernacular name (Hindi, English and local name) of following drugs. | CK | MK | K | L&G D,FC, ML | T-OBT,P- VIVA,QZ | F&S | III | |
| CO8 | Demonstrate external morphology-habit, root, leaf, stem, flower, inflorescence, fruit, seed and officinal useful parts of following drugs. | CC | MK | KH | L_VC ,ML | T-OBT,P- VIVA,QZ | F&S | III | |
| CO7 | Describe varieties, grhyahrahyatwa, adulterants, substitute and toxic effects of following drugs wherever applicable. | CC | MK | KH | L&PP T,DIS ,EDU | T-EMI,T-OBT ,P-VIVA,PUZ | F&S | III | H-AT |

List of Practicals(Term and Hours)

| PRACTICALS (Marks-100) | | | |
|-------------------------------|---|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | 1. Assessment and Understanding the relation between Parthivatwa & subjective/ objective parametric tests | 1 | 10 |
| 2 | 2. Assessment of objective parametric measures of Guna | 1 | 12 |
| 3 | 3. Assessment of Rasa | 1 | 6 |
| 4 | 4.Comparative organoleptic and macroscopic examination | 1 | 23 |
| 5 | 5. Microscopic Identification of genuine and adulterated drug | 1 | 4 |
| 6 | 6. Demonstration of skills to identify the medicinal plants in the college garden. | 1 | 10 |
| 7 | 7. Out campus visit (Cultivated gardens, Tissue culture lab, Herbaria, Pharmacognosy lab, Quality control lab and Forest plant demonstration) | 1 | 10 |
| 8 | 8. Dravya prayoga | 1 | 12 |
| 9 | 9. Physico-chemical study | 2 | 8 |
| 10 | 10. Phytochemical | 2 | 4 |
| 11 | 11. Thin Layer Chromatography (TLC) technique | 2 | 2 |
| 12 | 12. Demonstration of skills to identify the medicinal plants in the college garden | 2 | 10 |
| 13 | 13. Out campus visit (cultivated gardens & In-situ plant demonstration) | 2 | 10 |
| 14 | 14. Ekala dravya prayoga | 2 | 10 |
| 15 | 15. Different Cultivation technique including methods mentioned in Vrikshayurveda | 2 | 6 |
| 16 | 16. Exercise on Network pharmacology | 3 | 6 |
| 17 | 17. Preparations of digital herbarium | 3 | 2 |
| 18 | 18. Demonstration of skills to identify the medicinal plants in the college garden | 3 | 10 |
| 19 | 19. Out campus visit (cultivated gardens & In-situ plant demonstration) | 3 | 10 |
| 20 | 20. Ekala dravya prayoga | 3 | 10 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Show s how/ Know s how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| Topic 1 1. Assessment and Understanding the relation between Parthivatwa & subjective/ objective parametric tests | | | | | | | | | |
| CO1,CO6 | Observe the objective parametric measures to understand the relation between Parthivatwa by Density (bulk) of Asthishrnkhala, Sariva, Vidari, Maricha, Shatavari, Jambu, Godhuma & Ushira. | PSY-GUD | MK | KH | PT | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the objective parametric measures to understand the relation between Jaliyatwa by Viscosity, Moisture content of Kumari, Vidari, Sariva, Shunthi, Ikshu, Usheera, Kamala & Apamarga. | PSY-GUD | MK | KH | PT | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the objective parametric measures to understand the relation between Aagneyatwa by Moisture content of Shunthi, Shatavari, Maricha, Dhataki, Chitraka, Gokshura, Hingu & Chandana. | PSY-GUD | MK | KH | PT | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the objective parametric measures to understand the relation between Vayaviyatwa by Fat content & Bulk density of Usheera, Ashwagandha, Nimba, Vidari, Khadira, Tila, Jambu & Kapikacchu. | PSY-GUD | MK | KH | PT,D_ L | P-VIVA | F&S | I | |

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|---------|---|---------|----|----|------------|--------------|-----|---|--|
| CO1,CO6 | Observe the objective parametric measures to understand the relation between Aakashiyatwa by Bulk density of Usheera, Kumari, Apamarga, Jeeraka & Jatamansi. | PSY-GUD | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Participate in the methods of specific gravity (Solid) and bulk density of Asthishrukhalala, Sariva, Vidari, Maricha, Shatavari, Jambu, Godhum & Ushir by objective parameters measures to understand the relation between Parthivatwa. | AFT-RES | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Follow the methods of Viscosity, Moisture content & Specific gravity (Liquid) of Kumari, Vidari, Sariva, Shunthi, Ikshu, Usheera, Kamala & Apamarga by objective parameters measures to understand the relation between Jaliyatwa. | AFT-REC | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Describe the methods of pH and Moisture content of Shunthi, Shatavari, Maricha, Dhataki, Chitraka, Gokshura, Hingu & Chandan by objective parameters measures to understand the relation between Agneeyatwa. | AFT-REC | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Answer to the methods of Fat content , Specific gravity (liquid) & Bulk density of Usheera, Ashwagandha, Nimba, Vidari, Tila, Jambu & Kapikachhu by objective parameters measures to understand the relation between Vayaviyatwa. | AFT-RES | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Follow the methods of Bulk density of Ushira, Kumari, Apamarga, Jeeraka & Jatamansi by objective parameters measures to understand the relation between Akashiyatwa | AFT-REC | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO1,CO6 | Perform the objective parametric measures to understand the relation between Parthivatwa by Specific gravity (solid) of Asthishrnkhala, Sariva, Vidari, Maricha, Shatavari, Jambu, Godhuma & Ushira. | PSY-ADT | MK | SH | PRA | P-EXAM,P-PRF | F&S | I | |

| | | | | | | | | | |
|---|--|---------|----|----|---------|--------------|-----|---|--|
| CO1,CO6 | Perform the objective parametric measures to understand the relation between Jaliyatwa Specific gravity (Liquid) of Kumari, Vidari, Sariva, Shunthi, Ikshu, Usheera, Kamala & Apamarga. | PSY-ADT | MK | SH | PT | P-EXAM,P-PRF | F&S | I | |
| CO1,CO6 | Perform the objective parametric measures to understand the relation between Aagneyatwa by pH of Shunthi, Shatavari, Maricha, Dhataki, Chitraka, Gokshura, Hingu & Chandana. | PSY-ADT | MK | SH | PT | P-EXAM,P-PRF | F&S | I | |
| CO1,CO6 | Perform the objective parametric measures to understand the relation between Vayaviyatwa by Specific gravity (Liquid) of Usheera, Ashwagandha, Nimba, Vidari, Khadira, Tila, Jambu & Kapikacchu. | PSY-ADT | MK | SH | PT | P-EXAM,P-PRF | F&S | I | |
| Topic 2 2. Assessment of objective parametric measures of Guna | | | | | | | | | |
| CO1,CO6 | Observe the assessment of objective parametric measures of Shatavari and Bala for its guru guna by Density (bulk). | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the Specific gravity (Liquid and solid) of Shatavari and Bala for its guru guna. | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the assessment of objective parametric measures of Yava and Dhanyaka for its Laghu guna by Density (bulk) | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | I | |
| CO1,CO6 | Demonstrate the Specific gravity (Liquid and solid) Yava and Dhanyaka for its Laghu guna. | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the assessment of objective parametric measures of Snigdha guna drugs by total fat content, moisture content of Tila and Eranda | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | I | |
| CO1,CO6 | Demonstrate Swelling index of Snigdha guna drugs of Tila, and Eranda. | PSY-GUD | MK | KH | D_L,PRA | P-VIVA | F&S | I | |
| CO1,CO6 | Observe the assessment of objective parametric measures of | PSY- | MK | KH | PT,D_ | P-VIVA | F&S | I | |

| | | | | | | | | | |
|---|---|---------|----|----|---------------------|------------------|-----|---|--|
| | Ruksha guna drugs by total fat content and moisture content of Kulattha & Vidanga | GUD | | | L | | | | |
| CO1,CO6 | Demonstrate Swelling index of Ruksha guna drugs of Kulattha & Vidanga | PSY-GUD | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| Topic 3 3. Assessment of Rasa | | | | | | | | | |
| CO2,CO6 | Perform the assessment of Rasa based on classical symptoms for each rasa dravyas. | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF,INT | F&S | I | |
| Topic 4 4.Comparative organoleptic and macroscopic examination | | | | | | | | | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of root of Ashwagandha, Chitraka, Manjistha, Musta, Shatavari, Vatsanabha and Yashtimadhu. | PSY-ADT | MK | SH | L_VC ,PT,D _L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Rhizome/Stolon of Haridra, Katuki, Shunthi and Vacha. | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Stem of Asthishrinkhala and Guduchi. | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Bark of Arjuna, Ashoka, Kutaja, Nimba and Twak. | PSY-ADT | MK | SH | BS,PT ,D_L | P-EXAM,P-PRF | F&S | I | |

| | | | | | | | | | |
|-----|--|---------|----|----|------------|--------------|-----|---|--|
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Heart wood of Beejaka, Chandana and Khadira | PSY-ADT | MK | SH | BS,PT, D_L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Leaf of Kumari, Meshashringi and Vasa. | PSY-ADT | MK | SH | BS,PT, D_L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Flower of Dhataki, Kunkum (kesara) and Lavanga. | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Fruit of Amalaki, Aragavadha, Bhallataka, Bibhitaki, Gokshura, Haritaki, Madanphala, Maricha, Pippali and Vidanga. | PSY-ADT | MK | SH | D_L,P RA | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Phalaraja of Kampillaka. | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Seed of Bakuchi,Ela, Eranda, Jyotishmati | PSY-ADT | MK | SH | PT,D_ L | P-EXAM,P-PRF | F&S | I | |

| | | | | | | | | | |
|---|---|---------|----|----|-------------------|--------------------|-----|---|--|
| | and Kapikacchu. | | | | | | | | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Unorganized drugs of Guggulu, Hingu and Mocharasa. | PSY-ADT | MK | SH | PT,D_L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Whole plant of Apamarga, Bhrungaraja, Bhumyamalaki, Brahmi, Kalmeghaand and Mandukaparni. | PSY-ADT | MK | SH | PT,D_L | P-EXAM,P-PRF | F&S | I | |
| CO6 | Perform the comparative organoleptic characters (Taste, Colour, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks etc) of Galls of Karkatshrungi. | PSY-ADT | MK | SH | PT,D_L | P-EXAM,P-PRF | F&S | I | |
| Topic 5 5. Microscopic Identification of genuine and adulterated drug | | | | | | | | | |
| CO6 | Perform the comparative microscopic examination of genuine and adulterated any two samples of Root / stem / leaf /bark / fruits (E.g. like Sariva / Manjishta / Vidanga / Maricha / Ashoka). | PSY-ADT | MK | SH | TUT,PT,D_L | P-EXAM,P-PRF | F&S | I | |
| Topic 6 6. Demonstration of skills to identify the medicinal plants in the college garden. | | | | | | | | | |
| CO8 | Demonstrate identification features of college garden medicinal plants for their morphology, taxonomical keys, regional flora with therapeutic uses. | PSY-GUD | MK | KH | L_VC,ML,SDL,DG,FV | P-VIVA,P-EXAM,P-ID | F&S | I | |
| CO8 | Participate actively in Identification of Medicinal plants. | AFT-RES | MK | SH | DG | P-VIVA,P-EXAM | F&S | I | |

| Topic 7 7. Out campus visit (Cultivated gardens, Tissue culture lab, Herbaria, Pharmacognosy lab, Quality control lab and Forest plant demonstration) | | | | | | | | | |
|--|---|---------|----|----|-----------------------------|-------------------|-----|----|------|
| CO8 | Visit to observe the identification features of medicinal plants which are from cultivated or natural habitat / forest plant. | PSY-GUD | MK | KH | ML,S DL,D G | P-VIVA,P- EXAM | F&S | I | |
| CO8 | Visit to observe the Tissue culture techniques of medicinal plants in local / nearby Tissue culture lab. | PSY-GUD | MK | KH | PT,D_ L | P-VIVA | F&S | I | |
| CO8 | Visit to observe the herbaria of medicinal plants in nearby institute. | PSY-GUD | MK | KH | PT,D | P-VIVA | F&S | I | |
| CO6 | Visit to observe the nearby AYUSH approved Quality control lab for quality control techniques. | PSY-GUD | MK | KH | L_VC ,PT,D _L | P-VIVA | F&S | I | |
| Topic 8 8. Dravya prayoga | | | | | | | | | |
| CO5 | Observe the selection of Ekala Dravya (single drug) in various clinical conditions | PSY-GUD | MK | KH | DIS,C BL,S DL,T UT | P-VIVA,QZ | F&S | I | |
| CO5 | Perform the selection of Ekala dravya prayoga in various clinical conditions by masked case sheets. | PSY-ADT | MK | SH | CBL, ECE | P-VIVA,P- EXAM | F&S | I | H-RN |
| Topic 9 9. Physico-chemical study | | | | | | | | | |
| CO6 | Perform the foreign matter study of minimum 2 useful parts of medicinal plants. | PSY-ADT | MK | SH | PT,D_ L | P-VIVA | F&S | II | |
| CO6 | Observe the Loss on drying (LoD) study of minimum 2 useful parts of medicinal plants. | PSY-GUD | MK | KH | TUT, PT,D_ L | P-VIVA | F&S | II | |

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|--|--|---------|----|----|-------------------|---------------------|-----|----|------|
| CO6 | Observe the Ash value and Extractive value of minimum 2 useful parts of medicinal plants. | PSY-GUD | MK | KH | PT,D_L | P-VIVA | F&S | II | |
| Topic 10 10. Phytochemical | | | | | | | | | |
| CO6 | Perform Preliminary phytochemical study of minimum 2 medicinal plant extracts. | PSY-ADT | MK | SH | PT,D_L | P-VIVA,P-EXAM,P-PRF | F&S | II | |
| Topic 11 11. Thin Layer Chromatography (TLC) technique | | | | | | | | | |
| CO6 | Observe the TLC (Thin layer chromatography) technique of one medicinal plant extract. | PSY-GUD | MK | KH | TUT,PT,D_L | P-VIVA,INT | F&S | II | |
| Topic 12 12. Demonstration of skills to identify the medicinal plants in the college garden | | | | | | | | | |
| CO8 | Demonstrate identification features of college garden medicinal plants for their morphology, taxonomical keys, regional flora with therapeutic uses. | PSY-GUD | MK | KH | L_VC,DG | P-VIVA,P-EXAM,P-PRF | F&S | II | |
| CO8 | Participate actively in Identification of Medicinal plants. | AFT-RES | MK | SH | DG | P-VIVA | F&S | II | |
| Topic 13 13. Out campus visit (cultivated gardens & In-situ plant demonstration) | | | | | | | | | |
| CO8 | Visit to observe the identification features of medicinal plants which are from cultivated or natural habitat / forest plant. | PSY-GUD | MK | KH | DG | P-VIVA | F&S | II | |
| Topic 14 14. Ekala dravya prayoga | | | | | | | | | |
| CO5 | Perform the selection of Ekala dravya prayoga in various clinical conditions by masked case sheets. | PSY-ADT | MK | SH | DIS,CBL,ECE,D_BED | P-VIVA,P-EXAM | F&S | II | H-RN |
| CO5 | Appraise the value of selection of Ekala Dravya Prayog in | AFT- | MK | SH | PBL, | P-VIVA,P- | F&S | II | H-RN |

| | | | | | | | | | |
|--|--|---------|----|----|----------------------|------------|-----|-----|--|
| | various clinical conditions by providing masked case sheets. | VAL | | | CBL, CD | EXAM | | | |
| Topic 15 15. Different Cultivation technique including methods mentioned in Vrikshayurveda | | | | | | | | | |
| CO8 | Demonstrate different cultivation technique of medicinal plants in garden. | PSY-GUD | MK | KH | L_VC ,DG | P-VIVA,INT | F&S | II | |
| CO8 | Demonstrate different cultivation methods mentioned in Vrikshayurveda in garden. | PSY-GUD | MK | KH | DG | P-VIVA | F&S | II | |
| Topic 16 16. Exercise on Network pharmacology | | | | | | | | | |
| CO2 | Conduct the Identification (Data mining) active constituents by Pubmed, IMPPAT or PubChem in digital library. | PSY-SET | MK | KH | DIS,D | P-VIVA,PA | F&S | III | |
| CO2 | Conduct Target identification by Binding DB. | PSY-SET | MK | KH | D | P-VIVA | F&S | III | |
| CO2 | Conduct Identification of disease gene by DisGeNET. | PSY-SET | MK | KH | TUT, D | P-VIVA | F&S | III | |
| CO2 | Conduct GO (Gene ontology) enhancement analysis by KEGG Pathway, R ratio. | PSY-SET | MK | KH | D | P-VIVA | F&S | III | |
| CO2 | Conduct Network construction by STRING, PPI network, cytoscope. | PSY-SET | MK | KH | D | P-VIVA | F&S | III | |
| Topic 17 17. Preparations of digital herbarium | | | | | | | | | |
| CO8 | Prepare digital herbarium of minimum 10 medicinal plants during field visit with all parts of the plant with geo-tag photos. | PSY-ADT | MK | SH | L_VC ,W,T UT,D | P-SUR,RK | F&S | III | |
| Topic 18 18. Demonstration of skills to identify the medicinal plants in the college garden | | | | | | | | | |
| CO8 | Demonstrate identification features of college garden medicinal | PSY- | MK | KH | L_VC | P-VIVA,P- | F&S | III | |

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|---|---|---------|----|----|-----------------------|------------------|-----|-----|------|
| | plants for their morphology, taxonomical keys, regional flora with therapeutic uses. | GUD | | | ,DG | EXAM | | | |
| CO8 | Participate actively in Identification of Medicinal plants. | AFT-RES | MK | SH | DG | P-VIVA,P-EXAM | F&S | III | |
| Topic 19 19. Out campus visit (cultivated gardens & In-situ plant demonstration) | | | | | | | | | |
| CO8 | Visit to observe the identification features of medicinal plants which are from cultivated or natural habitat / forest plant. | PSY-GUD | MK | KH | DG | P-VIVA | F&S | III | |
| Topic 20 20. Ekala dravya prayoga | | | | | | | | | |
| CO5 | Perform the selection of Ekala dravya prayoga in various clinical conditions by masked case sheets. | PSY-ADT | MK | SH | CBL, ECE, D_BE D,PR A | P-VIVA,P-EXAM,RK | F&S | III | H-RN |
| CO5 | Appraise the value of selection of Ekala Dravya Prayoga in various clinical conditions by providing masked case sheets. | AFT-VAL | MK | SH | PBL, CBL, CD | P-VIVA,P-EXAM | F&S | III | H-RN |

Table 4a: List of Practical

| S.No | Name of practical | Term | Activity | Practical hrs |
|------|---|------|--|---------------|
| 1 | 1. Assessment and Understanding the relation between Parthivatwa & subjective/ objective parametric tests | 1 | <ul style="list-style-type: none"> • 1.1 Assessment and Understanding the relation between Parthivatwa & subjective/ objective parametric tests • Density (bulk) • Specific gravity (solid) • Drugs to study for e.g.- Asthishrnkhala, Sariva, Vidari, Maricha, Shatavari, Jambu, Godhuma & Ushira • 1.2 Assessment and Understanding the relation between Jaliyatwa & subjective/ objective parametric tests • Viscosity • Specific gravity • Moisture content • Drugs to study for e.g.- Kumari, Vidari, Sariva, Shunthi, Ikshu, Usheera, Kamala & Apamarga • 1.3 Assessment and Understanding the relation between Aagneyatwa & subjective/ objective parametric tests • pH • Moisture content • Drugs to study for e.g.: Shunthi, Shatavari, Maricha, Dhataki, Chitraka, Gokhura, Hingu & Chandana • 1.4 Assessment and Understanding the relation between Vayaviytwa & subjective/ objective parametric tests • Fat content • Specific gravity • Density (bulk) • Drugs to study for e.g. : Usheera, Ashwagandha, Nimba, Vidari, Khadira, Tila, Jambu & Kapikacchu • 1.5 Assessment and | 10 |

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|---|---|---|--|----|
| | | | <p>Understanding the relation between Aakashiyatwa & subjective/ objective parametric tests</p> <ul style="list-style-type: none"> • Density (Bulk) • Drugs to study for e.g.: Usheera, Kumari, Apamarga, Jeeraka & Jatamansi | |
| 2 | 2. Assessment of objective parametric measures of Guna | 1 | <ul style="list-style-type: none"> • 2.1 Assessment of objective parametric measures Guru & Laghu Guna • Density (bulk) • Specific gravity (Liquid and solid) • Drugs to study for e.g. : Guru: Shatavari, Bala ; Laghu: Yava, Dhanyaka • 2.2 Assessment of objective parametric measures of Snigdha and Ruksha guna drugs • Total fat content • Moisture content • Swelling index • Drugs to study for e.g. : Snigdha: Tila, Eranda ; Ruksha: Kullatha, Vidanga | 12 |
| 3 | 3. Assessment of Rasa | 1 | <p>Assessment of Rasa based on classical symptoms for each rasa dravyas. One Example For each rasa</p> | 6 |
| 4 | 4. Comparative organoleptic and macroscopic examination | 1 | <ul style="list-style-type: none"> • Comparative organoleptic (Taste, Color, Smell, Sound, Touch) and macroscopic examination (Size, Shape, Fracture, External markings like lenticels, ridges, nodes, furrows, cracks, etc)of the following group of drugs. • a. Root: Aswagandha, Chitraka, | 23 |

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|---|---|---|--|----|
| | | | <p>Manjistha, Musta, Shatavari, Vatsanabha, Yashtimadhu.</p> <ul style="list-style-type: none"> • b. Rhizome/Stolon: Haridra, Katuki, Shunthi, Vacha. • c. Stem: Asthishrinkhala, Guduchi. • d. Bark: Arjuna, Ashoka, Kutaja, Nimba, Twak. • e. Heart wood: Beejaka, Chandana, Khadira. • f. Leaf: Kumari, Meshashringi, Vasa. • g. Flower: Dhataki, Kunkum (kesara), Lavanga. • h. Fruit: Amalaki, Aragavadha, Bhallataka, Bibhitaki, Gokshura, Haritaki, Madanphala, Maricha, Pippali, Vidanga. • i. Phalaraja: Kampillaka • j. Seed: Bakuchi, Ela, Eranda, Jyotishmati, Kapikacchu • k. Unorganized drugs: Guggulu, Hingu, Mocharasa • l. Whole plant: Apamarga, Bhrungaraja, Bhumyamalaki, Brahmi, Kalmegha, Mandukaparni. • m. Galls: Karkatshrungi | |
| 5 | 5. Microscopic Identification of genuine and adulterated drug | 1 | <ul style="list-style-type: none"> • Microscopic identification of genuine and adulterated drug, minimum 2 samples from Root/stem/leaf /bark/fruits. • (E.g. Sariva/Manjishta/Vidanga/Maricha/Ashoka) | 4 |
| 6 | 6. Demonstration of skills to identify the medicinal plants in the college garden. | 1 | | 10 |
| 7 | 7. Out campus visit (Cultivated gardens, Tissue culture lab, Herbaria, Pharmacognosy) | 1 | <ul style="list-style-type: none"> • General instructions regarding combined educational visit | 10 |

lab, Quality control lab and Forest plant demonstration)

- Combined educational visit can be planned wherever feasible as, for **Dravyaguna**- Cultivated gardens, Tissue culture lab, Herbaria, Pharmacognosy lab, Forest plant demonstration ; for **Agadatantra**- forensic lab, snake park, pollution control board and snake venom unit; for **Swasthvrutta** -Yoga and naturopathy center , Milk dairy plant, Water Purification plant, Sewage treatment plant, Leprosy rehabilitation Centre & for **Rasashastra**- GMP certified Lab , Drug Analysis Lab
- **SOP for Out campus Field Visits**
- **Theme-Based Visits:** Plan visits based on specific educational themes (Deshemani Ganas, Family wise), selecting locations relevant to the theme and collaborating with local experts.
- **Dress Code:** Participants must wear jean paints and T shirts, closed-toe shoes, a hat or cap for sun protection, and weather-appropriate gear such as jackets or raincoats.
- **Essential Materials:** Each participant should carry a water bottle, a stick (optional), materials for sample storage (newspaper, blotting paper, secateurs, plastic bags), a cap, goggles, and a packed lunch or snacks in a suitable container.
- **Safety Precautions:** Conduct a safety briefing before the visit, outlining emergency procedures, collecting medical information, and emphasizing expected behaviors' during the trip.
- **Itinerary:** Develop a detailed itinerary with activities and a timeline, considering the chosen theme and objectives of the visit.
- **Public Address System (PA System):** If necessary, provide a portable PA system with a

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| | | | <p>microphone, amplifier, and power source for effective communication with larger groups.</p> <ul style="list-style-type: none"> • Test the PA System: Prior to the visit, ensure the PA system is in working order and audible, conducting necessary tests to guarantee functionality. • Responsible Usage: Use the PA system judiciously, speaking clearly and at an appropriate volume, while encouraging participants to utilize the system for questions or clarifications. • Follow-up Activities: Organize post-visit discussions and assignments to reinforce learning, encourage knowledge sharing, and facilitate deeper exploration of the theme. • Review and Revise: Regularly update and adapt this SOP to comply with safety standards, educational objectives, and local regulations. | |
| 8 | 8. Dravya prayoga | 1 | <ul style="list-style-type: none"> • 8.1 (Part I) Demonstration of selecting appropriate Ekala dravya as per clinical conditions. • 8.2 (Part II) Selection of Ekala dravya prayoga in various clinical conditions by providing masked case sheets per srotasa (5 cases in each term) | 12 |
| 9 | 9. Physico-chemical study | 2 | <ul style="list-style-type: none"> • Physicochemical study of medicinal plant. (minimum 2 drugs) • a. Foreign matter • b. Loss on drying • c. Ash value • d. Extracts | 8 |

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|-----------|--|---|--|----|
| | | | <ul style="list-style-type: none"> • Note: The same plant should be used for all the tests | |
| 10 | 10. Phytochemical | 2 | <ul style="list-style-type: none"> • Preliminary phytochemical study of medicinal plant. (minimum 2 drugs) | 4 |
| 11 | 11. Thin Layer Chromatography (TLC) technique | 2 | <ul style="list-style-type: none"> • TLC technique of medicinal plant (any one) | 2 |
| 12 | 12. Demonstration of skills to identify the medicinal plants in the college garden | 2 | | 10 |
| 13 | 13. Out campus visit (cultivated gardens & In-situ plant demonstration) | 2 | | 10 |
| 14 | 14. Ekala dravya prayoga | 2 | <ul style="list-style-type: none"> • Selection of Ekala dravya prayoga in various clinical conditions by providing masked case sheets. (5 cases in each term) | 10 |
| 15 | 15. Different Cultivation technique including methods mentioned in Vrikshayurveda | 2 | | 6 |
| 16 | 16. Exercise on Network pharmacology | 3 | <ul style="list-style-type: none"> • Exercise on Network Pharmacology • 1st activity: Identification (Data mining) active constituents by Pubmed, IMPPAT or PubChem. • 2nd activity: Target identification by BindingDB. | 6 |

| | | | | |
|-----------------|--|---|--|------------|
| | | | <ul style="list-style-type: none"> • 3rd activity: Identification of disease gene by DisGeNET. • 4th activity: GO enhancement analysis by KEGG Pathway, R ratio. • 5th step: Network construction by STRING, PPI network, sytoscope. | |
| 17 | 17. Preparations of digital herbarium | 3 | <ul style="list-style-type: none"> • Preparations of digital herbarium of minimum 10 drugs with all parts of the plant (with geo-tag photos) by compulsory field visit | 2 |
| 18 | 18. Demonstration of skills to identify the medicinal plants in the college garden | 3 | | 10 |
| 19 | 19. Out campus visit (cultivated gardens & In-situ plant demonstration) | 3 | | 10 |
| 20 | 20. Ekala dravya prayoga | 3 | Selection of Ekala dravya prayoga in various clinical conditions by providing masked case sheets.(5 cases in each term) | 10 |
| Total Hr | | | | 175 |

Activity

| CO | Topic name | Activity Details | Hours# |
|---------|---------------------|--|--------|
| CO1,CO3 | Dravyaguna Vigyana. | <ul style="list-style-type: none"> • Group activity – Assignments are to be given to the students to prepare 2-3 flash cards on importance of Dravyaguna Vigyana in clinical practice. | 1 |

| | | | |
|-------------|--|---|---|
| CO1,CO5,CO8 | Dravya | <ul style="list-style-type: none"> • Segregation of dry drugs based on Panchabhoutika characteristics. Various Dravyas are given to the students for segregation of dravyas according to Panchabhoutik constitution • Classify live plants based on Panchabhoutika characteristics in garden. (Details mentioned in Rasavaisheshik Sutra 2 chapter 101-111) • Quiz – based on classifications of dravyas • Brain storming - Activity should be assigned to the students to search in samhitas related to classification of dravyas as Prayogabheda, Doshagnabheda and Karmbheda. Prepare the list of specific assigned classification for group of students. | 4 |
| CO1,CO2,CO3 | Guna Panchabhoutikatva, characteristics and classification. | <ul style="list-style-type: none"> • Matching of Gurvadi guna with its karma • Animated Power point Presentation on Guna. • Brain storming - To search in Chikitsasthana of samhitas regarding clinical application of Gurvadi guna and Paradi guna | 2 |
| CO1,CO2,CO3 | Rasa | <ul style="list-style-type: none"> • Game based activity by closing the eyes they should ask to identify the taste • Activity based learning enlisting the dravyas of specific taste • Matching activity -Matching of specific Rasas with their Guna & Karma • Making of Flash cards- Cards with information regarding different concepts of Rasas | 4 |

| | | | |
|---------------------|--|--|---|
| CO1,CO2,CO3 | Vipak | <ul style="list-style-type: none"> • Flash cards - Preparing flash cards containing pictures of dravya to identify dravya and its vipaka • Preparing charts of 20 dravyas with ayathartha vipaka and yatharth vipaka | 1 |
| CO1,CO2,CO3 | Virya | <ul style="list-style-type: none"> • Talk and chalk activity by students on Dwividha virya and ashtavidha virya. • Making charts of dravyas from Bhavaprakash nighantu regarding Dwividha virya- 25 Sheeta Virya dravyas & 25 Ushna Virya Dravyas. | 2 |
| CO1,CO2,CO3 | Prabhav | <ul style="list-style-type: none"> • Puzzle – Segregating the dravyas based on Samanpratyayarabdha, Vichtrapratyayarabdha and Prabhava. | 1 |
| CO1 | Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength - Pharmacodynamics | <ul style="list-style-type: none"> • Making flow charts regarding the rules explained in relation with concepts of dravyaguna • Group Discussion - Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength - Pharmacodynamics | 2 |
| CO1,CO2,CO3,CO4,CO5 | karma | <ul style="list-style-type: none"> • Case base learning-Taking different clinical conditions & selecting appropriate karma • Think, Pair and share based activity- Sepecific problem has to be given, | 5 |

| | | | |
|---------|------------------------------------|---|---|
| | | <p>student should be allowed to think and discuss about appropriate karmas</p> <ul style="list-style-type: none"> • Gamification-Pairing Karma with the drugs. • Role play for identification of specific karma- Asking one student to enact & others to find out Karma • Presentation- On concept of Karma, types of karma & Individual Karma. • Enlisting specific karma-In relation to dravyas from Bruhatrayee & Sharangdhara samhita | |
| CO1,CO8 | Karmas of Dashemani | <ul style="list-style-type: none"> • Cramming –Memorizing the dravyas from specific ganas • Fish bowl activity written chits of drugs picked by students and should say the name of the Gana • Shloka recitation- Shlokas of Dashemani Gana (Ch. Su. 4) • Symposia- Short discussion on various clinical applications of Dashemani Gana | 3 |
| CO4,CO9 | Principles of General Pharmacology | <ul style="list-style-type: none"> • Video: Showing relevant videos regarding principles of pharmacology and mode of action • Mobile based learning –Searching about pharmacology in enlisted websites | 1 |
| CO1,CO3 | Mishrak Gana | <ul style="list-style-type: none"> • GBL-Identification of mishrak gana by using clues of utility of specific mishrak gana from samhita and chikitsa grantha • Matching of dravyas with specific mishraka Gana • Role play –enacting individual and combined actions of composition for e.g. Triphala - Individulaly they should enact | 2 |

| | | | |
|---------|---|--|---|
| | | <p>as Haritaki, Bibhitaki and Aamalaki explaining their karmas, then they should come together depicting Triphala.</p> <ul style="list-style-type: none"> • Self-directed learning- Mobile based learning on Mishraka Gana | |
| CO1 | Nomenclature of dravya as per Nighantu, Vedic taxonomy and botany | <ul style="list-style-type: none"> • Bulletin boards : Highlighting significant points of nomenclature • Demo in garden : Demonstration of the dravyas on the basis of various criteria's of nomenclature • Symposium by making groups of specific criteria for nomenclature and asked to present synonyms based on that particular criteria allotted to the group e.g. Upama , Rudhi, Prabhav, Deshokti, Swabhavatha, Lanchana & Guna | 2 |
| CO1,CO5 | Prashasta Bheshaja, BheshajaPariksha and drug evaluation method with correlation as per Pharmacognosy | <ul style="list-style-type: none"> • Read aloud : Student come on the Dias and read with loud voice • Self -directed learning - Charak Samhita Vimansthana Chapter 8 | 2 |
| CO1,CO7 | Abhavapratidhidravya (substitutes) | <ul style="list-style-type: none"> • Self-directed learning: Self study on Abhavapratidhidravya (substitutes) from Bhavaprakasha | 1 |
| CO2,CO6 | Classifications and techniques of aqueous and alcoholic extracts | <ul style="list-style-type: none"> • Demo in lab • Video | 2 |
| CO2 | Adverse drug reaction and Pharmacovigilance with recent updates | <ul style="list-style-type: none"> • PBL: Story telling about reported cases | 2 |

| | | | |
|-------------------------|--|---|----|
| | | <ul style="list-style-type: none"> • Survey : visit to pharmacovigilance cell at institution • Guest lecture : Activities of pharmacovigilance cell | |
| CO8 | Vrikshayurveda and ethnomedicine | <ul style="list-style-type: none"> • Videos- Showing videos on cultivation practices and Ethnomedicine | 1 |
| CO2 | Network Pharmacology & Bioinformatics | <ul style="list-style-type: none"> • Video • Presentation | 1 |
| CO5 | Bheshjavacharaniya | <ul style="list-style-type: none"> • Making charts on Various Rasa dravya indicated in specific vyadhis for eg. • Tikta rasa in Jvara & Kushtha, • Katu rasa in Amavata, • Kashaya rasa in Pakwatisara, and Raktastambhana, • Madhur rasa in Dhatu kshya janya vyadhi , • Amla & Lavana rasa in Udavarta, Udara, Gulma,also used as Agnideepana, Mudhavatanulomana, Pachana | 6 |
| CO2,CO3,CO4,CO5,CO7,CO8 | 2.Dravya (Drug) Nama-Guna-Karma Jnana | <ul style="list-style-type: none"> • Game base activity- Activity based learning as the chits are prepared of different karmas , those are circulated among the students, once the circulation stops then the student with the chit will be asked to read the karma mentioned in the chit and to explain with examples. • CBL (Case based learning) and PBL (Problem based learning) activities taken for understanding of Karma in specific clinical scenario | 08 |

| | | | |
|-------------------------|--|--|----|
| | | <ul style="list-style-type: none"> • Segregation of dravyas mentioned in syllabus according to Dashemani Gana • Searching of Mishrak gana from samhita and chikitsa granths for its utility • Collecting information about Grahya and Agahya dravyas mentioned in the syllabus with their characteristics | |
| CO2,CO3,CO4,CO5,CO7,CO8 | 3.Dravya (Drug) Nama-Guna-Karma Jnana | <ul style="list-style-type: none"> • Matching Rasapanchak, Rogagnata, Agryakarma of dravya • Making of charts regarding Aamayika Prayogas, Agrya Karma & Specific Kalpana • Case based activity- one particular disease & suitable plants in order • Critical reading with the help of different indexed research articles • Quiz | 17 |
| CO2,CO3,CO4,CO5,CO7,CO8 | 3.Dravya (Drug) Nama-Guna-Karma Jnana | <ul style="list-style-type: none"> • Moc practical - • 1) 15 dry & 15 wet sample dravya spotting test • Test should include at least one each from Leaf, Stem, Root, Rhizome,Gall, Flower, Fruit , Seed, Bark & Resin. • Each spot should be solved in 1 minute so 30 minutes activity should be conducted. • 2) Skill based assessment -There shall be three components in skill assessment • A. Identify and separate Grahya & Agrahya of given sample • B. Identifying and grouping of drugs of given Mishraka Gana • C. Understand the clinical scenario and identify five suitable single drug • Instructions: • Spotting stations are to be numbered as per the batch. Each spotting station contain: A. Mixture of Grahya & Agrahya B. Name of Misraka Gana and | 05 |

| | | | |
|--|--|--|--|
| | | <p>C. Clinical Scenario. Students are allotted with the spotting station by lottery method.</p> <ul style="list-style-type: none"> • Arrangement of Spotting Stations: • A. Identify and separate Grahya & Agrahya of Given Sample: Sufficient quantity (approximately 20 gm of Vidanga & Maricha) of mixture of Grahya and Agrahya dravya to be provided. There shall be two empty bowels each one labelled as 'Grahya' and 'Agrahya'. Students are asked to separate the given sample into Grahya and Agrahya. There shall be different drugs for each station. • B. Identifying and grouping of drugs of given Misraka Gana: Each station shall contain one label containing name of the Misraka Gana with question 'Recollect the drugs belonging to the given Misraka Gana, identify those drugs, collect and make a group. There shall be empty bowl of sufficient size as per the given Gana for collection of drugs. • C. Understand the clinical scenario and identify five suitable 5 single drugs: Provide the clinical scenario in not less than 100 words and not more than 200 words with or without investigation reports shall be provided at each spotting station (preferably separate cases for each station). Students are asked to go through the scenario and understand the clinical conditions , select 1 single drug, identify, collect and place it in the bowl given for the same. Select five suitable drugs and write as per preference base. | |
|--|--|--|--|

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 13 |
| | | |

| | | |
|----|---------------------------------------|-----|
| 2 | Lecture with Power point presentation | 100 |
| 3 | Lecture & Group Discussion | 35 |
| 4 | Lecture with Video clips | 19 |
| 5 | Discussions | 42 |
| 6 | Brainstorming | 7 |
| 7 | PBL | 14 |
| 8 | CBL | 7 |
| 9 | Project-Based Learning | 3 |
| 10 | TBL | 3 |
| 11 | Team project work | 5 |
| 12 | Flipped classroom | 22 |
| 13 | Blended Learning | 13 |
| 14 | Edutainment | 4 |
| 15 | Mobile learning | 7 |
| 16 | Role plays | 3 |
| 17 | Self-directed learning | 14 |
| 18 | Game-Based Learning | 6 |
| 19 | Library Session | 18 |
| 20 | Peer learning | 16 |
| 21 | Recitation | 1 |
| 22 | Tutorial | 2 |
| 23 | Presentations | 20 |
| 24 | Demonstration | 1 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand Total |
|--------------|--------|--------|-------------------------------|------|----------|----|-----------|-------------|
| | | | Practical | Viva | Elective | IA | Sub Total | |
| | | | | | | | | |

| | | | | | | | | |
|---------|---|-----|-----|----|---|----|-----|-----|
| AyUG-DG | 2 | 200 | 100 | 70 | - | 30 | 200 | 400 |
|---------|---|-----|-----|----|---|----|-----|-----|

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|---------------------|---------------------------------|---------------------------|---------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|--|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|--------------------------|
| | A 1 | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (.../30) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-DG

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

Similar for Paper II

6 F Distribution of theory examination

| Paper 1 Fundamental Dravyaguna | | | | | | |
|---------------------------------------|---|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | 1.Dravyaguna Vigyana | 1 | 1 | Yes | No | No |
| 2 | 2.Dravya | 1 | 6 | Yes | Yes | No |
| 3 | 3. Guna | 1 | 11 | Yes | No | Yes |
| 4 | 4. Rasa | 1 | 11 | Yes | No | Yes |
| 5 | 5. Vipaka | 1 | 6 | Yes | Yes | No |
| 6 | 6. Virya | 1 | 6 | Yes | Yes | No |
| 7 | 7. Prabhava | 1 | 5 | No | Yes | No |
| 8 | 8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava | 1 | 1 | Yes | No | No |
| 9 | 9. Karma | 1 | 11 | Yes | No | Yes |
| 10 | 10. Karmas of Dashemani Gana | 1 | 5 | No | Yes | No |
| 11 | 11. Principles of General Pharmacology | 3 | 20 | Yes | Yes | Yes |
| 12 | 12. Mishraka Gana | 3 | 6 | Yes | Yes | No |
| 13 | 13. Nomenclature of dravya as per Nighantu, Vedic taxonomy and Botany | 3 | 1 | Yes | No | No |
| 14 | 14. Prashasta Bhesaja, Bhesaja Pariksha and drug evaluation method with correlation as per Pharmacognosy | 3 | 1 | Yes | No | No |
| 15 | 15. Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection | 3 | 1 | Yes | No | No |

| | | | | | | |
|--------------------|--|---|------------|-----|----|----|
| | practices) | | | | | |
| 16 | 16. GCP (Good cultivation practices), seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants. | 3 | 1 | Yes | No | No |
| 17 | 17. Abhava Pratinidhi Dravya (substitutes) | 3 | 1 | Yes | No | No |
| 18 | 18. Classifications and techniques of aqueous and alcoholic extracts | 3 | 1 | Yes | No | No |
| 19 | 19. Adverse drug reaction and Pharmacovigilance with recent updates | 3 | 1 | Yes | No | No |
| 20 | 20. NMPB (National Medicinal Plant Board), CCRAS (Central Council of Research in Ayurveda Sciences), API (Ayurvedic Pharmacopeia of India), GCTM (Global Centre for Traditional Medicine), PCIMH (Pharmacopeia Commission of Indian Medicine and Homeopathy) | 3 | 1 | Yes | No | No |
| 21 | 21. Vrikshayurveda and Ethno-medicine | 3 | 1 | Yes | No | No |
| 22 | 22. Network pharmacology and Bioinformatics | 3 | 2 | Yes | No | No |
| Total Marks | | | 100 | | | |

| Paper 2 Applied Dravyaguna | | | | | | |
|-----------------------------------|---|-------------------|--------------------|---------------------|----------------------|-----------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 23 | 1. Bhashajavacharaniya (Criteria's to be considered for selection of drugs in vyadhis) | 2 | 5 | Yes | No | No |
| 24 | 2.1 Dravya (Drug) Nama-Guna-Karma Jnana | 2 | 55 | Yes | Yes | Yes |

| | | | | | | |
|--------------------|---|---|------------|-----|-----|-----|
| 25 | 2.2 Dravya (Drugs) Nama -Guna-Karma- Jnana | 3 | 40 | Yes | Yes | Yes |
| Total Marks | | | 100 | | | |

6 G Blue print of paper I & II

| Paper No:1 | | |
|-------------|---|--|
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <ol style="list-style-type: none"> 1. 1.Dravyaguna Vigyana 2. 2.Dravya 3. 3. Guna 4. 4. Rasa 5. 5. Vipaka 6. 6. Virya 7. 8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava 8. 12. Mishraka Gana / 9. Karma 9. 11. Principles of General Pharmacology 10. 12. Mishraka Gana 11. 13. Nomenclature of dravya as per Nighantu, Vedic taxonomy and Botany 12. 14. Prashasta Bhesaja, Bhesaja Pariksha and drug evaluation method with correlation as per Pharmacognosy 13. 15. Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection practices) 14. 16. GCP (Good cultivation practices), seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants. 15. 17. Abhava Pratinidhi Dravya (substitutes) 16. 18. Classifications and techniques of aqueous and alcoholic extracts 17. 19. Adverse drug reaction and Pharmacovigilance with recent updates 18. 20. NMPB (National Medicinal Plant Board), CCRAS (Central Council of Research in Ayurveda Sciences), API (Ayurvedic Pharmacopeia of India), GCTM (Global Centre for Traditional Medicine), PCIMH (Pharmacopeia Commission of Indian Medicine and Homeopathy) 19. 21. Vrikshayurveda and Ethno-medicine 20. 22. Network pharmacology and Bioinformatics |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each</p> | <ol style="list-style-type: none"> 1. 2.Dravya 2. 5. Vipaka 3. 6. Virya 4. 7. Prabhava 5. 10. Karmas of Dashemani Gana |

| | | |
|--------------------|---|--|
| | <p>All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <p>6. 11. Principles of General Pharmacology 7. 11. Principles of General Pharmacology 8. 12. Mishraka Gana</p> |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. 3. Guna 2. 4. Rasa 3. 9. Karma 4. 9. Karma</p> |
| Paper No:2 | | |
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <p>1. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 2. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 3. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 4. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 5. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 6. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 7. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 8. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 9. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 10. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 11. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 12. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana 13. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> |

| | | |
|-----------|---|---|
| | | <p>14. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>15. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>16. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>17. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>18. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>19. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>20. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <p>1. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>2. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> <p>3. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>4. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> <p>5. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>6. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> <p>7. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>8. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>2. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> <p>3. 2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana</p> <p>4. 2.1 Dravya (Drug) Nama-Guna-Karma Jnana</p> |

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|------|--|-------|
| 1 | 1) 15 dry & 15 wet sample dravya spotting test- 30 minutes Test should include at least one each from Leaf, Stem, Root, Rhizome,Gall, Flower, Fruit , Seed, Bark & Resin. | 30 |
| 2 | <p>2) Skill based assessment -There shall be three components in skill assessment</p> <p>A. Identify and separate Grahya & Agrahya of given sample- 10 minutes</p> <p>B. Identifying and grouping of drugs of given Mishraka Gana- 10 minutes</p> <p>C. Understand the clinical scenario and identify five suitable single drug- 10 minutes</p> <p>Instructions:</p> <ul style="list-style-type: none"> Spotting stations are to be numbered as per the batch. Each spotting station contain: A. Mixture of Grahya & Agrahya B. Name of Misraka Gana and C. Clinical Scenario. Students are allotted with the spotting station by lottery method. <p>Arrangement of Spotting Stations:</p> <p>A. Identify and separate Grahya & Agrahya of Given Sample: Sufficient quantity (approximately 20 gm of Vidanga & Maricha) of mixture of Grahya and Agrahya dravya to be provided. There shall be two empty bowels each one labelled as 'Grahya' and 'Agrahya'. Students are asked to separate the given sample into Grahya and Agrahya. There shall be different drugs for each station.</p> <p>B. Identifying and grouping of drugs of given Misraka Gana: Each station shall contain one label containing name of the Misraka Gana with question 'Recollect the drugs belonging to the given Misraka Gana, identify those drugs, collect and make a group. There shall be empty bowl of sufficient size as per the given Gana for collection of drugs.</p> <p>C. Understand the clinical scenario and identify five suitable 5 single drugs: Provide the clinical scenario in not less than 100 words and not more than 200 words with or without investigation reports shall be provided at each spotting station (preferably separate cases for each station). Students are asked to go through the scenario and understand the clinical conditions , select 1 single drug, identify, collect and place it in the bowl given for the same. Select five suitable drugs and write as per preference base.</p> | 30 |
| 3 | <p>3. QC practical (30 minutes)-Performance based components</p> <ul style="list-style-type: none"> 3.1. Comparison Macroscopic evaluation of one genuine and one | 40 |

| | | |
|--------------------|---|------------|
| | <p>adulterant sample -10 marks- 15 minutes</p> <ul style="list-style-type: none"> • 3.2. Panchamahabhoutikatwa assessment by parametric measures by pH of a given sample phant/ Kwatha - (Concern drug Phant / Kwatha should be prepared by college for pH analysis)- 10 marks - 15 minutes • 3.3. Panchabhaoutikatwa assessment by parametric measures by Specific Gravity of a given sample Phat/ Kwatha (Concern drug Phant/ Kwatha should be prepared by college for Specific Gravity)- 20 marks- 30 minutes | |
| 4 | <p>4. Viva voce (10 minutes per student) Questions should be asked on following topics -</p> <ul style="list-style-type: none"> • 1. Fundamentals (Dravya, Guna, Rasa, Vipaka, Veerya & Prabhav)- 3 questions- 15 marks • 2. Karmas, Dashemani, Mishrak Gana- 3 questions- 15 marks • 3. Pharmacology & Network pharmacology- 3 questions- 15 marks • 4. Clinical application of drugs- 3 questions - 15 marks • 5. Viva on practical records -06 marks • 6. Communication skill (4 marks) | 70 |
| 5 | 5. Internal Assessment | 30 |
| Total Marks | | 200 |

References Books/ Resources

| S.No | Book | Resources |
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| 1 | Dravya Guna Shastram | Vaidya G.A. Phadke, Pradnya Mudranalaya, Vaidya Vamanrao Deenanath Shuddhaayurved Pathyakrama Samitee, Dadabhai Navroji Path, Mumbai |
| 2 | Bhavaprakasha | Sri Brahmasankara Mishra and Sri Rupalalaji vaishya, Chaukhamba Sanskrit Series office, Varanasi, |
| 3 | Aushadhi Vigyna Shastra (Ayurvedic Pharmacology) | Sri. Vishvanatha Dwidevi ,Shri Baidyanath Ayurved Bhavan Pvt Ltd; Nagpur |
| 4 | Ayurvediya Aushadkarma Vigyana | Acharya V.J. Thakar, Gujarat Ayurveda University, Jamnagar |
| 5 | Bhava Prakash Nighantu | Vd. Krishna Chandra Chunekar Commentary, Chaukhambha Sanskrit Sansthan, Varanasi |
| 6 | Classical Uses of Medicinal Plants | Acharya Priyavrata Sharma ,Chaukhamba Visvabharati, Varanasi |
| 7 | Some Controversial Drugs in Indian Medicine | Dr. Bapalal, Vaidya,Chaukhambha Orientalia, Varanasi |
| 8 | Dravyaguna Kosha | Acharya Priyavrata Sharma, Chaukhambha Orientalia, Delhi |
| 9 | Dravyaguna Vigyana (Vol.1-3) | Dr. Gyanendra Pandey, Chaukhambha Krishnadas Academy, Varanasi |
| 10 | Dravyaguna Vigyana (Vol. 1-2) | Acharya Yadavji Tikramji,Baidyanath Ayurved Bhavan Ltd |
| 11 | Dravyaguna Vigyana (Vol. 1-5) | Acharya Priyavrata Sharma, Chaukhambha Bharti Academy, Varanasi |
| 12 | Nighantu Adarsh (Vol. 1-2) | Vd.G.Bapa Lal, Chaukhambha Bharti Academy, Varanasi |
| 13 | Ayurvedic Pharmacology & Therapeutic Uses of Medicinal Plants Dravyagunavignyan | Vaidya V M Gogte, Chaukhambha Publications, New Delhi |
| 14 | Dravyagunavijnana(Part I and II) | Prof.D.S.Lucas, Chaukhamba Visvabharati, Varanasi |
| 15 | Glossary of Vegetable Drugs in Brihatrayi | Thakur Balwant Singh & Vd. Krishna Chandra Chunekar,Chaukhamba Amarbharti Prakashakan, Varanasi |
| 16 | Introduction to Dravyaguna(English) | Acharya Priyavrata Sharma ,Chaukhambha Orientalia, Varanasi |
| 17 | A Text Book of Dravyaguna Vijnana (Vol 1,2 & 3) | Dr. Prakash L.Hegde and Dr. Harini A.,Chaukhambha Publications, New Delhi |
| 18 | Raspanchaka | Prof. Shiv Charan Dhyani,Chaukhambha Krishnadas Academy, Varanasi |

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| 19 | Dravyaguna Siddhanta | Prof. Shiv Charan Dhyani,Chaukhambha Krishnadas Academy, Varanasi |
| 20 | The Ayurvedic Pharmacopoeia of India, Part I Vol. 1-VII | Ministry of AYUSH. India, New Delhi |
| 21 | Medicinal Plants used in Ayurveda (2nd Edition) | Rashtriya Ayurveda Vidyapeeth, New Delhi |
| 22 | Plants of Bhavaprakash (English) | Prof.K.C.Chunekar & Dr. N.P. Hota,Rashtriya Ayurveda Vidyapeeth, New Delhi. |
| 23 | Database of Medicinal Plants used in Ayurveda Vol. 1 to 8 | CCRAS New Delhi |
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| 26 | Essentials of Medical Pharmacology | K.D.Tripathi. Jaypee Brothers Medical Publishers (P) Ltd |
| 27 | Pharmacological basis of Medical Practice | Goodman & Gillman,McGraw-Hill Education |
| 28 | Pharmacology and Pharmacotherapeutics | Satoskar Bhandarkar & Ainapure,Popular Prakashan Mumbai |
| 29 | Textbook of Pharmacognosy | Trease & Evans, Elsevier publication |
| 30 | Textbook of Pharmacognosy | Tyler, Brady & Robber,Lea & Febiger, USA |
| 31 | Quality Control of Herbal Drugs: An Approach to Evaluation of Botanicals | Pulok K Mukharjee, Elsevier |
| 32 | Ausadhinamarupa vijnanam (Vol. 1 and 2) | Dr Sanjeev Kumar Lale.,Mr. Hemraj Lale, Indore |
| 33 | Practical Pharmacognosy | Dr. K. R.. Khandelwal and Dr. Vrunda Sethi , Nirali Prakashan Pune |
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| 35 | Botany of commonly used medicinal Plants with Diagnostic keys | Dr. Hema Sane and Dr. Yogini Kulkarni. Vision Publication Pune |
| 36 | Basic Bioinformatics | S Gladis Hepsyba Helen,MJP Publishers |
| 37 | Pharmacovigilance in Ayurveda | Manjunath Ajanal, B S Prasad, Shreddha U Nayak, Chaukhambha Prakashak, Varanasi |
| 38 | Cultivation Of Medicinal And Aromatic Crops | Azhar Ali Farooqi, B. S. Sreeramu, Universities Press (India) Pvt. Ltd. Hyderabad |

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| 39 | WHO Guidelines on Good Agricultural and Collection Practices (GACP) for Medicinal Plants | World Health Organization, World Health Organization, Geneva |
| 40 | Medicinal Plants: Biodiversity, Sustainable Utilization and Conservation | K. Thammassiri, Chunlin Long, Henrik Lutken, Shaik Mahammad Khasim, Springer Link |
| 41 | Network Pharmacology | Shao Li, Springer Link |
| 42 | Vrikshayurveda - Ancient Science of Plant Life and Plant Care | S. Rajasekharan, G.S. Unnikrishnan Nair, Kerala State Biodiversity Board, Kerala |
| 43 | Evidence-Based Validation of Herbal Medicine - Translational Research on Botanicals | Pulok K. Mukherjee, Elsevier Science |
| 44 | Research updates of Gurvadiguna | <ul style="list-style-type: none"> • 1. Vaidyabhushanam K. Raghavan Tirumulpad. Rasavaishika. (Text with commentary). Arya Vaidya Sala, Kottakkal Malappuram Dist., Kerala. • 2. Interactive workshop on Ayurveda (Dravyaguna), Published by Rashtriya Ayurveda Vidyapeetha, New Delhi. • 3. Mishra S, Dwivedi RR, Ravishankar B. Conceptual and applied study of Snigdha and Ruksha Guna with special reference to Rasa-raktagata Sneha (hyperlipidemia). Ayu. 2011 Apr;32(2):200-6. • 4. Nair JU, Vyas HA, Nariya MB. An experimental study to evaluate <i>Gunasankarya</i> (combination of properties). Ayu. 2021 Oct-Dec;42(4):169-174. • 5. Gupta, Monika & Gudipudi, Sarvabhoma & Pujar, Rashmi & Gopikrishna, S. (2019). Clinical aspect of Guna Siddhanta with special reference to Trisutra Ayurveda. 6. 2407-2414. |
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Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
| | | |

| | | |
|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
| | | |

| | | |
|----|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRy | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
| | | |
| | | |

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

Rasashastra evam Bhaishajyakalpana

(SUBJECT CODE : AyUG-RB)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



**BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058**

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-RB

Summary

| | | | |
|-------------------------------------|-----|-----|----------|
| Total number of Teaching hours: 450 | | | |
| Lecture hours(LH)-Theory | | 150 | 150(LH) |
| Paper I | 75 | | |
| Paper II | 75 | | |
| Non Lecture hours(NLH)-Theory | | 300 | 300(NLH) |
| Paper I & II | 90 | | |
| Non Lecture hours(NLH)-Practical | | | |
| Paper I & II | 210 | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | 100 | 70 | - | 30 |
| Paper II | 100 | | | | |
| Sub-Total | 200 | 200 | | | |
| Total marks | 400 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

PREFACE

Ayurvedic physician, Pranabhisara Vaidya, makes efforts for his task of management of diseases and maintenance of health. For this role his tool is Potent medicine and tactful techniques acquired from profound knowledge of classics.

Bheshaja is important in chikitsa chatushpada. Prepared personally or purchased or prescribed, the medicines must be potent. Identity, Purity, Quality, Stability, Safety and Efficacy all factors must be assessed carefully so that extensive therapeutic utility without any adverse drug reaction can be achieved. Education of Ayurvedic Pharmaceutics i. e. Ayurvediya Aushadhi Nirmana Shastra must provide foundation through guidance for academicians, Researchers, entrepreneurs and clinicians. Yogavijyana and prayogavijnyana is that expected foundation. Ayurvedic classics expect yuktijna, siddhahasta, sarva bhaishajya kovid (carak su. 20/22) physician as an outcome of studying Ayurveda.

To achieve the programme outcome of the Professional BAMS course of NCISM , this particular subject contributes a lot by providing thorough multidimensional knowledge in cognitive domain, hands on training of pharmaceutical processing in Psychomotor domain and ethical attitudes towards drug development in affective domain.

The thought process by which Rasa Bheshaja Yogas reaches yojana- administration is very much important. Dose, Duration, Time and Route of administration, anupana all such factors are unique features of holistic Ayurvedic Practice. Acquiring details of these topics along with practical application with understanding its significance is the course objective of the subject RS& BK. The main Goal is to cater professional Competency in Ayurvedic Pharmaceutics and make them capable to select proper / effective yoga and administer it safely.

It is the need of time to make some addition in the current teaching and learning process of Rasashastra & Bhaishajya Kalpana to make it more relevant, practical and contemporary. New teaching technology tools will certainly be helpful in the effective delivery of knowledge of Rasashastra & Bhaishajya Kalpana. As per the revised regulation, the nomenclature of the subject is Ayurvediya Aushadhi Nirmana Vigyana as paper I and Ayurvediya Aushadhi Prayoga Vigyana as paper II for Second Professional BAMS course.

In this revision, NCISM has tried its best to take Rasashastra & Bhaishajya Kalpana teaching beyond the four walls of the classroom and get it connected with present global needs. For effective content delivery create interest in the subject it becomes evident to teach Rasashastra & Bhaishajya Kalpana with practical demonstrations. In order to facilitate proficiency in pharmaceutical preparation and its application in clinical practice, more non-lecture classes are allotted . Teaching methodology guidelines are provided which shall be followed while teaching, to make baseline uniformity in the process of learning. Activity-based learning will enable the internalization of the concepts and will build a strong platform while learning other subjects of Ayurved.

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Course Code and Name of Course

| Course code | Name of Course |
|-------------|------------------------------------|
| AyUG-RB | Rasashastra evam Bhaishajyakalpana |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-RB At the end of the course AyUG-RB, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|---|--|
| CO1 | Demonstrate application of principles of Ayurvediya Aushadhi Nirmana (Ayurvedic Pharmaceuticals) | PO1,PO5,PO7 |
| CO2 | Demonstrate application of principles of Ayurvediya Aushadhi Prayoga Vigyana (Clinical Pharmacology) | PO1,PO5,PO7 |
| CO3 | Prepare Ayurvedic formulations in adherence to quality control parameters for raw materials, in-process and finished products | PO1,PO3,PO4,PO5, PO6,PO7,PO8 |
| CO4 | Justify rationality of selection and administration of Ayurvedic formulations | PO3,PO5,PO6,PO7, PO8,PO9 |
| CO5 | Demonstrate application of ethical, legal and regulatory aspects of manufacturing and sale of Ayurvedic formulations. | PO2,PO8,PO9 |
| CO6 | Appraise research in current and emerging trend in Ayurvedic pharmaceuticals and allied sciences. | PO7,PO9 |

Table 2 : Contents of Course

| Paper 1 Ayurvediya Aushadhi Nirmana Vigyana | | | | | |
|--|--|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | <p>1.Chronological development of Ayurvediya Aushadhi Nirmana Definition, chronological development, significance and scope of Rasashastra and Bhaishajya Kalpana. Concept of Rasashala , Rasa-mandapa and Bheshajagara Concept of Rasa-Rasayana Briefing on Indians are first to prepare metal based medicines and Recent development in Ayurvedic Pharmaceuticals.</p> | 1 | 05 | 2 | 1 |
| 2 | <p>2.Paribhasha (Terminology) 1. Definition and Importance of Paribhasha 2. Word Derivation- Aushadha, Bheshaja, Kalpana, Kashaya, Pancha kashaya Yoni, Samskara 3.Dravya/Varga Paribhasha- (Classical Names, English names,Chemical Composition/ Formula) A) Rasa, Maharasa, Uparasa, Dhatuvarga, Upadhatu, Ratna, Uparatna, Sudhavarga, Sikatavarga, Lavanavarga, Visha, Upavisha, Kajjali, Mitrpanchaka, Dravaka Gana, B) Sandigdha(Contraversial): Vaikranta, Chapala, Rasanjana, Pushpanjana, Vahnijara, Girisindura, Kankushtha. C) Anupalabha (Not Available): Rasaka, Sauviranjana D) Krutrima (Artificial): Sasyaka, Gandhaka, Kasisa, Rasanjana, Hingula E) Pratinidhi (Substitute) : Vajrabhave Vaikranta, Suvarna-Suvarna Makshika 4. Prakriya Paribhasha- A) Shodhana: Types of Shodhana, Samanya Shodhana, Vishsha Shodhana, Different techniques used for Shodhana, Swedana, Mardana, Dhalana, Nirvapa, Nirjaleekarana, Nimajjana, Bhavana,Bharjana B) Marana,: Definition, Importance of Marana, Types of Marana- Agnipaka Method, Putapaka Method, Kupipakwa Method, Bhanupaka Method, Swanga Sheeta C) Amrutikarana, Lohitikarana D) Sattvapatana, Shuddhavarta, Beejavarta E) Druti: Definition, Druti lakshana F) Parada Samskara: Definition, Importance, Ashtasamskara Parada Jaranaa, Murchchhana, Names of Parad-Bandhas 5) Pramanikarana Paribhasha (Terms for Standardization)- A) Grahy-Agrahyattva, Siddhilakshana B) Bhasma pariksha: Varitara, Rekhapurnata, Unama,</p> | 1 | 10 | 8 | 4 |

| | | | | | |
|---|--|---|----|---|---|
| | <p>Slakshnattva, Sukshma, Anjana Sannibha, Dantagre na Kachakacha Bhavati, Varna, Avami, Apunarbhava, Niruttha, Gata Rasattva, Nischandrattva, Niramlattva, Nirdhumattva, Jihvagre adahyamanattva, Dadhi/ Nimbu Pariksha,</p> <p>6) Puraka Paribhasha (Supplementary)- Rudra Bhaga, Dhanvantari Bhaga7) Mana-Paribhasha-</p> <p>A) Definition, Classical Types B) Classical and Modern- Conversion chart as per AFI, Scientific Metrology C) Essential Kala- mana.</p> | | | | |
| 3 | <p>3.Adharbhuta Siddhanta (Application of fundamental principles) Dravya Sangrha and Samrakshana</p> <ul style="list-style-type: none"> • Time of drug Collection • General Rules • Specific time for specific plant part collection • Time of the day for drug collection • Collection of Pranija Dravya • Place of Drug collection Bhumi mahabhuta predominance <ul style="list-style-type: none"> • Places from where drugs should not be collected • Stage of drug collection • Rule of Duplication(Dwiguna Mana Ganana) • Ardra and Shushka Dravya mana • Dravya Sangraha Vidhi and Dravya samrakshana • Rasa, Guna, Virya ,Vipaka, Prabhava <p>Anukta Visheshokta grahana: Considering Anukta Dravya Aushadha Namakarana: Naming a Preparation Aushadha Sevana Kala: Time of Drug Administration Saveeryata Avadhi (Shelf life of different kalpana) Aushadha Matra:Dosage / Posology Anupana & Sahapana (Adjuvant) Youngika Dravya Siddhanta(Drug Combination)</p> | 1 | 05 | 4 | 2 |
| 4 | <p>4.Yantropakaranani- I (Equipments and machineries) Principles involved, currently used yantras, their correlation, utility, and Instruments used in Large scale Production</p> <p>Dola Yantra Valuka Yantra Putra Yantra Khalwa Yantra Patana Yantra Darvika Yantra Ulukhala Yantra Patala Yantra Kupi Yantra Arkapatana Yantra Pithara Yantra</p> | 1 | 05 | 6 | 4 |

| | | | | | |
|---|--|---|----|---|---|
| | Sharava Yantra Palika Yantra Sthali Yantra Swedana Yantra Vidyadhara Yantra Modern Machinery-Grinder Disintegrator Pulverizer Powder Mixer Mechanical sifter Ball mill Granulator Dryer Tablet compressing machine Pills making machine Coating pan Polishing pan End runner machine Edge runner machine Capsule filling machine Ointment mixer Tube filling machine Sieves & Meshes Liquid filling machine Distillation plant Strip packing machine Pouch filling machine Pyrometer | | | | |
| 5 | 5.Yantropakaranani -II (Equipments, fuel and Heating Devices) Principle involved, importance of temperature, currently used heating devices utility, quantum of heat and Instruments used in Large scale Production Puta- Chandra Puta Surya Puta Maha Puta Gaja Puta Varaha Puta Kukkuta Puta Kapota Puta Lavak Puta Budhar Puta Gorvara Puta Valuka Puta Kumbha / Bhandra Puta Musha Samanya Musha Crucibles- Silica Mudra | 1 | 05 | 5 | 4 |

| | | | | | |
|---|--|---|----|---|---|
| | <p>Sandhi Bandhan Material</p> <p>Koshthi- Chullika Angar Koshthi Satwapatan Bhrashtri Gas Stove Hot Plate Heating Mantle Induction Stove Hot Air Oven Muffle Furnace- Horizontal and Vertical</p> <p>Heating Material- Solid- Kashtha, coal(wooden / stone), Kshara, Lavana, Valuka, Shakrit, Dhanya Drava- Jala/ steam, Taila Indirect heating- Dhanya Rashi, Bhugarbha sthapana</p> | | | | |
| 6 | <p>6.Kalpna Nirmana I (Primary & Secondary dosage forms) Definition, classification with suitable examples, reference ingredients, quantity, method of preparation, principle involved, instruments used in small and large scale production, siddhi lakshana, storage, shelf life, modern aspect of related preparation of the following Panchavidha Kashya Kalpna (Primary dosage forms): Swarasa, Kalka, Kwatha, Hima, Phanta Upaklpna (Secondary dosage forms): Kalka: Churna Kalpna Kwatha: Pramathya Kalpna, Paniya Kalpna, Ushnodaka, Ksheera Paka Kalpna, Laksha Rasa, Mamsa Rasa</p> <p>Hima Kalpna : Mantha Kalpna, Udaka Kalpna, Panaka Kalpna Phanta Kalpna: Arka</p> | 1 | 10 | 6 | 4 |
| 7 | <p>7.Kalpna Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements)) Avaleha Definition, reference, essential ingredients, general method of preparation, specific rules of avaleha preparation, importance of temperature, siddhi lakshana, shelf life with examples i.e Vasavaleha, Kushmanda avaleha, research updates on Avaleha Kalpna, market survey Sneha Kalpna Aims of Sneha Kalpna, definition,reference, essential ingredients, general method of preparation, specific rules of sneha preparation, importance of temperature, gritha murchana, taila murchana, sneha siddhi lakshana, types of snehapaka, Patra(Gandha Paka), time duration to cook sneha preparation, shef life with examples Phala grita and</p> | 1 | 10 | 5 | 4 |

| | | | | | |
|---|--|---|----|----|---|
| | <p>Ksheerabala Bala Taila, Concept of Avartana, Research updates on snehkalpana, market survey</p> <p>Sandhana Kalpana</p> <p>Introduction, significance of sandhana kalpana, classification, difference between Madhya and Shukta Kalpana, general method of preparation, essential ingredients, anukta Mana, sandhana vidhi, observations, Burnig candle test, Lime water Test, important factors in Asava Arishta Preparation like sandhanan patra selection, place for fermentaion, importance of room temperature, sandhana kala, adding of honey, bhasma, prakshepaka dravya, difference between Asava & Arishta, shelf life and alcohol % with examples Draksharista and Usheerasava, Research updates on Sandhana Kalpana, market survey</p> <p>Pathya Kalpana</p> <p>Definition , significance of Pathya, types, general, method of preparation Manda, Peya, Yavagu, Vilepi, Anna or Odana Kalpana, Krashara, Yusha, Takra, Khada, Kambalika, Raga, Shadava, Related Research updates, Market survey of Dietary Supplements</p> | | | | |
| 8 | <p>8.Rasa Dravya Parichaya- I</p> <p>Synonyms, minerological identification, sources, types, grahya and agrahyata, doshas, shodhana, marana and other processing techniques, Probable Physico-chemical Changes, importance of temperature while processing , yoga, Research updates of the following</p> <p>Must to know Drugs</p> <p>Parada (mercury)</p> <p>Abhraka (Biotite Mica)</p> <p>Makshika (Chalco-pyrite)</p> <p>Shilajatu(Asphaltum Punjabianum)</p> <p>Gandhaka (Sulfur)</p> <p>Gairika(Red Ochre)</p> <p>Kankshi (Alum)</p> <p>Haratala (Orpiment)</p> <p>Manahshila (Realgar)</p> <p>Kampillaka(Mallotus Philippinensis)</p> <p>Navasadara (Ammonium chloride)</p> <p>Hingula (Red Cinnabar)</p> <p>Swarna (Gold)</p> <p>Rajata (Silver)</p> <p>Tamra (Copper)</p> <p>Loha (Iron)</p> <p>Mandur (rust iron)</p> <p>Vanga (Tin)</p> <p>Naga (Lead)</p> <p>Yashada (Zinc)</p> <p>Mukta (Pearl),</p> <p>Pravala (Coral)</p> | 2 | 10 | 12 | 4 |

| | | | | | |
|----|---|---|---|---|---|
| | Vajra (Diamond) Kaparda (Cowries) Shukti (Oyster Shell) Shankh (Conch Shell) Godanti (Gypsum) Samudraphena (Cattle Fish bone) Kukkutanda twak (Hen's EggShell) Tankana kshara (Borax) | | | | |
| 9 | 9.Rasa Dravya Parichaya II Synonyms, mineralogical identification, sources, types, grahya and agrahyata, shodhana, marana and other processing techniques with probable chemical reactions, the importance of temperature, yoga, research updates of the following: Desirable to know drugs: Sasyaka (Peacock ore) Kaseesa (Green Vitriol), Gauri pashana (Arsenic oxide); Trinakanta, Akika(Agate), Sudha (Lime stone), Khatika Ajashthi; Jaharmohara (Serpentine) Dugdhapashana (Talc) | 2 | 5 | 7 | 6 |
| 10 | 10.Rasadravya Parichaya III Synonyms, Minerological Identification, sources, types, Grahya, Agrahyata, Shodhana, Marana, Probable Chemical Changes, Properties,dose, Ashuddha/Apakwa Bhasma Sevanajanya Vydhi and their shantyupaya, yoga, Research updates Nice to know drugs: Vaikrantha, Vimala (Iron Pyrite), Chapala Rasaka Anjana Kankustha Agnijara Giri Sindura (Red oxide of Hg) Mriddara shringa (Litharge) Kamsya (Bronze) Pittala (Brass) Vartaloha. Manikya (Ruby) Tarkshya (Emerald) Pushparaga (Topaz) Nilam (Sapphire) Gomeda (Zircon or Cinnamone stone) | 2 | 5 | 3 | 6 |

| | | | | | |
|----|---|---|----|---|---|
| | Vaidurya (Cats eye) Mriga shringa (Stag horn) Sikata (Silica) Vyomashma (Sangeyashab - Jade) Kousheyashma (Asbestos) Badarshama (silicate of lime) | | | | |
| 11 | <p>11.Kalpana Nirman -III (Method of Preparation of different dosage forms)</p> <p>Sharkara Kalpana</p> <ul style="list-style-type: none"> • General method of preparation, difference between sharkara kalpana and syrup, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Tulasi Arka Sharkara <p>Gudapaka</p> <ul style="list-style-type: none"> • General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of ManibhadraGuda, Guda Pippali <p>Lavana Kalpana</p> <ul style="list-style-type: none"> • General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Narikela Lavana <p>Kshara Kalpana</p> <ul style="list-style-type: none"> • General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Kadali Kshara, chinch Kshara <p>Ayskriti Kalpana</p> <ul style="list-style-type: none"> • General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example Ayaskriti <p>Lepa Kalpana</p> <ul style="list-style-type: none"> • General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of | 2 | 10 | 8 | 6 |

| | | | | | |
|--------------------|--|---|------------|--------------|--------------|
| | Avalgunjadi Lepa, Keshavardhaka Lepa. | | | | |
| 12 | <p>12.Chaturvidha Rasayana Introduction, definition, importance, types, Procedure, necessary equipment, Shelf life with following example Kharaliya Rasayana: Shwasakuthara rasa and Vatavidwansana rasa Parpati Rasayana: Loha parpati and sudha parpati Kupipakwa Rasayana: Rasasidhura and Rasa karpura Pottali Rasayana: Tamragarbha pottali and Loha garbha pottali</p> | 2 | 10 | 4 | 4 |
| 13 | <p>13.Current and emerging trend in Ayurvedic pharmaceuticals Cosmetics-Formulation, Regulatory Provisions Brief Introduction to Cosmetics-Formulation, Regulatory Provisions, Plant Layout and other factory requirements, process used in the manufacture of Cosmetics, Most commonly used cosmetic Raw materials , Control of microbial contamination in the manufacture of cosmetics and Quality Control of cosmetics, Skin Sensitization Sensitivity Testing, In vitro-Tests for Skin Irritation, Quality Control of Raw materials, Intermediates and Finished Products, Stability of Cosmetics Introduction to Dosage forms Introduction, Classification of Dosage forms(Solid dosage forms, Liquid dosage forms and Semisolid dosage forms), Need of dosage forms.</p> | 3 | 5 | 3 | 4 |
| 14 | <p>14.GMP(Schedule T) & Regulatory aspects of Ayurvedic drugs Brief overview of following</p> <ul style="list-style-type: none"> • Drug and Cosmetics Act 1940 and Rules1945 import, manufacture, sale distribution of drugs and cosmetics standards of quality, misbranded, adulterated, spurious drugs and cosmetics as amended from time to time. New Acts related to Drugs and Devices. • Good Manufacturing Practices (GMP) of ASU Drugs in accordance to Schedule- T Food Safety and Standards Authority of India (FSSAI) and FDA Approval Drugs. | 3 | 5 | 2 | 4 |
| Total Marks | | | 100 | 75 hr | 57 hr |

Paper 2 Ayurvediya Aushadhi Prayoga Vigyana

| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non-Lecture hours |
|--------|--|------------|-------------|---------------------|-------------------------|
| 15 | 1.Aushadhi Prayoga Vigyana Introduction, Ethymology, Scope of Aushadhi Prayoga vinyanaPrashastha bshesha Lakshana | 1 | 5 | 1 | 2 |
| 16 | 2.Single drug (Herbal & Mineral) Single drug its variety of formulations and their different indications• Chemical/phytochemical composition <ul style="list-style-type: none"> • Pharmacodynamics and pharmacokinetics as per formulation • Therapeutic properties • Awasthanusara Uses(as applicable) • Matra • Anupana • Pathyapathya • Sevana Kala • Kala maryada (duration of medication as applicable) • Side effects of medication (as applicable) • Research updates and clinical evidences for each of the following formulations Guduchi Guduchi Swarasa (Sha.Sam.Ma. Kh. Chp1/7 page 138) Guduchyadi Churna (B.R. Pleehayakrut Rogdhikara) Guduchi Kwatha (B.R. Jwaradhikara) Guduchi Hima (B.R. Chardi Rogadhikara) Guduchi Ghana- Samshamani Vati (AFI Part II Page 183) Guduchi Satva (AFI-Part I, Page 205) Amrutadi Guggulu (AFI-Part III, Page 107) Amritarishta (AFI Part I page 6) Amalaki Amalaki Swarasa (Sha.Sam.Ma.Kha.) Amalakyadi Churna (Sha.Sam.M.Kha. Churna kalpana) Triphala Rasayana (Cha.Chi. Rasayana Adhyaya) Chyavanaprasha (AFI Part I page 37) Dhatri Lauha (AFI Part I Page 284) Amalakyadi Gutika (Sha.Sam.Ma.Kha.Vati Kalpana) Phalatrikadi Kwatha (Sha.Sam.Ma.Kha.Kwatha Kalpana) Triphala Ghrita (Sha.Sam.Ma.Kha. Ghrita Kalpana) Bhallataka Bhallataka Modaka (B.R. Pleeha-Yakrit Rogadhikara) Bhallataka Ghrita (B.R. Gulma Rogadhikara) Bhallataka Guda (B.R. Arsha Rogadhikara) Bhallatakadi Taila (B.R. Nadvirina Rogadhikara) Bhallataka Avaleha (B.R. Arsha Rogadhikara) | 1 | 10 | 8 | 2 |

| | | | | | |
|----|---|---|----|----|---|
| | <p>Bhallatakadi Lepa (B.R. Kushta Rogadhikara) Bhallatakadi Kwatha (B.R. Urusthabha Rogadhikara)Note: For Bhallataka additional ashuddha, avidhi sevanajanya vyadhi and their shantyupayaGandhaka Gandhaka churna (SY page 217) Gandhaka Rasayana (AFI-Part II, Page 115) Gandhaka Druti (RRR 3rd Chapter) Gandhaka Taila (R.T. 8th Chapter) Gandhakadya Malahara (AFI-Part II, Page 165) Gandhakadi Lepa (RRS Shiroroga Chikitsa) Gandhaka Vati (B.R. Agnimandya Rogadhikara) Gairika Gairika Pradeha (Cha.Chi. Visarpa Rogadhyaya Laghusuta shekhara Rasa (AFI Part II Page 282) Gairikadya Malahara (AFI-Part III, Page 224) Gairikadya Gutikanjana (B.R. Netraroga) Gairika rasakriya (Cha.Chi.26/235) Varnakara lepa (Cha.Chi.25/117)</p> | | | | |
| 17 | <p>3.Single drug(Bhasma, Shuddha & Pishti) • Single drug/ formulation and its mode of action in different indications •Chemical/phytochemical composition • Pharmacodynamics and pharmacokinetics as per formulation • Therapeutic properties • Awasthanusara Uses(as applicable) • Matra • Anupana • Pathyapathya • Sevana Kala • Kala maryada (duration of medication as applicable) • Side effects of medication(as applicable) • Ashuddha apakwa, avidhi sevanajanya vyadhi and their shantyupaya, • Research updates and clinical evidences for each of the following formulations: Abhraka Bhasma Swarna Makshika Bhasma Swarna Bhasma Rajata Bhasma Lauha Bhasma Tamra Bhasma Vanga Bhasma Naga Bhasma Yashada Bhasma Kasisa Bhasma Shuddha Shilajatu Shuddha Gandhaka Shuddha Gairika</p> | 2 | 15 | 12 | 6 |

| | | | | | |
|----|---|---|----|----|---|
| | <p>Shuddha Kankshi Mukta Pishti & Bhasma Pravala Pishti & Bhasma Vajra Bhasma Kaparda Bhasma Shankh Bhasma Godanti Bhasma Shuddha Tankana Shuddha Kankshi</p> | | | | |
| 18 | <p>4.Aushadhi Kalpa -I (Compound formulations) •Chemical/phytochemical composition • Pharmacodynamics and pharmacokinetics as per formulation • Therapeutic properties and its mode of action in different indications, • Awasthanusara Uses(as applicable) • Matra • Anupana • Pathyapathya • Sevana Kala • Kala maryada (duration of medication as applicable) • Side effects of medication(as applicable) • Ashuddha apakwa processed , avidhi sevanajanya vyadhi and their shantyupaya, • Research updates and clinical evidences for each of the following formulations: Kharaliya Rasayana • Arogyavardhini Gutika : A.F.I. - I, Rasayoga, 20:4, R.R.S. Visarpa Chi. 20/106 • Kumara Kalyana Rasa : A.F.I. - I, Rasayoga, 20:9, B.R. Balaroga / 163 • Garbhapala Rasa : A.F.I. - II, Rasayoga, 16:14,R.T.Sa. Part - I, 140 Chandraprabha Vati : A.F.I. - I, Vati Gutika, 12:10,Sha.Sa.M.7/40 • Pravala Panchamrita Rasa : A.F.I. - II, Rasayoga, 16:37,B.R. Gulma / 139 • Anandbhairava Rasa : A.F.I. - I, Rasayoga, 20:3,R.Sa.Sa.Jwara 2/103 • Yogendra Rasa : A.F.I. - I, Rasayoga, 20:31,B.R. Vatavyadhi / 506 • Laxmivilas Rasa : A.F.I. - I, Rasayoga, 20:39, B.R. Rasayana / 55 • Vasantakusumakara Rasa : A.F.I. - I, Rasayoga,20:42,R.Sa.Sa.Rasayana Vajikarana / 80 • Vasantamalti Rasa : A.F.I. - I, Rasayoga, 20:41, Si.Bhai.Ma.Ma.Jwara / 60 • Brihat Vata Chintamani Rasa : A.F.I. - I, Rasayoga, 20:26,</p> | 2 | 15 | 16 | 4 |

| | | | | | |
|----|--|---|----|----|---|
| | <p>B.R.,Vatavyadhi/502</p> <ul style="list-style-type: none"> • Shankha Vati : A.F.I. - I,Vati Gutika, 12:32,B.R. Agnimandya / 182 • Shwaskuthara Rasa : A.F.I. - I, Rasayoga, 20:49,Yo.Ra., Swasa / Page 373 • Kamadudha Rasa : A.F.I. - II, Rasayoga, 16:9,R.Ta.Sa. Kharaliya Rasayana / 80 • Sutashekhara Rasa : A.F.I. - II, Rasayoga, 16:63,Yo.Ra. Amlapita / Page 125 • Navayasa Loha : A.F.I. - II, Lauha, 17:2,Cha.Sa.Chi.16/70 • Ichchhabhedi Rasa : A.F.I. - I, Rasayoga, 20:5,B.Ra. Udararoga / 84 • Krimikuthara Rasa : A.F.I. - II, Rasayoga, 16:12,R.Ta.Sa.Kharaliya Rasayana / P. 103 <p>Parpati Rasayana</p> <ul style="list-style-type: none"> • Panchamruta Parpati : A.F.I. - I, Parpati, 16:1, B.R.Grahani / 461 • Bola Parpati : A.F.I. - I, Parpati, 16:2, Yo.R.,Pradara / P 842 <p>Kupipakwa Rasayana</p> <ul style="list-style-type: none"> • Swarna Vanga : A.F.I. - I, Kupipakva, 15:9, Rasamruta 3/ 95 • Makaradhwaja : A.F.I. - I, Kupipakva, 15: 2, B. R. Vajikarana 2/ 237 • Sameerpannaga Rasa : A.F.I. - I, Kupipakva, 15:8, A.A.G.S. Part - 4 Page 88 <p>Pottali Rasayana</p> <ul style="list-style-type: none"> • Hemagarbha Pottali : A.F.I. - II, Rasayoga, 16:66, Rasamruta Rasavigyaniya 9/218 | | | | |
| 19 | <p>5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> <ul style="list-style-type: none"> • Chemical/phytochemical composition • Pharmacodynamics and pharmacokinetics as per formulation • Therapeutic properties and its mode of action in different indications, • Awasthanusara Uses(as applicable) • Matra • Anupana • Pathyapathya • Sevana Kala • Kala maryada (duration of medication as applicable) • Side effects of medication(as applicable) • Improperly processed , avidhi sevanajanya vyadhi and their shantuyupaya, • Research updates and clinical evidences for each of the following formulations: <p>Dashamoola Kwatha (AFI Part I Page 55) Mahamanjistadi Kwatha (AFI Part I page 59)</p> | 3 | 15 | 14 | 2 |

| | | | | | |
|----|---|---|---|---|---|
| | <p>Pushyanuga Churna (AFI-Part I, Page 113) Sudarshana Churna (AFI Part I Page 116) Lavana Bhaskara Churna (AFI-Part I, Page 114) Bilvadi Gutika (AFI Part I Page 188) Chitrakadi Gutika (AFI-Part I, Page 186) Sanjivani Vati (B.R. Jwaradhikara) Vyoshadi Vati (AFI Part III Page 253) Bala Chaturbhadra Rasa (B.R. Balarogadhikara) Simhanada Guggulu (AFI-Part I, Page 71) Yogaraja Guggulu (AFI-Part I, Page 69) Chyavanaprashavaleha (AFI Part I page 37) Dadimavaleha (Y.R. Jwaratisaradhyaya) Panchagavya Ghrita (AFI Part I Page 90) Brahmi Ghrita (AFI Part I Page 93) Narayana Taila (AFI Part I Page 138) Neelibhringadi Taila (AFI Part I Page 139) Panchaguna Taila (AFI-Part II, Page 145) Aravindasava (AFI Part I page 7) Ashokarishta (AFI Part I page 8) Kumaryasava (AFI Part I page 10) Kutajarishta (AFI Part I page 10) Gandhakadya Malahara (AFI-Part II, Page 165) Lepa Guti (AFI Part III page 232)</p> | | | | |
| 20 | <p>6.Dosage Forms & Cosmetic Products Definition of dosage form,-Cosmetics Advantages and disadvantages of currently available dosage forms and cosmetics. Route of their administration. Research updates on modification of classical Ayurvedic dosage forms and relevant case studies.</p> | 3 | 5 | 5 | 2 |
| 21 | <p>7.Nutraceuticals Introduction Types, non Indian nutraceuticals and their uses Ayurvedic Perspective of Nutraceuticals with special reference to dietetic preparation, rasayana with one examples for each category , mode of action, nutritional value calculation, research updates and case studies on below mentioned category General Health : Kushmanda avaleha Pediatric Health: Preenana Modaka(Kashyapa) Geriatric Health: Chavanaprasha avaleha Reproductive Health: Phala Grita Women's health: Soubhagya shuntipaka, Shatavari grita Cardio-protective: Arjuna Ksheerapaka & Rasona ksheerapaka Sports endeavor: Kharjuradi mantha Mental health: Brahma Rasayana</p> | 3 | 5 | 6 | 1 |
| 22 | <p>8.Anupana Prayoga for Aushadhi Kalpa</p> | 3 | 5 | 4 | 1 |

| | | | | | |
|----|--|---|----|---|---|
| | <p>Properties of Anupana Factors to be considered for selection of Anupana •Dosha •Aushadha •Roga/ Rogi •Ahara Purpose of Anupana Contraindications of Anupana Eka Kalpa Vydi anusara aneka Anupana for following yogas 1.Kaishore Guggulu: Sarangadhar Samhita , Madhyam khanda- 7/72-81, P: 1362. Yogaraj, Guggulu: Sarangadhar Samhita Madhyam khanda- 7/56-69, P:1353. Narayana Churna: Sarangadhar Samhita of Pandit Sarangadharacharya, , Madhyam khanda- 7/83-91, P:123-1244.Rasa Sindoor: Rasa Tarangini Hindi commentary of Sri Sadananda Sarma,Chaukhambha Surbharti, Murcchana vigyaniya Taranga, 6/203-234, P: 125-1275. Rasa Parpati: Rasa Tarangini of Sri Sadananda Sarma,Chaukhambha Surbharti Prakashan, Murcchana vigyaniya Taranga, 6/144-153, P: 116-1176.Kankayan Vati : Sarangadhar Samhita Surbharti Prakashan, Madhyam khanda, 7/50-55, P: 134-135)</p> | | | | |
| 23 | <p>9.Aushadhi Prayoga Marga Introduction Types in ayurveda Advantages and disadvantages of each aushadhi prayoga marga and probable mode of action after administration of following dosage forms in below mentioned routes 1. Mukha (Oral Cavity): Vati, Gutika, Churna, Asava, Arishta,Kashaya, Avaleha, Khanda, Sneha (Ghrita/Taila), 2. Nasa(Nasal Route)- Dosage form used - Churna, taila, swarasa, arka 3. Karna (Through Ear)- Taila, Ghrita 4. Akshi (Through Eyes)- - Ghrita, Taila, 5. Twak (Through Skin)- Lepa, Alepa, Pralepa, Malahara, upanaha,pradeha, abhyanga, udvartana • Shirodhara - Takra • Abhyanga- Sahacharadi Taila • Ashti Bhagna- Murivenna Taila • Vrana- Jatyadi Taila • Smashru – Shankha Bhasma • Kesha Ghanata- Bringaraja Taila • Akala Palita – Hasthi Danta Masi • Indralupta – Icchabhedi Rasa • Lomashatana – Lomashatana Lepa 6. Guda (Anal Route)- Dosage forms - Vartis, taila, ghrita, kalka, churna, kashaya 7. Mutra marga (Through urethra)- Uttara Basti with</p> | 3 | 10 | 5 | 1 |

| | | | | | |
|--------------------|--|---|------------|--------------|--------------|
| | Dosage forms- Taila, ghrita 8. Yoni marga (Through vagina)- Yoni Dharana, Yoni Dhavana, Yoni Pichu, Yoni Dhoopana | | | | |
| 24 | 10.Rational prescription along with safe dispensing of Ayurvedic formulations. Rational prescription along with safe dispensing of Ayurvedic formulations as per NABH guideline | 3 | 5 | 1 | 4 |
| 25 | 11.Traditional & Local health Practices Introduction to Traditional & Local health Practices and Government initiatives to preserve it. Brief introduction to TKDL | 3 | 5 | 2 | 4 |
| 26 | 12.Pharmacovigilance for Ayurveda drugs Pharmacovigilance and Adverse Drug Reactions (ADR) Pharmacovigilance Programme of Ayurveda, Siddha, Unani and Homeopathy (ASU & H) Drugs Central Sector Scheme and Centres of Pharmacovigilance of ASU & H Drugs | 3 | 5 | 1 | 4 |
| Total Marks | | | 100 | 75 hr | 33 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 Ayurvediya Aushadhi Nirmana Vigyana | | | | | | | | | |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 1.Chronological development of Ayurvediya Aushadhi Nirmana (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Explain historical evolution of Ayurvediya aushadhi nirman and Rasashastra. | CK | MK | K | L&G D | TT-Theory | F&S | I | |
| CO1 | Describe about contribution of Nagarjuna Acharya to Rasashastra | CK | MK | K | L_VC | TT-Theory | F&S | I | |
| CO1 | Enlist important classical texts of Rasashastra and describe their unique features in short. | CK | DK | K | L&PP T | TT-Theory | F&S | I | |
| CO1 | Describe structure of Pharmacy and enlist formulations prepared in pharmacy, after visiting the unit of teaching pharmacy of own campus | CC | MK | KH | L&G D | CL-PR | F | I | |
| CO1 | Describe Recent development in Ayurvedic Pharmaceuticals viz, new dosage forms, pharmaceutical modification techniques. | CK | DK | K | L&PP T | TT-Theory | F&S | I | |
| CO1 | Define Rasa and Rasayana and describe difference between Rasa and Rasayana | CK | DK | K | L&PP T | T- MEQs | F | I | |

| | | | | | | | | | |
|---|---|---------|----|----|--------------------|----------------------------|-----|---|--|
| CO1 | Justify design of ancient Rasashala | AFT-VAL | NK | KH | SDL | PRN | F | I | |
| Topic 2 2.Paribhasha (Terminology) (Lecture :8 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1 | Explain the term Paribhasha and its importance in Ayurvediya Aushadhi Nirmana. | CK | MK | K | L | T-CRQs | F | I | |
| CO1 | Discribe the terms Aushadha, Bheshaja, Kalpana, Kashaya, Kashaya yoni, Samskara- based on their word derivations | CC | MK | K | L | T- EW | F&S | I | |
| CO1 | Enlist sequentially - names of all drugs classified in the varga(group). Recite shlokas of Maharasa, Uprasa , Sadharana Rasa Varga from Rasaratnasamuchchaya. | CC | MK | K | EDU, SDL, GBL, REC | P-REC,P-ID,PUZ,O-QZ | F&S | I | |
| CO1 | Enlist and discuss Sandigdha, Krutrima, Pratinidhi and Anupalabdha dravya. | CK | DK | K | L&PP T,SDL,GBL | P-ID,CL-PR | F | I | |
| CO1,CO2 | Discribe the definition of the term Shodhana. Explain with examples different techniques used for the procedures of Shodhana. | CAP | MK | KH | L&G D,L_VC,PT | T- MEQs,P-EXAM,O-QZ,O-GAME | F&S | I | |
| CO1 | Explain the term Marana and describe its types with examples | CK | MK | K | L&PP T,LS | T-OBT | F&S | I | |
| CO1 | Enlist all relevent prakriya paribhasha of Amrutikarana, Lohitikarana,Sattvapatana, druti and discuss with examples | CK | DK | K | DIS,LS | PRN | F | I | |
| CO1,CO2 | Recite sequentially names of Parada Ashta samskara. Explain the terms Jarana Murchchhana and cite types with examples. Compare Jarana and Murchchhana. | CC | MK | KH | L_VC,PrBL | T-EMI,T- ME Qs,PRN,M-CHT | F&S | I | |

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|-----------------|--|-------------|----|----|-----------------------------------|------------------------|-----|-----|--|
| CO1 | Identify names of Parada Bandhas | CK | NK | K | LS | T-OBT | F | I | |
| CO1,CO2,CO5 | Describe Grahyagrahya parameters used for selection of Rasadravyas. | CK | MK | SH | L&PP T,PrB L | T- EW | F&S | I | |
| CO1,CO2,CO5,CO6 | Illustrate all Bhasma pariksha as per classical description. | CC | MK | KH | L_ VC ,IBL, DA,D | T- MEQs,P- EXAM,CHK | S | III | |
| CO1,CO2,CO5 | Define the word Siddhilakshani.Recite examples of classical siddhilakshani. Interpret its rationality | CE | MK | KH | L&PP T,SD L,RE C,D_ L | T- MEQs,P- EXAM | F&S | I | |
| CO1 | Recognise and discuss Dhanvantari Bhaga and Rudra bhaga | CC | NK | K | RLE | C-INT | F | I | |
| CO1 | Explain importance of Mana-paribhasha and classical types of Mana. Recall Charts of Mana . | CK | DK | KH | L&PP T,PS M | T-CRQs,P- SUR | F | I | |
| CO1,CO2 | Categorize parameters of Drug Standardization and develop a checklist for assessment of quality of rasadravyas | CE | DK | KH | BS,IB L,TP W,SD L | CL- PR,WP,CHK | F&S | I | |
| CO2 | Explain Value of selection of genuine raw material | AFT- VAL | MK | KH | DIS | DEB | F | II | |
| CO2,CO3 | Explain importance of ethical practices for drug processing(Shodhan, Marana) | AFT- VAL | MK | K | PrBL | P-POS | F | II | |
| CO2,CO3 | Discuss and justify importance of Bhasma Pariksha | AFT- RES | MK | KH | BS | T- EW | F&S | III | |

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| CO2,CO3 | Explain nalue of keen and accurate application of weights and measures in Ayurvediya Aushadhi nirmana | AFT-VAL | DK | K | L&G D | PRN | F | II | |
| Topic 3 3.Adharbhuta Siddhanta (Application of fundamental principles) (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Elaborate fundamental principles of Ayurvediya Aushadhi Nirmana alongwith their classical references and discuss their application with classical examples of various kalpas. | CC | MK | KH | L&PP T,BS | T- EW,M- POS | F&S | I | |
| CO1,CO2 | Explain Dravya Samgraha vidhi. Explain types of Bhumi desha and types of drugs to be collected from paricular place & places from where Dravya should not be collected. | CC | MK | KH | L&PP T,DIS ,BS | T- EW | F&S | I | H-DG |
| CO1,CO2 | Describe time of Dravya collection and explain rationality behind it. | CC | MK | KH | L&PP T,BS | T- EW | F&S | I | H-DG |
| CO1,CO2 | Enlist parts of Sthavara & Jangama Dravyas used for Ayurvediya Aushadhi nirmana. | CC | MK | KH | L&G D,BS | T- EW | F&S | I | H-DG |
| CO1,CO2 | Define Samskara. Discuss role of Samskara in Ayurvediya Aushadhi Nirmana alongwith various examples. | CC | MK | KH | L&PP T,BS | T- EW | F&S | I | H-Sa mhita |
| CO1,CO2 | Discribe Ardra - Shushka Dravya & Anukta – Visheshokta Dravya collection principles. | CC | MK | KH | L&PP T,DIS | T- EW | F&S | I | H-DG |
| CO1,CO2 | Describe importance of kalpa sevan matra. Explain factors considered for deciding dosage of any drug (Ayurvedic as well as modern medicine principles). Describe Posology | CC | MK | KH | L&PP T,BS | T- EW | F&S | I | |
| CO1,CO2 | Explain Saveeryata Avadhi(Shelf life) of Ayurvedic dosage forms. | CK | DK | K | L&PP T,DIS | T- MEQs,P- VIVA | F&S | I | |
| CO1,CO2 | Discuss Yogika Dravya Sidhdhanta(Drug combination) | CC | MK | KH | L&PP T,BS | T- EW | F&S | I | |
| CO1 | Explain importance of Kala (Time) Samskara in Ayurvediya | CK | MK | K | L&PP | TT-Theory | F&S | I | |

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| | Aushadhi Nirmana. Elaborate Aushadhi sevana kala mentioned in Sharangdhara samhita. Discribe chrono- Therapeutics. | | | | T | | | | |
| CO1 | Justify Aushadhi kalpa namakarana siddhanta with examples | CC | DK | KH | IBL | CL-PR | F | I | |
| Topic 4 4.Yantropakaranani- I (Equipments and machineries) (Lecture :6 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO5 | Choose and record contemporary machines used in Ayurvedic drug preparation. | CC | DK | K | L&PP T,DIS | T- EW | F&S | I | |
| CO1,CO5 | Discuss the pharmaceutical use of Distillation apparatus, Ball Mill, Pulveriser, End Runner, Edge Runner, Tablet compression machine, Capsule filling machine, Pouch filling machine, Liquid filling machine in Ayurvediya Aushadhi Nirmana | CC | DK | K | L&PP T,DIS | T- EW | F | I | |
| CO1,CO5 | Describe the principles behind construction and working of the classical Yantras used for Ayurvediya Aushadhi nirmana. | CAP | MK | KH | L&PP T,DIS | T- MEQs,P- VIVA | F&S | I | |
| CO1,CO5 | Enlist categorical information about the following Yantras in the charts- Ulukhal Yantra, Patan Yantra, Jarana Yantra, Patala Yantra and Swedana Yantra. | CK | DK | K | L&PP T,DIS | T- EW | F | I | |

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| CO1,CO5 | Interpret the mechanism and effect of Yantras / machines on the Physical and Chemical properties of the drug material. | CC | DK | KH | DIS,I BL | M-POS | F | I | |
| CO1 | Enlist Ayurvediya aushadhi kalpana and equipments/yantras/machines used for preparation of each kalpana. | CK | DK | K | L&PP T | T- EW | F | I | |
| Topic 5 5.Yantropakaranani -II (Equipments, fuel and Heating Devices) (Lecture :5 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO5 | Describe the term Yantra and enlist yantras described in classics useful for aushadhi nirmana. - | CK | DK | K | L&PP T | TT-Theory | F | I | |
| CO1,CO5 | Define the term Puta and recite its classical explanation. | CK | MK | K | L_VC ,RLE | T- EW,M- POS | F&S | I | |
| CO1,CO5 | Produce categorical information(Size of Pit, Number of cowdunkcakes, use etc.) about following Putas viz. Mahaputa, Gajaputa, Varahputa, Kukkutaputa, Kapotputa, Lavakputa, Kumbhaputa, Bhandaputa, Valukaputa and Bhudharputa. | CK | MK | K | L&PP T,DIS ,TPW | T- EW,M- POS,COM | F&S | I | |
| CO1,CO5 | Recognise the principles behind construction and working of the classical Putas. | CC | MK | KH | L&PP T,DIS ,IBL | T- EW,M- POS | F&S | I | |
| CO1,CO5 | Identify and enlist contemporary devices used in the preparation | CC | DK | K | L&PP | T- MEQs,QZ | F&S | I | |

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| | of Bhasma. | | | | T,DIS ,IBL | ,M-POS | | | |
| CO1,CO5 | Review the temperature pattern of various Putas by referring research articles. | CC | DK | K | TPW, SDL | QZ ,M-POS | F&S | I | |
| CO1,CO5 | Compile names and significance of temperature measuring devices with reference to Puta. | CK | DK | K | DIS, ML | CL-PR,M- POS | F | I | |
| CO1,CO5 | Enlist the specific Puta used for a particular Bhasma Nirmana. | CC | DK | KH | L&PP T | CL-PR,M- POS | F | I | |
| CO1,CO5 | Enlist various devices used for heating during Ayurvediya Aushadhi nirmana. | CK | DK | K | L,DIS ,RLE, FV | T- EW,P-SUR | F&S | I | |
| CO1,CO5 | Enlist constituents needed for Samanya Musha Nirmana. | CK | DK | K | L&PP T,IBL | T- MEQs | F&S | I | |
| CO1,CO5 | Define the term Musha and describe uses of various types of Musha. | CK | DK | D | L_VC ,D-M | T-OBT | F&S | I | |
| CO1,CO5 | Enlist and discuss the material used for Sandhi Bandhan (while using Sharava and Kachakupi) | CK | NK | K | DIS,R LE | T-OBT | F | I | |
| CO1,CO5 | Identify and record the types of Crucibles . | CK | NK | K | L&PP T | M-POS | F | I | |

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| CO1,CO5 | Interpret the effect of heat transformation in the material subjected to heating through Musha. | CAP | DK | KH | L&PP T,DIS ,D-M | PRN,CL-PR | F | I | |
| CO1,CO5 | Recall Pakaj Utpatti Siddhant and interpret it for Agni Sannikarsha Sanskara. | CC | DK | KH | L&PP T,DIS | T- EW,CR- RED | F&S | I | |
| CO1,CO5 | Explain the Pharmaceutical use of the Hot plate, heating mantle, induction stove, hot air oven, muffle furnace (horizontal and vertical type) | CC | NK | KH | DIS,S DL | P-SUR,M- POS | F | I | |
| CO1 | Describe types of Koskthi and their uses | CK | DK | K | L | COM | F | I | |
| CO1,CO5 | Describe the Current trends in heat transfer device e.g. steam jacketed heating device, programmed muffle furnace, programmed furnace for Parpati / Pottali preparation. | CC | DK | K | L&PP T,IBL ,SDL | M-POS,COM | F | I | |
| CO1,CO5 | Assess and interpret the effect of fuel in quantum of heat given (time and temperature) | CC | DK | KH | DIS,P rBL | M-POS,CR- RED | F | I | |
| CO1,CO5 | Enlist various fuels used for heating for estimation of their heat value. | CK | NK | K | IBL,S DL | M-POS | F | I | |
| CO2,CO3 | Analyse and appraise use of proper heating device and fuels used for Ayurvediya Aushadhi Nirmana. | AFT- SET | DK | KH | BS | DEB | F | II | |

Topic 6 6.Kalpna Nirmana I (Primary & Secondary dosage forms) (Lecture :6 hours, Non lecture: 4 hours)

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| CO1,CO2 | <p>1. Explain Kashaya kalpana</p> <p>2. Enlist the dosage form come under Panchavidha Kashaya</p> | CC | MK | KH | L | T- EW,P- VIVA | F&S | II | |
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| | Kalpana and their Upakalpana 3. Justify Primary , secondary and tertiary dosage form under Panchavidha kashaya Kalpana and their Upakalpana | | | | | | | | |
| CO1 | Define with synonyms and classify different varieties of the dosage form in Ayurvediya Aushadhi nirmana | CK | MK | K | L | T- EW,P-VIVA | F&S | II | |
| CO1 | Describe methods of preparation of the dosage form along with the principles of extraction, concentration and dilution etc. | CC | MK | KH | L&PP T | T- EW,P-VIVA | F&S | II | |
| CO1,CO2 | Explain in details about Standard Operating Procedure (SOP) of each kalpana. | CC | MK | KH | L&PP T,DIS | T- EW,P-VIVA | F&S | II | |
| CO1,CO3 | Enlist details of the applications/administration (samanya Matra, Anupana or sahapana, indications and contraindications) of the dosage form with various examples | CC | MK | K | L&PP T | T- EW,P-VIVA | F&S | II | |
| CO1,CO6 | Assess and discuss modern day development and market trend of the dosage form | CC | DK | K | L&G D,IBL ,LS | T- MEQs,P-SUR | F&S | II | |
| CO1 | Determine the advantages and disadvantages of the dosage form | CC | DK | K | L | T- EW,P-VIVA | F&S | II | |
| CO2 | Describe method of preparation of dosage form along with the principle involved | CK | MK | K | L&PP T,DIS | T- EW,P-VIVA | F&S | II | |
| CO1 | Describe meaning of the term Upakalpana. Enlist panchavidha kashaya kalpana and their respective Upakalpana | CK | DK | K | L | T- MEQs,P-VIVA | F&S | II | |
| CO1 | Explain various kalpas belonging to Various dosage forms | CK | MK | K | L_VC | P-EXAM | S | II | |

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| | -Ingredients, proportion, matra, sevan vidhi if any, therapeutic uses | | | | .PT | | | | |
| CO2 | Critically evaluate rationality behind different proportion of water used in various formulations | AFT-VAL | DK | KH | BS | P-VIVA | F&S | III | |
| Topic 7 7.Kalpana Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements)) (Lecture :5 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO5 | Explain the basic principles involved , processing techniques,quality control parameters used/ involved in the preparation of Avaleha, Kalpana with examples ,instruments used in small and Large scale production,Research updates | CAP | MK | K | L&PP T,TP W,BL | T- EW,T-OBT | F&S | II | |
| CO1,CO5 | Explain the basic principles involved , processing techniques,quality control parameters used/ involved in the preparation of Sneha Kalpana, Kalpana with examples ,instruments used in small and Large scale production,Concept of Avartana, Research updates on Snehakalpana, Market survey | CK | MK | K | L_VC ,TUT | T- EW,P-VIVA | F&S | II | |
| CO1,CO4 | Describe the Significance of sandhana kalpana, classification, Difference between Madya and Shukta Kalpana, general method of preparation, essential ingredients, Anukta Mana, Sandhana Vidhi, observations, Burnig candle test, Lime water Test, difference between Asava and Arishta, essential knowlege of sale and clinical practice , Research updates | CAP | MK | K | L_VC ,PrBL | T- EW,T-OBT | F&S | II | |
| CO1,CO3,CO5 | Explain Definition , significance of Pathya, types, general, method of preparation Manda, Peya, Yavagu, Vilepi, Anna or Odana Kalpana, Krushara, Yusha, Takra, Khada, Kambalika, Raga, Shadava, Related Research updates, Market survey of Dietary Supplements and Nutraceuticals | CAP | MK | KH | L_VC ,RLE | T- EW,P-VIVA, P-EXAM | F&S | II | |
| Topic 8 8.Rasa Dravya Parichaya- I (Lecture :12 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1 | | CC | MK | K | L&PP | T- MEQs,P- | S | I | |

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| | Enlist synonyms of Rasadravya and explain significance of that | | | | T,D_ L | VIVA | | | |
| CO1,CO2,CO 6 | Explain classical & Mineralogical identification and Sources of Rasadravyas | CC | MK | SH | L&PP T,PT | T- EW,P- EXAM | F&S | I | |
| CO1,CO2 | Discriminate types, Grahya-Agrahyata and Dosha of Rasadravya | CC | MK | KH | L&PP T,PT | P-VIVA,TT- Theory | F&S | I | |
| CO1,CO2 | Explain Shodhan and Marana and other processing techniques of the Rasa- Dravya. | CC | MK | KH | L_VC ,IBL, D | T- EW,P- VIVA,INT | F&S | I | |
| CO1,CO2,CO 6 | Discuss probable physical, chemical changes occurring during process & after Shodhana and Marana of Parada, Haratala, Tamra and Shankha. | CC | MK | KH | L&PP T,BS, SDL | T- EW,P-VIV A,P-EXAM | F&S | I | |
| CO6 | | CC | DK | KH | DIS,B | P-VIVA | F&S | I | |

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| | Explain research updates about Shilajatu,Naga,Mukta and Kapardika.? | | | | S | | | | |
| CO1,CO2,CO6 | Discuss probable physical, chemical changes occurring after Bhavana, Puta & whole process of Bhasma nirmana from Rasadravyas | CC | MK | KH | DIS,B S | T-OBT | F&S | I | |
| CO1,CO4 | Enlist Kalpas prepared from these Rasdravyas and therapeutic importance of that Rasadravya | CK | DK | K | IBL,S DL | PRN | F | II | |
| CO2,CO3 | Develop checklist for identification of genuine rasadravyas | AFT- CHR | MK | K | IBL | P-PS | F&S | III | |
| Topic 9 9.Rasa Dravya Parichaya II (Lecture :7 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO1 | Enlist the important synonyms of Rasadravyas | CC | DK | KH | L&PP T,DIS | P-VIVA | F&S | II | |
| CO1,CO6 | Explain classical & Minerological identification and their Sources. | CK | DK | K | L&PP T,D_ L | P-VIVA | F&S | II | |

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| CO1 | Elaborate types, Grahya-Agrahyata and Dosha of Rasadravyas | CK | DK | K | L&PP T | P-VIVA | F | II | |
| CO1,CO2 | Explain Shodhana, Marana & and other processing techniques with probable chemical reactions. | CC | MK | KH | L&PP T,DIS ,LS | T- EW,P- VIVA | F&S | II | |
| CO1,CO2 | Explain Shodhana, Marana & and other processing techniques with probable chemical reactions. | CE | DK | K | L&G D,PT | P-VIVA | F&S | I | |
| CO6 | Explain research updates of Kasisa,Gauripashana and Akika. | CC | DK | KH | DIS, ML | PRN | F | I | |
| CO1,CO5 | Enlist names of rasadravyas and important kalpas prepared from respective dravya. Describe therapeutic importance of that Rasadravya. | CK | DK | K | DIS,S DL | CL-PR,M- CHT | F | II | |
| Topic 10 10.Rasadravya Parichaya III (Lecture :3 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO1 | Enlist Synonyms and sources. | CK | NK | K | PrBL, TPW, PER | T-OBT,M- CHT | F&S | II | |

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| CO1,CO6 | Determine types, Grahya-Agrahya, properties & classical as well as Mineralogical Identification of Rasadravyas | CC | NK | K | L&PP T,DIS ,SDL | P-VIVA,CHK | F&S | II | |
| CO1,CO2 | Explain Shodhana, Marana and Probable Chemical Changes. | CC | DK | K | L&PP T,IBL | PRN | F&S | II | |
| CO6 | Explain research update of Badarashma. | CK | NK | K | DIS,L S | P-VIVA | F | II | |
| CO1,CO5 | Enlist Rasadravyas from this group and describe important kalpas with their therapeutic utility | CK | DK | K | TPW | PRN | F | II | |
| Topic 11 11.Kalpana Nirman -III (Method of Preparation of different dosage forms) (Lecture :8 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO1,CO2,CO 3 | Describe sharkara kalpana along with preparation method of Syrup.Explain therapeutic importance of prepared sharkara kalpana along with its shelf life. | CC | NK | K | L&PP T,SD L | P-VIVA | F&S | II | |
| CO1,CO2,CO 3 | Describe Gudapaka preparation method with its confirmatory tests and precautionsExplain therapeutic importance of prepared Gudapaka along with its shelf life. | CC | NK | K | L&PP T | P-VIVA | F&S | II | |
| CO1,CO2,CO 3 | Describe Lavana kalpana preparation method with its confirmatory tests and precautionsExplain therapeutic | CC | DK | K | L&PP T | T-CRQs,P- VIVA | F&S | II | |

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| | importance of prepared Lavana kalpana along with its shelf life and packaging techniques. | | | | | | | | |
| CO1,CO2,CO3 | Describe Kshara kalpana preparation method with its confirmatory tests and precautions Explain therapeutic importance of prepared Kshara kalpana and Ksharasutra integration with Shalya tantra department along with its shelf life and packaging techniques. | CAP | MK | KH | L&PP T | P-VIVA,TT- Theory | F&S | II | V- SHL |
| CO1,CO2,CO3 | Describe Ayaskriti kalpana preparation method with its confirmatory tests and precautions Explain therapeutic importance of prepared Ayaskriti kalpana along with its shelf life and packaging techniques. | CC | NK | KH | L&PP T | P-VIVA | S | II | |
| CO1,CO2,CO3 | Describe Lepa kalpana preparation method with its confirmatory tests and precautions Explain therapeutic importance of prepared Lepa kalpana, integration with Kayachikitsa and Panchakarma department along with its shelf life and packaging techniques. | CC | MK | K | L&PP T | T- EW,P- VIVA | F&S | II | V-KC ,V-PC |
| Topic 12 12.Chaturvidha Rasayana (Lecture :4 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO2 | Describe importance and unouqe features of Chaturvidha Rasayana - Kharaliya Rasayana, Parpati Rasayana, Kupipakwa Rasayana & Pottali Rasayana. | CC | MK | KH | L&PP T,IBL | T- EW,P- VIVA | F&S | II | |
| CO1,CO2 | Explain definition, types and method of preparation of Chaturvidha Rasayana. | CAP | MK | D | L&PP T,PT | T- EW | F&S | II | |
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| CO1,CO2 | Determine role of Yantra, Agni & Kala for pharmaceutical process of chaturvidha rasayana | CAN | DK | KH | PT | T- EW,P-VIVA | F&S | II | |
| CO6 | Explain shelf-life of Chaturvidha Rasayana. | CAN | DK | SH | L,DIS | P-VIVA | F&S | II | |
| CO5 | Describe chemical changes occurring during the preparation of chaturvidha rasayana and its impact on Pharmacological action of Chaturvidha Rasayana | CAN | DK | KH | L&G D,BS, SDL | CR-RED,CR-W | F | II | |
| CO5 | Explain law of Definite proportion and proportion of Mercury and sulphur needed for preparation of sulphide of Mercury. in Chaturvidha rasayana | CAP | DK | KH | BS,IB L | CL-PR | F | II | |
| Topic 13 13.Current and emerging trend in Ayurvedic pharmaceuticals (Lecture :3 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO5,CO6 | Discuss the classification of different dosage forms. | CK | DK | K | L&PP T,DIS | P-VIVA,M-POS | F&S | III | |
| CO1,CO5,CO6 | Explain the need of different dosage forms. | CK | DK | K | L&PP T,DIS ,SDL | P-VIVA,M-POS | F&S | III | |
| CO1,CO5,CO6 | Enlist categorical information about the cosmetics used in daily | CK | DK | K | L_VC | PRN,M-POS | F | III | |

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| 6 | routine. Appreciate Ayurvedic cosmetic products. | | | | ,DIS, FV | | | | |
| CO1,CO5 | Appreciate Ayurvedic cosmetic products. | AFT- VAL | DK | KH | BS,Pr BL | PRN,P-SUR | F | III | |
| CO1,CO5,CO 6 | Choose and record the contemporary machineries used in the manufacture of cosmetics. | CK | NK | K | L_VC ,DIS, SDL | M-POS | F | III | |
| CO1,CO5,CO 6 | Enlist Quality Control parameters of cosmetics preparations. | CK | DK | K | L&PP T,DIS | P-VIVA,M- POS | F&S | III | |
| Topic 14 14.GMP(Schedule T) & Regulatory aspects of Ayurvedic drugs (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO5 | Explain the legal and regulatory aspects of manufacturing, and sale of Ayurvedic drugs. | CC | MK | K | L&PP T,IBL | CL-PR | F&S | III | |
| CO5 | Describe acts and rules mentioned in Drug & Cosmetic Act 1940 & Rule 1945 and their relevance to Ayurvedic, Siddha, Unani (ASU) drugs. | CC | MK | K | L&G D,BS | QZ | F&S | III | H-DG |
| CO5 | Discuss the guidelines of Food Safety and Standards Authority of India (FSSAI) and FDA. | CK | DK | K | L&G D,SD L | CL-PR | F | III | |
| CO3,CO5 | Determine the principles and practice of establishment of Ayurvedic pharmacy. | CK | DK | K | L&G D,TP W | P-EN,CL-PR | F | III | |
| CO5 | Discuss the NABL guidelines for testing laboratory (Chemical). | CK | NK | K | L&PP T,D_ | CL-PR,CHK | F&S | III | |

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|---------|--|---------|----|---|-----|-------|---|-----|--|
| | | | | | L | | | | |
| CO1,CO5 | Explain long forms of these - (FSSAI) and (FDA),(CCRAS),(DCGI), (CDSCO) | CK | DK | K | L | T-EMI | S | III | |
| CO4 | Discuss ethical aspect of large scale drug preparation in Ayurvedic Pharmacies | AFT-VAL | DK | K | DIS | CL-PR | F | III | |

| Paper 2 Ayurvediya Aushadhi Prayoga Vigyana | | | | | | | | | |
|--|---|--------------------------|--|---|-------------------------|-------------------------|----------------------------------|-------------------|--------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Shows how/ Knows how/ Know | F3 T-L method | G3 Assessment | H3 Formative/summative | I3 Term | J3 Integration |
| Topic 1 1.Aushadhi Prayoga Vigyana (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Define Aushadhi Prayoga Vigyana and its scope and enlist prashasta bhasha laxana | CK | MK | K | L | TT-Theory | F&S | I | |
| Topic 2 2.Single drug (Herbal & Mineral) (Lecture :8 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2,CO4,CO5,CO6 | Describe different dosage forms prepared out of a single herb or mineral | CK | MK | KH | L_VC | P-VIVA,COM,TT-Theory | F&S | I | |
| CO1,CO2,CO4,CO5,CO6 | Appreciate how the therapeutic efficacy varies depending on the dosage form | AFT-VAL | MK | K | L&PP T | T- EW,DEB | F&S | I | |

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|--|--|-------------|----|----|-----------------------|----------------------|-----|-----|--|
| CO1,CO2,CO4,CO5,CO6 | Describe therapeutic efficacy of different formulations of Vishadravya (Bhallataka), with its toxic effects and remedy. | CK | NK | K | L&G D | P-VIVA | F | I | |
| CO1,CO5 | Describe therapeutic efficacy of different formulations of Guduchi, Gairika, Gandhaka | CC | MK | K | L&G D,PE R | P-VIVA,TT- Theory | F&S | III | |
| CO3,CO4 | Aappraise multiple factors considered for preparation of various dosage forms from a single drug and creat list of more such examples. | AFT- CHR | DK | KH | BS,IB L | COM | F | III | |
| Topic 3 3.Single drug(Bhasma, Shuddha & Pishti) (Lecture :12 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2,CO6 | Explain chemical form/composition, Pharmacodynamics and pharmacokinetics of Abhraka, Loha and Godanti Bhasma. | CC | DK | KH | L&PP T,DIS ,IBL | P-VIVA | S | III | |
| CO1,CO2 | Explain therapeutic properties, dosage, Anupana, Pathyapathya, duration of treatment, Sevana Kala, shelf life, important Yogas of each Bhasma. | CC | MK | KH | L&PP T,TP W | T- EW,P- VIVA | F&S | III | |
| CO1,CO2 | Describe Apakwa Ashuddha Avidhi Bhasma Sevanajanya Vyadhi and their Shanti-upaya. | CK | DK | KH | DIS,B S | P-VIVA,TT- Theory | F | III | |
| CO1,CO2 | Describe in detail Amayika Prayoga (Therapeutic uses) of each Bhasma/Pishti with given references. | CAP | MK | SH | L&G D,W | T- EW,P- VIVA | F&S | III | |

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|--|---|----|----|----|----------------------|------------------|-----|-----|--|
| CO2,CO6 | Explain research updates and clinical evidences of Swarna Bhasma, Makshika Bhasma and Shankha Bhasma. | CE | DK | K | PrBL, SDL | PRN | F&S | III | |
| Topic 4 4.Aushadhi Kalpa -I (Compound formulations) (Lecture :16 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO2 | Describe reference, ingredients, therapeutic properties, dosage and all administration details alongwith Anupana of each formulation. | CK | MK | KH | L&PP T,BS, SDL | T- EW,P- VIVA | F&S | III | |
| CO1,CO2 | Explain Pathya Apathya, Sevana Avadhi (duration of treatment) and shelf-life of each formulation. | CC | MK | KH | L&PP T,DIS ,BS | T- EW | F&S | III | |
| CO1,CO2 | Interpret probable mode of action of each formulation as per Ayurveda. | CC | DK | KH | L&G D,BS | T- EW,P- VIVA | F&S | III | |
| CO2,CO3,CO 6 | Explain research updates and clinical evidences of Arogyavardhini Gutika and Gandhaka Rasayana | CE | DK | K | PrBL | P-VIVA | F&S | III | |

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|--|--|---------|----|----|--------------------------------------|--------------------------|-----|-----|--|
| CO3,CO4 | Critically analyse compound drugs for their therapeutic actions mentioned in the classics. | AFT-VAL | DK | KH | IBL | PRN | F | III | |
| Topic 5 5.Aushadhi Kalpa-II (Compound Drugs/Formulations) (Lecture :14 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2,CO3,CO4 | Describe Ingredients, therapeutic importance, dose, anupana, pathya-pathya, duration of treatment, sevana kala, shelf life, research updates and clinical evidences of Dashamoola Kwatha, Pushyanuga Churna, Sanjivani Vati, Chitrakadi Gutika, Simhanada Guggulu, Yogaraja Guggulu, Chyavanaprashavaleha, Gandhakadya Malahara, Ashokarishta, Kutajarishta, Panchagavya Ghrita, Bilvadi Gutika. | CAP | MK | KH | L&PP T | T- EW,P- VIVA | F&S | III | |
| CO1,CO2,CO3,CO4 | Describe Ingredients, indications, dose, anupana, pathyapathya, duration of treatment, sevana kala, shelf life, and clinical evidences of Mahamanjistadi kwatha, Sudarshana Churna, Vyoshadi Vati, Bala Chaturbhadra Rasa, Lavana Bhaskara Churna, Narayana Taila,, Neeliringadi Taila Aravindasava, Kumaryasava. | CAP | NK | KH | L&PP T,DIS | P-VIVA | S | III | |
| CO1,CO2,CO4,CO5 | Describe Ingredients, indications, dose, anupana, pathyapathya, duration of treatment, sevana kala, shelf life, and clinical evidences of Panchaguna Taila, Dadimavaleha, Bramhi Ghrita | CK | DK | K | L&PP T | P-VIVA,TT- Theory | S | III | |
| CO1,CO2,CO3 | Undersand & Recite following classical kalpas.Describe Amayika prayoga of each formulation.Understand probable mode of action as per AyurvedaSearch and Record relevant reaserch articles.Create charts describing details of these drugs.Review market avaibility & popularities of these drugs among practicing vaidyas & near by population. | CAP | MK | KH | L&PP T,DIS ,BS,I BL,P BL | P-EXAM,CO M,TT-Theory | F&S | III | V-KC ,V-SH ,V-PC ,V-SH L,V-S P,V- BL |

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|--|--|---------|----|----|-----------|------------------|-----|-----|--|
| CO3,CO4 | Explain ethical aspect of administration of compound drugs mainly regarding duration of the treatment given. | AFT-VAL | DK | K | PBL | CL-PR | F | III | |
| CO1,CO2,CO4,CO6 | Describe ingredients, with its dose, therapeutic importance, anupana and pathya-apathya along with its clinical evidences and Research updates | CK | MK | KH | L&PP T | T- EW,P- VIVA | F&S | III | |
| CO1,CO2,CO4,CO6 | Enlist the formulations with its dose, anupana and indications | CK | NK | K | L | T-EMI | S | III | |
| Topic 6 6.Dosage Forms & Cosmetic Products (Lecture :5 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO3,CO7 | Define the term- Dosage forms. | CK | MK | K | L&PP T | TT-Theory | F&S | III | |
| CO2,CO3,CO7 | Discuss the need of different dosage forms. | CK | MK | K | L&PP T | TT-Theory | F&S | III | |
| CO2,CO3,CO7 | Explain the classification of different dosage forms. | CK | DK | K | L&PP T | TT-Theory | F&S | III | |
| CO2,CO3,CO7 | Enlist the solid / liquid / semisolid dosage forms. | CK | MK | K | L&PP T | T-EMI | F&S | III | |
| CO2,CO3,CO7 | Discuss the routes of administration of different dosage forms. | CK | MK | K | L&PP T | T- EW | F&S | III | |
| CO2,CO3,CO7 | Describe the advantages and disadvantages of currently available dosage forms. | CK | MK | K | L&PP T | TT-Theory | F&S | III | |
| CO2,CO3,CO7 | Discuss the research updates about modification of classical Ayurvedic dosage forms. | CK | DK | K | L&PP T | CL-PR | F | III | |
| CO2,CO3,CO7 | Discuss the relevant case studies of different dosage forms. | CK | NK | K | L&PP T | P-SUR | F | III | |

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|--|---|-------------|----|----|----------------|-----------|-----|-----|------------------------|
| CO2,CO3,CO7 | Define the term Cosmetics. | CK | DK | K | L | TT-Theory | F&S | III | |
| CO2,CO3,CO7 | Explain the classification of cosmetics based on their application on the specific body parts. | CK | DK | K | L&PP T | CL-PR | F&S | III | |
| CO2,CO3,CO7 | Differentiate between the ancient cosmetics and modern day cosmetics. | CK | DK | K | L&PP T | TT-Theory | F&S | II | |
| CO5 | compare and appraise herbal cosmetics vs synthetic products | AFT- VAL | DK | KH | PBL | PRN | F | III | |
| Topic 7 7.Nutraceuticals (Lecture :6 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe importance of combination of aahara and aushadha | CK | MK | K | L&PP T | T- EW | F&S | III | H-SW |
| CO2,CO6 | Explain Nutraceuticals with its types | CK | MK | K | L&PP T | TT-Theory | F&S | III | H-SW |
| CO2,CO6 | Corelate rasayana and nutraceutical with examples | CAN | DK | KH | DIS,P rBL | T-OBT | F | III | H-SW |
| CO2 | Describe with examples mode of action of Ayurvedic nutraceuticals | CAP | MK | KH | SDL, LS | PRN | F | III | H-Sa mhita, H-SW |
| CO2,CO6,CO7 | Enlist at least two dietary preparations from Ayurvedic classics which can serve as rasayana/ nutraceutical in-1) General Health2) Pediatric Health3) Geriatric Health4) Women(Garbhini/ Sutika) Health5) Cardio-protection6) Chronic illness-recovery stage | CAP | MK | K | DIS,B S,SY | CL-PR | F | III | H-SW |
| CO1,CO2,CO6,CO7 | Describe potential of Ayurvedic diet and Rasayana in sports endeavor | CAP | DK | KH | BS,Pr BL,PS | DEB | F | III | H-SW |

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| | | | | | M | | | | |
| CO7 | Explain research updates about nutraceuticals | CK | NK | K | SDL, PL | M-POS | F | III | |
| CO2 | Enlist atleast two examples of Aushadhi siddha aahara with its indications for each category-->(Aharadravya belonging to following category and kalpa prepared from that aahara dravya and other aushadhi ingredients)1) Jala varga2) Dugdha varga3) Ikshu varga4) Suka-dhanya varga5) Shimbi Dhanya Varga6) Shaka Varga7) Phala Varga8) Lavana Varga9) Spices | CC | DK | K | L&G D,PrB L | CL-PR | F | III | H-Sa mhita, H-SW |
| CO3,CO4 | creat list of unique features of Ayurvedic neutraceuticals and appraise their current need | AFT- VAL | DK | KH | DIS | PRN | F | III | |
| Topic 8 8.Anupana Prayoga for Aushadhi Kalpa (Lecture :4 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define and classify Anupana and Sahapana | CK | MK | K | L | T- EW | F&S | III | |
| CO1,CO2 | Expalin different factors to be considered for selection of Anupana as per Disease and Patients | CC | MK | KH | L | T- EW | F&S | III | |
| CO1,CO2 | Enlist different anupana for a single drug based on the condtion of patient and disease. Elaborate with the help of examples of kalpas. | CC | MK | KH | L | T- EW | S | III | |
| CO4 | Describe value of proper selection of Anupanas with examples | AFT- VAL | DK | K | SDL | M-CHT | F | III | |
| Topic 9 9.Aushadhi Prayoga Marga (Lecture :5 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2,CO4 | Discuss the various types of Aushadhi Prayog Marga (route of drug administration). | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO2,CO4 | Describe the advantages and disadvantages of each Aushadhi Prayog Marga. | CK | DK | K | L&PP T,BS | P-SUR,PM,TT- Theory | F&S | II | |

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| CO2,CO4 | Enlist the dosage forms used in the specific Aushadhi Prayog Marga. | CK | DK | K | L&PP T | T-EMI | F&S | II | |
| CO2 | Discuss the nature of drug (s) administered in various routes of drug administration. | CAP | NK | KH | L&G D | CL-PR | F | II | |
| CO4,CO5 | Appraise administration of drugs through various routes mentioned in Ayurvedic treatment | AFT- VAL | MK | K | L&G D | T- EW | F&S | III | |
| Topic 10 10.Rational prescription along with safe dispensing of Ayurvedic formulations. (Lecture :1 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2,CO4 | Describe and write demo ideal prescription. | CAP | MK | SH | L&G D,CB L | CR-W,CHK | F&S | III | V-KC ,V-SP ,V-BL |
| CO1,CO3,CO 4 | Explain the safe dispensing and efficacious use of Ayurvedic drugs. | CAP | MK | KH | L&G D,BS, TPW | T-CS,PM | F&S | III | V-KC ,V-BL |
| CO2,CO4 | Explain the importance of rational prescribing of drugs and the concept of essential drugs. | CK | DK | K | L&G D,IBL | QZ ,CHK | F | III | V-KC |
| CO2,CO4,CO 5 | Describe the standard protocol for safe dispensing of Ayurvedic drugs. | CK | DK | KH | L&G D | T-OBT | F | III | |
| CO2,CO4 | Demonstrate and educate home remedies to small group of population. | CAP | DK | SH | PrBL, TPW | TR | F | III | H-SW |
| CO5 | explain ethical aspects related to prescription writing | AFT- RES | MK | KH | TPW | INT | F | III | |
| Topic 11 11.Traditional & Local health Practices (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1 | Identify Local Health Traditions and Healing Knowledge, | CC | DK | K | DIS,P rBL | P-SUR,INT | F | III | |

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| CO1,CO5 | Recognise the possible potential of product development and research based on Traditional knowledge | CK | DK | KH | IBL | INT | F | III | |
| CO1,CO4 | Identify the factors responsible for grant of patent and erroneous grant of patent on indian traditional knowledge.? | CK | DK | K | BS | INT | F&S | III | |
| CO5 | Appraise traditional knowlege of Ayurvedic medicines | AFT-VAL | DK | K | TPW | CR-W | F | III | |
| Topic 12 12.Pharmacovigilance for Ayurveda drugs (Lecture :1 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2,CO4,CO5 | Describe the term Pharmacovigilance and explain importance of Pharmacovigilance for Ayurvedic drugs. | CK | DK | K | L&PP T,IBL | M-POS,C- INT,RK | F | III | V-KC ,V-BL ,H-D G,H- AT |
| CO4,CO5 | Explain the status and central sector scheme of Pharmacovigilance for Ayurveda, Siddha, Unani, and Homeopathy (ASU & H) drugs. | CK | MK | K | L&PP T,DIS | INT,TT- Theory | F | III | V-KC ,H-D G,H- AT |
| CO4,CO5 | Define Adverse Drug Reactions (ADR) and its types. | CE | DK | K | L&G D,IBL | QZ ,TT-Theor y,VV-Viva | S | III | V-KC ,V-BL ,H-D G,H- AT |
| CO2,CO4,CO5 | Identify and monitor ADRs. | AFT-VAL | DK | KH | L&G D,BS, IBL | PRN,RK | F | III | V-KC ,V-BL ,H-D G,H- AT |
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| CO2,CO4 | Discuss and make critical comments on the safe and efficacious use of Ayurvedic drugs. | CAP | DK | KH | L&G D,PrB L,TU T | QZ ,CL- PR,INT | F | III | V-KC ,H-D G,H- AT |
| CO4,CO5 | Debate on ADR of ASU drugs | AFT- RES | DK | K | DIS | DEB | F | III | |

List of Practicals (Term and Hours)

| PRACTICALS (Marks-100) | | | |
|-------------------------------|---|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | 1.Paribhasha concept based Practicals | 1 | 20 |
| 2 | 2.Panchavidha Kashaya Kalpana & their Upakalpana Practicals | 1 | 24 |
| 3 | 3.Rasa Dravya Aushadhi Nirmana Practicals | 1 | 20 |
| 4 | 4.Bheshaja Kalpana Practicals -I | 2 | 24 |
| 5 | 5.Bheshaja Kalpana Practicals -II | 2 | 22 |
| 6 | 6.Dosage Forms & Self-care Products Practicals | 2 | 22 |
| 7 | 7.Field Visit/ Study Tour | 3 | 24 |
| 8 | 8.Hospital IPD Practical | 3 | 10 |
| 9 | 9. Drug Dispensing Practical | 3 | 6 |
| 10 | 10.Quality Control Practicals | 2 | 38 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Show s how/ Know s how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| Topic 1 1.Paribhasha concept based Practicals | | | | | | | | | |
| CO1 | Identify the drugs and recite classical name,English name and chemical composition and varga(class) Recite Maharasa , uparasa, Sadharana rasa shlokas from Rasaratna samuchchaya. | PSY- SET | MK | KH | GBL, REC | P-VIVA,P-ID | F&S | I | |
| CO1,CO2 | Demonstrate the correct procedure / SOP and assess the changes observed after the procedure.Discuss the relevant samskara and its role in that procedure.Interpret the Physical, Chemical and Biological alterations. | PSY- MEC | MK | D | GBL, PT | P-PRF,CHK,O SPE | S | I | |
| CO1,CO2 | Observe and describe the pharmaceutical preparation of Gandhaka druti. Explain the term alotropism.Recite melting, boiling and evaporating temperature of Gandhaka. | PSY- MEC | DK | KH | DIS,D _L | P-VIVA | S | II | |
| CO1,CO2 | Observe the procedure of Vanga Jarana. Explain the difference between Jarana and Jaranaa. Discuss chemical process of oxidation and reduction. Recall the information about melting points of all the metals. | CAP | DK | KH | PT,D | P-VIVA | S | III | |
| CO1,CO2 | Demonstrate preparation of Kajjali. Recite its classical shloka. Prepare a checklist of parameters for its siddhilakshana. Interpret | PSY- MEC | MK | D | PBL, TPW, | P-REC,P- EXAM,P-PS | F&S | I | |

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| | law of definite proportion to explain and calculate amount of free sulfur in the prepared amount of kajjali. Calculate the expected weight of rasasindura from the given amount of kajjali. | | | | D_L | | | | |
| CO1,CO2 | Identify relevant Bhasmapariksha and demonstrate samanya and vishesha Bhasma pariksha. Interpret physical/ chemical laws relevant to classical bhasma pariksha. | PSY- MEC | MK | D | DIS,G BL,L RI,D A,D_ L | P-VIVA,CHK | F&S | I | |
| CO1 | Identify various weights and recite essential measures from conversion chart of AFI. Recognise weighing machines and their weighing capacity. | CAP | DK | KH | BS,Pr BL,T PW,P L | PRN,P-SUR | F | I | |
| CO3,CO4 | Identify and value SOP of each procedure of the practical conducted. | AFT- VAL | MK | KH | D_L | P-EXAM | S | II | |
| CO2 | Appraise ancient indications mentioned in classics for confirmation of end point of the pharmaceutical process(Siddhi lakshana) | AFT- RES | MK | K | PrBL | P-VIVA | S | III | |
| Topic 2 2.Panchavidha Kashaya Kalpana & their Upakalpana Practicals | | | | | | | | | |
| CO1,CO2 | Recall, Identify and authenticate the raw materials required as per the dosage form/ formulations | PSY- SET | MK | KH | DIS,D | P-VIVA | F&S | II | |
| CO1,CO2 | Demonstrate the method of preparation to get the desired dosage form following SOP | PSY- MEC | MK | SH | DIS,P T | P-VIVA,P- EXAM | F&S | II | |
| CO1,CO2,CO 5 | Assess and explain different parameters to achieve desired characters/ end points (siddhi lakshana) as per classical and contemporary parameters | PSY- MEC | MK | KH | DIS,D | P-VIVA,P- EXAM | F&S | II | |
| CO1,CO2 | Describe ethical responsibility expected during Pharmaceutical | AFT- | MK | K | SDL | P-PRF | F&S | III | |

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|--|--|------|----|----|---------------|---------------|-----|-----|--|
| | preparation of Ayurvedic Formulations | REC | | | | | | | |
| Topic 3 3.Rasa Dravya Aushadhi Nirmana Practicals | | | | | | | | | |
| CO1,CO2,CO3 | Explain reference Shloka of kalpas & write with interpretation -list of ingredients, their proportion, principles of yoga - yoga samyojana dravya | CC | MK | KH | L | P-VIVA,P-EXAM | F&S | I | |
| CO1,CO2,CO3 | Identify raw Dravya ,used part with classical Mana and interpret in metric system.... | CAP | MK | D | DIS,B S | P-EXAM | F&S | I | |
| CO2,CO3 | Identify, Utilize & know mechanism of Yantra used for drug preparation | CAP | MK | KH | DIS,B S | VV-Viva | F&S | I | |
| CO2,CO3 | Observe & Record various parameters responsible for good manufacturing which are done during process of phamaceutical preparation | CE | MK | SH | DIS,B S,PT | P-EXAM | F | I | |
| CO2 | Demonstrate Sidhdhi Lakshna | CAP | MK | SH | D | P-VIVA | S | III | |
| CO2,CO3 | Assess finished product as per classics. | CE | MK | SH | DIS,P T | P-VIVA,P-EXAM | S | I | |
| CO1,CO2,CO | Appraise peculiarities of chaturvidha rasayana preparation | AFT- | DK | KH | PER | M-POS | F | III | |

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| 4 | | VAL | | | | | | | |
| Topic 4 4.Bheshaja Kalpana Practicals -I | | | | | | | | | |
| CO1,CO3 | Demonstrate Arka preparation method, along with its packaging technique and therapeutic importance. | PSY-SET | MK | SH | DIS,D-M | P-VIVA,P-EXAM | F&S | II | |
| CO1,CO3 | Demonstrate preparation of Vati along with drying techniques | PSY-MEC | MK | KH | DIS,D | P-VIVA,P-EXAM | F&S | II | |
| CO1,CO3 | Identify the genuine sample of Guggulu and demonstrate preparation of different types of Guggulu along with drying techniques | PSY-SET | MK | K | DIS,P T | P-VIVA,P-EXAM | F&S | II | |
| CO1,CO3 | Identify the useful part of the raw material and demonstrate Sattva preparation method. | PSY-SET | MK | K | DIS,D | P-VIVA,P-EXAM | F | II | |
| CO1,CO3 | Demonstrate preparation of Varti along with drying and packaging techniques. | PSY-SET | MK | KH | PT | P-VIVA,P-EXAM | F | II | |
| CO1,CO3 | Demonstrate Lavana preparation methods, along with its packaging techniques. | PSY-SET | DK | SH | PT | P-VIVA,P-EXAM | F | II | |
| CO1,CO3 | Identify the internal and external applications of different kshara kalpana along with importance of ksharasutra through surgical aspects. | PSY-ADT | MK | K | PT | P-VIVA,P-EXAM | F | II | V-SHL |
| CO1,CO3 | Demonstrate and Explain preparation methods of Masi kalpana for its internal or external application in clinical practice. | PSY-ADT | DK | K | DIS,P T | P-VIVA,P-EXAM | F | II | |
| CO1,CO3 | Demonstrate preparation and application aspects of Upanaha kalpana . | PSY-MEC | DK | K | DIS,P T | P-EXAM | F&S | II | V-KC |
| CO1,CO3 | Demonstrate preparations of Sikta taila along with identify the genuine sample of Sikta.Perform and Describe Malahara kalpana preparation method with its confirmatory tests of end point. . | PSY-SET | DK | K | DIS,P T | P-VIVA,P-EXAM | F&S | II | |

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|--|---|---------|----|----|--------|-------------------|-----|----|------------|
| CO2,CO3 | Demonstrate preparation of different types of Malahara with its applied aspect. | PSY-SET | NK | K | PT | P-SUR | F | II | V-KC |
| CO2,CO3 | Demonstrate preparation of different types of Lepa and preparation of Shatadhouta ghrita . | PSY-SET | NK | KH | DIS,PT | PRN | F | II | V-KC ,V-PC |
| CO2,CO3 | Perform and Describe Lepa kalpana preparation method with its confirmatory tests and precautions Explain therapeutic importance of prepared Lepa kalpana, integration with Kayachikitsa and Panchakarma department along with its shelf life and packaging techniques. | PSY-MEC | DK | SH | L&GD | P-VIVA,P-EXAM | F&S | II | V-KC |
| CO2,CO3 | Observe demonstration of formulation of Danta manjana | CAP | NK | KH | L&GD | PRN | F | II | |
| Topic 5 5.Bheshaja Kalpana Practicals -II | | | | | | | | | |
| CO1,CO2 | Demonstrate the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Ghrita Murchana and Taila Murchana | PSY-MEC | MK | D | PT,D | P-REC,P-EXAM,OSPE | F&S | II | |
| CO1,CO2 | Demonstrate the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Jatyadi Gritha/ Triphala Gritha/ Ksheera Shatphala Gritha/Phala Gritha, | PSY-MEC | MK | D | PT,D | P-EXAM,OSPE | F&S | II | |
| CO1,CO2 | Demonstrate the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage Ksheera Bala Taila/Kasisadi Taila/ Panchaguna Taila/ Arka Taila/Kutajasuryapaki taila | PSY-MEC | MK | SH | D | P-EXAM,OSPE | F&S | II | |

| | | | | | | | | | |
|---------|---|-------------|----|----|---|-------------------------|-----|----|--|
| CO1,CO2 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage Bhallataka Taila Patana/ Jayapala Taila Patana/Vishvamisra Kalpa Sneha | PSY- MEC | DK | KH | D | P-VIVA,P- EXAM,OSPE | F | II | |
| CO2 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Vasavaleha/ Chavana Prasha Avaleha/ Kushmanda Avaleha | PSY- MEC | MK | KH | D | P-VIVA,P- REC,P-EXAM | F&S | II | |
| CO2 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Nimbu Sharkara | PSY- MEC | NK | SH | D | P- EXAM,OSPE | F | II | |
| CO2 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Daruharidra Rasakriya | PSY- MEC | NK | SH | D | PRN | F | II | |
| CO2 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Haridra Khanda/ Narikela Khanada | PSY- MEC | MK | D | D | P-VIVA,P- EXAM,OSPE | F&S | II | |
| CO1 | Demonstrae the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the | PSY- MEC | MK | KH | D | T- EW,P- VIVA | F&S | II | |

| | | | | | | | | | |
|---|--|---------|----|----|-----------|-------------------|-----|-----|--|
| | Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Kumaryasava/Drakshasava | | | | | | | | |
| CO1,CO2 | Demonstrate the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlisting the results, packing and storage of Kutajarista/Ashokarishta/Takrarishta | PSY-MEC | MK | KH | D | P-VIVA | F&S | II | |
| CO2 | . Demonstrate the SoP involved in the drug selection, measuring the appropriate quantity of ingredients, preparation, observe the Physical Changes, Siddhi lakshana, enlist the results, packing techniques and storage of unique formulations for e.g.Kanji/Madushukta | CC | DK | KH | D | P-VIVA,COM | F&S | II | |
| Topic 6 6.Dosage Forms & Self-care Products Practicals | | | | | | | | | |
| CO1,CO2,CO6 | Observe instruments used to prepare solid dosage form, liquid dosage form and Semisolid Dosage Form with one example for each, their method of preparation, ingredients used with their quantity and Quality control Parameters. | AFT-RES | DK | KH | W,PT,D | P-VIVA,CHK | F&S | III | |
| CO1,CO2,CO6 | Observe instruments used to prepare with one example for each, their method of preparation, ingredients used with their quantity and Quality control Parameters. of following self care products Hair care: Shampoo Body care : Soap, Perfume Face care : Face Pack/Talcum Powder Lip Care : Lip Balm, Lipstick Oral care: Tooth Paste/ Mouth Wash Foot Care: Foot Cream Hand Disinfectant : Hand Sanitizer Skin Care: Moisturizer, Sunscreen Lotion following self care products | PSY-ADT | DK | KH | L_VC,PT,D | P-VIVA,P-EXAM,CHK | F&S | III | |
| Topic 7 7.Field Visit/ Study Tour | | | | | | | | | |
| CO1,CO3,CO4,CO5,CO6 | Field Visit - Record the storage condition of the raw / in-process | CK | DK | K | DIS,FV | M-POS,COM | F | III | |

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| | / finished goods prepared in the approved sections. | | | | | | | | |
| CO1,CO3,CO4,CO5,CO6 | Determine the role of various Yantras / machineries used in the approved sections of the Pharmacy | CK | DK | KH | DIS,RE | INT | F | III | |
| CO1,CO3,CO4,CO5,CO6 | Differentiate between the ancient and contemporary methods of drug preparation. | CC | DK | K | DIS,FV | PRN | F | III | |
| CO1,CO3,CO4,CO5,CO6 | Enlist the documents required in Batch Manufacturing of Ayurvedic medicines. | CK | NK | K | DIS | P-SUR | F | III | |
| CO1,CO3,CO4,CO5,CO6 | Identify the role of Quality Control instruments and equipments in ensuring a quality Ayurvedic product. | CK | DK | K | L&PT,DIS | DEB | F | III | |
| CO1,CO3,CO4,CO5,CO6 | Appreciate the importance of Good Manufacturing Practices and Good Packaging Practices required in Ayurvedic Drug manufacturing. | AFT-VAL | DK | K | DIS | PRN,DEB | F | III | |
| CO1,CO3,CO4,CO5,CO6 | Prepare own products as per prevalent FDA guidelines. | PSY-GUD | DK | D | L_VC,DIS | P-EXAM | F | III | |
| Topic 8 8.Hospital IPD Practical | | | | | | | | | |
| CO1,CO2,CO3,CO4 | Review & Observe the case Sheets. | CC | NK | KH | DIS | P-SUR | F | III | V-KC ,V-SH ,V-PC ,V-SH L,V-S |

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| | | | | | | | | | P,V- BL |
| CO1,CO2 | Discuss for formulation prescription manner. | CC | DK | KH | L&G D | T-CS | F&S | III | V-KC |
| CO1,CO2,CO 3 | Demonstrate & Explain prescription method. | CAP | DK | SH | CD | P-PS | F&S | III | V-KC |
| CO1,CO2,CO 4 | Measure dose of prescribed drug. | CAP | MK | KH | PrBL | SP | F | III | |
| CO1,CO2,CO 3 | Enlist Time, Duration, Pathya, Apathya while prescribing drugs. | CAP | DK | KH | L&G D | P-PRF | F | III | |
| CO4,CO5 | value details and methodical writing of case records of hospital IPD patients | AFT- VAL | MK | KH | RLE | P-CASE | F | III | |
| Topic 9 9. Drug Dispensing Practical | | | | | | | | | |
| CO1,CO3 | Assess the arrangement of Ayurvedic drugs according to nature and type in dispensing room or pharmacy. | CAP | NK | D | RLE | P-PRF | F | III | V-KC ,V-PC ,V-BL |
| CO1,CO3,CO 4 | Assess practice of prescription processing and labelling of the drugs. | CE | DK | KH | PrBL | INT | F | III | |
| CO3,CO4 | Determine and identify the cause of common errors occurred | CC | DK | KH | RLE | CL-PR | F | III | |

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| | during dispensing of Ayurvedic drugs. | | | | | | | | |
| CO2,CO4 | Explain use of correct drug supply to the right patients, in the required dosage, quantities and clear drug information. | CAP | DK | SH | L&G D | PRN | F | III | V-KC ,V-BL |
| Topic 10 10.Quality Control Practicals | | | | | | | | | |
| CO2 | Develop analytical skills for understanding Identity, Purity and Strength of raw materials and finished products as per the standard guideines of the Ayurvedic Pharmacopoeia of India. | CK | MK | KH | L&G D,BS, W,PT, D_L | P-VIVA | F | II | |
| CO2,CO5 | Identify the geological description of minerals: physical parameters. | CK | DK | K | L_VC ,W,D _L,FV | P-ID | F&S | II | |
| CO2 | Describe ayurvedic perspectives of quality control parameters applying for solid, semisolid and liquid dosage forms. | CAP | MK | SH | L&G D,TU T,DA | P-VIVA,Log book | F&S | II | |
| CO2,CO5 | Demonstrate the calibration techniques used for Weighing Balance (chemical and physical), pH Meter, Hot Air Oven and Electric Muffle Furnace to ensure the accuracy of the instrument what it is intended to measure. | CC | DK | KH | D_L | P-VIVA,PRN | F | II | |
| CO2 | | CAP | MK | SH | PT,D | P-EXAM,Log | F | II | |

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|---------|--|---------|----|----|--------------------------------------|--------------------|-----|-----|--|
| | Demonstrate bulk density, loss on drying, total ash, pH and water soluble extractives of Churna. | | | | A | book | | | |
| CO2 | Perform the analytical tests of tablets/ vati/ gutika for hardness, uniformity of weight and friability. | AFT-CHR | MK | SH | PT,D A | P-EXAM,Log book | F&S | II | |
| CO2 | Estimate specific gravity, alcohol content and total solids of Asava & Arishta. | AFT-CHR | MK | SH | PT | P-EXAM,P- PRF | F | II | |
| CO2,CO5 | Determine iodine value, acid value and saponification value of oils / ghee. | CAP | MK | KH | D_L | P-VIVA | F&S | II | |
| CO2,CO3 | Calculate the dose of various dosage forms and their dispensing methods. | CE | MK | SH | L&G D,PrB L,BL, RLE, D_L | P-SUR,P- CASE | F&S | II | |
| CO4,CO5 | Appraise quality control procedures done for Ayurvedic formulations | AFT-VAL | DK | K | DIS | CL-PR | F | III | |

Table 4a: List of Practical

| S.No | Name of practical | Term | Activity | Practical hrs |
|------|---------------------------------------|------|---|---------------|
| 1 | 1.Paribhasha concept based Practicals | 1 | <p>A) Dravya Paribhasha- Identification of drugs and their respective class (varga)</p> <p>B) Prakriya Paribhasha-</p> <p>1.Swedana: Godanti Shodhana (A.F.I.-1,18:4 (Rasatarangini 11/238) Shankha Shodhana (A.F.I.-1,18:18(Rasatarangini 12/12/2) Kapardika shodhana (Rasatarangini 12/89) Guggulu Shodhana (Rasendra Sara Sangraha 1/386, Pg. 117</p> <p>2. Mardana:Parada Samanya Shodhana (Ayurveda Prakasha 1/165)</p> <p>3. Dhalana : Gandhaka Shodhana (A.F.I. 2 Parishishta - 2,9 Shodhana(Rasamrita 2, 3) Vanga Shodhana (A.F.I.-1,18:15 (Sharangadhara M.11/2) Yashada shodhana (Rasatarangini 19/99)</p> <p>4. Nirvapa: Abhraka Shodhana (A.F.I.-1,18:1 (Rasatarangini 10/20) Tamra Shodhana (A.F.I.-1,18:5 (Ayurveda Prakasha 3/118)</p> <p>5. Nirjaleekarana : Tankana Shodhana (A.F.I. 2 Parishishta -2,15 Shodhana (Ayurveda Prakasha 2/244) Kankshi shodhana (A.F.I.-2, 14:3 (Ayurveda Prakasha 2 /258)</p> <p>6. Bhavana: Hingula Shodhana (A.F.I. 2 Parishishta - 2 Shodhana (Rasamruta 1/54)</p> <p>7. Bharjana: Gairika Shodhana (A.F.I. 2 Parishishta - 2,11 Shodhana (Rasaratna Samuchchaya 3/49) Hingu Shodhana (Bhavprakash Nighantu, Haritakyadi Varga, 1/101, Pg. 42)</p> <p>8. Nimajjana/Sthapana: Vatsanabha shodhana (A.F.I. 2 Parishishta - 2,25 Shodhana (Rasamrita parishishta 8:145)</p> <p>9. Jarana : Vanga Jaran (Ayurved Prakash 3/159) Vanga Bhasma (A.F.I.-1,18:15 (Rasamruta 3/94)</p> <p>10. Murchana: Mugdha Rasa (Rasatarangini 6/9) Kajjali (A.F.I.- 1 Parishishta-1, Paribhasha 21 (Rasatarangini 2/27)</p> <p>11. Druti- Gandhaka Druti(Rasa Ratna Samuchchaya 3/29)</p> <p>C) Pramanikarana Paribhasha-</p> | 20 |

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| | | | <p>1) Bhasma Samanya Pareeksha - Abhraka Bhasma (Ayurved Prakash 2/104) Shankha Bhasma (Rasaratnasamucchaya 8/26-30)</p> <p>2) Bhasma Vishesha Pareeksha: Tamra Bhasma (Dadhi/ Nimbu Pariksha)- (Bhaishajya Kalpana Vigyan, Vd. Siddhinandan Mishra, Pg. 78)</p> <p>D) Namburi Phased Spot Test (NPST)</p> | |
| 2 | 2.Panchavidha Kashaya Kalpana & their Upakalpana Practicals | 1 | <p>1.Swarasa Kalpana:Tulasi swarasa (Sharangdhar Samhita Madhyam Khanda 1/2),Ardraka Swarasa (Sharangdhar Samhita Madhyam Khanda 1/2), Vasaputapaka Swarasa (Sharangdhar Samhita Madhyam Khanda 1/22-23 & 34)</p> <p>2. Kalka Kalpana: Nimba kalka (Sharangdhar Samhita Madhyam Khanda 5/1),Rasona Kalka (Sharangdhar Samhita Madhyam Khanda 5/1)</p> <p>3. Kwatha Kalpana: Punarnavashtaka kwatha (Sharangdhar Samhita Madhyam Khanda 2/1-2, 78-79), Rasna Saptaka Kwatha (Sharangdhar Samhita Madhyam Khanda 2/1-2, 88-89)</p> <p>4. Hima Kalpana:Dhanyaka Hima (Sharangdhar Samhita Madhyam Khanda 4/1, 7-8),Sarivadi Hima</p> <p>5. Phanta Kalpana:Panchakola phanta (Sharangdhar Samhita Madhyam Khanda 3/1-2), Yashtimadhu phanta (AFI 1 Parishishta – 1,2/5 Paribhasha)</p> <p>6. Churna Kalpana:Sitopaladi churna (AFI Part 1, Vol. 1 A, Pg. 348), Hingwastaka Churna (AFI Part 1, Vol. 1 A, Pg. 353)</p> <p>7. Pramathya:Mustadi Pramathya (Sharangdhar Samhita Madhyam Khanda 2/ 152-153)</p> <p>8. Paneeya Kalpana: Shadanga Paneeya (Sharangdhar Samhita Madhyam Khanda 2/ 159-160)</p> <p>9. Mantha Kalpana: Kharjuradi Mantha (Sharangdhar Samhita Madhyam Khanda 3/9-10)</p> <p>10. Panaka Kalpana: Chinchā Panaka (Bhaishajya Ratnavali Arochaka 18/34-35), Chandana Panaka</p> <p>11. Ksheerapaka Kalpana: (Sharangdhar</p> | 24 |

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| | | | <p>Samhita Madhyam Khanda 2/175-176), Arjuna Ksheera Paka - Chakradatta, Lashuna Ksheerapaka - Charaka Chikitsasthana 5/95</p> <p>12. Udaka Kalpana : Tandulodaka (Sharangdhar Samhita Madhyam Khanda 1/28)</p> <p>Note: In each category if more than 1 practical are there any one or all may be performed.</p> | |
| 3 | 3.Rasa Dravya Aushadhi Nirmana Practicals | 1 | <p>1. Marana :Vanga Bhasma (A.F.I. - I, Bhasma, 18:15, Rasatarangini Taranga) / Sankha Bhasma:A.F.I. - I, Bhasma, 18:18, Rasatarangini taranga 12/2)</p> <p>2. Kharaliyarasayana :Ananda Bhairava Rasa(A.F.I. - I, Rasayoga, 20:3, Rasendrasarasangraha Jwaradhikara 2/103-105) /, Tribhuvana Keerti rasa(A.F.I. - I, Rasayoga, 20:20, rasamrita 9/80-81)</p> <p>3. Parpati : Rasa Parpati(A.F.I. - I, Parpati, 16:3, Bhaishajyaratnavali grahanirogadhikara 414-416&436-440), Sweta Parpati(A.F.I. - II, Parpati, 12:2, siddhyogsangraha ashmarimutrakruchhaadhikara)</p> <p>4. Kupipakwarasayana : Rasasindhura(A.F.I. - I, Kupipakwa Rasayana, 15:6, rasatarangini taranga 6/162-176)</p> <p>5.Pottalirasayana :Rasagarbhapottali (Rasayogsagar dwitiyabhaga pottali rahasya page 582)</p> <p>6. Rasa : Laghusutsekhararasa (Rasatantrasara avum siddhaprayogsangraha part-1, kharaliya rasayana page 274)</p> <p>7. Loha: Navayasa loha(A.F.I. - II, lauha, 17:2, Charaka samhita chi.16/70-71)/, Saptamrita loha(A.F.I. - I, lauha, 21:11, Bhaishajyaratnavali shoolrogadhikara 83-84)</p> | 20 |
| 4 | 4.Bheshaja Kalpana Practicals -I | 2 | <p>1. Arka Kalpana: Yavani Arka (API, Part 2, Vol. 3, Pg. 24) Gulab Arka (API, Part 2, Vol. 3, Pg. 4) Misreya Arka (AFI, Part 1, Vol. 1 A, Pg. 106)</p> | 24 |

2. Vati Kalpana:

Agni Tundi Vati (AFI, Part 1, Vol. 1 A, Pg. 497)

Chittrakadi Vati (API, Part 2, Vol. 3, Pg. 107)

Lavangadi Vati (API, Part 2, Vol. 3, Pg. 116)

3. Guggulu Kalpana:

Triphala Guggulu (API, Part 2, Vol. 2, Pg. 134)

Kaishor Guggulu (API, Part 2, Vol. 1, Pg. 94)

4. Satva Kalpana:

Amruta Satva (AFI, Part 1, Vol. 1 A, Pg. 560)

Ardraka Satwa

5. Varti Kalpana:

Phala Varti - (Bhaishajya Ratnavali 31/10)

Chandrodaya Varti (AFI, Part 1, Vol. 1 A, Pg. 553)

6. Lavana Kalpana:

Arka Lavana (API, Part 2, Vol. 1, Pg. 103)

Narikela Lavana (AFI, Part 1, Vol. 1 A, Pg. 473)

7. Kshara Kalpana:

Apamarga Kshara (AFI, Part 1, Vol. 1 A, Pg. 466)

Kshara Sutra Preparation (AFI Part 3, Pg 213)

8. Masi Kalpana:

Triphala Masi (Rasendra Sara Sangraha Upadamsha Chikitsa)

Mayura Piccha Masi (Yogratnakar , Chhardiroga, Pg. 453)

9. Upanaha:

Atasi Upanaha

10. Manjana:

Dashanasamskara churna (Bhaishajya Ratnavali Mukharog, 61/97-98)

11. Malahara Kalpana:

Siktha Taila (Rasatarangini 4/59)

Sarjarasa Malahara (Rasatantrasar & Siddha Prayog Sangrah Part 1, Pg. 849)

Gandhaka Malahara (Rastarangini 8/63-85)

12. Lepa Kalpana:

Dashanga Lepa (AFI, Part 1, Vol. 1 A, Pg.

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| | | | 487) Shatadhouta Ghrita (Sushrut Samhita Uttartantra 39/283) | |
| 5 | 5.BheshajaKalpana Practicals -II | 2 | <p>1. Sneha Kalpana: Ghrita Murchana (Bhaishajya Ratnavali, Jwaradhikar, 1285), Taila Murchana (Bhaishajya Ratnavali, Jwaradhikar, 1286-1287)</p> <p>2. Ghrita Kalpana: Triphala Ghrita (API, Part 2, Vol. 1, Pg. 90), Amruta Ghrita (Bhaishajya Ratnavali Vatarakta 27/126)</p> <p>3. Taila Kalpana: Ksheera Bala Taila (API, Part 2, Vol. 1, Pg. 124), Arka Taila(Sharangdhar Samhita Madhyam Khanda 9/148)</p> <p>4. Taila Patana: Bhallataka Taila Patana (Sushrut Samhita Chikitsa Sthana 1/92)</p> <p>5. Avaleha Kalpana: Vasavaleha (API, Part 2, Vol. 1, Pg. 32), Kushmanda Avaleha (AFI, Part 1, Vol. 1 A, Pg. 35)</p> <p>6. Sharkara Kalpana: Nimbu Sharkara (Rasatantrasara & Siddhaprayog Sangraha I / Paka Avaleha)</p> <p>7. Ghana: Kutaja Ghana(AFI Part 2, Pg 175), Guduchi Ghana (Ayurved Prakash 3)</p> <p>8. Khanda Kalpana: Haridra Khanda (Bhaishajya Ratnavali Udarda, Shitapitta), Narikela Khanda (AFI, Part 1, Vol. 1 A, Pg. 41)</p> <p>9. Asava : Lohasava (Sharangdhar Samhita, Madhyam Khanda 10/ 34-38), Drakshasava (AFI Part 2, 1:1)</p> <p>10. Arishta: Arjunarishta (Bhaishajya Ratnavali Hridrog). Takrarishta (Charak Samhita Chikitsa 15 / 120)</p> <p>11. Shukta Kalpana: Kanji (Sharangdhar Samhita, Madhyam Khanda 10/ 12), Madushukta (Bhaishajya Ratnavali Karnaroga 62 /23-24)</p> | 22 |
| 6 | 6.Dosage Forms & Self-care Products Practical | 2 | <p>1. Solid dosage forms:</p> <ul style="list-style-type: none"> • Granules/ Lozenges (Pharmaceutics by R.M. Mehta) | 22 |

2. Liquid Dosage forms:

- Syrup/Suspension/Emulsion/Liniment (Pharmaceutics by R.M. Mehta)

3. Semisolid Dosage:

- Cream/Gel/Ointment/Pain Balm (Pharmaceutics by R.M. Mehta)

4. Hair Care:

- Shampoo (A Handbook of Cosmetics by B M Mithal & R N Saha 8th chapter)

5. Body Care:

- Soap/Perfume (Pharmaceutics by R.M. Mehta)

6. Face Care:

- Face pack / Talcum Powder (A Handbook of Cosmetics by B M Mithal & R N Saha 3rd chapter)

7. Lip Care:

- Lip Balm, Lipstick (A Handbook of Cosmetics by B M Mithal & R N Saha 4th chapter)

8. Oral Care:

- Tooth Paste/ Mouth Wash (A Handbook of Cosmetics by B M Mithal & R N Saha 19th & 20th chapter)

9. Foot Care:

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|----|-------------------------------|---|--|----|
| | | | <ul style="list-style-type: none"> • Foot Cream (A Handbook of Cosmetics by B M Mithal & R N Saha 5th chapter) <p>10. Hand Disinfectant:</p> <ul style="list-style-type: none"> • Hand Sanitizer ((Pharmaceutics by R.M. Mehta) <p>11. Skin Care:</p> <ul style="list-style-type: none"> • Moisturizer/Sunscreen Lotion (A Handbook of Cosmetics by B M Mithal & R N Saha 6th chapter) <p>Note: In each category if more than 1 practical are there any one or all may be performed.</p> | |
| 7 | 7.Field Visit/ Study Tour | 3 | <p>GMP Certified Pharmacy Visit X 2 Pharmacy (1 classical formulations and 1 Proprietary formulations/Having both Manufacturing facility) NABL Accredited drug Testing Laboratory/Research and Development Unit Combined out campus/ Field visit may be planned wherever feasible</p> | 24 |
| 8 | 8.Hospital IPD Practical | 3 | <p>Hospital IPD Practical: Formulation prescription, method administration, dose, time, duration, Pathya, Apathya advised - Minimum 10 case sheet record of different dosage forms prescribed for particular case/ disease</p> | 10 |
| 9 | 9. DrugDispensing Practical | 3 | <p>Drug Dispensing practical for method of Dispensing different dosage forms, their packing for OPD and IPD patients</p> | 6 |
| 10 | 10.Quality Control Practicals | 2 | <ul style="list-style-type: none"> • 1 Minerals & Metals Mineral Identification • Physical form – Crystal and | 38 |

Amorphous

- Hardness on Moh's scale
- Brittleness test
- Fracture and Cleavage
- Streak Test
- Luster

2 Plant Material

- Estimation of Foreign matter
- Specific Gravity
- Refractive Index

3. Prepared Dosage forms

A. Solid Dosage Forms

Rasaushadhi

- Bhasma and Pishti Pariksha
- Determination of Moisture content

4. Kashtoushadhi

a. Churna

- Particle Size
- Bulk Density
- Determination of Ash Value – Total Water Soluble/Acid Insoluble ash

b. Tablets

- Uniformity in Weight and Size
- Tablet Hardness

B. Semisolid Dosage forms

- Moisture Content
- Microbial Load

C. Liquid Dosage Forms

- PH Value
- Refractive Index
- Specific Gravity
- Saponification Value
- Iodine Value
- Acid Value
- Viscosity

Note :

- All Practical should be performed in Accordance of Methods published in protocol for testing of ASU Medicines and

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| | | | Laboratory Guide for Analysis of Ayurveda & Siddha formulations published by Dept of AYUSH, GOI • Minimum 5 Analytical Practicals are to be written in Practical Record or In Journal |
| | | | Total Hr 210 |

Activity

| CO | Topic name | Activity Details | Hours# |
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| CO1,CO2 | Paper I -1. Chronological development of Ayurvediya Aushadhi Nirmana | <p>Objective - To orient the students regarding chronological development of Rasashastra & Bhaishajya Kalpana</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Describe the history of Rasashastra & Bhaishajya Kalpana. • Identify the different types of metal-based medicines. • Explain the benefits of metal-based medicines. • Discuss the safety of metal-based medicines. <p>Methodology</p> <p>1) All students are to be assigned to collect and compile information on chronological</p> | 1 |

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| | | <p>development of Rasashastra & Bhaishajya Kalpana from different books, including Indians are the first, who introduced metal based medicines.</p> <p>2) Ask to Submit the assignment for signature</p> | |
| CO1,CO2 | Paper I - 2. a) Paribhasha(Terminology) | <p>Rasadravya</p> <p>Objective - To encourage the students to remember rasadravyas and their classification through games</p> <p>Activity</p> <p>Group I -In one big tray all Rasa - Dravyas are to be kept together.</p> <p>Timer to be started.</p> <p>In a stipulated time, student has to collect drugs belonging to the particular class (rasadravya varga) allotted to him /her and create a heap in order This can be given in a group.</p> <p>Group 2.-Word puzzle</p> <p>Various word puzzles can be created for making the students to remember names of rasadravyas along with their class.</p> | 1 |
| CO1,CO3 | Paper I -2. b)Paribhasha | <p>Mana Paribhasha Objective -</p> <p>After completing this activity, students will be able to:</p> | 2 |

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| | | <ul style="list-style-type: none"> • weigh dry & wet drugs • Understand the % of weight loss after drying different variety of the wet drugs • Enjoy (game based) learning about rasadravyas and their classification. <p>Methodology-</p> <p>whole batch need to be divided into various groups. (4-5 students in each group).</p> <p>Each group need to make a chart/ task as per the instructions written on the paper they pick up.</p> <p>1) Collect seeds mentioned in the classical mana paribhasha and prepare chart describing details of mana</p> <p>2) Measure by weight the given drug. (Guduchi Bharad, Amalaki Bharad, Haritaki Churna, Nimbapatra churna, whole maricha all will be kept having same weight) Now observe how much volume these drugs have.</p> <p>3) Collect fresh Guduchi.500gm or any fresh drugs leaf, bark, flower etc. Keep on observing the reduction in the weight of the sample till it dries completely. Record weight every day. Discussion about observation will be done.</p> <p>Do this same for Vasa, Shatavari, Amalaki also. Compare and assess the results. Every year drugs need to be changed</p> | |
| CO1,CO2 | Paper I -2. c)Paribhasha Terminology | Shodhana | 1 |

Objective - To enhance ability of the students to recall their knowledge about rasadravyas and their procedures

At the end of Activity, the students should be able to

Recall the different shodhana methods that are used for rasadravyas.

- Identify the different yantras that are used for shodhana.
- Understand the different procedures that are used for shodhana.
- Correctly answer questions about shodhana methods, yantras, and procedures.
- Explain the different steps involved in the shodhana process.
- Discuss the benefits of shodhana for rasadravyas.

Activity-

Rapid Fire quiz online

Questions will be framed based on the knowledge of Yantra, Dravya, Method used for that drug etc and rapid fire round will be carried out. This can be done online

Questions for example-

- 1) Vanga Shodhan is done by which method?
- 2) Which yantra is used for Shankha Shodhan?

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| | | 3) LashunaSvarasa bhavana is used for shodhana of which drug? | |
| CO1,CO2 | Paper I- 3.Adharabhuta Siddhanta (Fundamental Principles) | <p>Objective : To understand the concept with the help of classical shloka & application of fundamental principles of Ayurvediya aushadhi nirmana.</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different fundamental principles of Ayurvediya Aushadhi Nirmana. • Illustrate how these principles are applied in the preparation of Ayurvedic formulations. • Interpret classical shlokas related to the application of fundamental principles using Panchavayavavakya. • Demonstrate the skill of interpreting classical shlokas using Panchavayavavakya. • Students are to be divided into 5 groups • Each group need to be given 2 Shlokas from particular classical text book <p>Method of Activity:</p> <ol style="list-style-type: none"> 1. The students are divided into groups & each group need to be allotted 1 to 2 shlokas from classics related to application of fundamental principles. 2. To develop skill of interpretation of shloka by applying Panchavayava vakya i.e Pratignya, | 2 |

Hetu, Udaharana, Upanaya and nigamana

3. They will understand application of basic fundamentals.

4. Every year different sets of shlokas are to be given. Repetition of shlokas is not acceptable

Discussion:

After completion of task, discussion need to be held with teacher and students.

Teacher in charge will finally conclude the discussion on application of fundamental principles and understanding the shloka by applying Panchavayavakya.

Optional Activity Activity - 1 Title : Search references from classical text

Group : Students should be divided in to 10 groups.

Reference Text : 1.Chakradatta 2.Yogaratnakara
3.Bhavaprakasha 4.Sharangadhara

1GP : DravyaSamgraha method

2 GP : Collection Time

3 Gp :Collection Part

4 GP : Examples of Samskara

5 GP :Collection Nakshatra

6 GP :Pranija dravya partcollection

7 GP :Duplication Yoga

8 GP : Namakarana on Mana/Number of Dravya

9 GP : Saveeryata Avadhi

10 GP : Anupana in classical Yoga

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| CO1,CO5 | Paper I -4.Yantropakaranani - I (Equipments and machineries) | <p>Objectives:-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different yantras that are used in the preparation of Ayurvedic formulations. • interpret the different procedures of drug preparation that use yantras. • Collect information on different yantras from classical text books. • Present their findings in a clear and concise way. <p>Activity</p> <ul style="list-style-type: none"> • Students need to be divided into 4 groups (15 to 25 students in each group) • Each group need to be given one reference book • They have to collect information on different yantras explained /used for different procedures of drug preparation from that book. • Books like Ananda kanda, Rasa Tarangini, Rasa Ratna Samuchyaya, Rasendra Sara Sangraha, Parada Samhita etc can be given • Every year digfferent books are to be given. • Each Group has to present/ Submit assignment on total no of Yantras mentioned, their different uses, Structure/ Picture etc <p>Discussion: In charge teacher will comment on particular group performance and study matter</p> | 4 |
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| | | collected. | |
| CO1,CO5 | Paper I -5.Yantropakaranani - II (Equipments and machineries) | <p>Objective:-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Prepare a video/ppt demonstration on Musha, Koshthi and Puta. • Model the preparation of Musha, Koshti and Puta. • Collect literature on Musha, Koshti and Puta from classical text books as per different authors. • Identify modern/presently available Yantras based on the classical concept of Musha, Koshti and Puta. <p>Activity</p> <p>Students are to be divided into 4 groups</p> <p>Group I- is allotted to prepare video/ppt demonstration</p> <p>Group II-Model preparation of Musha, Koshthi and Puta</p> <p>Group III- Literature collection from classical text books as per different authors on Musha, Koshthi and Puta</p> <p>Group IV - Modern / Presently available Yantras based on the classical concept of our yantra, Musha, Koshthi and Puta</p> <p>Note: Every year different yantras/ instruments need to be given</p> | 4 |

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| | | <p>Discussion and Conclusion: Each group has to present their activity followed by teacher's remark</p> | |
| CO1,CO2 | <p>Paper I- 6. Kalpana Nirmana I(Primary & Secondary dosage forms)</p> | <p>Objective:-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different dosage forms that are commonly used in Ayurveda. • Appraise the different methods that are used to prepare these dosage forms. • Document the different activities that are performed at home and in communities/societies related to the preparation of these dosage forms. • Prepare two dosage forms in the laboratory from their observation of home preparations. <p>Methodology:</p> <p>1. Every student will document different activities performed at home and in societies/communities related to the preparation of different dosage forms which come under Panchavidha kashaya kalpana , Upakalpana and their household applications.(for example-fruit juices belong to svarasa kalpana, chutney to kalka etc.)</p> <p>Discussion:</p> <p>1.The students will be assessed based on their documentation</p> <p>2. A group containing 10 number of students will be asked to collect the raw materials and prepare</p> | 4 |

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| | | <p>minimum two numbers of dosage forms in the laboratory from their observation of home preparations.</p> <p>3. Finally an interactive session will be held to discuss the learning experiences and to clear doubts</p> | |
| CO5 | Paper I- 7 & 11. Kalpana Nirmana II &III (Method of preparation of different dosage forms & dietary supplements) | <p>objective: -</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different dosage forms that are commonly used in Ayurveda. • Appraise the different methods that are used to prepare these dosage forms. • Document the different activities researches related to the preparation of these dosage forms. <p>Methodology: -</p> <p>1.Students need to be divided into 4 different groups.</p> <p>2.Group 1 - Directed to collect information on different varieties of proprietary Ayurvedic and contemporary solid dosage forms available in the market through e-resources (e.g. tablets, capsules, lozenges etc)</p> <p>3.Group 2- Directed to collect information on different varieties of proprietary Ayurvedic and contemporary Liquid dosage forms available in the market through e-resources (e.g. Oils, syrups, suspensions etc)</p> <p>4.Group 3 - Directed to collect information on</p> | 10 |

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| | | <p>different varieties of proprietary Ayurvedic and contemporary semisolid dosage forms available in the market through e-resources (e.g. ointments, gels, jellies etc)</p> <p>5.Group 4 - Directed to collect research articles published on modification of classical Ayurvedic dosage forms through e-resources on solid, liquid and semisolid dosage forms.</p> <p>Discussion: -Finally Students have to present the collected information in the form of power point presentation and submit the assignment.</p> <p>In charge teacher has to conclude by stressing upon scope for research and development in modification of classical dosage forms.</p> <p>The mentioned activity is an example.</p> <p>Note: Every year different formulations/ dosage forms/ activity need to be given.</p> | |
| CO1,CO2,CO3 | <p>Paper I- 8.Rasa Dravya Parichaya - I MK</p> | <p>Objecives:-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Justify the importance of identifying genuine Rasa Dravyas. • Learn to interpret classical and mineralogical criteria for identifying Rasa Dravyas. • Communicate findings effectively <p>Method of Activity:</p> <ol style="list-style-type: none"> 1. Students are to be divided into 4 to 5 groups 2. Each group is to be given 5 Rasadravyas (from | 4 |

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| | | <p>must to know dravya list).</p> <p>3. Students will be instructed to collect raw samples/ Pictures / Photos of assigned Rasa Dravya</p> <p>4. Students have to interpret classical as well as mineralogical criteria for identifying that Rasa Dravya.</p> <p>5. Encourage them to develop the skill of identification of various Rasa Dravyas and to understand its necessity.</p> <p>Discussion & Conclusion</p> <p>Each Group has to share the presentation.</p> <p>Finally, teacher has to give concluding remarks.</p> <p>Note: The mentioned activity is an example.</p> <p>Every year different sets of drugs/ activity need to be given.</p> | |
| CO1,CO2,CO3 | Paper I-9.Rasa Dravya Parichaya II - DK | <p>Objectives :-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Document the different rasa dravyas that are considered to be desirable to know. • Gather information about each rasa dravya, such as its Sanskrit name, English name, synonyms, botanical name, physical appearance, taste, and medicinal properties. • Present the findings in a clear and concise way. | 6 |

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| | | <ul style="list-style-type: none"> • Debate and justify that their drug is more superior than other drugs in the same group. <p>Method of Activity:</p> <ol style="list-style-type: none"> 1. Students are to be divided into 4 groups 2. The students will be instructed to refer and collect photos, general information, medicinal uses from classical text books and e resources. 3. Each group is to be given 2 drugs. 4. The mentioned activity is an example. Every year different rasadravya / activity need to be given. <p>Discussion:</p> <p>After the completion of compilation of desirable to know Rasa Dravya, each group will present short review of their work in front of the class and they have to debate and justify that their drug is more superior than other drugs in the same group. Finally, teacher have to give concluding remark on debate.</p> | |
| CO3 | Paper I- 10.Rasa Dravya Parichaya - III NK | <p>Objectives :-</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Document the different rasa dravyas that are considered to be desirable to know. • Gather information about each rasa dravya, such as its Sanskrit name, English name, synonyms, botanical name, physical appearance, | 6 |

taste, and medicinal properties.

- Present the findings in a clear and concise way.
- Debate and justify that their drug is more superior than other drugs in the same group. To compile, understand and document basic information about certain Rasa Darvyas. (this activity is for nice to know dravyas)

Methodology:

1. Students are to be divided into 4 groups
2. The students will be instructed to refer and collect photos, general information, medicinal uses of given dravyas from classical text books and e resources.
3. Each group is to be given 4 drugs.
4. The mentioned activity is an example. Every year different drugs/ activity need to be given.

Discussion:

After the completion of compilation of nice to know Rasa Dravya, each group will present short review of their findings, in front of class and they have to debate and justify that their drugs are more superior than other drugs. Finally, teacher have to give concluding remark on debate.

Note: Every year different drugs are to be given.

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| CO1,CO2,CO3,CO5 | Paper I - 12.Chaturvidha Rasayana -MK | <p>Objectives:-</p> <ul style="list-style-type: none"> • Collect information on different Chaturvidha Rasa formulations. • Identify the different manufacturing companies that produce Chaturvidha Rasa formulations. • appraise the different classical references that are used to manufacture Chaturvidha Rasa formulations. • Compare the MRP (prices) of different Chaturvidha Rasa formulations. • Identify the indications for different Chaturvidha Rasa formulations. • Analyze the different Chaturvidha Rasa formulations and develop critical thinking skills. • Communicate their findings effectively to the class. <p>Method of Activity: (Survey)</p> <p>Students are to be divided into 5 groups</p> <p>1. Group 1- Need to be assigned to collect information on Swarna Bhasma manufacturing companies, classical references they follow to manufacture it, MRP (prices) and indications</p> <p>2. Group 2- Need to be assigned to collect varieties of parpati containing suvarna bhasma as one ingredient in it, their manufacturing companies, classical references they follow to manufacture it, MRP (prices) and indications</p> <p>3. Group 3- Need to be assigned to collect varieties of kupipakwa rasayanas containing suvarna bhasma as one ingredient in it,</p> | 4 |
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| | | <p>manufacturing companies, classical references they follow to manufacture it, MRP (prices) and indications</p> <p>4. Group 4 - Need to be assigned to collect varieties of pottali rasayanas containing suvarna bhasma as one ingredient in it, manufacturing companies, classical references they follow to manufacture it, MRP (prices) and indications</p> <p>5. Group 5 - Need to be assigned to collect varieties of kharaliya rasayanas containing suvarna bhasma as one ingredient in it, manufacturing companies, classical references they follow to manufacture it, MRP (prices) and indications</p> <p>6.The mentioned activity is an example. Every year different formulations/ activity need to be given.</p> <p>Discussion: All groups have to present their assignment and finally in charge teacher has to give conclusion of importance of swarnakalpa. rationality behind following different references and probable variation in their cost.</p> | |
| CO1 | Paper I- 13.Current and Emerging Trends in Ayurvedic pharmaceuticals | <p>Objectives: -</p> <ul style="list-style-type: none"> • Identify the current and emerging trends in Ayurvedic Pharmaceuticals. • Analyze the potential impact of these trends on the future of Ayurvedic Pharmaceuticals. • Review and record the commonly used modified dosage forms of Ayurvedic | 4 |

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| | | <p>formulations.</p> <ul style="list-style-type: none"> • Evaluate the potential of these modified dosage forms to improve the efficacy and safety of Ayurvedic formulations. <p>Method of Activity</p> <p>Students need to be divided into 3 groups</p> <p>Group 1. List the current and emerging trends in Ayurvedic Pharmaceuticals viz. cosmetics, Nutraceuticals, Herbaceuticals</p> <p>Group 2. Review and record the commonly used modified dosage forms of Ayurvedic formulations</p> <p>Group 3. Generate a folder on computer about relevant research articles on modified Ayurvedic dosage forms</p> <p>Discussion : All the above groups will present their assignment with their team and Exchange of Knowledge will take place followed by conclusion by faculty in charge</p> | |
| CO4 | Paper I - 14. GMP & Drug and Cosmetic act 1940 and rules 1945 | <p>Objective:</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify misleading advertisements under the Drug & Magic Remedies objectionable advertisements Act, 1954. • Analyze misleading advertisements and identify the specific provisions of the Act that are being violated. | 4 |

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| | | <ul style="list-style-type: none"> • Communicate their findings in a clear and concise way. <p>Methodology: -</p> <p>Students are to be divided into 5 students in each group</p> <p>1. Each group need to report two misleading advertisements under Drug & Magic Remedies - objectionable advertisements Act, 1954 advertising through TV channels, print media or electronic media etc.</p> <p>2. The students will ask to submit details of objectionable advertisements in the prescribed format.</p> <p>Discussion: -</p> <p>After the submission of reports, the students will be asked to present and an interaction will be held between students and the concerned teacher (s) to understand the act & rules of objectionable advertisements as a learning experience.</p> | |
| CO1 | Paper II -1. Aushadhi Prayoga Vigyana | <p>Objective:</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Understand the concept of Prashasta Bhesaja lakshana. • Identify the different aspects of Prashasta Bhesaja lakshana, such as bahu kalpam, bahugunam, and sampannam. | 2 |

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| | | <ul style="list-style-type: none"> • Gather information about a given drug/formulation and justify whether it is a Prashasta Bheshaja. • Communicate their findings in a clear and concise way. <p>Method of Activity</p> <p>Students will be divided in Groups consisting of 10 Students in each group</p> <p>each group will be given one drug/Formulation</p> <p>They have to search information about Prashasta bheshaja on following aspects-</p> <ol style="list-style-type: none"> 1.Bahu Kalpam 2.Bahugunam 3.Sampannam <p>justify that the drug which they are allotted drug/formulation</p> <p>Each team will present their Justification followed by conclusion by designated faculty.</p> | |
| CO1,CO3 | Paper II- 2.Single drug (Herbal & Mineral) | <p>Objective:</p> <p>After completing this activity, students will be able to demonstrate their knowledge of herbal and mineral drugs by:</p> <ul style="list-style-type: none"> • Identifying and differentiating between | 2 |

different types of herbal and mineral drugs, with at least 5 examples of each.

- Understanding the different formulations of herbal and mineral drugs, with at least 3 examples of each formulation.
- Learning about the different indications for herbal and mineral drugs, with at least 3 examples of each indication.
- Learning about the different anupanas that can be used with herbal and mineral drugs, with at least 3 examples of each anupana.
- Understanding the importance of pathyaapatya, sevana kala, and saveeryatavadhi in the administration of herbal and mineral drugs.
- Communicating their findings in a clear and concise way, including a presentation to the class that is clear, concise, and answers questions about the drugs.

Method of Activity

1. Students need to be divided into groups as per convenience
2. Each group need to be assigned with one herbal or one mineral drug or from both categories
3. Advised to collect information on assigned single drug/drugs variety of formulations, different indications when given in different form, with different anupana, Pathyaapatya, sevana kala, saveeryatavadhi and research updates and clinical evidences for each of the formulations
4. Every year different drugs are to be allotted to avoid repetition.

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| CO1,CO2,CO3 | Paper II -3.Single Drug (Bhasma, Shuudha & Pishti)- Mk | <p>Objective</p> <p>After completing this activity, students will be able to demonstrate their knowledge of market research by:</p> <ul style="list-style-type: none"> • Conducting a market survey of one or two bhasmas in a particular city. • Collecting and documenting information about the market demand for the bhasma, such as the price, the dosage, and the frequency of use. • Analyzing the data collected to determine the market trends for the bhasma. • Communicating their findings in a clear and concise way, including a presentation to the class. <p>Method of Activity:</p> <p>1.The students instructed to visit Ayurvedic drug store and collect information as given in the format.</p> <p>2.Students need to be divided into 4 to 5 groups. Each group need to be given 1 to 2 drugs. (Every year different drugs are to be allotted to avoid repetition.)</p> <p>3.Each group has to visit one to two Ayurvedic drug stores. Number of stores can be increased based on number of drug stores in the city or around the city.(based on information of online survey)</p> <p>After collecting information students have to submit survey forms to department</p> | 6 |
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| CO1,CO2 | Paper II- 4. Aushadhi Kalpa-I(Compound Formulations) | <p>Horizontal Integration Activity with Department of Agada Tantra Objective</p> <p>After completing this activity,</p> <ul style="list-style-type: none"> • Students will be able to demonstrate their knowledge of the preparation and uses of agadas by: • Preparing five different agadas under the guidance of Rasashastra & Bk Dept faculty.. • Presenting their findings on the ingredients, method of preparation, uses, dosage, anupana, and mode of action of the agadas. • Communicating the utility of the agadas in different conditions, research updates with case studies, and dosage, anupana, and duration of agada kalpa prayoga. <p>Method of Activity</p> <p>Students will be divided into 5 groups</p> <p>Each group will get hands on training to prepare one peculiar agada (mentioned in following list) and faculty from Agada Tantra department will give information about its utility in different Visha Laxana/or Stages of visha dushta.All details about agada kalpa prayoga viz.Dosage, Anupana, Duration will be discussed -2hrs</p> <p>Team 1: Bilavdi Agada</p> <p>Team 2: Dooshivishari Agada</p> <p>Team 3: Dashanga Agada</p> <p>Team 4: Murvadi Agada</p> <p>Team 5: Pancha Shireesha Agada</p> <p>Presentation will be done by all Teams on</p> | 4 |
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| | | <p>Ingredients, Method of Preparation, Video/ Photos of ingredients, preparation, uses, dosage, Anupana</p> <p>Every year different topics are to be selected for integrated activity. Repetition should be avoided.</p> <p>Discussion will be done on mode of action, utility of above prepared Agadas in different conditions, Research updates with Case studies by Agada Tantra Faculty</p> | |
| CO3 | Paper II - 5. Aushadhi Kalpa - II(Compound drugs/ formulations) | <p>Objective</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different types of research updates and clinical evidences that are available for the formulations listed in the syllabus Aushadhi Kalpa - II(Compound drugs/ formulations). • Collect and compile research updates and clinical evidences for the formulations assigned to them. • Review the research updates and clinical evidences to determine their relevance and significance. • Communicate their findings in a clear and concise way. <p>Methodology of Activity :</p> <ol style="list-style-type: none"> 1.Students are to be divided into 5 to 6 groups 2.Each group is to be assigned 2 to 3 formulations in the syllabus. | 2 |

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| | | <p>3.Groups are instructed to collect Research updates and clinical evidences for formulations assigned to them</p> <p>4. Every year different formulations are to be allotted to avoid repetition.</p> <p>Submission of Assignment:</p> <p>After the completion of compilation groups have to submit the assignment for correction.</p> | |
| CO4 | Paper II - 6 Dosage forms & cosmetic products Paper II- 7. Nutraceuticals | <p>objective</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different types of cosmetic and nutraceutical products. • Understand the legal and regulatory requirements for these products. • Research the market for these products. • Analyze the quality control tests that are recommended for these products. • Prepare a report/assignment on the selected products. • Communicate their findings in a clear and concise way. • Answer questions about their findings. • Communicate the significance of various guidelines used for testing of food products and cosmetics in brief. | 3 |

Methodology: -

1. Students are to be divided into 5-6 groups
2. Each group need to be given one to two cosmetic or nutraceutical products for eg. Lipstick, lip balm, Energy drink, Nutritional supplement for children, working women, pregnant women etc.
3. The students will be asked to prepare a report/assignment on number of companies selling such products. Information should be compiled about their major ingredients, preservatives, price, market value, quality control tests recommended etc.
4. For that Nutritional Product, the students will be asked to go through the quality parameters and nutritional values displayed on packages of food products as per the guidelines of Food Safety and Standards Authority of India (FSSAI).
5. Every year different products are to be allotted to avoid repetition

Discussion: - After the submission of reports, a discussion will be held among the students and the teacher(s) to understand the significance of various guidelines used for testing of food products and cosmetics in brief.

Optional Activity**Objectives-**

after completion of the course students should be able to prepare dosage forms and self care products in the syllabus.

Short term course/ Module

| | | | |
|-------------|--|---|---|
| | | <p>Online/offline mode in collaboration with Pharmacy college</p> <p>Dosage Forms & Self-care Products</p> <p>Assessment through MCQ's</p> <p>Duration of the course may be 22hrs including online assessment</p> | |
| CO1,CO3,CO6 | <p>Paper II- 8 Anupana Prayoga for Aushadhi Kalpa</p> <p>Paper II- 9. Aushadhi Prayoga Marga</p> | <p>Objective</p> <p>After the completion of this activity</p> <ul style="list-style-type: none"> • Students should be able to explain/present the probable pharmacokinetic and pharmacodynamic principles of assigned Ayurvedic drugs & Anupana in different condition or indication <p>Method of Activity: -</p> <ol style="list-style-type: none"> 1.Students will be divided into 5 to 6 groups 2.Each group need to be allotted formulations/ single drug/Bhasma/Pishti etc 3.Students are asked to explain the therapeutic importance of five formulations with respect to different Anupana, Aushadhiprayoga marga and their utility in different disorders with the probable pharmacokinetic and pharmacodynamic principles involved in the use of assigned Ayurvedic drugs. 4. students have to submit assignment / sharing ppt presentation in the activity group <p>Discussion: -</p> <p>After the completion of this task, students should be able to explain/present the probable pharmacokinetic and pharmacodynamic principles of assigned Ayurvedic drugs. In charge teacher has to conclude on collection of compiled matter and drugs action.</p> | 2 |

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| | | | |
| CO3 | Paper II 10. Rational prescription along with safe dispensing of Ayurvedic formulations. | <p>Objective</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different components of a prescription. • Analyse the prescriptions to determine whether they are rational. • Discuss the significance of ideal prescription and rationality of use of drugs in Ayurveda. <p>Methodology: -</p> <ol style="list-style-type: none"> 1. Students are to be divided into 4 to 5 groups 2. Each group is advised to collect 4 to 5 prescriptions from different departments of the hospital. 3. The students are asked to visit hospital to go through the randomly selected five prescriptions for promoting them to know the ideal prescription and rational use of drugs. 4. The students will be asked to present their review of this activity during the non-lecture hours. 5. Strictly instructions should be given to maintain confidentiality about patient's name and consultant's name. <p>Discussion: -</p> <p>After the completion of the task, an interaction will be held among the students and the concerned teacher (s) to understand the</p> | 4 |

| | | | |
|---------|---|---|---|
| | | significance of ideal prescription and rationality of use of drugs in Ayurvedic practices. | |
| CO1,CO5 | Paper II 11. Traditional and local health practices | <p>Objective</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify different types of traditional healers in their local area/region. • Interview traditional healers to understand their practices. • Document the practices of traditional healers in a way that is respectful and preserves their knowledge. • Communicate the findings of their research to others. <p>Methodology :</p> <ol style="list-style-type: none"> 1. To understand the practices of traditional healers/ Folklore healers- the students are instructed to visit and meet some of the folk healers / traditional healers who have been practicing since ages in their local area/region. During their holiday/vacation students can complete this survey in and around the institute or near their residential place. 2. The students may act as a bridge between Ayurveda and traditional/local healers by making them understand the beneficial effect of technology and how this can help the healers to expand their treatment to a larger mass. Because many a times it has been observed that the healers are reluctant or they don't entertain the students who come to meet them for fear of exploitation or theft of their knowledge. | 4 |

| | | | |
|-----|---|--|---|
| | | <p>3. By doing this practice, the healers will develop confidence on students which helps in collecting /documenting practices, through which a new horizon may open in the field of medicinal research.</p> <p>Discussion: After the completion of the visit, an interaction need to be held among the concerned teachers and students to discuss the learning experiences, and try to find out difficulties so that in future those things can be managed or avoided to make things easier.</p> | |
| CO4 | Paper II 12. Pharmacovigilance for Ayurveda drugs | <p>Objective</p> <p>After completing this activity, students will be able to:</p> <ul style="list-style-type: none"> • Identify the different types of adverse drug reactions (ADRs). • Describe the detection criteria for ADRs. • Explain the assessment techniques for ADRs. • Discuss the prevention criteria for ADRs. • Able to fill out an ADR reporting format <p>Methodology: -</p> <p>The students will be asked to visit hospital or go through the previously reported cases to discuss for detection criteria, assessment techniques, understanding and prevention criteria of ADRs.</p> <p>Every student is assigned to fill up the ADR reporting format by allotting imaginary situation/ real case</p> | 4 |

| | | | |
|--|--|---|--|
| | | <p>Discussion: -</p> <p>After the visit, an interaction will be held among the concerned teacher(s) and the students to discuss the learning experiences, and the importance of ADRs, their assessment and reporting techniques.</p> | |
|--|--|---|--|

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 15 |
| 2 | Lecture with Power point presentation | 82 |
| 3 | Lecture & Group Discussion | 25 |
| 4 | Lecture with Video clips | 14 |
| 5 | Discussions | 46 |
| 6 | Brainstorming | 29 |
| 7 | Inquiry-Based Learning | 25 |
| 8 | PBL | 1 |
| 9 | CBL | 1 |
| 10 | Project-Based Learning | 15 |
| 11 | Team project work | 12 |
| 12 | Blended Learning | 1 |
| 13 | Edutainment | 1 |
| 14 | Mobile learning | 2 |
| 15 | Self-directed learning | 23 |
| 16 | Problem solving method | 2 |
| 17 | Workshops | 1 |
| 18 | Game-Based Learning | 2 |
| 19 | Demo on Model | 2 |
| 20 | Library Session | 7 |

| | | |
|----|----------------------|---|
| 21 | Peer learning | 1 |
| 22 | Real life experience | 5 |
| 23 | Recitation | 2 |
| 24 | Symposium | 1 |
| 25 | Tutorial | 2 |
| 26 | Presentations | 2 |
| 27 | Practical | 7 |
| 28 | Drug analysis | 1 |
| 29 | Demonstration | 2 |
| 30 | Demonstration Lab | 4 |
| 31 | Field visit | 2 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand Total |
|--------------|--------|--------|-------------------------------|------|----------|----|-----------|-------------|
| | | | Practical | Viva | Elective | IA | Sub Total | |
| AyUG-RB | 2 | 200 | 100 | 70 | - | 30 | 200 | 400 |

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|---------------------|---------------------------------|---------------------------|---------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE ** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|--|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|--------------------------|
| | A 2 | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (.../30) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-RB

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

Similar for Paper II

6 F Distribution of theory examination

| Paper 1 Ayurvediya Aushadhi Nirmana Vigyana | | | | | | |
|--|--|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | 1.Chronological development of Ayurvediya Aushadhi Nirmana | 1 | 05 | No | Yes | No |
| 2 | 2.Paribhasha (Terminology) | 1 | 10 | Yes | Yes | No |
| 3 | 3.Adharbhuta Siddhanta (Application of fundamental principles) | 1 | 05 | Yes | Yes | No |
| 4 | 4.Yantropakaranani- I (Equipments and machineries) | 1 | 05 | Yes | Yes | No |
| 5 | 5.Yantropakaranani -II (Equipments, fuel and Heating Devices) | 1 | 05 | Yes | Yes | No |
| 6 | 6.Kalpana Nirmana I (Primary & Secondary dosage forms) | 1 | 10 | Yes | Yes | Yes |
| 7 | 7.Kalpana Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements)) | 1 | 10 | Yes | Yes | Yes |
| 8 | 8.Rasa Dravya Parichaya- I | 2 | 10 | Yes | Yes | Yes |
| 9 | 9.Rasa Dravya Parichaya II | 2 | 5 | Yes | Yes | No |
| 10 | 10.Rasadravya Parichaya III | 2 | 5 | Yes | No | No |
| 11 | 11.Kalpana Nirman -III (Method of Preparation of different dosage forms) | 2 | 10 | Yes | Yes | Yes |
| 12 | 12.Chaturvidha Rasayana | 2 | 10 | Yes | Yes | Yes |
| 13 | 13.Current and emerging trend in Ayurvedic pharmaceuticals | 3 | 5 | No | Yes | No |

| | | | | | | |
|--------------------|---|---|------------|-----|-----|----|
| 14 | 14.GMP(Schedule T) & Regulatory aspects of Ayurvedic drugs | 3 | 5 | Yes | Yes | No |
| Total Marks | | | 100 | | | |

| Paper 2 Ayurvediya Aushadhi Prayoga Vigyana | | | | | | |
|--|---|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 15 | 1.Aushadhi Prayoga Vigyana | 1 | 5 | Yes | Yes | No |
| 16 | 2.Single drug (Herbal & Mineral) | 1 | 10 | Yes | Yes | Yes |
| 17 | 3.Single drug(Bhasma, Shuddha & Pishti) | 2 | 15 | Yes | Yes | Yes |
| 18 | 4.Aushadhi Kalpa -I (Compound formulations) | 2 | 15 | Yes | Yes | Yes |
| 19 | 5.Aushadhi Kalpa-II (Compound Drugs/Formulations) | 3 | 15 | Yes | Yes | Yes |
| 20 | 6.Dosage Forms & Cosmetic Products | 3 | 5 | Yes | Yes | No |
| 21 | 7.Nutraceuticals | 3 | 5 | Yes | Yes | No |
| 22 | 8.Anupana Prayoga for Aushadhi Kalpa | 3 | 5 | Yes | Yes | No |
| 23 | 9.Aushadhi Prayoga Marga | 3 | 10 | Yes | Yes | Yes |
| 24 | 10.Rational prescription along with safe dispensing of Ayurvedic formulations. | 3 | 5 | No | Yes | No |
| 25 | 11.Traditional & Local health Practices | 3 | 5 | No | Yes | No |
| 26 | 12.Pharmacovigilance for Ayurveda drugs | 3 | 5 | Yes | Yes | No |
| Total Marks | | | 100 | | | |

6 G Blue print of paper I & II

| Paper No:1 | | |
|-------------|---|--|
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <ol style="list-style-type: none"> 1. 2.Paribhasha (Terminology) 2. 2.Paribhasha (Terminology) 3. 2.Paribhasha (Terminology) 4. 4.Yantropakaranani- I (Equipments and machineries) 5. 5.Yantropakaranani -II (Equipments, fuel and Heating Devices) 6. 6.Kalpana Nirmana I (Primary & Secondary dosage forms) 7. 6.Kalpana Nirmana I (Primary & Secondary dosage forms) 8. 6.Kalpana Nirmana I (Primary & Secondary dosage forms) 9. 7.Kalpana Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements) 10. 7.Kalpana Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements) 11. 8.Rasa Dravya Parichaya- I 12. 8.Rasa Dravya Parichaya- I 13. 8.Rasa Dravya Parichaya- I 14. 8.Rasa Dravya Parichaya- I 15. 9.Rasa Dravya Parichaya II 16. 10.Rasadravya Parichaya III 17. 11.Kalpana Nirman -III (Method of Preparation of different dosage forms) 18. 12.Chaturvidha Rasayana 19. 12.Chaturvidha Rasayana 20. 14.GMP(Schedule T) & Regulatory aspects of Ayurvedic drugs |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <ol style="list-style-type: none"> 1. 1.Chronological development of Ayurvediya Aushadhi Nirmana 2. 3.Adharbhuta Siddhanta (Application of fundamental principles) / 2.Paribhasha (Terminology) 3. 9.Rasa Dravya Parichaya II / 4.Yantropakaranani- I (Equipments and machineries) / 5.Yantropakaranani -II (Equipments, fuel and Heating Devices) 4. 6.Kalpana Nirmana I (Primary & Secondary dosage forms) 5. 7.Kalpana Nirmana-II (Method of Preparation |

| | | |
|--------------------|---|--|
| | | <p>of different dosage forms& Dietary Supplements))</p> <p>6. 9.Rasa Dravya Parichaya II / 8.Rasa Dravya Parichaya- I</p> <p>7. 12.Chaturvidha Rasayana</p> <p>8. 14.GMP(Schedule T) & Regulatory aspects of Ayurvedic drugs / 13.Current and emerging trend in Ayurvedic pharmaceuticals</p> |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. 6.Kalpana Nirmana I (Primary & Secondary dosage forms)</p> <p>2. 7.Kalpana Nirmana-II (Method of Preparation of different dosage forms& Dietary Supplements))</p> <p>3. 8.Rasa Dravya Parichaya- I</p> <p>4. 11.Kalpana Nirman -III (Method of Preparation of different dosage forms) / 12.Chaturvidha Rasayana</p> |
| Paper No:2 | | |
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <p>1. 1.Aushadhi Prayoga Vigyana</p> <p>2. 2.Single drug (Herbal & Mineral)</p> <p>3. 2.Single drug (Herbal & Mineral)</p> <p>4. 3.Single drug(Bhasma, Shuddha & Pishti)</p> <p>5. 3.Single drug(Bhasma, Shuddha & Pishti)</p> <p>6. 3.Single drug(Bhasma, Shuddha & Pishti)</p> <p>7. 3.Single drug(Bhasma, Shuddha & Pishti)</p> <p>8. 4.Aushadhi Kalpa -I (Compound formulations)</p> <p>9. 4.Aushadhi Kalpa -I (Compound formulations)</p> <p>10. 4.Aushadhi Kalpa -I (Compound formulations)</p> <p>11. 4.Aushadhi Kalpa -I (Compound formulations)</p> <p>12. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> <p>13. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> <p>14. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> <p>15. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> <p>16. 6.Dosage Forms & Cosmetic Products</p> |

| | | |
|-----------|--|--|
| | | <p>17. 7.Nutraceuticals 18. 8.Anupana Prayoga for Aushadhi Kalpa 19. 9.Aushadhi Prayoga Marga 20. 12.Pharmacovigilance for Ayurveda drugs</p> |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <p>1. 8.Anupana Prayoga for Aushadhi Kalpa / 1.Aushadhi Prayoga Vigyana 2. 2.Single drug (Herbal & Mineral) 3. 3.Single drug(Bhasma, Shuddha & Pishti) 4. 4.Aushadhi Kalpa -I (Compound formulations) 5. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations) 6. 7.Nutraceuticals 7. 9.Aushadhi Prayoga Marga 8. 12.Pharmacovigilance for Ayurveda drugs / 10.Rational prescription along with safe dispensing of Ayurvedic formulations. / 6.Dosage Forms & Cosmetic Products / 11.Traditional & Local health Practices</p> |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. 2.Single drug (Herbal & Mineral) / 9.Aushadhi Prayoga Marga 2. 3.Single drug(Bhasma, Shuddha & Pishti) 3. 4.Aushadhi Kalpa -I (Compound formulations) 4. 5.Aushadhi Kalpa-II (Compound Drugs/Formulations)</p> |

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|------|--|-------|
| 1 | <p>1.Spotting (10 sample + 5 Instruments/ equipments)</p> <p>Identification (1 mark) answering sub question related to spotter(1 mark) 15x2=30 marks Choose spotter from below mentioned list</p> <ol style="list-style-type: none">1. Parada (mercury),2. Abhraka (Biotite Mica),3. Makshika (Chalco-pyrite),4. Shilajatu(Asphaltum Punjabianum)5. Gandhaka (Sulfur)6. Gairika(Red Ochre)7. Kankshi (Alum)8. Haratala (Orpiment)9. Manahshila (Realgar)10. Kampillaka(Mallotus Philippinensis)11. Navasadara (Ammonium chloride)12. Hingula (Red Cinnabar)13. Tamra (Copper)14. Loha (Iron)15. Mandur (rust iron)16. Vanga (Tin)17. Naga (Lead)18. Yashada (Zinc)19. Pravala (Coral)20. Kaparda (Cowries)21. Shukti (Oyster Shell)22. Shankh (Conch Shell)23. Godanti (Gypsum)24. Samudraphena (Cattle Fish bone)25. Kukkutanda twak (Hen's EggShell),26. Tankana kshara (Borax)27. Sasyaka (Peacock ore)28. Kasisa (Green Vitriol),29. Gauri pashana (Arsenic oxide)30. Akika(Agate),31. Sudha (Lime stone)32. Khatika33. Dugdhapashana (Talc) 34. Vimala35. Rasaka36. Yantra | 30 |

| | | |
|---|---|----|
| | <p>37. Dola Yantra 38. Damaru Yantra 39. Valuka Yantra 40. Puta Yantra 41. Khalwa Yantra 42. Patana Yantra 43. Darvika Yantra 44. Ulukhala Yantra 45. Patala Yantra 46. Kupa Yantra 47. Arkapatana Yantra 48. Pithara Yantra 49. Sharava Yantra 50. Palika Yantra 51. Sthali Yantra 52. Swedana Yantra 53. Moh's scale 54. Tablet Hardness tester 55. Ph Meter 56. Muffle Furnace 57. Electronic Weighing machine 58. Pycnometer 59. Large scale manufacturing instruments & equipments in the syllabus Photos /Pictures may be used for spotting</p> | |
| 2 | <p>2. Long Practical</p> <ul style="list-style-type: none"> • Selection of Ingredients with proportion(10Marks) • Preparation following SOP (15 marks) • Demonstration of Siddhi lakshana(05Marks) • on site viva (10 Marks) <p>List of Long Practicals</p> <ol style="list-style-type: none"> 1. Sitopaladi churna 2. Hingwastaka Churn 3. Agni Tundi Vati 4. Chitrakadi Vati 5. Lavangadi Vati 6. Triphala Guggulu 7. Kaishor Guggulu 8. Phala Varti 9. Chandrodaya Varti | 40 |

| | | |
|---|--|----|
| | <p>10. Arka Lavana 11. Narikela Lavana 12. Atasi Upanaha 13. Dashanasamskara churna 14. Gandhaka Malahara 15. Dashanga Lepa 16. Mustadi Pramathya 17. Shadanga Paneeya 18. Kharjuradi Mantha 19. Chinch Panaka 20. Chandana Panaka 21. Ghrita Murchana 22. Taila Murchana 23. Triphala Ghrita 24. Amruta Ghrita 25. Ksheera Bala Taila 26. Arka Taila 27. Vasavaleha 28. Nimbu Sharkara 29. Kutaja Ghana 30. Guduchi Ghana 31. Haridra Khanda 32. Narikela Khanda 33. Ananda Bhairava Rasa 34. Tribhuvana Keerti rasa 35. Rasa Parpati 36. Sweta Parpati 37. Laghusutsekhararasa 38. Navayasa loha 39. Saptamrita loha</p> <p>Note: for preparation shuddha dravya, decoction, murchita gritha, murchita taila etc are to be provided for long practical</p> | |
| 3 | <p>3.Short Practical</p> <ul style="list-style-type: none"> • Selection of Ingredients with proportion(5Marks) • Preparation following SOP (5 marks) • Demonstration of Siddhi lakshana(5Marks) • on site viva (5 Marks) <p>List of Short Practicals</p> <p>1. Godanti Shodhana 2. Shankha Shodhana</p> | 20 |

| | | |
|---|--|----|
| | 3. Kapardika shodhana 4. Guggulu Shodhana 5. Gandhaka Shodhana 6. Vanga Shodhana 7. Yashada shodhana 8. Abhraka Shodhana 9. Tamra Shodhana 10. Tankana Shodhana 11. Kankshi shodhana 12. Hingula Shodhana 13. Gairika Shodhana 14. Hingu Shodhana 15. Mugdha Rasa 16. Tamra Bhasma (Dadhi/ Nimbu Pariksha) 17. Triphala Masi 18. Mayura Piccha Masi 19. Vasaputapaka Swarasa 20. Amruta Satva 21. Arjuna Ksheera Paka 22. Lashuna Ksheerapaka 23. Punarnavashtaka kwatha 24. Rasna Saptaka Kwatha 25. Specific Gravity 26. Refractive Index 27. PH | |
| 4 | 4. Practical Record Four Record books- for each record book 2.5 Marks | 10 |
| 5 | 5. Viva-Voce Structure of Viva 1. Paribhasha – (2 questions 3 marks each) - 6 Marks 2. Shodhana, marana –(1 question from each 5 marks each) -10 Marks 3. Yantropakarana --(2questions 3 marks each) - 6 Marks 4. Chemical composition Raasadravaya --(1 questions 2 marks each)-2 Marks 5. Therapeutic application of single drugs – (2 question 3 marks each) -6 marks 6. Yoga - (Shloka-3 marks; ingredients-5 marks; indications -5 marks | 70 |

| | | |
|--------------------|--|------------|
| | <p>dose & anupana-2Marks)-15Marks (Select the yoga having at least 5 ingredients)</p> <p>7. Siddhi lakshana & quality control tests –(2 questions 5 marks each)-10 Marks</p> <p>8. D& C act, GMP, FSSAI- 2 Marks</p> <p>9. Viva on Non Lecture hour activity book-8 Marks</p> <p>10. Communication skills -5 Marks</p> | |
| 6 | 6. Internal assessment | 30 |
| Total Marks | | 200 |

References Books/ Resources

| S.No | Book | Resources |
|-------------|---|--|
| 1 | 1. Adyatan Rasa Shastra | R.K. Goyal Chaukhamba Surbharati Prakashan, Varanasi |
| 2 | 2.Ayurvediya Aushadhi gunadharna shastra | Vol I, II, III, IV, V, Gune Gangadharashastri, Gune Bandhu Prakashan |
| 3 | 3. Asava Arishta Vigyanam | Dr. Pakshdhar Jha, Chaukhambha Sanskrit Sansthan, Varanasi |
| 4 | 4. Ayurvediya Rasa Shastra | (Sachitra) Chandrabhusan Jha by Chaukhamba Surbharati Prakashan Varanasi, Reprint 2012 |
| 5 | 5.Ayurvediya Rasa Shastra | Prof. Siddhi Nandan Mishra, Chaukhamba Orientalia, Varanasi |
| 6 | 6.Ayurved Prakash | Vaidya Gulraj Mishra. Chaukhambha Bharati Academy, Varanasi |
| 7 | 7.Drugs and Cosmetic Act - 1940 | Vijay Malik, Eastern Book Company Delhi |
| 8 | 8. Pratyaksha Aushadh Nirmanam | Acharya Vishwanath Dwivedi |
| 9 | 9.Rasa Tarangini | Sadanand Sharma,Motilal Banarasidas, Varanasi |
| 10 | 10.Rasa Bhaishajya Kalpana Vigyan | Vaidya Santosh Kumar Khandal, Choukhamba Publishers, New Delhi |
| 11 | 11.Rasa Ratna Samuchchaya (Hindi) | Dattatreya Ananta Kulkarni, Meharchand Lachamdas Publications,New Delhi |
| 12 | 12.Rasendra Sara Sangraha | Vaidya Gopal Krishna, Chaukhambha Sanskrit Series of Varanasi |
| 13 | 13.Ayurvediya Paribhasha | Indradev Tripathi Chaukhamba Orientalia, Varanasi |
| 14 | 14.Sharangadhara Samhita | Radhakrishna Parashar Vaidyanath Ayurved Bhavan Pvt |
| 15 | 15.Bharatiya Bhaishajya Kalpana Vigyana | Gananath Vishwanath Dwivedi Krishnadas Academy, Varanasi |
| 16 | 16.Ayurvedic formulary of India | Govt. of India Ministry of Health & Family welfare New Delhi |
| 17 | 17.Ayurvedic Pharmacopiea of India | CCRAS Govt. of India Ministry of Health & Family welfare New Delhi |
| 18 | 18.Abhinava Bhaishajya Kalpana | Siddhi Nandan Mishra, Chaukhamba Surbharati Prakasha , Varanasi |
| 19 | 19.Bhaishjya Ratnawali | Prof S N Mishra Choukhamba Publishers, Varanasi |
| 20 | 20.Ayurvediya Rasashastra Ka Udbhava Evam Vikas | Satyendrakumar Arya, Krishnadas Academy, 1984 |

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| 21 | 21.Yoga Ratnakar | Shri Laxmipathi Shastri, Chaukhambha Prakashana Varanasi, Reprint 2018 |
| 22 | 22.A Text book of Rasashastra | Prof. Parimi Suresh Chaukhambha Prakashak, Varanasi |
| 23 | 23.Siddhoushadi Sangraha | Vaidyaratna G. A. Phadke, Ayurvedacharya, Satara, N. H Kolhatkar, Maharashtra mitra Mudranalaya, Shukravara peth, Satara |
| 24 | 24.Application on standardised Namburi phased spot test in identification of Bhasma and Sindura preparations of Ayurveda published | Namburi Hanumantha Rao, CCRAS., New Delhi |
| 25 | 25. Evidence based safety of Ayurvedic herbo-mineral formulations | Kumar Anhimanyu published by CCRAS, New Delhi |
| 26 | 26. Introduction to Ayurvedic Pharmaceutics | Dr Devendra Joshi & Dr Geeta Joshi Chaukhambha Orientalia |
| 27 | 27. A Handbook of Cosmetics | B. M. Mithal & R.N. Saha Published by Delhi Vallabh Prakashana |
| 28 | 28. Sahasrayoga (Sanskrit and Hindi) | Reprint by CCRAS, New Delhi |
| 29 | 29. Manual on Quality Parameters for Ayurveda & Siddha drugs | CCRAS, New Delhi |
| 30 | 30.Safety and Prescription Trends of Rasaushadhis | Critical appraisal of Reported Medical Practices of Ayurveda Herbomineral formulations from CCRAS experience. |
| 31 | 31. General Guidelines for Drug Development of Ayurvedic Formulations | CCRAS New Delhi, Volume I 1 st Edn. 2018 |
| 32 | 32. General Guidelines for Safety/Toxicity Evaluation of Ayurvedic Formulations | CCRAS New Delhi, Volume II 1 st Edn. 2018 |
| 33 | 33.General Guidelines for Clinical Evaluation of Ayurvedic Interventions | CCRAS New Delhi, Volume III 1 st Edn. 2018 |
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| 35 | 35,Inorganic Pharmaceutical Chemistry | Gundu Rao P, Vallabha Prakashana |
| 36 | 36, Organic Pharmaceutical Chemistry | Singh Harkishan; Kapoor V K, Vallabha Prakashana |

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| 37 | 37 Shlokavali of Rasashastra Bhaishajya Kalpana | Ninad Sathye;Shivaji Wavhal, Shantanu Prakashan Pune, 2009 |
| 38 | 38. Ansel's Pharmaceutical Dosage Forms and Drug Delivery Systems | Loyd V Allen : Others, 9th volume, Lippincott Williams & Willkins Wolters Kluwer Co.2011 |
| 39 | 39. Laboratory Guide for the Analysis of Ayurveda and Siddha Formulations | Lavekar G S,Central Council For Research in Ayurveda & Siddha,2010 |
| 40 | 40. Pharmaceutics I & II | Mehta R M, Vallabha Prakashana, 2014 |
| 41 | 41. Central Drugs Standard Control Organization Directorate General of Health Services Ministry of Health & Family Welfare Government of India | https://cdsco.gov.in/opencms/opencms/en/Home/ |
| 42 | 42. FSSAI official website | https://www.fssai.gov.in/ |
| 43 | 43. PHARMACOPOEIA COMMISSION FOR INDIAN MEDICINE & HOMOEOPATHY OFFICIAL WEBSITE | https://pcimh.gov.in/ |

Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
| | | |

| | | |
|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
| | | |

| | | |
|----|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRy | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
| | | |
| | | |

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

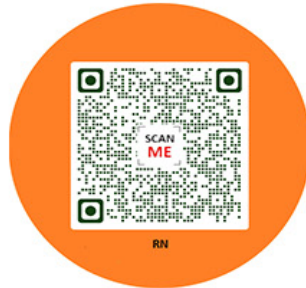
Roga Nidan evam Vikriti Vigyan

(SUBJECT CODE : AyUG-RN)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



**BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058**

NCISM

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-RN

Summary

| Total number of Teaching hours: 450 | | | |
|-------------------------------------|-----|-----|----------|
| Lecture hours(LH)-Theory | | 150 | 150(LH) |
| Paper I | 60 | | |
| Paper II | 90 | | |
| Non Lecture hours(NLH)-Theory | | 300 | 300(NLH) |
| Paper I & II | 90 | | |
| Non Lecture hours(NLH)-Practical | | | |
| Paper I & II | 210 | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | 100 | 70 | - | 30 |
| Paper II | 100 | | | | |
| Sub-Total | 200 | 200 | | | |
| Total marks | 400 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

PREFACE

Roganidan Evum Vikriti Vigyan is a subject that gives emphasis on Ayurveda and contemporary Diagnostics and Pathology. It is a key subject that trains the students to apply knowledge of fundamental principles of Ayurveda to practice by understanding diseases, patient interaction, drawing diagnosis, and prognosis. This is a strong base to frame an appropriate treatment protocol.

The curriculum is framed with a vision for developing the diagnostic knowledge and skills of a student abiding by a patient-centric education. Activity-based training has been inculcated throughout the curriculum to improve the dexterity of a student in handling real-life scenarios in the journey of reaching a diagnosis. The anatomy and physiology learned in an apparently healthy individual from the first professional year is continued in the second professional year with knowledge regarding morbid reflections in the mind and body through this subject.

The sequence of knitting the points in theory and practical are carefully executed to maintain rationality and continuity in learning from a clinical perspective. The basic principles of Vikriti vigyan and their application in Roga nidana, Vyadhi vigyana and clinical diagnostics supported by contemporary diagnostics are the core areas of the curriculum. The essential areas from contemporary pathology and diagnostics are included with the objective to receive interdisciplinary integrated teaching. Some of the topics are defined for horizontal & vertical integration for better understanding.

Innovative teaching learning and assessment methods are introduced. These will develop an interest in students, making the curriculum student and patient-centric and will help to develop competencies, skills, attitudes, and communication as these are indispensable components of the learning process in Health care/ Medicine.

In addition to classroom teaching-learning, the dedicated time has been allotted to clinical activities, self-directed learning, group learning, survey to identify specific illnesses, CBL, and PBL, which are aligned with traditional and innovative formative assessments and scientific writings; ultimately expecting the improved performance of the students in summative assessments and as a successful practitioner in future by implementing Competency-Based Medical Education. The subject will be definitely helpful to the students to create a justifiable diagnosis for future treatment plans which is the basic need for successful practice.

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Course Code and Name of Course

| Course code | Name of Course |
|-------------|--------------------------------|
| AyUG-RN | Roga Nidan evam Vikriti Vigyan |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-RN At the end of the course AyUG-RN, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|---|--|
| CO1 | Identify the morbidities in accordance with principles of Ayurveda pathology (vikriti vigyan siddhanta) | PO1 |
| CO2 | Describe the basic, general, and systemic pathological process thereby applying it in reaching a diagnosis | PO2,PO3 |
| CO3 | Perform appropriate clinical examination (pareeksha) utilizing Ayurveda and contemporary principles (samakalina siddhanta) | PO2,PO3,PO4 |
| CO4 | Order and interpret various diagnostic laboratory investigations and imaging | PO2,PO3 |
| CO5 | Diagnose and present the case with clinical reasoning (naidanika tarka) | PO5 |
| CO6 | Follow and advise advancements in diagnosis (vyadhi vinischaya) and prognosis (sadhya asadhyata) in clinical practice (naidanika adhyayana) | PO7 |
| CO7 | Communicate effectively with the patient (rugna), relatives (bandhujan) and other stakeholders (anya hita dhaaraka) | PO8 |
| CO8 | Demonstrate ethics (sadvritta), compassion (karuna) and possess qualities of a clinician (vaidya guna) | PO6,PO9 |

Table 2 : Contents of Course

| Paper 1 Fundamental Principles of Vikriti Vigyan | | | | | |
|---|---|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | 1. Roga nidana – Pathophysiology and clinical diagnosis | 1 | 43 | 1 | 0 |
| 2 | 2. Pareeksha Roga and Rogi Pareeksha | 1 | | 1 | 0 |
| 3 | 3. Methods of Rogi pareeksha | 1 | | 4 | 3 |
| 4 | 4. Sapeksha nidana - Vyavacchedaka nidana Sapeksha nidana - Vyavacchedaka nidana of Ukta/Anukta vyadhi: Methods of differential diagnosis | 1 | | 1 | 0 |
| 5 | 5. Upashaya/ Anupashaya | 1 | | 1 | 0 |
| 6 | 6. Dosha Vikriti A. Nidana (Vyadhi janaka hetu) B. Agni bheda and Vikriti C. Dosha Vriddhi, Kshaya and Dushta Karma, Ashyapakarsha, Avarana, Samsargaja, Sannipataja. D. Dosha swabhava - Nityasamshleshita (Leena) dosha and Paricchedita dosha E. Paridhavamana dosha | 1 | | 3 | 2 |
| 7 | 7. Doshagati and Rogamarga | 1 | | 1 | 0 |
| 8 | 8. Srotodushti Samanya sroto dusti nidana and lakshana | 1 | | 1 | 0 |
| 9 | 9. Concept of Ama A. Samanya nidana, and Samanya lakshana B. Bheda (Anna rasa. Mala sanchaya (Dhatwagni mandya janit). Dosha dushti) | 1 | | 2 | 0 |
| 10 | 10. Assessment of Ama Sama and nirama dosha lakshana, Pureesha lakshana | 1 | | 0 | 1 |
| 11 | 11. Sthana samshraya – Poorvaroop | 1 | 49 | 1 | 0 |
| 12 | 12. Dushya dushti A. Dhatu and mala vriddhi kshaya lakshana B. Specific Sroto dusti lakshana in relation to Dosha, Upadhatu, Mala, Indriya, Avayava, and Mana dushti lakshana | 1 | | 9 | 9 |
| 13 | 13. Samprapti A. Samprapti bheda B. Vyadhi janma and Vyadhi janya | 1 | | 1 | 0 |

| | | | | | |
|----|--|---|---|----|---|
| 14 | 14. Rupa Pratyatma/ Samanya/ Vishishta Rupa | 1 | | 1 | 0 |
| 15 | 15. Vyadhinamakarana | 1 | | 1 | 1 |
| 16 | 16. Vyadhi A. Definition, B. Classification – Dwividha/ Trividha/ Chaturvidha/ Saptavidha (Adibala/ Sahaja - Genetic, Janmabala/ Garbhaja - Congenital, Dosha bala/ Jataja - Acquired, Sanghatabala/ Peedaja - Traumatic, Daivabala/ Prabhavaja - Iatrogenic, Kalabala/ Kalaja – Environmental and Geriatric, Swabhava balapravrutta), etc. | 1 | | 4 | 0 |
| 17 | 17. Ashtanindita (Endocrine disorders) | 1 | | 1 | 0 |
| 18 | 18. Janapadodhwamsa vikara (Pandemic disorders) | 1 | | 1 | 0 |
| 19 | 19. Nidanarthakara Vyadhi, Vyadhisankara | 1 | | 1 | 0 |
| 20 | 20. Vyadhikshamatva A. Vikaravighata Bhava & Abhava, SatmyaB. Ojus - Bheda – Two types and Four types C. Dosha Paka D. ImmunityE. Healing/repair | 1 | | 2 | 0 |
| 21 | 21. Rogi bala Pareeksha | 1 | | 2 | 1 |
| 22 | 22. Dhatu Paka A. Dhatu pakaB. Ojodusti lakshana C. Asatmya - Immune pathologyD. Cell Injury and Cellular adaptations E. Inflammation F. Haemodynamic disorders G. Neoplasia | 1 | | 12 | 1 |
| 23 | 23. Infection and Nutritional disorders | 1 | 8 | 4 | 1 |
| 24 | 24. Upadrava | 2 | | 1 | 0 |
| 25 | 25. Arishta | 2 | | 1 | 0 |
| 26 | 26. Vyadhi bala pareeksha | 2 | | 1 | 0 |
| 27 | 27. Sadhyasadhyatva – Prognosis | 2 | | 1 | 0 |
| 28 | 28. Digital health and Artificial intelligence in the context of Roganidana | 2 | | 1 | 1 |

| | | | |
|--------------------|------------|--------------|--------------|
| Total Marks | 100 | 60 hr | 20 hr |
|--------------------|------------|--------------|--------------|

| Paper 2 Vyadhi Vigyan, contemporary understanding and updates | | | | | |
|--|---|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 29 | 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa | 2 | 43 | 1 | 0 |
| 30 | 2. Chhardi | 2 | | 1 | 0 |
| 31 | 3. Amlapitta | 2 | | 2 | 0 |
| 32 | 4. Shoola Parinama Shoola, Annadrava Shoola | 2 | | 1 | 0 |
| 33 | 5. Atisara, and Pravahika | 2 | | 3 | 1 |
| 34 | 6. Grahani | 2 | | 2 | 1 |
| 35 | 7. Visuchika, Alasaka, Vilambika | 2 | | 1 | 0 |
| 36 | 8. Common GIT diseases Ulcerative dyspepsia and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, Inflammatory Bowel Diseases | 2 | | 1 | 4 |
| 37 | 9. Mutrakrichhra | 2 | | 2 | 1 |
| 38 | 10. Mutraghata | 2 | | 3 | 1 |
| 39 | 11. Common Urinary diseases Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease | 2 | | 1 | 6 |
| 40 | 12. Hikka | 2 | | 1 | 0 |
| 41 | 13. Shwasa | 2 | | 2 | 1 |
| 42 | 14. Kasa | 2 | | 2 | 0 |

| | | | | | |
|----|--|---|----|---|---|
| 43 | 15. Rajayakshma & Shosha | 2 | | 3 | 0 |
| 44 | 16. Common lung disorders Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, Bronchiectasis | 2 | | 1 | 4 |
| 45 | 17. Jwara Jwarabheda - Doshaja and Agantuja (Abhishanga jwara), Vishama Jwara, Punaravartaka Jwara, Jwara avastha - Ama, Pachyamana and Nirama Jwara | 2 | | 4 | 1 |
| 46 | 18. Masurika – Romantika | 2 | | 1 | 0 |
| 47 | 19. Fever A. General mechanism of Fever. B. Introduction to Eruptive fevers - Measles, Chicken pox, Rubella, Hand foot mouth disease, Herpes zoster C. Parasitic fevers – Filariasis, Malaria, D. Detailed description of Common infective fevers – Typhoid, Dengue, Influenza, Chikungunya, E. Common regional disorders presenting with fever | 2 | | 1 | 6 |
| 48 | 20. Pandu | 2 | | 2 | 0 |
| 49 | 21. Raktapitta | 2 | 25 | 1 | 1 |
| 50 | 22. Hematopoietic diseases Anaemia, Nutritional anaemia, Thalassemia, Sickle cell Anaemia, Leukaemia, Thrombocytopenia | 2 | | 1 | 6 |
| 51 | 23. Hridroga | 2 | | 1 | 1 |
| 52 | 24. Shotha | 2 | | 2 | 0 |
| 53 | 25. Cardiovascular disorders Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure | 2 | | 1 | 5 |
| 54 | 26. Kamala | 2 | | 2 | 0 |
| 55 | 27. Udara Roga | 2 | | 2 | 1 |
| 56 | 28. Hepatobiliary diseases Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites | 2 | | 1 | 2 |
| 57 | 29. Kushtha - Maha Kushtha & Kshudra Kushtha | 3 | | 3 | 1 |

| | (According to Charaka) | | | |
|----|--|---|----|-----|
| 58 | 30. Sheetapitta | 3 | | 1 0 |
| 59 | 31. Shwitra | 3 | | 1 0 |
| 60 | 32. Visarpa | 3 | | 2 0 |
| 61 | 33. Skin diseases Allergic disorders - Eczema, Urticaria; Squamous lesions - Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid; Mycotic skin diseases; Leprosy; Vitiligo; Cellulitis | 3 | | 1 6 |
| 62 | 34. Galaganda | 3 | | 1 0 |
| 63 | 35. Thyroid disorders Hypothyroidism and hyperthyroidism | 3 | | 1 1 |
| 64 | 36. Sthoulya – Karshya | 3 | 32 | 1 0 |
| 65 | 37. Obesity | 3 | | 1 1 |
| 66 | 38. Prameha | 3 | | 2 1 |
| 67 | 39. Diabetes Mellitus and Pancreatitis | 3 | | 1 1 |
| 68 | 40. Vatavyadhi Samanya nidana, Samanya purvarupa, Samanya lakshana | 3 | | 1 0 |
| 69 | 41. Snayugata vata Snayugata vata, Akshepaka – Apatanaka; Ardita, Pakshaghata, Kampavata, Gridhrasi, Vishwachi, Pangutwa | 3 | | 4 2 |
| 70 | 42. Common neurologic and spine disorders Common neurologic diseases: Parkinson’s disease, Stroke, Bell’s Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic). Common Spine disorders: Lumbago-Sciatica syndrome, Brachial neuralgia, Cervical and Lumbar Spondylosis | 3 | | 2 4 |
| 71 | 43. Sandhigatavata and Asthi majja gata vata Sandhigatavata, Katigraha, Manyasthambha, Vatakantaka, Avabahuka, Amsashosha | 3 | | 1 0 |
| 72 | 44. Diseases of bone, joints, and muscles | 3 | | 1 2 |

| | | | | | |
|--------------------|--|---|------------|--------------|--------------|
| | Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome; Muscular diseases - Muscular Dystrophy | | | | |
| 73 | 45. Amavata | 3 | 2 | 0 | |
| 74 | 46. Vatarakta | 3 | 2 | 1 | |
| 75 | 47. Immunological & Metabolic disorders Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, Gout | 3 | 1 | 2 | |
| 76 | 48. Klaibya & Vandhyatva | 3 | 1 | 0 | |
| 77 | 49. Sexual dysfunction and Infertility | 3 | 1 | 1 | |
| 78 | 50. Unmada & Apasmara | 3 | 3 | 0 | |
| 79 | 51. Vishada | 3 | 1 | 0 | |
| 80 | 52. Murchha, and Sanyasa | 3 | 1 | 0 | |
| 81 | 53. Common Psychiatric diseases Depression, Anxiety neurosis and Epilepsy (Non-organic) | 3 | 1 | 0 | |
| 82 | 54. Phiranga and Upadamsha | 3 | 1 | 0 | |
| 83 | 55. Syphilis & Gonorrhoea | 3 | 1 | 1 | |
| 84 | 56. Krimiroga | 3 | 1 | 0 | |
| 85 | 57. Clinical presentation of common parasitic disorders Hook worm, Round worm, Thread worm, Pin worm | 3 | 1 | 2 | |
| 86 | 58. Khalitya & Palitya | 3 | 1 | 0 | |
| 87 | 59. Shleepada | 3 | 1 | 0 | |
| 88 | 60. Tuberculosis | 3 | | | |
| Total Marks | | | 100 | 90 hr | 70 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 Fundamental Principles of Vikriti Vigyan | | | | | | | | | |
|---|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 1. Roga nidana – Pathophysiology and clinical diagnosis (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Explain the concept of Roganidana | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Explain the concept of pathophysiology and clinical diagnosis | CC | MK | KH | L&PP T | O-QZ | F&S | I | |
| Topic 2 2. Pareeksha (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define and enlist types of pareeksha | CK | MK | K | L&PP T | INT,TT- Theory | F&S | I | |
| CO1 | Describe importance of pareeksha | CC | MK | KH | L&PP T | DEB | F&S | I | |
| CO1 | Explain the concept of rogi pareeksha | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Enlist rogi pareeksha | CK | MK | K | L&PP T | O-QZ,INT | F&S | I | |

| | | | | | | | | | |
|--|---|-----|----|----|----------------------------|-------------------|-----|---|--|
| CO1 | Describe importance of rogi pareeksha | CC | MK | KH | L&G D | DEB | F&S | I | |
| CO1 | Explain the concept of roga pareeksha | CC | MK | KH | L&PP T | INT,TT- Theory | F&S | I | |
| CO1 | Enlist roga pareeksha | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Describe importance of roga pareeksha | CC | MK | KH | L&G D | T-OBT,DEB | F&S | I | |
| CO1 | Differentiate between rogi pareeksha and roga pareeksha | CC | MK | KH | L&G D | T-OBT,M- CHT | F&S | I | |
| Topic 3 3. Methods of Rogi pareeksha (Lecture :4 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO3,CO 7,CO8 | Describe Prashna Pareeksha, Chakshu indriyataha Pareeksha, Srotrendriyataha Pareeksha, Sparshanendriyataha Pareeksha, Ghranendriyataha Pareeksha, and Rasanendriyataha Pareeksha with its clinical interpretation | CC | MK | SH | L_VC | COM | F&S | I | |
| CO1,CO3 | Describe the importance, clinical interpretation and methods of eliciting Nadi Pareeksha | CAN | MK | KH | L&G D,D_ BED | COM | F&S | I | |
| CO1 | Describe the importance and clinical interpretation of Mutra Pareeksha | CC | MK | KH | L&G D | COM | F&S | I | |
| CO1 | Describe the methods of performing Tailabindu Pareeksha | CC | MK | KH | L_VC | WP,COM | F&S | I | |
| CO1,CO3 | Describe the importance & clinical interpretation of Mala Pareeksha, Jihwa Pareeksha, Shabda Pareeksha, Sparsha Pareeksha, Druk Pareeksha, Akriti Pareeksha | CAN | MK | KH | L&G D,SD L,D_ BED | COM | F&S | I | |

| Topic 4 4. Sapeksha nidana - Vyavacchedaka nidana (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
|---|---|----|----|----|------------------|-------------------|-----|---|--------------------------------------|
| CO1,CO2,CO3,CO5 | Describe the steps of Vyavacchedaka nidana of Ukta Vyadhi and Anukta vyadhi with suitable examples (Ayurveda and contemporary science incorporating clinical findings and investigations) | CE | MK | KH | L&G D,CB L | T-OBT,M- CHT | F&S | I | V-KC ,V-SH ,V-SH L,V- SP |
| CO5 | Describe scope of developing screening, triage, confirmation, monitoring and prognostic tools in Ayurveda for Emerging diseases along with recent advancements | CC | DK | KH | L&PP T,IBL | INT | F&S | I | |
| Topic 5 5. Upashaya/ Anupashaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Upashaya and enlist synonyms of Upashaya | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Define Anupashaya and enlist synonyms of Anupashaya | CK | MK | K | L&PP T | INT,TT- Theory | F&S | I | |
| CO1 | Enumerate and explain the eighteen types of Upashaya with relevant examples | CC | MK | KH | L&PP T | WP,INT | F&S | I | |
| Topic 6 6. Dosha Vikriti (Lecture :3 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Define Hetu | CK | MK | K | L&PP T | INT,TT- Theory | F&S | I | |
| CO1 | Enlist and define synonyms of Hetu | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO1 | Enumerate and enlist classification of Nidana (Vyadhi janaka and Vyadhi bodhaka) | CK | MK | K | L&PP T | M-CHT | F&S | I | |
| CO1 | Enumerate and describe types of Vyadhi Janaka Hetu | CC | MK | KH | L&PP | INT | F&S | I | |

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|---------|--|-------------|----|----|---------------------------|--------|-----|---|--|
| | | | | | T,RE C | | | | |
| CO1,CO5 | Correlate Vyadhi Janaka Hetu with contemporary examples | CE | MK | KH | CBL, PrBL | CL-PR | F&S | I | |
| CO1 | Describe the Nidana of Agnidushti | CC | MK | KH | L&PP T,RE C | T-OBT | F&S | I | |
| CO1 | Enumerate and explain the types and features of Agnidushti | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Correlate the Nidana of Agnidushti with contemporary examples | CE | MK | KH | L&G D | P-SUR | F&S | I | |
| CO3,CO8 | Perform assessment of Agnidushti in patient | PSY- GUD | MK | SH | D_BE D | P-PRF | F&S | I | |
| CO1 | Recite etiologies of Vata, Pitta and Kapha dushta karma | CK | MK | K | REC | P-REC | F&S | I | |
| CO1,CO5 | Apply the knowledge of aetiologies of Vata, Pitta and Kapha dushta karma in correlating with contemporary etiologies | CAP | MK | KH | L&G D,PrB L,TP W | P-SUR | F&S | I | |
| CO1 | Recite dushta karma, kshaya and vriddhi lakshana of Vata, Pitta and Kapha Dosha | CK | MK | K | REC | P-REC | F&S | I | |
| CO1 | Explain Ashayapakarsha of Dosha with suitable examples | CC | MK | KH | L&G D | INT | F&S | I | |
| CO1 | Define Avarana | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO1 | Enlist types of Avarana | CK | MK | K | L&PP | O-GAME | F&S | I | |

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| CO1 | Enlist the 63 combination of Dosha | CC | MK | KH | L&PP T | O-GAME | F&S | I | |
| CO1 | Describe Samsargaja Dosha Dushti | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe Sama Sannipata and Vishama Sannipata dosha | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Enlist the different stages of Paridhavamana Dosha | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Explain Paridhavamana dosha with types and examples | CC | MK | KH | L&PP T | COM | F&S | I | |
| CO1 | Explain Nityasamshleshita (Leena) dosha and Paricchedita dosha with examples | CC | MK | KH | L&PP T | INT | F&S | I | |
| Topic 7 7. Doshagati and Rogamarga (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Enumerate and describe Doshagati and its utility in prognosis with relevant examples | CC | MK | KH | L&G D | INT | F&S | I | |
| CO1 | Describe Urdhwa gati, Adho gati, Tiryaga gati, Vriddhi, Kshaya, Sthana, Koshta, Shakha, Sandhi asthi marma with illustrations and examples | CC | MK | KH | L&G D | COM | F&S | I | |
| CO1 | Describe Koshta to Shakhagati of dosha and Shakha to Koshtagati of dosha with illustration | CC | MK | KH | L&G D | COM | F&S | I | |
| CO1 | Enumerate and describe Rogamarga and its utility in prognosis with relevant examples | CC | MK | KH | L&G D | O-QZ | F&S | I | |
| Topic 8 8. Srotodushti (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |

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| CO1 | Define and enlist Srotas | CK | MK | K | L&PP T | O-QZ | F&S | I | |
| CO1 | Describe the common aetiology for Sroto dushti | CC | MK | KH | L&G D | INT | F&S | I | |
| CO1 | Explain features of Samanya Srotodushti with examples | CC | MK | KH | L&PP T | CL-PR | F&S | I | |
| Topic 9 9. Concept of Ama (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe the different definitions of Ama | CC | MK | KH | L&PP T,RE C | P-REC,INT | F&S | I | |
| CO1 | Enlist different types of Ama | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Correlate the different types of Ama with the current science | CE | MK | KH | BS,IB L | COM | F&S | I | |
| CO1 | Describe samanya lakshana of Ama | CC | MK | KH | L&PP T | O-QZ | F&S | I | |
| CO1 | Explain the concept of Ama with reference to Anna rasa, Mala sanchaya and Dosha dushti | CC | MK | KH | L&PP T | T-OBT,COM | F&S | I | |
| Topic 10 10. Assessment of Ama (Lecture :0 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Explain concept of Sama | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe specific features of Sama and Nirama Dosha and Pureesha | CC | MK | KH | L&PP T | O-GAME | F&S | I | |
| CO5 | Identify specific features of Sama dosha, Sama pureesha, Nirama | PSY- | MK | SH | L,D_ | P-PRF | F&S | I | |

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|--|---|-----|----|----|-------------------|-----------|-----|---|--|
| | dosha and Nirama pureesha in patient | GUD | | | BED | | | | |
| Topic 11 11. Sthana samshraya – Poorvaroopaa (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Sthansamshraya | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Define Poorvaroopaa and enlist its types | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO1 | Describe the importance of Poorvaroopaa | CC | MK | KH | L&G D | DEB | F&S | I | |
| CO1 | Relate Sthanasamshraya with Poorvaroopaa | CAP | MK | KH | L&G D | INT | F&S | I | |
| Topic 12 12. Dushya dushti (Lecture :9 hours, Non lecture: 9 hours) | | | | | | | | | |
| CO1 | Enlist Dushya | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO1 | Describe specific features of Dhatu and Mala Vriddhi and Kshaya | CC | MK | KH | DIS | T-OBT | F&S | I | |
| CO1 | Describe the specific etiologies of Pranavaha Sroto dushti and identify contemporary etiologies | CS | MK | SH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Pranavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&PP T,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Pranavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Udakavaha Sroto dushti and | CC | MK | KH | L&G | P-SUR | F&S | I | |

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| | identify contemporary etiologies | | | | D,PrB L | | | | |
| CO1 | Describe features of Udakavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe Udakavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe the specific etiologies of Annavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Annavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Annavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | WP | F&S | I | |
| CO1 | Describe the specific etiologies of Rasavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Rasavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&PP T,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Rasavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Raktavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE | P-REC,INT | F&S | I | |

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|-----|---|----|----|----|---------------------------|-------------|-----|---|--|
| | | | | | C | | | | |
| CO1 | Describe features of Raktavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Raktavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe the specific etiologies of Mamsavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Mamsavaha Sroto Dusti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Mamsavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Medovaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Medovaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Medovaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Asthivaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB | P-REC,P-SUR | F&S | I | |

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|-----|--|----|----|----|---------------------------|-------------|-----|---|--|
| | | | | | L,RE C | | | | |
| CO1 | Describe features of Asthivaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe the specific etiologies of Majjavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Majjavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe the specific etiologies of Shukravaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe features of Shukravaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&PP T,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Shukravaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Mutravaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,P-SUR | F&S | I | |
| CO1 | Describe features of Mutravaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE | P-REC,INT | F&S | I | |

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|-----|--|----|----|----|---------------------------|-------------|-----|---|--|
| | | | | | C | | | | |
| CO1 | Describe Mutravaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Pureeshavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,P-SUR | F&S | I | |
| CO1 | Describe features of Pureeshavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe Pureeshavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe the specific etiologies of Swedavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,P-SUR | F&S | I | |
| CO1 | Describe features of Swedavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&G D,RE C | P-REC,INT | F&S | I | |
| CO1 | Describe the specific etiologies of Artavavaha Sroto dushti and identify contemporary etiologies | CC | MK | KH | L&G D,PrB L,RE C | P-REC,P-SUR | F&S | I | |
| CO1 | Describe features of Artavavaha Sroto Dushti in relation to Dosha Kopa | CC | MK | KH | L&PP T,RE C | P-REC,INT | F&S | I | |

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|--|---|-------------|----|----|-----------|------|-----|---|--|
| CO1 | Describe Artavavaha Sroto Viddha Lakshana | CC | MK | KH | L&PP T | QZ | F&S | I | |
| CO1 | Describe features of Upadhatu dushti, Mala dushti, Indriya dushti, and Manas dushti | CC | MK | KH | L&G D | INT | F&S | I | |
| CO1 | Describe features of Avayava dusti with relevant examples | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO5 | Identify and interpret the specific Sroto Dushti in the patients | PSY- GUD | MK | SH | SDL | T-CS | F&S | I | |
| Topic 13 13. Samprapti (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Samprapti and enumerate synonyms | CK | MK | K | L&PP T | WP | F&S | I | |
| CO1 | Enlist and describe types of Samprapti with examples | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Describe Vyadhi Janma and Vyadhi Janya Samprapti with examples | CC | MK | KH | L&PP T | INT | F&S | I | |
| Topic 14 14. Rupa (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define, enlist and describe different types of Roopa | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe the importance of Roopa | CC | MK | KH | L&G D | DEB | F&S | I | |
| CO1 | Define Pratyatma Lakshana with suitable examples | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Differentiate between Vyadhi and Lakshana. | CC | MK | KH | L&G D | INT | F&S | I | |

| Topic 15 15. Vyadhinamakarana (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
|---|--|-------------|----|----|------------|-------|-----|---|------|
| CO1 | Describe the basis of Vyadhi Namakarana with suitable examples | CK | MK | K | L | QZ | F&S | I | |
| CO6 | Describe the importance of ICD, DSM and NAMASTE (National AYUSH Morbidity and Standardized Terminologies Electronic Portal) portal classification and terminology of diseases | CC | DK | KH | L&G D,D | INT | F&S | I | |
| CO6 | Operate NAMASTE (National AYUSH Morbidity and Standardized Terminologies Electronic Portal) portal | PSY- GUD | DK | SH | D | P-PRF | F&S | I | |
| Topic 16 16. Vyadhi (Lecture :4 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define & enlist synonyms of Vyadhi | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Enlist types of Vyadhi | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1,CO2 | Explain Adibala/ Sahaja and Hereditary disorders, Janmabala/ Garbhaja and Congenital disorders, Dosha bala/ Jataja and Acquired disorders, Sanghatabala/ Peedaja and Traumatic disorders, Daivabala/ Prabhavaja and Iatrogenic disorders, Kalabala/ Kalaja and Environmental and Geriatric disorders, Swabhava bhava vyadhi with suitable examples | CC | MK | KH | L&PP T | CL-PR | F&S | I | |
| Topic 17 17. Ashtanindita (Endocrine disorders) (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Enlist and explain the Ashtanindita | CC | DK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe the importance of Ashtanindita | CC | DK | KH | L&G D | DEB | F&S | I | |
| CO1,CO2 | Correlate and describe the features of Hormonal/ Endocrinal | CE | DK | KH | L&G | COM | F&S | I | V-BL |

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|--|--|-----|----|----|-----------|-------|-----|---|-------------------|
| | diseases (Pituitary disorders, Parathyroid disorders, Adrenal disorders etc.) with Ashtanindita | | | | D,TP W | | | | |
| Topic 18 18. Janapadodhwamsa vikara (Pandemic disorders) (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe sadharana and asadharana hetu for Janapadodhwamsa Vikara and correlate with contemporary etiologies | CC | DK | KH | L&G D | DEB | F&S | I | V-KC ,H- SW |
| Topic 19 19. Nidanarthakara Vyadhi, Vyadhisankara (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define and enlist types of Nidanarthakara Vyadhi with examples along with its concept | CC | DK | KH | L&G D | INT | F&S | I | |
| CO1 | Explain the concept of Vyadhi Sankara with specific Nidana and relevant examples | CC | DK | KH | L&PP T | INT | F&S | I | |
| Topic 20 20. Vyadhikshamatva (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Vyadhikshamatva | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Describe Trividha bala and relate to Balavruddhikara Bhava and Shareeravruddhikara Bhava | CC | MK | K | L&PP T | M-CHT | F&S | I | |
| CO1 | Describe Vikara Vighata Bhava and Abhava along with its relation to Vyadhikshamatva | CC | MK | KH | DIS | INT | F&S | I | |
| CO1 | Analyze Satmya in relation with health and disease | CAN | MK | KH | L&G D | INT | F&S | I | |
| CO1 | Define and explain Dwividha and Chaturvidha Ojas | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1 | Describe Dosha Paka features with examples | CC | MK | KH | L&PP T | INT | F&S | I | |

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| CO2 | Describe pathophysiology of Healing with primary and secondary intention and Repair mechanism. | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO1 | Define Satmya and explain its types | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO2 | Define Immunity and describe classification of Immunity | CC | MK | KH | SDL | CL-PR | F&S | I | |
| CO2 | Explain different mechanisms involved in Immunity | CC | MK | KH | SDL | CL-PR | F&S | I | |
| Topic 21 21. Rogi bala Pareeksha (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe the importance of Rogi bala Pareeksha | CC | MK | KH | L&G D | DEB | F&S | I | |
| CO1,CO8 | Describe the parameters of Rogi bala Pareeksha - Prakruti, Sara, Samhanana, Pramana, Satmya, Satwa, Aahara shakti, Vyayama shakti, Vaya and other factors such as Aushadha kshama dehatva, Yuvajatva, Pumjatvam, Vishayanasakta indriyajatva, Padasampad bhavatvam, and Anukoola grahatva, etc. | CC | MK | KH | L&PP T | INT | F&S | I | |
| Topic 22 22. Dhatu Paka (Lecture :12 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe Dhatupaka features with examples | CC | MK | KH | L&PP T | INT | F&S | I | |
| CO1 | Describe different stages of Ojo dusti | CK | MK | K | L&PP T | INT | F&S | I | |
| CO2 | Define Asatmya | CK | MK | K | L&PP T | O-QZ | F&S | I | |
| CO2 | Define Hypersensitivity | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO2 | Describe four types of Hypersensitivity with suitable examples | CC | MK | KH | L_VC | CL-PR | F&S | I | |

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| CO2 | Define Autoimmunity | CK | MK | K | L&PP T | O-QZ | F&S | I | |
| CO2 | Describe mechanism and classification of Autoimmunity with suitable examples | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO2 | Define Immunodeficiency. | CK | MK | K | L&PP T | CL-PR | F&S | I | |
| CO2 | Describe classification of Immunodeficiency with suitable examples. | CC | MK | KH | L&PP T | M-CHT | F&S | I | |
| CO2 | Define Cell Injury | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO2 | Describe causes and mechanism of Reversible and Irreversible Cell Injury with microscopic and macroscopic features. | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO2 | Define Cellular Adaptation | CK | MK | K | L&PP T | QZ | F&S | I | |
| CO2 | Describe types and mechanisms of Cellular Adaptations with suitable examples. | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO2 | Describe and discuss types of Cell Death (including apoptosis) and the mechanism with suitable examples. | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO2 | Define, classify and describe mechanism of Inflammation, Septicaemia, Oedema, Shock, Haemorrhage, Thrombosis, Embolism, Ischemia and Infarction | CC | MK | KH | L_VC | CL-PR | F&S | I | |
| CO2 | Define and describe Tumors | CC | MK | KH | L&PP T | CL-PR | F&S | I | |
| CO2 | Describe nomenclature of Tumors | CC | MK | KH | L&PP T,SD | CL-PR | F&S | I | |

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| CO2 | Differentiate Benign and Malignant Tumours | CC | MK | KH | L&G D | M-CHT | F&S | I | |
| CO2 | Describe mechanism of Metastasis | CC | MK | KH | L&PP T | CL-PR | F&S | I | |
| Topic 23 23. Infection and Nutritional disorders (Lecture :4 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2 | Define and classify Viruses, Bacteria, and Fungi | CC | DK | KH | L&PP T,SD L | COM | F&S | I | |
| CO2 | Describe components of Nutrition, and classify nutritional disorders | CC | DK | KH | PER | QZ | F&S | I | H-SW |
| CO2 | Describe Macro nutritional disorders, Water soluble vitamins deficiency disorders and Fat soluble vitamins deficiency disorders | CC | DK | KH | PER | QZ | F&S | I | V-KC ,H- SW |
| CO2 | Describe Protein Energy Malnutrition in adults and differentiate Kwashiorkor and Marasmus | CC | DK | KH | PER | QZ | F&S | I | V-KC ,V-BL |
| Topic 24 24. Upadrava (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define and explain the concept and importance of Upadrava | CC | MK | KH | L&G D | DEB | F&S | II | |
| Topic 25 25. Arishta (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Arishta and Ristaabhasa | CK | NK | K | L&PP T | INT | F&S | II | |
| CO1 | Enumerate and describe types of Arishta with its importance | CC | NK | KH | L&G D | DEB | F&S | II | |

| Topic 26 26. Vyadhi bala pareeksha (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
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| CO1 | Describe Vikrititaha Pareeksha with its importance | CC | DK | KH | L&G D | DEB | F&S | II | |
| CO1 | Describe the parameters to be assessed for Vyadhi bala - Exposure to Nidana, Samprapti, Poorvaroop, Roopa, Upadrava, Tulya dosha - dushyatvam, Atulya ritu, Number of dosha involved, Number of Rogamarga involved, Kala, Desha, Prakruti, Involvement of Marma and other factors | CC | DK | KH | L&G D | DEB | F&S | II | |
| Topic 27 27. Sadhyasadhyatva – Prognosis (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Enumerate and describe the features of sadhyasadhyatva | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Analyse the components of Vyadhi from Sadhyasadhyatva | CAN | MK | KH | L&G D | INT | F&S | II | |
| Topic 28 28. Digital health and Artificial intelligence in the context of Roganidana (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO6 | Define and describe the scope of Digital health and Artificial intelligence in Ayurveda Diagnosis and Prognosis | CC | NK | KH | BL | COM | F&S | II | |
| CO6 | Explain need of Instrumentation and Biosensors for diagnosis and prognosis in Ayurveda. | CC | NK | KH | BL | INT | F&S | II | |
| CO6 | Justify scope of Diagnostic tool development in Ayurveda and their implementation. | CE | NK | KH | BL | INT | F&S | II | |

| Paper 2 Vyadhi Vigyan, contemporary understanding and updates | | | | | | | | | |
|--|--|-------------------|---------------------------|--------------------|------------------|-------------------------|-------------------|-------------------|---------------------|
| A3 Course | B3 Learning Objective (At the end of the session, the students | C3 Doma | D3 Must to know | E3 Level | F3 T-L | G3 Assessment | H3 Form | I3 Term | J3 Integr |

| outcome | should be able to) | in/sub | / desirable to know / Nice to know | Does/ Shows how/ Knows how/ Know | method | (Refer abbreviations) | ative/summative | | ation |
|--|--|--------|------------------------------------|----------------------------------|--------|-----------------------|-----------------|----|-------|
| Topic 1 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Anaha | CK | MK | K | L&PPT | QZ | F&S | II | |
| CO1 | Enlist types of Anaha | CK | MK | K | L&PPT | QZ | F&S | II | |
| CO1,CO5 | Describe Adhmana and Atopa | CC | MK | KH | L&PPT | INT | F&S | II | |
| Topic 2 2. Chhardi (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Chhardi | CK | DK | K | L&PPT | QZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Chhardi. | CC | DK | KH | L&GD | INT | F&S | II | |
| CO1 | Enlist bheda of Chhardi | CK | DK | K | L&PPT | QZ | F&S | II | |
| CO1 | Describe purvaroop, samanya lakshana, vishishta lakshana, upadrava and sadhya asadhyata of Chhardi | CC | DK | KH | L&PPT | INT | F&S | II | |
| Topic 3 3. Amlapitta (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |

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|---|---|----|----|----|--------------|-------|-----|----|--|
| CO1 | Define Amlapitta | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Amlapitta | CC | MK | KH | L&G D | M-CHT | F&S | II | |
| CO1 | Enlist bheda of Amlapitta | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe purvaroop, samanya lakshana, vishishta lakshana, and sadhya asadhyata of Amlapitta | CC | MK | KH | L&PP T | INT | F&S | II | |
| Topic 4 4. Shoola (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Shoola | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Enlist Shoola bheda | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1,CO5 | Describe and differentiate Parinama shoola and Annadrava shoola | CC | MK | KH | L&PP T | INT | F&S | II | |
| Topic 5 5. Atisara, and Pravahika (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana of Atisara | CC | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Atisara | CC | MK | KH | L&G D | INT | F&S | II | |
| CO1 | Enlist bheda of Atisara | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe purvaroop of Atisara | CC | MK | KH | L&PP T,CB | INT | F&S | II | |

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| CO1 | Enlist and describe upadrava of Atisara | CK | MK | K | L&PP T | INT | F&S | II | |
| CO1 | Describe sadhya asadhyata of Atisara | CC | MK | KH | L&PP T | T-CS,INT | F&S | II | |
| CO1 | Describe nivrutta Atisara lakshana or vigata Atisara lakshana | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Describe samprapti of Pravahika | CC | MK | KH | L&G D | M-CHT | F&S | II | |
| CO1 | Enlist bheda of Pravahika | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe samanya and vishishta lakshana of Pravahika | CC | MK | KH | L&PP T,CB L | T-CS | F&S | II | |
| CO1 | Differentiate between Atisara and Pravahika | CC | MK | KH | L&G D,PB L | CL-PR | F&S | II | |
| CO1 | Differentiate Doshaja Atisara | CC | MK | KH | L&G D,PB L | CL-PR | F&S | II | |
| CO1 | Explain Bhayaja atisara, Shokaja atisara and Raktaja atisara lakshana | CC | MK | KH | L&G D,PB L | CL-PR | F&S | II | |
| Topic 6 6. Grahani (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana of Grahani | CC | MK | KH | L&PP | PUZ | F&S | II | |

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| CO1 | Describe hetu and samprapti of Grahani | CC | MK | KH | L&G D | M-CHT | F&S | II | |
| CO1 | Enlist bheda of Grahani | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe purvaroop, and samanya lakshana of Grahani | CC | MK | KH | L&PP T | T-CS,INT | F&S | II | |
| CO1 | Explain Sangraha grahani and Ghati yantra grahani | CC | MK | KH | L&PP T,CB L | INT | F&S | II | |
| CO1 | Explain sadhya asadhyata of Grahani | CC | MK | KH | L&PP T | T-CS,INT | F&S | II | |
| CO1 | Differentiate Atisara and Grahani Roga | CC | MK | KH | L&G D,PB L | T-CS | F&S | II | |
| CO1 | Differentiate Grahani dosha and Grahani roga | CC | MK | KH | L&G D,PB L | T-CS,CL-PR | F&S | II | |
| CO1 | Differentiate Doshaja Grahani | CC | MK | KH | L&G D,PB L | CL-PR | F&S | II | |
| Topic 7 7. Visuchika, Alasaka, Vilambika (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Visuchika | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe lakshana, upadrava, and sadhyasadhyata of Visuchika , | CC | MK | KH | L&PP | INT | F&S | II | |

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| | Alasaka and Vilambika | | | | T | | | | |
| Topic 8 8. Common GIT diseases (Lecture :1 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2 | Describe the clinical features of Ulcerative dyspepsia and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases | CC | DK | KH | RP,T UT | INT | F&S | II | |
| CO3 | Perform relevant clinical examination of Ulcerative dyspepsia and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases | PSY-GUD | DK | SH | L_VC | OSCE | F&S | II | |
| CO4 | Order and interpret relevant investigations of Ulcerative dyspepsia and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases | CAP | DK | SH | L&G D,LRI ,D_L | T-CS | F&S | II | |
| Topic 9 9. Mutrakrichhra (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Explain pratyatma lakshana of Mutrakrichhra | CC | MK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Mutrakrichhra | CC | MK | KH | L&G D | INT | F&S | II | |
| CO1 | Enlist bheda of Mutrakrichhra | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1,CO5 | Describe vishishta lakshana of Mutrakrichhra | CC | MK | KH | L&PP T,CB L | INT | F&S | II | |
| Topic 10 10. Mutraghata (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define Mutraghata | CK | MK | K | L&PP T | QZ | F&S | II | |

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| CO1 | Enlist conditions of Mutra shoshana and Mutra pratihanyate among different types of Mutraghata | CK | MK | K | L&G D | INT | F&S | II | |
| CO1 | Describe different types of Mutraghata | CC | MK | KH | L&PP T,PB L | INT | F&S | II | |
| CO1 | Differentiate Mutrakrichra and Mutraghata | CC | MK | KH | L&G D,PB L | T-CS | F&S | II | |
| Topic 11 11. Common Urinary diseases (Lecture :1 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2 | Describe the clinical features of Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease | CC | DK | KH | L&G D,RP | T-CS | F&S | II | |
| CO3 | Perform relevant clinical examination of Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease | PSY- GUD | DK | SH | L_VC | T-CS | F&S | II | |
| CO4 | Order and interpret relevant investigations of Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease | CAP | DK | SH | L&G D,LRI | T-CS | F&S | II | |
| Topic 12 12. Hikka (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana, hetu, and samprapti of Hikka | CC | NK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Describe cardinal features of Pancha Hikka | CC | NK | KH | L&PP T | INT | F&S | II | |
| Topic 13 13. Shwasa (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
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| CO1 | Define Shwasa | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe hetu and samanya samprapti of Shwasa | CC | MK | KH | L&G D | T-CS | F&S | II | |
| CO1 | Enlist bheda of Shwasa | CK | MK | K | L&PP T | P-VIVA,QZ | F&S | II | |
| CO1 | Describe purvaroop, and sadhya asadhyata of Shwasa | CC | MK | KH | L&PP T | T-CS | F&S | II | |
| CO1 | Describe vishishta lakshana of Tamaka shwasa with its avastha bheda | CC | MK | KH | L&PP T | T-CS | F&S | II | |
| CO1 | Describe dosha predominance in Shwasa | CC | MK | KH | DIS | INT | F&S | II | |
| CO1 | Identify cardinal features of Pancha shwasa and correlate with the current science | CAN | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Differentiate Pancha shwasa | CC | MK | KH | PBL | CL-PR | F&S | II | |
| Topic 14 14. Kasa (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Kasa | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Kasa | CC | MK | KH | L&G D | INT | F&S | II | |
| CO1 | Enlist bheda of Kasa | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe purvaroop and sadhya asadhyata of Kasa | CC | MK | KH | L&PP T | T-CS | F&S | II | |
| CO1 | Describe the differential diagnosis of Kasa based on kapha | CC | MK | KH | L&PP | T-CS | F&S | II | |

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| | lakshana | | | | T | | | | |
| CO1 | Describe the differential diagnosis of Kshayaja kasa and Rajayakshma | CC | MK | KH | L&G D | T-CS | F&S | II | |
| CO1 | Describe the differential diagnosis of Kshataja kasa and kshata ksheena | CC | MK | KH | L&G D | T-CS | F&S | II | |
| CO1 | Differentiate Doshaja kasa | CC | MK | KH | DIS | INT | F&S | II | |
| Topic 15. Rajayakshma & Shosha (Lecture :3 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe Rajayakshma vyadhi swabhava | CC | DK | KH | L&PP T | INT | F&S | II | |
| CO1 | Describe hetu and samprapti of Rajayakshma | CC | DK | KH | L&G D | M-CHT | F&S | II | |
| CO1 | Enlist bheda of Rajayakshma | CK | DK | K | L&PP T | QZ | F&S | II | |
| CO1 | Explain tri roopa, shad roopa, ekadasha roopa, and sadhyasadyata of Rajayakshma | CC | DK | KH | L&PP T | INT | F&S | II | |
| CO1 | Classify and describe Ashta shosha | CC | DK | KH | L&PP T | INT | F&S | II | |
| Topic 16. Common lung disorders (Lecture :1 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2 | Describe the clinical features of Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, and Bronchiectasis | CC | DK | KH | L_VC ,RP,D _BED | INT | F&S | II | |
| CO3 | Perform relevant clinical examination of Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, and Bronchiectasis | PSY- GUD | DK | SH | L_VC | OSCE | F&S | II | |

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| CO4 | Order and interpret relevant investigations of Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, and Bronchiectasis | CAP | DK | KH | XRay, LRI | T-CS | F&S | II | |
| Topic 17 17. Jwara (Lecture :4 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define and enlist types of Jwara based on vidhi samprapti | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe nidana, samprapti, samanya poorvaroop, vishishta poorvaroop, pratyatma lakshana and samprapti of Doshaja jwara | CC | MK | KH | L&G D | PUZ,INT | F&S | II | |
| CO1 | Describe Doshaja jwara along with sannipataja jwara according to Charaka | CC | MK | KH | L&G D | PUZ,INT | F&S | II | |
| CO1 | Describe Abhishanga jwara, Vishama jwara, and Punaravartaka jwara | CC | MK | KH | L&PP T | T-CS | F&S | II | |
| CO1 | Explain Antarvega, Bhahirvega jwara, Vata balasaka and Pralapaka jwara | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Differentiate Ama, Pachyamana and Nirama jwara lakshana | CC | MK | KH | L&G D | CL-PR | F&S | II | |
| CO1 | Analyze Agantu and Doshaja jawara with reference to Jwara samprapti | CAN | MK | KH | DIS | INT | F&S | II | |
| CO1 | Describe sadhyasadhyata of Jwara | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Enlist Jwara mukta lakshana | CK | MK | K | L&PP T | QZ | F&S | II | |
| Topic 18 18. Masurika – Romantika (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Enlist nidana of Masurika | CK | NK | K | L&PP | QZ | F&S | II | |

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| CO1 | Describe samprapti of Masurika | CC | NK | KH | L&G D | INT | F&S | II | |
| CO1 | Enlist bheda of Masurika | CC | NK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Explain the avasthika lakshana of Masurika | CC | NK | KH | L&PP T | INT | F&S | II | |
| CO1 | Enlist features of Romantika | CK | NK | K | L&PP T | QZ | F&S | II | |
| Topic 19 19. Fever (Lecture :1 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2 | Describe the organism, incubation period, and mode of transmission of Measles virus, Varicella-zoster virus and Herpes zoster, Coxsackie virus, Rubella virus, various Malaria parasites, Influenza virus, Dengue virus, Leptospira, Chikungunya virus, Salmonella and causative agents of other common regional disorders presenting with fever | CC | DK | KH | L_VC ,FC | WP,INT | F&S | II | |
| CO2 | Describe the clinical features of Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, and Typhoid | CC | DK | KH | L_VC ,RP | T-CS | F&S | II | |
| CO2 | Describe the common regional disorders presenting with fever | CC | DK | KH | L&G D | T-CS | F&S | II | |
| CO2 | Describe the complications of Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever | CC | DK | KH | TUT | INT | F&S | II | |

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| CO3 | Perform relevant clinical examination related to Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever | PSY-GUD | DK | SH | L_VC | OSCE | F&S | II | |
| CO4 | Order and interpret relevant investigations related to Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever | CAP | DK | SH | LRI | T-CS | F&S | II | |
| Topic 20 20. Pandu (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana of Pandu | CC | MK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Pandu | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Enlist bheda of Pandu | CC | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe purvaroop of Pandu | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Enlist upadrava of Pandu | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe sadhya asadhyata of Pandu | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Explain Pancha pandu | CC | MK | KH | L&PP T | T-CS | F&S | II | |

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| CO1 | Differentiate Doshaja pandu | CC | MK | KH | L&G D | CL-PR | F&S | II | |
| Topic 21 21. Raktapitta (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define Raktapitta and mention the rakta pravrutti marga | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Explain the swabhava of Raktapitta | CC | MK | KH | DIS | INT | F&S | II | |
| CO1 | Enlist bheda of Raktapitta | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe nidana, samprapti, purvaroop, vishishta lakshana of Raktapitta | CC | MK | KH | L&G D | T-CS | F&S | II | |
| CO1 | Enlist upadrava of Raktapitta | CK | MK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Describe sadhya asadhyata of Raktapitta | CC | MK | KH | DIS | INT | F&S | II | |
| Topic 22 22. Hematopoietic diseases (Lecture :1 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2 | Describe the clinical features of anaemia, nutritional anaemia, thalassemia, sickle cell anaemia, leukaemia, and thrombocytopenia | CC | DK | KH | L_VC ,RP | WP | F&S | II | |
| CO4 | Order and interpret relevant investigations of anaemia, nutritional anaemia, thalassemia, sickle cell anaemia, leukaemia, and thrombocytopenia | CAP | DK | KH | L&G D,LRI | T-CS | F&S | II | |
| CO2 | Describe the differential diagnosis of anaemia, nutritional anaemia, thalassemia, sickle cell anaemia, leukaemia, and thrombocytopenia | CC | DK | KH | L&G D,PB L | PRN | F&S | II | |
| Topic 23 23. Hridroga (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |

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| CO1 | Describe hetu and samprapti of Hridroga | CC | DK | KH | L&G D | QZ | F&S | II | |
| CO1 | Enlist bheda of Hridroga | CK | DK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Analyze samanya lakshana of Hridroga | CAN | DK | KH | DIS | T-CS | F&S | II | |
| CO1 | Describe vishishta lakshana of Hridroga | CC | DK | KH | L&PP T | INT | F&S | II | |
| CO1 | Enlist upadrava of Hridroga | CK | DK | KH | L&PP T | WP | F&S | II | |
| Topic 24 24. Shotha (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe hetu of Shotha | CC | MK | KH | L&G D | O-QZ | F&S | II | |
| CO1 | Enlist bheda of Shotha | CK | MK | KH | L&PP T | O-QZ | F&S | II | |
| CO1 | Describe vidhi samprapti of shotha | CC | MK | KH | DIS | O-GAME | F&S | II | |
| CO1 | Describe purvarooapa, vishishta lakshana, samprapti and sadhya asadhyata of Nija shotha | CC | MK | KH | L&G D | INT | F&S | II | |
| CO1 | Differentiate Doshaja shotha | CC | MK | KH | L&G D | INT | F&S | II | |
| Topic 25 25. Cardiovascular disorders (Lecture :1 hours, Non lecture: 5 hours) | | | | | | | | | |
| CO2 | Describe the clinical features of Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure | CC | DK | KH | L_VC ,RP | C-VC | F&S | II | V-KC |

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| CO3 | Perform relevant clinical examination of Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure | PSY-GUD | DK | SH | L_VC, SIM | OSCE | F&S | I | |
| CO4 | Order and interpret relevant investigations of Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure | CAP | DK | KH | L&G D, LRI | O-QZ | F&S | II | |
| Topic 26 26. Kamala (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Kamala | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Kamala | CC | MK | KH | L&G D | INT | F&S | II | |
| CO1 | Classify Kamala on the basis of vidhi samprapti of Kamala | CC | MK | KH | L&PP T | INT | F&S | II | |
| CO1 | Differentiate Koshta shakhashrita and Shakhashrita Kamala | CC | MK | KH | DIS | PRN | F&S | II | |
| CO1 | Enlist upadrava of Kamala | CK | MK | KH | L&PP T | QZ | F&S | II | |
| CO1 | Describe sadhya asadhyata of Kamala | CC | MK | KH | TUT | M-CHT | F&S | II | |
| CO1, CO5 | Describe Swatantra-Paratantra Kamala, Alpapitta-Bahupitta Kamala | CC | MK | KH | L&PP T | INT | F&S | II | |
| Topic 27 27. Udara Roga (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Explain pratyatma lakshana of Udara | CC | MK | KH | L&PP T | PUZ | F&S | II | |
| CO1 | Describe hetu and samprapti of Udara | CC | MK | KH | L&G D | WP | F&S | II | |

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| CO1 | Enlist bheda of Udara | CK | MK | K | L&PP T | QZ | F&S | II | |
| CO1,CO5 | Describe purvaroop, samanya lakshana and sadhya asadhyata of Udara | CC | MK | KH | L&PP T | T-CS | F&S | II | |
| CO1 | Explain avastha bheda of Udara | CC | MK | KH | DIS | PRN | F&S | II | |
| CO1,CO5 | Differentiate Doshaja udara | CC | MK | KH | L&G D | M-CHT | F&S | II | |
| CO1,CO5 | Explain Vishishta lakshana of Baddha gudodara, Pleehodara, Jalodara and Chidrodara | CC | MK | KH | L&PP T | M-CHT | F&S | II | |
| Topic 28 28. Hepatobiliary diseases (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites | CC | DK | KH | L_VC ,RP | C-VC | F&S | II | |
| CO3 | Perform relevant clinical examination of Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | II | |
| CO4 | Order and interpret relevant investigations of Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites | CAP | DK | SH | L&G D,LRI | PRN | F&S | II | |
| CO2,CO5 | Describe the differential diagnosis of Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites | CC | DK | KH | L&G D,PB L | M-CHT | F&S | II | |
| Topic 29 29. Kushtha - Maha Kushtha & Kshudra Kushtha (According to Charaka) (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Define Kushtha | CK | MK | K | L&PP T | O-QZ | F&S | III | |

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| CO1 | Describe hetu and samprapti of Kushtha | CC | MK | KH | L&G D | COM | F&S | III | |
| CO1 | Enlist bheda of Maha Kushtha & Kshudra Kushtha | CK | MK | K | L&PP T | O-QZ | F&S | III | |
| CO1 | Describe purvaroop of Kushtha | CC | MK | KH | L&G D | INT | F&S | III | |
| CO1,CO5 | Describe vishishta lakshana of Maha Kushtha & Kshudra Kushtha | CC | MK | KH | L&PP T,CD | O-GAME | F&S | III | |
| CO1,CO5 | Describe dosha anusara Kushtha lakshana | CC | MK | KH | L&G D | M-POS | F&S | III | |
| CO1 | Describe sadhya asadhyata of Maha Kushtha & Kshudra Kushtha | CC | MK | KH | L&PP T | O-QZ | F&S | III | |
| CO1,CO5 | Differentiate Maha kushtha & Kshudra kushtha | CC | MK | KH | DIS | CL-PR | F&S | III | |
| Topic 30 30. Sheetapitta (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe Sheetapitta samprapti | CC | MK | KH | L&PP T | M-CHT | F&S | III | |
| CO1,CO5 | Describe Sheetapitta and Udarda lakshana | CC | MK | KH | L&PP T | QZ | F&S | III | |
| CO1 | Describe Kotha lakshana | CC | MK | KH | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Differentiate Sheetapitta and Udarda | CC | MK | KH | DIS | QZ | F&S | III | |
| Topic 31 31. Shwitra (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Enlist types of Shwitra | CK | MK | K | L&PP | O-QZ | F&S | III | |

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| CO1,CO5 | Describe lakshana and sadhya asadhyata of Shwitra | CC | MK | KH | L&PP T | INT | F&S | III | |
| Topic 32 32. Visarpa (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Visarpa | CK | MK | K | L&PP T | O-QZ | F&S | III | |
| CO1 | Describe hetu and samprapti of Visarpa | CC | MK | KH | L&G D | M-CHT | F&S | III | |
| CO1 | Enlist bheda of Visarpa | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe purvaroopo of visarpa, features of Bahya and Abhyantara visarpa and sadhya asadhyata of Visarpa | CC | MK | KH | L&PP T | PRN | F&S | III | |
| CO1,CO5 | Differentiate Doshaja Visarpa | CC | MK | KH | DIS | INT | F&S | III | |
| CO1,CO5 | Explain Agni, Kardama and Granthi visarpa | CC | MK | KH | L&PP T | T-CS | F&S | III | |
| Topic 33 33. Skin diseases (Lecture :1 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Allergic disorders - Eczema, Urticaria; Squamous lesions - Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid; Mycotic skin diseases; Leprosy; Vitiligo; Cellulitis | CC | DK | KH | L_VC | C-VC | F&S | III | |
| CO3 | Perform relevant clinical examination of Allergic disorders - Eczema, Urticaria; Squamous lesions - Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid; Mycotic skin diseases; Leprosy; Vitiligo; Cellulitis | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |

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| CO4 | Order and interpret relevant investigations of Allergic disorders - Eczema, Urticaria; Squamous lesions - Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid; Mycotic skin diseases; Leprosy; Vitiligo; Cellulitis | CAP | DK | SH | L&G D,LRI | INT | F&S | III | |
| Topic 34 34. Galaganda (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana and samprapti of Galaganda | CC | NK | KH | L&PP T | PUZ | F&S | III | |
| Topic 35 35. Thyroid disorders (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Hypothyroidism and hyperthyroidism | CC | DK | KH | L_VC ,RP | M-POS | F&S | III | |
| CO3 | Perform relevant clinical examination of Hypothyroidism and hyperthyroidism | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Hypothyroidism and hyperthyroidism | CAP | DK | SH | L&G D,LRI | SP | F&S | III | |
| Topic 36 36. Sthoulya – Karshya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe nidana of Sthoulya and Karshya | CC | MK | KH | L&PP T | T-OBT | F&S | III | |
| CO1 | Describe samprapti of Sthoulya | CC | MK | KH | L&G D | M-CHT | F&S | III | |
| CO1,CO5 | Describe samanya and vishista lakshana of Sthoulya | CC | MK | KH | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe samanya lakshana of Karshya | CC | MK | KH | L&PP T | O-QZ | F&S | III | |

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| CO1 | Describe upadrava of Sthoulya | CC | MK | KH | L&PP T | O-QZ | F&S | III | |
| CO1,CO5 | Differential diagnosis of Karshya | CC | MK | KH | DIS | CL-PR | F&S | III | |
| Topic 37 37. Obesity (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Obesity | CC | DK | KH | FC | WP | F&S | III | H-SW |
| CO3 | Perform relevant clinical examination of Obesity | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Obesity | CAP | DK | SH | PBL, LRI | INT | F&S | III | |
| CO2,CO5 | Describe the differential diagnosis of Obesity | CC | DK | KH | L&G D,PB L | INT | F&S | III | |
| Topic 38 38. Prameha (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe pratyatma lakshana of Prameha | CC | MK | KH | L&PP T | PUZ | F&S | III | |
| CO1 | Describe hetu and samprapti of Prameha | CC | MK | KH | L&G D | M-CHT | F&S | III | |
| CO1 | Enlist bheda of Prameha | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe purvaroop, vishishta lakshana, upadrava and sadhya asadhyata of Prameha | CC | MK | KH | L&PP T | PRN | F&S | III | |
| Topic 39 39. Diabetes Mellitus and Pancreatitis (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |

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| CO2,CO5 | Describe the clinical features of Diabetes Mellitus and Pancreatitis | CC | DK | KH | L&G D,CB L | INT | F&S | III | |
| CO2 | Describe the complications of Diabetes Mellitus and Pancreatitis | CC | DK | KH | L_VC | T-CS | F&S | III | |
| CO3 | Perform relevant clinical examination of Diabetes Mellitus and Pancreatitis | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Diabetes Mellitus and Pancreatitis | CAP | DK | SH | L&G D,LRI | SP | F&S | III | |
| CO2,CO5 | Describe Pancreatitis induced Diabetes mellitus (Fibrocalculous pancreatic Diabetes) | CC | DK | KH | L&G D | INT | F&S | III | |
| Topic 40 40. Vatavyadhi (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO5 | Describe nidana, samanya purvaroop, and samanya lakshana of Vatavyadhi | CC | MK | KH | L&PP T | QZ | F&S | III | |
| Topic 41 41. Snayugata vata (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Define Akshepaka | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1 | Enlist Snayugata vata | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe Akshepaka | CC | MK | KH | L_VC | C-VC | F&S | III | |
| CO1 | Enlist Akshepaka bheda | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1 | Explain Akshepaka Samprapti | CC | MK | KH | L&G D | M-CHT | F&S | III | |

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| CO1,CO5 | Describe Apatanaka | CC | MK | KH | L&PP T | INT | F&S | III | |
| CO1 | Enlist Apatanaka bheda | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe Dandapatanaka, Antarayama and Bahirayama | CC | MK | KH | L&PP T,CB L | C-VC | F&S | III | |
| CO1 | Define Ardita | CK | MK | K | L&PP T | O-QZ | F&S | III | |
| CO1,CO5 | Describe Ardita, samprapti of Ardita and lakshana of Ardita | CC | MK | KH | L_VC | INT, C-VC | F&S | III | |
| CO1 | Compare Ardita according to Charaka and Sushruta | CC | MK | KH | DIS | C-VC | F&S | III | |
| CO1 | Enlist Sadyasadyata of Ardita | CK | MK | K | L&PP T | INT | F&S | III | |
| CO1 | Define Pakshaghata | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe Pakshaghata samprapti, and Pakshaghata lakshana | CC | MK | KH | L&G D,CD | C-VC | F&S | III | |
| CO1,CO5 | Describe Kampavata | CC | MK | KH | L_VC | C-VC | F&S | III | |
| CO1,CO5 | Describe Gridhrasi and Vishwachi with its lakshana | CC | MK | KH | CBL | T-CS | F&S | III | |
| CO1,CO5 | Describe differential diagnosis of Gridhrasi and Viswachi | CC | MK | KH | L&G D | INT | F&S | III | |
| CO1,CO5 | Describe Pangutwa | CC | MK | KH | L_VC | C-VC | F&S | III | |
| CO1,CO5 | Differentiate Khanja with Gridhrasi | CC | MK | KH | L&G | C-VC | F&S | III | |

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| Topic 42 42. Common neurologic and spine disorders (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic) and Common Spine disorders: Lumbago- Sciatica syndrome, Brachial neuralgia, Cervical and Lumber Spondylosis | CC | DK | KH | L_VC ,RP | C-VC | F&S | III | |
| CO3 | Perform relevant clinical examination of Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic) and Common Spine disorders: Lumbago- Sciatica syndrome, Brachial neuralgia, Cervical and Lumber Spondylosis | PSY-GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic) and Common Spine disorders: Lumbago- Sciatica syndrome, Brachial neuralgia, Cervical and Lumber Spondylosis | CAP | DK | SH | L&G D,LRI | INT | F&S | III | |
| Topic 43 43. Sandhigatavata and Asthi majja gata vata (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO5 | Describe Sandhigatavata | CC | MK | KH | L_VC | C-VC | F&S | III | |
| CO1,CO5 | Describe Katigraha and Manyastambha | CC | MK | KH | L&PP T | INT | F&S | III | |
| CO1,CO5 | Explain Vatakantaka | CC | MK | KH | L&PP T | T-CS | F&S | III | |
| CO1,CO5 | Describe Avabahuka and Amsashosha | CC | MK | KH | L&PP T | INT | F&S | III | |
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| CO1,CO5 | Describe the differential diagnosis of Avabahuka with Vishwachi | CC | MK | KH | L&G D | QZ | F&S | III | |
| CO1,CO5 | Describe Asthi-majjagata vata | CC | MK | KH | L&PP T | INT | F&S | III | |
| Topic 44 44. Diseases of bone, joints, and muscles (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Diseases of bone and Joints - Osteoarthritis, Osteoporosis, Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome; Muscular diseases - Muscular Dystrophy | CC | DK | KH | L_VC | C-VC | F&S | III | |
| CO3 | Perform relevant clinical examination of Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome; Muscular diseases - Muscular Dystrophy | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome; Muscular diseases - Muscular Dystrophy | CAP | DK | SH | L&G D,XR ay,LR I | INT | F&S | III | |
| Topic 45 45. Amavata (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe hetu and samprapti of Amavata | CC | MK | KH | L&PP T | M-CHT | F&S | III | |
| CO1 | Enlist bheda of Amavata | CK | MK | K | L&PP T | QZ | F&S | III | |
| CO1,CO5 | Describe samanya lakshana, vishishta lakshana, upadrava and sadhya asadhyata of Amavata | CC | MK | KH | L_VC | C-VC | F&S | III | |
| Topic 46 46. Vatarakta (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |

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|--|---|-------------|----|----|--------------------|----------|-----|-----|--|
| CO1 | Define Vatarakta with its synonyms | CK | MK | K | L&PP T | O-QZ | F&S | III | |
| CO1 | Describe hetu and samprapti of Vatarakta | CC | MK | KH | L&G D | M-CHT | F&S | III | |
| CO1 | Explain Samprapti of Avasthika Vatarakta | CC | MK | KH | L&G D | INT | F&S | III | |
| CO1,CO5 | Enlist and explain vidhi samprapti of Vatarakta | CC | MK | KH | L&G D | INT | F&S | III | |
| CO1,CO5 | Enlist and explain bheda of doshaja Vatarakta | CC | MK | KH | L&G D | T-CS | F&S | III | |
| CO1,CO5 | Describe purvaroop, upadrava, and sadhya asadhyata of Vatarakta | CC | MK | KH | L&PP T | INT | F&S | III | |
| CO1,CO5 | Describe the differential diagnosis of Sandhigata vata, Amavata and Vata rakta | CC | MK | KH | L&G D | T-CS,INT | F&S | III | |
| Topic 47 47. Immunological & Metabolic disorders (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical features of Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, Gout | CC | DK | KH | L_VC ,RP | C-VC | F&S | III | |
| CO3 | Perform relevant clinical examination of Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, Gout | PSY- GUD | DK | SH | L_VC ,D_B ED | OSCE | F&S | III | |
| CO4 | Order and interpret relevant investigations of Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, Gout | CAP | DK | SH | L&G D,LRI | T-CS | F&S | III | |
| CO2,CO5 | Describe the differential diagnosis of Arthritis | CC | DK | KH | L&G D,PB L | T-CS | F&S | III | |

| Topic 48 48. Klaibya & Vandhyatva (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
|---|---|-----|----|----|-------------------|-----------|-----|-----|------|
| CO1 | Describe Klaibya and vandhyatva | CC | NK | KH | L&PP T | QZ | F&S | III | |
| CO1 | Enlist types of Klaibya and Vandhyatva | CK | NK | K | L&PP T | QZ | F&S | III | |
| Topic 49 49. Sexual dysfunction and Infertility (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2 | Order and interpret relevant investigations of Sexual dysfunction and Infertility | CAP | NK | SH | L&G D,LRI | T-CS | F&S | III | |
| CO2 | Describe differential diagnosis of Sexual dysfunction and Infertility | CC | NK | KH | L&G D | INT | F&S | III | V-SP |
| Topic 50 50. Unmada & Apasmara (Lecture :3 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Explain nirukti of Unmada and Apasmara | CC | NK | KH | L&PP T | O-QZ | F&S | III | |
| CO1 | Explain pratyatmalakshana of Unmada and Apasmara | CC | NK | KH | L&PP T | PUZ | F&S | III | |
| CO1 | Describe hetu and samprapti of Unmada and Apasmara | CC | NK | KH | L&G D | M-CHT | F&S | III | |
| CO1 | Enlist bheda of Unmada and Apasmara | CK | NK | K | L&PP T | QZ | F&S | III | |
| CO1 | Describe samanya lakshana of Unmada and Apasmara | CC | NK | KH | L&G D,L_ VC | QZ , C-VC | F&S | III | |
| Topic 51 51. Vishada (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |

| | | | | | | | | | |
|--|--|-------------|----|----|--------------------|-------|-----|-----|--|
| CO1 | Define Vishada | CK | NK | K | L&PP T | QZ | F&S | III | |
| Topic 52 52. Murchha, and Sanyasa (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe the Utpadaka hetu of Murchha, and Sanyasa | CC | NK | KH | L&PP T | INT | F&S | III | |
| CO1 | Describe samprapti of Murchha, and Sanyasa | CC | NK | KH | L&G D | M-CHT | F&S | III | |
| Topic 53 53. Common Psychiatric diseases (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO2,CO5 | Describe clinical manifestation of Depression, Anxiety neurosis and Epilepsy (Non-organic) | CC | NK | KH | L&PP T | QZ | F&S | III | |
| CO2,CO5 | Differentiate Depression, Anxiety neurosis, and Epilepsy (Non-organic) | CC | NK | KH | L&G D | CL-PR | F&S | III | |
| CO3 | Perform mental status examination for Depression, Anxiety neurosis, and Epilepsy (Non-organic) | PSY- GUD | NK | SH | L_VC ,D_B ED | INT | F&S | III | |
| Topic 54 54. Phiranga and Upadamsha (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe nidana of Phiranga and Upadamsha | CC | NK | KH | L&PP T | QZ | F&S | III | |
| CO1 | Explain the Upadamsha samprapti | CC | NK | KH | L&PP T | M-CHT | F&S | III | |
| CO1 | Enlist the types of Phiranga | CK | NK | K | L&PP T | QZ | F&S | III | |
| Topic 55 55. Syphilis & Gonorrhoea (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |

| | | | | | | | | | |
|--|--|-------------|----|----|--------------|--------|-----|-----|--|
| CO2 | Describe causative factors, and clinical features of Syphilis and Gonorrhoea | CC | NK | KH | L&G D | T-CS | F&S | III | |
| CO2 | Describe differential diagnosis of Syphilis and Gonorrhoea | CC | NK | KH | FC | T-CS | F&S | III | |
| CO4 | Order and interpret relevant investigation of Syphilis and Gonorrhoea | CAP | NK | SH | L&G D,LRI | INT | F&S | III | |
| Topic 56 56. Krimiroga (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe hetu of Krimiroga | CC | NK | KH | L&PP T | O-QZ | F&S | III | |
| CO1 | Enlist bheda of Krimiroga | CK | NK | K | L&PP T | O-QZ | F&S | III | |
| CO1 | Describe samanya lakshana of Krimiroga | CC | NK | KH | L&PP T | O-GAME | F&S | III | |
| Topic 57 57. Clinical presentation of common parasitic disorders (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical presentation of Hook worm, Round worm, Thread worm, and Pin worm | CC | DK | KH | L_VC | C-VC | F&S | III | |
| CO3 | Perform relevant examination of clinical presentation of Hook worm, Round worm, Thread worm, and Pin worm | PSY- GUD | DK | SH | L&PP T | INT | F&S | III | |
| CO4 | Order and interpret relevant investigations of clinical presentation of Hook worm, Round worm, Thread worm, and Pin worm | CAP | DK | SH | L&G D,LRI | T-CS | F&S | III | |
| Topic 58 58. Khalitya & Palitya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Describe Khalitya and Palitya | CC | NK | KH | L&PP T | O-QZ | F&S | III | |

| Topic 59 59. Shleepada (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
|---|--|-------------|----|----|--------------|-----------|-----|-----|------|
| CO1 | Describe nidana and samprapti of Shleepada | CC | NK | KH | L&PP T | M-CHT | F&S | III | |
| CO1 | Enlist bheda of Shleepada | CK | NK | K | L&PP T | QZ | F&S | III | |
| CO1 | Enlist features of Shleepada | CK | NK | K | L&PP T | O-QZ | F&S | III | |
| Topic 60 60. Tuberculosis (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO2,CO5 | Describe the clinical presentation of Tuberculosis | CC | DK | KH | L_VC | INT, C-VC | F&S | III | H-SW |
| CO3 | Perform relevant clinical examination of Tuberculosis | PSY- GUD | DK | SH | L&PP T | INT | F&S | III | |
| CO4 | Order and interpret relevant investigations of clinical presentation of Tuberculosis | CAP | DK | SH | L&G D,LRI | INT | F&S | III | |

List of Practicals (Term and Hours)

| PRACTICALS (Marks-100) | | | |
|-------------------------------|---|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | 1. Aptopadesha Pareeksha/Prashna Pareeksha | 1 | 10 |
| 2 | 2. Introduction to case sheet. Pratyaksha and Anumana Pareeksha. | 1 | 10 |
| 3 | 3. General clinical and Systemic examination -A | 1 | 20 |
| 4 | 4. General clinical and Systemic examination - B | 1 | 20 |
| 5 | 5. Common Symptomatology of different systems | 2 | 20 |
| 6 | 6. Vyavachedaka nidana/ Differential diagnosis | 2 | 4 |
| 7 | 7. Case presentation | 2 | 40 |
| 8 | 8. Introduction to Diagnostic procedures - Hematology, Biochemistry, Microbiology, Urine, Stool | 2 | 26 |
| 9 | 9. Introduction to Electro Cardio Gram (ECG), Different imaging techniques | 2 | 10 |
| 10 | 10. Introduction to Histopathology | 2 | 4 |
| 11 | 11. Study of Histopathology Specimens | 3 | 4 |
| 12 | 12. Retas pareeksha | 3 | 2 |
| 13 | 13. Pathology practical (Perform/ Observation/ Interpretation) | 3 | 40 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Show s how/ Know s how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|---|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| Topic 1 1. Aptopadesha Pareeksha/Prashna Pareeksha | | | | | | | | | |
| CO3,CO5 | Perform Aptopadesha pareeksha, Prashna pareeksha or History taking mentioned in Ayurveda and contemporary medical literature for drawing clinical diagnosis and prognosis | PSY-GUD | MK | KH | D_BE D | CHK,RK | F&S | I | |
| CO7,CO8 | Adopt and reflect ward ethics and communication skills while engaging in the process of examination | AFT-RES | MK | SH | SIM | SP,RK | F&S | I | |
| Topic 2 2. Introduction to case sheet. Pratyaksha and Anumana Pareeksha. | | | | | | | | | |
| CO3,CO5 | Perform Darshanendriya, Sparshanedriya, Srotrendriya pareeksha mentioned in Ayurveda and contemporary medical literature for drawing clinical diagnosis and prognosis | PSY-GUD | MK | SH | D_BE D | P-CASE | F&S | I | |
| CO5 | Perform Ghranendriya, & infer Rasanendriyatataha pareeksha mentioned in Ayurveda and contemporary medical literature for drawing clinical diagnosis and prognosis | CAN | MK | KH | SIM | P-CASE,RK | F&S | I | |
| CO5,CO7 | Report the findings of patient through structured case sheet | CC | MK | KH | CD | P-CASE,RK | F&S | I | |
| CO3,CO5 | Perform Nadi pareeksha as per Ayurveda classics for identifying predominance of dosha. | PSY-GUD | MK | SH | D_BE D | P-PRF | F&S | I | |

| Topic 3 3. General clinical and Systemic examination -A | | | | | | | | | |
|---|--|---------|----|----|-------------|----------------|-----|----|--|
| CO3,CO5 | Perform general examination and various systemic examination - General physical examination, Nervous system, Musculo skeletal system, Gastro intestinal system, Respiratory system, Integumentary system, Uro-genital system, Cardiovascular system, etc. (Inspection, Palpation, Percussion, Auscultation) | PSY-GUD | MK | SH | SIM, D_BE D | CL-PR,OSCE ,RK | F&S | I | |
| Topic 4 4. General clinical and Systemic examination - B | | | | | | | | | |
| CO3,CO5 | Interpret the findings of general examination and various systemic examination - General physical examination, Nervous system, Musculo skeletal system, Gastro intestinal system, Respiratory system, Integumentary system, Uro-genital system, Cardiovascular system, etc. (Inspection, Palpation, Percussion, Auscultation) | CAP | MK | SH | SIM | SP,RK | F&S | I | |
| Topic 5 5. Common Symptomatology of different systems | | | | | | | | | |
| CO2,CO5 | Describe the causes and mechanism of manifestation of Pain abdomen, Edema, Diarrhea, Dysentery, Dehydration and Constipation, Hiccough, Breathlessness, Cough, Vomiting, Joint pain with or without swelling Differential Diagnosis, Neck and Low back pain radiating to corresponding limb, Hematuria, Stroke in various case scenarios | CC | DK | KH | L_VC | COM | F&S | II | |
| CO2,CO5 | Investigate the causes and mechanism of manifestation of Pain abdomen, Edema, Diarrhea, Dysentery, Dehydration and Constipation, Hiccough, Breathlessness, Cough, Vomiting, Joint pain with or without swelling, Neck and Low back pain radiating to corresponding limb, Hematuria, Stroke in various case scenarios | AFT-RES | DK | SH | IBL,P BL | INT | F&S | II | |
| Topic 6 6. Vyavachedaka nidana/ Differential diagnosis | | | | | | | | | |

| | | | | | | | | | |
|--|--|---------|----|----|--------------|--------------|-----|----|--|
| CO5 | Infer diagnosis and prognosis based on a given clinical scenario | CAN | MK | KH | PBL, CD | SP | F&S | II | |
| CO5 | Apply hypothetic-deductive model of clinical reasoning, Pattern recognition model, dual process diagnostic reasoning model, pathway for clinical reasoning model, integrative model of clinical reasoning model, model of diagnostic reasoning strategies in primary care for clinical diagnosis | CAP | DK | SH | SIM, CD | INT,SP | F&S | II | |
| CO5 | Apply intuitive and analytical approach in clinical decision making | CAP | DK | SH | PBL,S IM,C D | SP | F&S | II | |
| CO5 | Perform clinical diagnosis using these clinical reasoning models | PSY-GUD | DK | SH | SIM, CD | SP | F&S | II | |
| Topic 7 7. Case presentation | | | | | | | | | |
| CO5,CO7 | Demonstrate case presentation skills | PSY-GUD | MK | SH | L_VC ,D_B ED | P-CASE,CL-PR | F&S | II | |
| Topic 8 8. Introduction to Diagnostic procedures - Hematology, Biochemistry, Microbiology, Urine, Stool | | | | | | | | | |
| CO4,CO5,CO6 | Order and interpret Diagnostic procedures - Haematology, Biochemistry, Microbiology, Urine, and Stool. | CAP | MK | SH | PBL, LRI | T-CS | F&S | II | |
| CO3 | Suggest patient's preparation for Diagnostic procedures - Haematology, Biochemistry, Microbiology, Urine, and Stool | AFT-RES | MK | SH | L&PP T | SP | F&S | II | |
| CO3 | Perform sample collection for Diagnostic procedures - Haematology, Biochemistry, Microbiology, Urine, and Stool | PSY-GUD | MK | SH | SIM | SP,RK | F&S | II | |
| Topic 9 9. Introduction to Electro Cardio Gram (ECG), Different imaging techniques | | | | | | | | | |
| CO4,CO5,CO6 | Order and interpret given report for Electro Cardio Gram (ECG) | CAP | DK | SH | L&PP | P-ID,CL-PR | F&S | II | |

| | | | | | | | | | |
|--|--|---------|----|----|-----------|---------|-----|-----|--|
| 6 | and different imaging techniques | | | | T, XRay | | | | |
| CO3 | Suggest patient's preparation for Electro Cardio Gram (ECG) and different imaging techniques | AFT-RES | DK | SH | L&PP T | INT, SP | F&S | II | |
| Topic 10 10. Introduction to Histopathology | | | | | | | | | |
| CO4, CO5, CO6 | Order and interpret tests for Histopathology specimens | CAP | NK | SH | LRI | INT | F&S | III | |
| Topic 11 11. Study of Histopathology Specimens | | | | | | | | | |
| CO4, CO5 | Distinguish and describe prepared histopathology specimens of Lung and trachea/ Blood, Spleen and lymph/ Heart and vessels/ Glands/ Liver (Provide normal and abnormal slides to distinguish while demonstration and spotting) | AFT-RES | NK | SH | D_L | P-ID | F&S | III | |
| Topic 12 12. Retas pareeksha | | | | | | | | | |
| CO1, CO5 | Describe and interpret retas pareeksha | CC | DK | KH | D_L | INT | F&S | III | |
| Topic 13 13. Pathology practical (Perform/ Observation/ Interpretation) | | | | | | | | | |
| CO4, CO5, CO6 | Order and interpret Hb, RBC Count, WBC count, Haematocrit, Platelet count, Differential count, RBC indices and ESR* - Haematology Analyser through Flow cytometry technique | CAP | MK | SH | CBL | INT, RK | F&S | III | |
| CO3 | Perform Hb, RBC Count, WBC count, Haematocrit, Platelet count, Differential count, RBC indices procedure through - Haematology Analyser or Cell counter through Flow cytometry technique | PSY-GUD | MK | SH | PT | P-PRF | F&S | III | |
| CO4, CO5, CO6 | Order and interpret Urine physical examination (Appearance, colour, odour) | CAP | MK | SH | LRI | INT | F&S | III | |

| | | | | | | | | | |
|-------------|---|---------|----|----|----------|--------|-----|-----|--|
| CO3 | Perform Urine physical examination (<u>Appearance, colour, odour</u>) through <u>Visual method</u> | PSY-GUD | MK | SH | CBL, PT | P-PRF | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Urine physical and chemical examination (Urine specific gravity, Urine-ph, Sugar, Albumin, Bile pigment, Bile salt, Occult blood, Ketone, Urobilinogen) - Multistix (Urine test strips) | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO3 | Perform Urine physical and chemical examination (Urine specific gravity, Urine-ph, Sugar, Albumin, Bile pigment, Bile salt, Occult blood, Ketone, Urobilinogen) - Multistix (Urine test strips) (Create or simulate abnormal samples to demonstrate positive results) | PSY-GUD | MK | SH | PRA | P-PRF | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Urine Microscopic Examination (Epithelial cells, RBCs, Leukocytes, Casts, Crystals) - Light microscopy on centrifuged sediment | CAP | MK | SH | CBL, LRI | INT | F&S | III | |
| CO3 | Perform Urine Microscopic Examination (Epithelial cells, RBCs, Leukocytes, Casts, Crystals by Light microscopy on centrifuged sediment) | PSY-GUD | MK | SH | PRA | P-PRF | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Liver Function Test (LFT) (Total Bilirubin, Direct – indirect bilirubin, SGOT, SGPT, ALK Phosphates, T Protein, Albumin, Globulin, A/G Ratio) -Semi-automated/ fully automated biochemical analyser through Photometry | CAP | NK | SH | CBL, LRI | INT | F&S | III | |
| CO2 | Describe Liver Function Test (LFT) (Total Bilirubin, Direct – indirect bilirubin, SGOT, SGPT, ALK Phosphates, T Protein, Albumin, Globulin, A/G Ratio) procedure through demonstration | CC | DK | KH | D_L | INT | F&S | III | |

| | | | | | | | | | |
|-------------|---|-----|----|----|----------|--------|-----|-----|--|
| | - Semi-automated/ fully automated biochemical analyser through Photometry | | | | | | | | |
| CO2 | Explain the principle and mechanism of functioning of biochemical analyzer | CC | DK | KH | D_L | QZ | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Renal Function Test (RFT) (Urea, Creatinine, Uric acid) - Semi-automated/ fully automated biochemical analyser through Photometry | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Diabetic profile (Blood Glucose-FBS, PPBS, RBS. HbA1C, Insulin, C-peptide) - Semi-automated/ fully automated biochemistry analyser/ ELISA reader through Photometry/ immunoturbidometry/ELISA Technique | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Thyroid profile (TSH, T3, T4, F T3, F T4) - ELISA Reader/ CLIA through ELISA/ CLIA Technique | CAP | MK | KH | CBL, LRI | INT | F&S | III | |
| CO2 | Describe Thyroid profile (TSH, T3, T4, F T3, F T4) procedure through demonstration - ELISA Reader/ CLIA through ELISA/ CLIA Technique | CAP | DK | KH | D_L | QZ | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Lipid profile (Cholesterol, HDL, LDL, TG) - Semi-automated/ fully automated biochemical analyser through Photometry | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Peripheral smear (Malaria, Microfilaria) - Microscopy through Leishmans staining | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO2 | Describe Peripheral smear (Malaria, Microfilaria) procedure through demonstration - Microscopy through Leishmans staining | CC | DK | KH | D_L | QZ | F&S | III | |
| CO4,CO5,CO6 | Order and interpret RA factor (qualitative), WIDAL (qualitative), VDRL (qualitative), ASO (qualitative) and CRP (qualitative) - Microscopy (if required) through Latex agglutination/ | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |

| | | | | | | | | | |
|-------------|--|---------|----|----|----------|---------|-----|-----|--|
| | Turbidometry | | | | | | | | |
| CO3 | Perform RA factor (qualitative), WIDAL (qualitative), VDRL (qualitative), ASO (qualitative) and CRP (qualitative) - Microscopy (if required) through Latex agglutination/ Turbidometry | PSY-GUD | MK | SH | PRA | P-PRF | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Stool examination (Colour, Consistency) - Visual method | CAP | NK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO2 | Describe Stool examination (Colour, Consistency) - Visual method | CC | DK | KH | D_L | INT | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Stool examination (Ova , Cyst, Pus cells) - Microscopy through Wet smear (saline and iodine) | CAP | NK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO2 | Describe Stool examination (Ova , Cyst, Pus cells) - Microscopy through Wet smear (saline and iodine) | CC | DK | KH | D_L | INT | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Semen examination (Colour, Liquefaction, Viscosity) - Visual method | CAP | DK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO2 | Describe Semen examination (Colour, Liquefaction, Viscosity) procedure through demonstration - Visual method | CC | DK | KH | D_L | INT | F&S | III | |
| CO4,CO5,CO6 | Order and interpret Semen examination (Sperm count, Motility, Morphology) - Microscopy through Cytometry/ Wet smear/ stained smear | CAP | DK | SH | CBL, LRI | INT,RK | F&S | III | |
| CO2 | Describe Semen examination (Sperm count, Motility, Morphology) procedure through demonstration - Microscopy through Cytometry/ Wet smear/ stained smear | CC | DK | KH | D_L | INT,COM | F&S | III | |
| CO4,CO5,CO6 | Order and interpret BT, CT, Prothrombin Time - Coagulometer | CAP | MK | SH | CBL, LRI | INT,RK | F&S | III | |

Table 4a: List of Practical

| S.No | Name of practical | Term | Activity | Practical hrs |
|-------------|--|-------------|--|----------------------|
| 1 | 1. Aptopadesha Pareeksha/Prashna Pareeksha | 1 | History taking/ Ward ethics/ Communication skills | 10 |
| 2 | 2. Introduction to case sheet. Pratyaksha and Anumana Pareeksha. | 1 | Darshanendriya, Sparshanedriya, Srotrendriya & Ghranendriya & Rasanendriyataha pareeksha. General principle of systemic examination – Inspection, Palpation, Percussion, Auscultation | 10 |
| 3 | 3. General clinical and Systemic examination -A | 1 | Demonstration on patients and using simulators, software or applications | 20 |
| 4 | 4. General clinical and Systemic examination - B | 1 | General and Systemic examination | 20 |
| 5 | 5. Common Symptomatology of different systems | 2 | Pain abdomen, Edema, Diarrhea, Dysentery, Dehydration and constipation, Hiccough, Breathlessness, Cough, Vomiting, Joint pain with or without swelling Differential Diagnosis, Neck and Low back pain radiating to corresponding limb, Hematuria, Stroke Differential Diagnosis | 20 |
| 6 | 6. Vyavachedaka nidana/ Differential diagnosis | 2 | Clinical reasoning models | 4 |
| 7 | 7. Case presentation | 2 | Demonstrating and presenting steps of clinical diagnosis | 40 |
| 8 | 8. Introduction to Diagnostic procedures - Hematology, Biochemistry, Microbiology, Urine, Stool | 2 | A. Order an investigation B. Patient's preparation C. Sample collection | 26 |
| 9 | 9. Introduction to Electro Cardio Gram (ECG), Different imaging techniques | 2 | Order and interpret reports related to ECG and Diagnostic imaging | 10 |
| 10 | 10. Introduction to Histopathology | 2 | Order and Interpret | 4 |

| | | | | |
|-----------------|--|---|--|------------|
| 11 | 11. Study of Histopathology Specimens | 3 | Prepared histopathology specimens to be demonstrated, observed and studied (Lung and trachea/ Blood, Spleen and lymph/ Heart and vessels/ Glands/ Liver) | 4 |
| 12 | 12. Retas pareeksha | 3 | Interpret observations derived from reto pareeksha | 2 |
| 13 | 13. Pathology practical (Perform/ Observation/ Interpretation) | 3 | 13.1 Hematology (Discipline) - Hemogram (Profile) 13. 2 Clinical pathology (Discipline) - Urine Physical Examination (Profile) 13. 3 Clinical pathology (Discipline) - Urine Physical and Chemical Examination (Profile) 13. 4 Clinical pathology (Discipline) - Urine Microscopic Examination (Profile) 13. 5 Clinical biochemistry (Discipline) - Liver Function Test (LFT) (Profile) 13. 6 Clinical biochemistry (Discipline) - Renal Function Test (RFT) (Profile) 13. 7 Clinical biochemistry (Discipline) - Diabetic profile (Profile) 13. 8 Clinical biochemistry (Discipline) - Thyroid profile (Profile) 13. 9 Clinical biochemistry (Discipline) - Lipid profile (Profile) 13. 10 Clinical Pathology/ Haematology (Discipline) - Peripheral Smear (Profile) 13. 11 Serology (Discipline) - RA Factor/ WIDAL (Profile) 13. 12 Clinical Pathology (Discipline) - Stool examination (Profile) 13. 13 Clinical Pathology (Discipline) - Stool examination (Profile) 13. 14 Clinical Pathology (Discipline) - Semen examination (Profile) 13. 15 Serology (Discipline) - Coagulation test (Profile) | 40 |
| Total Hr | | | | 210 |

Activity

| CO | Topic name | Activity Details | Hours [#] |
|-----------------------------|---|---|--------------------|
| CO1,CO2,CO3,CO4,CO6,CO7,CO8 | <p>1. Assessment of Dosha Vikriti:</p> <p>A. Nidana (Vyadhi janaka hetu)</p> <p>B. Agni bheda and Vikriti</p> <p>C. Dosha Vriddhi, Kshaya and Dushta Karma, Samsargaja, Sannipataja.</p> <p>D. Dosha swabhava - Nityasamshleshita (Leena) dosha and Parichedita dosha</p> <p>E. Paridhavamana dosha</p> | <p>Survey : After the completion of the topic the students are instructed to identify:</p> <p>The contemporary etiologies for the nidana or hetu are mentioned in various contexts as a part of case diagnosis.</p> <p>Identify Dosha Vriddhi, Kshaya and Dushta Karma, Samsargaja, Sannipataja features as a part of Case diagnosis.</p> <p>Minimum - 5 cases</p> | 6 |
| CO1,CO2 | <p>2. Dhatu Paka</p> <p>A. Ojodusti lakshana</p> <p>B. Asatmya - Immune pathology,</p> <p>C. Cell Injury and Cellular Adaptations</p> <p>D. Inflammation</p> <p>E. Hemodynamic disorders</p> <p>F. Neoplasia</p> | <p>Creating video presentations (5 to 7 minutes):</p> <p>After understanding the basic concepts:</p> <p>Group of 5 students together are instructed to prepare one quality educational video with current research updates in the field in a structured format and submit the same to the instructor.</p> <p>Topics of Ayurveda and various contemporary learning objectives defined can be provided for the same.</p> <p>The topics for video presentations should be selected from the subtopics, it can be regarding a specific point or research update or collection</p> | 5 |

| | | | |
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| | | <p>and summary of scientific articles, etc. which will be assisting in clinical practice.</p> <p>The video presentations should be submitted to create a repository and presented to the department.</p> | |
| CO2 | 3. Infection and Nutritional disorders | <p>Class presentations:</p> <p>Group activity with self-directed learning:</p> <p>Students are instructed to compile the subtopics given to the group.</p> <p>Prepare a PPT presentation and present it in class with the groups.</p> <p>10 min. for presentation and 5 min for question answers for each group.</p> <p>Topics to be covered in the presentation:</p> <p>A) The detailed knowledge of specific organisms, infectious disease symptomatology, and diagnostic procedures with recent advancements and challenges in diagnosis. B) Nutritional disorders with the thought of understanding the spectrum of signs and symptoms with Ayurveda literature, methods to diagnose in contemporary science, complications, etc.</p> <p>Monitored by instructors or mentors assigned for each group.</p> | 2 |
| CO6 | 4. Digital health and Artificial intelligence in the context of Roganidana | <p>Poster making:</p> <p>After a basic understanding of the topic, the students are instructed to prepare Posters regarding the use of Information and Communication Technology and other recent digital developments in understanding diagnosis, prognosis, and developing repositories related to morbidities or Roganidana Evum Vikriti Vigyan in the current era aiding for academics and</p> | 1 |

| | | | |
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| | | clinical practice. Similarly, the implementation of artificial intelligence in diagnosis and prognosis also can be prepared. | |
| CO1,CO2,CO3,CO4,CO6,CO7,CO8 | 5. Methods of Rogi pareeksha | <p>Demonstration bed side:</p> <p>After understanding the core concepts of pareeksha the student will be Demonstrated regarding various pareekshas before performing the same in practical session.</p> <p>The students are supposed to observe the same, receive, understand and imitate the methods demonstrated.</p> <p>Students will be assigned with the mentioned topics as a part of the activity by the instructor in minimum 5 simulated patients or patients.</p> | 5 |
| CO6 | 6. Vyadhinamakarana | <p>Demonstration:</p> <p>The instructor will be demonstrating the operations of the NAMASTE (National AYUSH Morbidity and Standardized Terminologies Electronic Portal) portal.</p> <p>The student should observe and implement the same for reporting terminologies or diagnosis. The instructor can give modified data indicating the disease diagnosis with masked patient details for mentioning the allotted codes of diseases or conditions from NAMASTE portal and WHO international standard terminologies on Ayurveda or A list of common diseases prevailing in the area can be given to the students to search the portal and mention the codes by themselves.</p> <p>Students can be assigned with any of the mentioned topics as a part of the activity by the instructor.</p> | 1 |

| | | | |
|---------------------|---|---|---|
| CO2,CO3,CO6,CO7,CO8 | <p>7. Perform relevant clinical examinations in the following disorders:</p> <p>Gastrointestinal disorders: Ulcerative and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, Inflammatory Bowel Diseases.</p> <p>Urinary disorders: Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease.</p> <p>Respiratory disorders: Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion and Bronchiectasis.</p> <p>Measles, Chickenpox and herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever.</p> <p>Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure.</p> <p>Hepatobiliary diseases - Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Diseases, Hepatitis, Jaundice, and Ascites.</p> | <p>Demonstration bedside (Simulated patients):</p> <p>The students will be instructed to observe the bedside demonstration activity by the instructor, followed by students imitating or performing the same activity relevant to the condition associated.</p> <p>The case study will be written in the activity book.</p> | 8 |
|---------------------|---|---|---|

Allergic disorders -
Eczema, Urticaria;
Squamous lesions -
Psoriasis, Lichen planus;
Bullous lesion –
Pemphigus and
Pemphigoid. Mycotic skin
diseases. Leprosy.
Vitiligo. Cellulitis.

Hypothyroidism and
hyperthyroidism.

Obesity.

Diabetes Mellitus and
Pancreatitis.

Common neurologic
diseases: Parkinson's
disease, Stroke, Bell's
Palsy, Motor Neuron
Disease, Transverse
myelitis, Epilepsy
(Organic)

Common Spine disorders:
Lumbago- Sciatica
syndrome, Brachial
neuralgia, Cervical and
Lumber Spondylosis.

Diseases of bone and
Joints - Osteoarthritis,
Osteoporosis. Frozen
Shoulder, Calcaneal spur/
Plantar fasciitis, Tennis
elbow, Carpel tunnel
syndrome.

Muscular diseases -
Muscular Dystrophy.
Rheumatic fever,
Rheumatoid arthritis,
SLE, Ankylosing
spondylitis, Gout.

Mental status examination
for Depression, Anxiety
neurosis and Epilepsy

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| | <p>(Non - organic).</p> <p>Common parasitic infestations: Hookworm, Roundworm, Threadworm, and Pinworm.</p> | | |
| CO4,CO6,CO7,CO8 | <p>8. Order and interpret relevant investigations with the clinical correlation of the following disorders:</p> <p>Gastrointestinal disorders: Ulcerative and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, Inflammatory Bowel Diseases.</p> <p>Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury, and Chronic Kidney Disease.</p> <p>Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, and Bronchiectasis.</p> <p>Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever.</p> <p>Anaemia, Nutritional anaemia, Thalassemia, Sickle cell anaemia, Leukaemia, and</p> | <p>Lab report interpretation:</p> <p>Students will be given a clinical scenario or a case or report in the respective training hour.</p> <p>Based on the training given the students are expected to draw a provisional diagnosis based on the Lab report interpretation.</p> <p>The same has to be recorded in the activity book</p> | 8 |

Thrombocytopenia.

Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure.

Hepatobiliary diseases - Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Diseases, Hepatitis, Jaundice, and Ascites.

Allergic disorders - Eczema, Urticaria; Squamous lesions - Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid. Mycotic skin diseases. Leprosy. Vitiligo. Cellulitis.

Hypothyroidism and hyperthyroidism. Obesity. Diabetes Mellitus and Pancreatitis. Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic).

Common Spine disorders: Lumbago - Sciatica syndrome, Brachial neuralgia, Cervical and Lumber Spondylosis.

Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome.

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| | <p>Muscular diseases - Muscular Dystrophy.</p> <p>Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, Gout.</p> <p>Sexual dysfunction and Infertility.Syphilis and Gonorrhoea.</p> <p>Parasitic infestations: Hookworm, Roundworm, Threadworm, and Pinworm.</p> <p>Tuberculosis</p> | | |
| CO1,CO2 | <p>9. Differential diagnosis:</p> <p>Differentiate between Atisara and Pravahika.</p> <p>Differentiate Atisara and Grahani Roga.</p> <p>Differentiate Grahani dosha and Grahani Roga.</p> <p>Describe the differential diagnosis of Ulcerative and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases.</p> <p>Enlist conditions of Mutra shoshana (Kshaya and Aukasada) and Mutra pratihanyate (Avarodha) among different types of Mutraghata.</p> <p>Describe different types of Mutraghata.</p> | <p>Problem-Based Learning:</p> <p>The students will be grouped for PBL sessions with a specific topic from the topic list given.</p> <p>At the end of the session, the groups will present in class.</p> <p>Peer learning will also be achieved with this activity.</p> | 10 |

Differentiate
Mootrakrichra and
Mootraghata.

Describe the differential
diagnosis of Pneumonia,
Chronic Obstructive
Pulmonary Disease,
Pleural effusion, and
Bronchiectasis.

Describe the differential
diagnosis of Measles,
Chicken pox and Herpes
zoster, Hand foot mouth
disease, Rubella, Malaria,
Filariasis, Influenza,
Dengue, Leptospirosis,
Chikungunya, Typhoid
and other common
regional disorders
presenting with fever.

Describe the differential
diagnosis of Anaemia,
Nutritional anemia,
Thalassemia, Sickle cell
anemia, Leukaemia, and
Thrombocytopenia.

Describe the differential
diagnosis of Coronary
Artery Disease (Ischemic
Heart Disease, and
Myocardial Infarction)
and Congestive cardiac
failure.

Describe the differential
diagnosis of Hepatobiliary
diseases - Liver cirrhosis,
Alcoholic and Non -
Alcoholic Liver Diseases,
Hepatitis, Jaundice, and
Ascites.

Describe the differential
diagnosis of
Hypothyroidism and
hyperthyroidism.

Describe the differential diagnosis of Obesity.

Describe the differential diagnosis of Diabetes Mellitus and Pancreatitis.

Describe the differential diagnosis of Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy, Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic), and Common Spine disorders: Lumbago- Sciatica syndrome, Brachial neuralgia, Cervical, and Lumber Spondylosis.

Describe the differential diagnosis of Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Cappel tunnel syndrome, and Muscular diseases - Muscular Dystrophy.

Describe the differential diagnosis of Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, and Gout.

Describe differential diagnosis of Sexual dysfunction and Infertility.

Describe differential diagnosis of Syphilis and Gonorrhoea.

Describe the differential

| | | | |
|---------|--|---|----|
| | <p>diagnosis of clinical presentation of Hookworm, Roundworm, Threadworm, and Pinworm.</p> <p>Describe the differential diagnosis of the clinical presentation of Tuberculosis.</p> | | |
| CO2,CO5 | <p>10. Clinical features - Role plays in learning:</p> <p>Describe the clinical features of Ulcerative and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, and Inflammatory Bowel Diseases.</p> <p>Describe the clinical features of Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury, and Chronic Kidney Disease.</p> <p>Describe the clinical features of Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, and Bronchiectasis.</p> <p>Describe the clinical features of Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, typhoid, and other common regional disorders presenting with fever.</p> | <p>Role plays:</p> <p>Role plays are an effective method of teaching to create a real-world scenario in a controlled manner.</p> <p>In this certain group of students will be trained for pre-class preparation regarding a disease or condition to be presented in the class in front of small cluster groups of students.</p> <p>Further, the groups are asked to interact with the performing student to understand more about a condition and use their clinical acumen to diagnose the condition moderated by an instructor.</p> | 10 |

Describe the complications of Measles, Chicken pox and Herpes zoster, Hand foot mouth disease, Rubella, Malaria, Filariasis, Influenza, Dengue, Leptospirosis, Chikungunya, Typhoid, and other common regional disorders presenting with fever.

Describe the clinical features of Anaemia, Nutritional anemia, Thalassemia, Sickle cell anemia, Leukaemia, and Thrombocytopenia.

Describe the clinical features of Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure.

Describe the clinical features of Hepatobiliary diseases - Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Diseases, Hepatitis, Jaundice, and Ascites.

Describe the clinical features of Hypothyroidism and hyperthyroidism.

Describe the clinical features of Diabetes Mellitus and Pancreatitis.

Describe the clinical features of Common neurologic diseases: Parkinson's disease, Stroke, Bell's Palsy,

| | | | |
|-------------|---|--|----|
| | <p>Motor Neuron Disease, Transverse myelitis, Epilepsy (Organic), and Common Spine disorders: Lumbago- Sciatica syndrome, Brachial neuralgia, Cervical, and Lumber Spondylosis.</p> <p>Describe the clinical features of Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome, and Muscular diseases - Muscular Dystrophy.</p> <p>Describe the clinical features of Rheumatic fever, Rheumatoid arthritis, SLE, Ankylosing spondylitis, and Gout.</p> | | |
| CO4,CO6,CO8 | <p>11. Field visits:</p> <p>Visit to Pathology laboratory and Diagnostic imaging center.</p> | <p>Visit: Students are instructed to visit at least one pathology laboratory and one imaging center; observe the procedures followed. Record the observations and submit the report to the instructor.</p> | 10 |

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 2 |
| 2 | Lecture with Power point presentation | 222 |
| 3 | Lecture & Group Discussion | 133 |
| | | |

| | | |
|----|---------------------------|----|
| 4 | Lecture with Video clips | 45 |
| 5 | Discussions | 16 |
| 6 | Brainstorming | 3 |
| 7 | Inquiry-Based Learning | 4 |
| 8 | PBL | 14 |
| 9 | CBL | 9 |
| 10 | Project-Based Learning | 16 |
| 11 | Team project work | 2 |
| 12 | Flipped classroom | 4 |
| 13 | Blended Learning | 3 |
| 14 | Edutainment | 2 |
| 15 | Simulation | 1 |
| 16 | Role plays | 10 |
| 17 | Self-directed learning | 6 |
| 18 | Problem solving method | 1 |
| 19 | Recitation | 31 |
| 20 | Tutorial | 3 |
| 21 | Presentations | 3 |
| 22 | X ray identification | 2 |
| 23 | Case diagnosis | 3 |
| 24 | Lab report interpretation | 18 |
| 25 | Demonstration | 2 |
| 26 | Demonstration bedside | 15 |
| 27 | Demonstration Lab | 1 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand |
|--------------|--------|--------|-------------------------------|------|----------|----|-----|-------|
| | | | Practical | Viva | Elective | IA | Sub | |

| | | | | | | | | |
|-------------|---|-----|-----|----|---|----|--------------|--------------|
| | | | | | | | Total | Total |
| AyUG- RN | 2 | 200 | 100 | 70 | - | 30 | 200 | 400 |

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|----------------------------|--|----------------------------------|----------------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|--|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|--------------------------|
| | A 3 | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (.../30) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-RN

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

Similar for Paper II

6 F Distribution of theory examination

| Paper 1 Fundamental Principles of Vikriti Vigyan | | | | | | |
|---|--|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | 1. Roga nidana – Pathophysiology and clinical diagnosis | 1 | 43 | No | Yes | No |
| 2 | 2. Pareeksha | 1 | | Yes | Yes | Yes |
| 3 | 3. Methods of Rogi pareeksha | 1 | | No | Yes | Yes |
| 4 | 4. Sapeksha nidana - Vyavacchedaka nidana | 1 | | No | Yes | Yes |
| 5 | 5. Upashaya/ Anupashaya | 1 | | Yes | Yes | No |
| 6 | 6. Dosha Vikriti | 1 | | Yes | Yes | Yes |
| 7 | 7. Doshagati and Rogamarga | 1 | | Yes | Yes | Yes |
| 8 | 8. Srotodushti | 1 | | Yes | Yes | Yes |
| 9 | 9. Concept of Ama | 1 | | Yes | Yes | Yes |
| 10 | 10. Assessment of Ama | 1 | | Yes | Yes | No |
| 11 | 11. Sthana samshraya – Poorvaroop | 1 | 49 | No | Yes | Yes |
| 12 | 12. Dushya dushti | 1 | | Yes | Yes | Yes |
| 13 | 13. Samprapti | 1 | | No | Yes | Yes |
| 14 | 14. Rupa | 1 | | Yes | Yes | Yes |
| 15 | 15. Vyadhinamakarana | 1 | | Yes | Yes | No |
| 16 | 16. Vyadhi | 1 | | Yes | Yes | Yes |

| | | | | | | |
|--------------------|---|---|------------|-----|-----|-----|
| 17 | 17. Ashtanindita (Endocrine disorders) | 1 | | Yes | Yes | No |
| 18 | 18. Janapadodhwamsa vikara (Pandemic disorders) | 1 | | Yes | Yes | No |
| 19 | 19. Nidanarthakara Vyadhi, Vyadhisankara | 1 | | Yes | Yes | No |
| 20 | 20. Vyadhikshamatva | 1 | | Yes | Yes | Yes |
| 21 | 21. Rogi bala Pareeksha | 1 | | Yes | Yes | No |
| 22 | 22. Dhatu Paka | 1 | | Yes | Yes | Yes |
| 23 | 23. Infection and Nutritional disorders | 1 | 8 | Yes | Yes | No |
| 24 | 24. Upadrava | 2 | | Yes | Yes | No |
| 25 | 25. Arishta | 2 | | Yes | No | No |
| 26 | 26. Vyadhi bala pareeksha | 2 | | Yes | Yes | No |
| 27 | 27. Sadhyasadhyatva – Prognosis | 2 | | Yes | Yes | No |
| 28 | 28. Digital health and Artificial intelligence in the context of Roganidana | 2 | | Yes | No | No |
| Total Marks | | | 100 | | | |

| Paper 2 Vyadhi Vigyan, contemporary understanding and updates | | | | | | |
|--|--|-------------------|--------------------|---------------------|----------------------|-----------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 29 | 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa | 2 | 43 | Yes | Yes | Yes |
| 30 | 2. Chhardi | 2 | | Yes | Yes | No |

| | | | | | | |
|----|---|---|----|-----|-----|-----|
| 31 | 3. Amlapitta | 2 | | Yes | Yes | No |
| 32 | 4. Shoola | 2 | | Yes | Yes | Yes |
| 33 | 5. Atisara, and Pravahika | 2 | | Yes | Yes | Yes |
| 34 | 6. Grahani | 2 | | No | Yes | Yes |
| 35 | 7. Visuchika, Alasaka, Vilambika | 2 | | Yes | Yes | No |
| 36 | 8. Common GIT diseases | 2 | | Yes | Yes | No |
| 37 | 9. Mutrakrichhra | 2 | | Yes | Yes | No |
| 38 | 10. Mutraghata | 2 | | Yes | Yes | No |
| 39 | 11. Common Urinary diseases | 2 | | Yes | Yes | No |
| 40 | 12. Hikka | 2 | | Yes | Yes | No |
| 41 | 13. Shwasa | 2 | | Yes | Yes | Yes |
| 42 | 14. Kasa | 2 | | Yes | Yes | Yes |
| 43 | 15. Rajayakshma & Shosha | 2 | | Yes | Yes | No |
| 44 | 16. Common lung disorders | 2 | | Yes | Yes | No |
| 45 | 17. Jwara | 2 | | Yes | Yes | Yes |
| 46 | 18. Masurika – Romantika | 2 | | Yes | No | No |
| 47 | 19. Fever | 2 | | Yes | Yes | No |
| 48 | 20. Pandu | 2 | | No | Yes | Yes |
| 49 | 21. Raktapitta | 2 | 25 | Yes | Yes | Yes |

| | | |
|----|--|---|
| 50 | 22. Hematopoietic diseases | 2 |
| 51 | 23. Hridroga | 2 |
| 52 | 24. Shotha | 2 |
| 53 | 25. Cardiovascular disorders | 2 |
| 54 | 26. Kamala | 2 |
| 55 | 27. Udara Roga | 2 |
| 56 | 28. Hepatobiliary diseases | 2 |
| 57 | 29. Kushtha - Maha Kushtha & Kshudra Kushtha (According to Charaka) | 3 |
| 58 | 30. Sheetapitta | 3 |
| 59 | 31. Shwitra | 3 |
| 60 | 32. Visarpa | 3 |
| 61 | 33. Skin diseases | 3 |
| 62 | 34. Galaganda | 3 |
| 63 | 35. Thyroid disorders | 3 |
| 64 | 36. Sthoulya – Karshya | 3 |
| 65 | 37. Obesity | 3 |
| 66 | 38. Prameha | 3 |
| 67 | 39. Diabetes Mellitus and Pancreatitis | 3 |

| | | |
|-----|-----|-----|
| Yes | Yes | No |
| Yes | Yes | No |
| No | Yes | Yes |
| Yes | Yes | No |
| No | Yes | Yes |
| No | Yes | Yes |
| Yes | Yes | No |
| No | Yes | Yes |
| No | Yes | Yes |
| No | Yes | Yes |
| Yes | Yes | No |
| Yes | No | No |
| Yes | Yes | No |
| No | Yes | Yes |
| Yes | Yes | No |
| No | Yes | Yes |
| Yes | Yes | No |

32

| | | |
|----|--|---|
| 68 | 40. Vatavyadhi | 3 |
| 69 | 41. Snayugata vata | 3 |
| 70 | 42. Common neurologic and spine disorders | 3 |
| 71 | 43. Sandhigatavata and Asthi majja gata vata | 3 |
| 72 | 44. Diseases of bone, joints, and muscles | 3 |
| 73 | 45. Amavata | 3 |
| 74 | 46. Vatarakta | 3 |
| 75 | 47. Immunological & Metabolic disorders | 3 |
| 76 | 48. Klaibya & Vandhyatva | 3 |
| 77 | 49. Sexual dysfunction and Infertility | 3 |
| 78 | 50. Unmada & Apasmara | 3 |
| 79 | 51. Vishada | 3 |
| 80 | 52. Murchha, and Sanyasa | 3 |
| 81 | 53. Common Psychiatric diseases | 3 |
| 82 | 54. Phiranga and Upadamsha | 3 |
| 83 | 55. Syphilis & Gonorrhoea | 3 |
| 84 | 56. Krimiroga | 3 |
| 85 | 57. Clinical presentation of common parasitic disorders | 3 |
| | | |

| | | |
|-----|-----|-----|
| No | Yes | Yes |
| No | Yes | Yes |
| Yes | Yes | No |
| No | Yes | Yes |
| Yes | Yes | No |
| No | Yes | Yes |
| No | Yes | Yes |
| Yes | Yes | No |
| Yes | No | No |
| Yes | No | No |
| Yes | No | No |
| Yes | No | No |
| Yes | No | No |
| Yes | No | No |
| Yes | Yes | No |
| | | |

| | | | | | | | |
|--------------------|-----------------------------------|---|------------|-----|----|----|--|
| 86 | 58. Khalitya & Palitya | 3 | | Yes | No | No | |
| 87 | 59. Shleepada | 3 | | Yes | No | No | |
| 88 | 60. Tuberculosis | 3 | | | | | |
| Total Marks | | | 100 | | | | |

6 G Blue print of paper I & II

| Paper No:1 | | |
|-------------|---|--|
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <p>1. 2. Pareeksha 2. 5. Upashaya/ Anupashaya 3. 7. Doshagati and Rogamarga 4. 6. Dosha Vikriti 5. 8. Srotodushti 6. 9. Concept of Ama 7. 12. Dushya dushti 8. 15. Vyadhinamakarana 9. 16. Vyadhi 10. 17. Ashtanindita (Endocrine disorders) 11. 18. Janapadodhwamsa vikara (Pandemic disorders) 12. 19. Nidanarthakara Vyadhi, Vyadhisankara 13. 20. Vyadhikshamatva 14. 21. Rogi bala Pareeksha 15. 22. Dhatu Paka 16. 23. Infection and Nutritional disorders 17. 27. Sadhyasadhyatva – Prognosis / 24. Upadrava 18. 25. Arishta 19. 26. Vyadhi bala pareeksha 20. 28. Digital health and Artificial intelligence in the context of Roganidana</p> |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <p>1. 1. Roga nidana – Pathophysiology and clinical diagnosis / 2. Pareeksha 2. 11. Sthana samshraya – Poorvaroopta / 8. Srotodushti / 12. Dushya dushti / 7. Doshagati and Rogamarga / 6. Dosha Vikriti 3. 13. Samprapti / 16. Vyadhi / 19. Nidanarthakara Vyadhi, Vyadhisankara / 17. Ashtanindita (Endocrine disorders) / 14. Rupa 4. 20. Vyadhikshamatva / 21. Rogi bala Pareeksha / 18. Janapadodhwamsa vikara (Pandemic disorders) / 19. Nidanarthakara Vyadhi, Vyadhisankara / 22. Dhatu Paka 5. 26. Vyadhi bala pareeksha / 27. Sadhyasadhyatva – Prognosis / 24. Upadrava 6. 23. Infection and Nutritional disorders 7. 10. Assessment of Ama / 9. Concept of Ama 8. 5. Upashaya/ Anupashaya</p> |

| | | |
|-----------|--|---|
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. 4. Sapeksha nidana - Vyavacchedaka nidana / 3. Methods of Rogi pareeksha / 12. Dushya dushti / 6. Dosha Vikriti / 2. Pareeksha</p> <p>2. 11. Sthana samshraya – Poorvaroop / 14. Rupa</p> <p>3. 9. Concept of Ama / 22. Dhatu Paka / 8. Srotodushti / 7. Doshagati and Rogamarga</p> <p>4. 20. Vyadhikshamatva / 22. Dhatu Paka</p> |
|-----------|--|---|

Paper No:2

| Question No | Type of Question | Question Paper Format |
|-------------|---|--|
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <p>1. 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa / 2. Chhardi</p> <p>2. 3. Amlapitta / 4. Shoola / 7. Visuchika, Alasaka, Vilambika</p> <p>3. 5. Atisara, and Pravahika / 8. Common GIT diseases</p> <p>4. 13. Shwasa / 15. Rajayakshma & Shosha / 12. Hikka / 14. Kasa</p> <p>5. 16. Common lung disorders</p> <p>6. 11. Common Urinary diseases</p> <p>7. 17. Jwara / 19. Fever / 18. Masurika – Romantika</p> <p>8. 25. Cardiovascular disorders / 22. Hematopoietic diseases</p> <p>9. 28. Hepatobiliary diseases</p> <p>10. 33. Skin diseases</p> <p>11. 35. Thyroid disorders / 34. Galaganda</p> <p>12. 37. Obesity</p> <p>13. 39. Diabetes Mellitus and Pancreatitis</p> <p>14. 42. Common neurologic and spine disorders</p> <p>15. 44. Diseases of bone, joints, and muscles / 47. Immunological & Metabolic disorders</p> <p>16. 48. Klaibya & Vandhyatva / 49. Sexual dysfunction and Infertility</p> <p>17. 51. Vishada / 50. Unmada & Apasmara</p> <p>18. 57. Clinical presentation of common parasitic disorders / 52. Murchha, and Sanyasa</p> <p>19. 54. Phiranga and Upadamsha / 55. Syphilis & Gonorrhoea</p> <p>20. 57. Clinical presentation of common parasitic disorders / 59. Shleepada / 56. Krimiroga / 60. Tuberculosis</p> |

| | | |
|------------------|---|--|
| <p>Q2</p> | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <ol style="list-style-type: none"> 1. 5. Atisara, and Pravahika / 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa / 2. Chhardi / 8. Common GIT diseases / 6. Grahani / 3. Amlapitta / 4. Shoola / 7. Visuchika, Alasaka, Vilambika 2. 11. Common Urinary diseases / 9. Mutrakrichhra / 10. Mutraghata 3. 25. Cardiovascular disorders / 23. Hridroga / 20. Pandu / 17. Jwara / 26. Kamala / 28. Hepatobiliary diseases / 19. Fever / 21. Raktapitta / 22. Hematopoietic diseases / 24. Shotha 4. 32. Visarpa / 31. Shwitra / 27. Udara Roga / 29. Kushtha - Maha Kushtha & Kshudra Kushtha (According to Charaka) / 33. Skin diseases / 26. Kamala / 28. Hepatobiliary diseases / 30. Sheetapitta 5. 40. Vatavyadhi / 44. Diseases of bone, joints, and muscles / 43. Sandhigatavata and Asthi majja gata vata / 46. Vatarakta / 42. Common neurologic and spine disorders / 45. Amavata / 41. Snayugata vata / 47. Immunological & Metabolic disorders 6. 57. Clinical presentation of common parasitic disorders / 60. Tuberculosis 7. 13. Shwasa / 15. Rajayakshma & Shosha / 12. Hikka / 16. Common lung disorders / 14. Kasa 8. 39. Diabetes Mellitus and Pancreatitis / 37. Obesity / 38. Prameha |
| <p>Q3</p> | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <ol style="list-style-type: none"> 1. 13. Shwasa / 5. Atisara, and Pravahika / 1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa / 6. Grahani / 4. Shoola / 14. Kasa 2. 20. Pandu / 17. Jwara / 38. Prameha / 21. Raktapitta / 36. Sthoulya – Karshya / 24. Shotha 3. 32. Visarpa / 31. Shwitra / 27. Udara Roga / 29. Kushtha - Maha Kushtha & Kshudra Kushtha (According to Charaka) / 26. Kamala / 30. Sheetapitta 4. 40. Vatavyadhi / 43. Sandhigatavata and Asthi majja gata vata / 46. Vatarakta / 41. Snayugata vata |

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|------|---|-------|
| 1 | <p>Spotting/ Identification: (10 Questions X 3 Marks = 30 Marks): (Note: Minimum of one spotting should be kept mandatorily from all the different heads mentioned below)</p> <p>X-Ray/ECG/ Clinical sign picture/ Slide/ Diagnostic report/ Causative factors</p> <p>X-Ray (Assessment format):</p> <p>On a given X-Ray film (Any of the below):</p> <ul style="list-style-type: none"> • Comment on inspiration and rotation (chest), position, penetration or exposure, and artifacts in a given X-Ray film • Find out the abnormal findings or sign that indicates a specific condition (By assessing size, shape, density, and location of structures) – Airway/ Bones and soft tissue/ Cardiac/ Diaphragm/ Effusion/ Gastric bubble/ Hila and mediastinum) <p>ECG (Assessment format):</p> <p>On a given Electro Cardio Gram (Any of the below):</p> <ul style="list-style-type: none"> • Determine and comment on rhythm and rate (Paper and pencil method/ Caliper method/ 10-times method/ 1500 method) • P wave interpretation (Location/ Amplitude/ Duration/ Configuration/ Deflection) • PR interval interpretation (Location and duration) • QRS complex interpretation (Location/ Amplitude/ Duration/ Configuration/ Deflection) • ST segment interpretation (Location and deflection) • T wave interpretation (Location/ Amplitude/ Configuration/ Deflection) <p>Clinical sign/ image or picture (Assessment format):</p> <p>On a given image of a patient with sign (Any of the below):</p> <ul style="list-style-type: none"> • Identify the sign • Possible aetiologies behind the case • Possible investigations for further confirmation of a case • Differential diagnosis • Diagnose the condition or disease associated with the sign <p>Slide (Assessment format):</p> <p>Identify and mention the provisional diagnosis of (Any of the below):</p> <ul style="list-style-type: none"> • Haematology (Peripheral blood smear) • Histopathology (Lung and trachea/ Blood, Spleen and lymph/ Heart and vessels/ Glands/ Liver) • Stool microscopy (Ova, Cyst, Pus cells) | 30 |

| | | |
|---|---|----|
| | <ul style="list-style-type: none"> • Urine microscopy (Epithelial cells, RBCs, Leukocytes, Casts, Crystals) • Microbiology (Bacterial identification – Shape, Gram+ve/ Gram –ve) • Parasitology (Slide/ Specimen) <p>Diagnostic report (Assessment format): Interpret the report and mention the provisional diagnosis (Any of the below):</p> <ul style="list-style-type: none"> • Hemogram • Liver Function Test (LFT) • Renal Function Test (RFT) • Diabetic profile • Thyroid profile • Lipid profile <p>Causative factors/ Hetu (Assessment format): Mention the disease or diseases that are associated with the cause or hetu (Shown as an object/ model/ specimen/ picture) with brief justification (Any of the below):</p> <ul style="list-style-type: none"> • Any specific diet • Any specific regimen • Any specific factor mentioned for causing a disease | |
| 2 | <p>Long Case: History taking, Examination, Investigation (Order and interpretation), Differential Diagnosis, Provisional Diagnosis (1 Case X 40 Marks = 40 Marks)</p> <p>a. History taking (Including communication skills) - 10 Marks</p> <p>History taking should cover the following points:</p> <ul style="list-style-type: none"> • AturaVivara (Basic patient details) • Pradhana Vedana with Kala prakarsha (Chief complaints with duration) • Vartamana vyadhi vruttant (History of present illness) • Poorva vyadhi Vrittanta (Past illness) • Kula vruttanta (Family history) • Chikitsa Vruttanta (Treatment history) • Vayaktika Vruttanta (Personal history) – Ahara, Vihara, Vyasana, Vyayama shakti, Mala pravritti, Mutra pravritti, Raja pravritti, Koshtha, Nature of work and duration of work, Emotional makeup, and Social Relation. <p>b. Examination & Order and interpretation of investigations – 20 Marks</p> <p>The examination should include the following points:</p> <ul style="list-style-type: none"> • General examination including Ashtasthana pareeksha • Systemic examination - Pratyaksha and Anumana Pariksha/ Panchajnanendriyataha Pareeksha (Affected system/ systems), Sroto pareeksha and Mana pareeksha | 40 |

| | | |
|---|---|----|
| | <p>Investigations should include the following points: • Ordered investigation to patient</p> <ul style="list-style-type: none"> • Any further comment on the previously ordered investigations and any further suggestions • Interpretation of ordered investigation to the relevant case <p>c. Differential Diagnosis, Provisional Diagnosis, and Final diagnosis. – 10 Marks</p> <p>Differential diagnosis and diagnosis (Vyavachedaka nidana and vyadhi vinischaya) should include the following:</p> <ul style="list-style-type: none"> • Group of suspicious diseases based on your knowledge on Ayurveda and contemporary science against your observation on patient • Justification for inclusion and exclusion of diseases based on pratyatma lakshana • Arriving at a final diagnosis based on the clinical acumen • Drafting the samprapti ghataka (Involvement of dosha, dushya, indriya, manas, agni, koshta, srotas, srotodushti prakara, udbhava sthana, sanchara sthana vyakta sthana, rogamarga, upadrava, arishta, sadhyasadyata) | |
| 3 | <p>Demonstration: Clinical examination on the simulator or a patient or Simulated patient (SP) (1 Demonstration X 30 Marks = 30 Marks):</p> <p>The student will be given a specific case or a scenario (other than the case given for long case taking) and asked to perform the examination of a particular system as a whole or a part of the examination such as inspection or palpation or percussion or auscultation or any specific tests or group of tests or elicit any particular sign for any of the following system (Only steps of examination to be written with observation and interpretation after demonstration):</p> <ul style="list-style-type: none"> • Respiratory system examination • Cardiovascular System examination • Oral cavity and per abdominal examination • Nervous system examination • Locomotor system examination • Integumentary system examination | 30 |
| 4 | <p>Viva mark distribution and basic instructions</p> <p>Conceptual and theoretical questions:</p> <p>MK:</p> | 70 |

Pareeksha, Dosha Vikr iti, Dhatu and Sroto vaigunya, Ama, Nidana Panchaka, Kriyakala, Vyadhi, Vyadhikshamatwa, Dhatu Paka etc. Annavaaha, Pureeshavaha, Pranavaha, Mutravaha, Rasavaha, Raktavaha, Medovaha, Vatavyadhi, Snayugata, Sandhigata vikara etc. **(20 Marks)**

DK:

Rogi and Roga Bala pareeksha, Doshagata and Rogamarga, Nidanarthakara roga, Vyadhi namakarana, Sadyasadyata, Upadrava etc. Common GIT diseases, Common Urinary diseases, Common lung disorders, Fever, Hematopoietic diseases, Cardiovascular disorders, Hepato-biliary disorders, Skin diseases, Thyroid disorders, Obesity, Metabolic diseases, Common neurologic and spine disorders, Diseases of bone, joints, and muscles, Immunological & Metabolic disorders, Common parasitic disorders, Tuberculosis etc. **(10 Marks)**

Link to existing literature and critical thinking:

MK:

Pareeksha, Dosha Vikr iti, Dhatu and Sroto vaigunya, Ama, Nidana Panchaka, Kriyakala, Vyadhi, Vyadhikshamatwa, Dhatu Paka etc. Annavaaha, Pureeshavaha, Pranavaha, Mutravaha, Rasavaha, Raktavaha, Medovaha, Vatavyadhi, Snayugata, Sandhigata vikara etc. **(20 Marks)**

DK:

Rogi and Roga Bala pareeksha, Doshagata and Rogamarga, Nidanarthakara roga, Vyadhi namakarana, Sadyasadyata, Upadrava etc. **(10 Marks)**

Viva on activity book:

Questions to be asked as per the heads provided in the activity book (10 Marks)

Basic instructions:

Number of questions: There must be a total minimum of 10 questions and a maximum of 15 questions from both examiners.

1. The questions asked during a viva should be relevant, thought-provoking, and designed to assess the candidate's understanding, knowledge, and critical thinking skills.
2. Breadth and depth: The questions should cover a wide range of topics related to both the papers as well as activity and practical with equal importance, ensuring that they have a comprehensive understanding, critical thinking, and analysis.
3. Open-ended: Questions should be open-ended rather than requiring simple yes/no answers. This allows the candidate to demonstrate their understanding and ability to provide detailed explanations and justifications.

| | | |
|--------------------|--|------------|
| | <p>4. Conceptual and theoretical: Some questions should focus on the candidate's understanding of key concepts, theories, and methodologies within their syllabus. This helps evaluate their grasp of foundational knowledge and their ability to apply it.</p> <p>5. Critical thinking: The questions should encourage the candidate to think critically, analyze the subject, and findings, and identify limitations or alternative perspectives.</p> <p>6. Link to existing literature: Some questions can explore the candidate's knowledge and understanding of relevant literature in contemporary science.</p> <p>7. Follow-up questions: It can be effective to ask follow-up questions to probe deeper into the candidate's responses. This helps assess their ability to defend, respond to challenges, and think on their feet.</p> <p>8. Avoid leading questions: It is important to avoid leading questions that provide the candidate with clues or guide them towards a specific answer. The goal is to assess their independent thinking and understanding.</p> <p>9. Balance: The questions should strike a balance between being challenging and fair. It should push the candidate's limits without being excessively difficult or intimidating.</p> <p>10. No questions will be asked from Nice to know category. However, 70% of the questions are to be asked from Must Know category and 30% from the Desirable to Know category by the examiner.</p> | |
| 5 | Internal assessments | 30 |
| Total Marks | | 200 |

References Books/ Resources

| S.No | Book | Resources |
|-------------|--|--|
| 1 | 1. Madhava Nidana | Srikanta Murthy KR. Madhava Nidanam (Rogaviniscaya) of Madhavakara. Varanasi: Chaukhambha Orientalia; 2013 |
| 2 | 2. Charaka Samhita | Agnivesh, Charaka, Dridhbala . Reprint. Varanasi: Chowkhamba Sanskrit Series Office; 2009. Charaka Samhita |
| 3 | 3. Susruta Samhita | Acharya YT, editor. Sushruta Samhita of Sushruta. Reprint ed. Varanasi: Chaukhambha Orientalia; 2017 |
| 4 | 4. Ashtanga Hrudaya | Sadashiva HS, editor. 1st ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2011. Astanga Hrudaya of Vagbhata |
| 5 | 5. Ashtanga Sangraha | Vagbhata. Ashtanga Sangraha. Edited by Shivprasad Sharma. Chowkhambha Sanskrit series office, Varanasi |
| 6 | 6. Roga vigyan evum vikruti vigyan | Yashwant Govind Joshi |
| 7 | 7. Roganidan evum vikruti vigyan | Prof. Ajay Kumar Sharma; Chaukhambha Bharati Academy |
| 8 | 8. Textbook of Ayurvediya vikrti-vijnana & Roga Vijnana | Dr. Parameswarappa S. Byadgi; Chaukhambha publications, New Delhi |
| 9 | 9. Textbook of Pathology with Pathology Quick Review and MCQs | 2018; Jaypee Brothers Medical Publishers; Harsh Mohan |
| 10 | 10. A guide to pathology | Jaypee Brothers Medical Publishers; Eighth edition (2005); K Chaudhary |
| 11 | 11. Robbins & Cotran Pathologic Basis of Disease | 10th Edition - May 11, 2020; Kumar, Abbas, Aster; Elsevier publishers |
| 12 | 12. Davidson's Principles and Practice of Medicine | 24 th Edition 2022 by Ian Penman (Editor), Stuart H. Ralston (Editor), Mark Strachan (Editor), Richard Hobson (Editor); Elsevier publishers |
| 13 | 13. A textbook of pathology | N.C Dey & T. K Dey; NCBA publisher 2009 |
| 14 | 14. Boyds Textbook of Pathology | 10th Edition by J R Bhardwaj, Prabal Deb (Author), Wolters Kluwer India (Publisher) |
| 15 | 15. Kundu's Bedside Clinics in Medicine | 2020; KSP Udyog Publisher; Arup Kumar Kundu |
| 16 | 16. P. J. Mehta's Practical Medicine | 21st Edition – 2021; The National Book Depot; Nihar P Mehta, SP Mehta, SR Joshi |
| 17 | 17. Macleod's Clinical Examination | 13 th Edition, 2013 by J. Alastair Innes, Anna R. Dover, Karen Fairhurst |
| 18 | 18. Clinical Methods in Medicine : Clinical Skills and Practices | 2015; Jaypee Brothers Medical Publishers; S. N. Chugh, Eshan Gupta |

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| 19 | 19. Chamberlain's Symptoms and Signs in Clinical Medicine | 2010; CRC Press; Andrew R. Houghton & David Gray |
| 20 | 20. Hutchison's Clinical Methods: An Integrated Approach to Clinical Practice | 2012; Elsevier publishers Michael Glynn, William M. Drake |
| 21 | 21. Bates' Guide to Physical Examination and History Taking | Lippincott Williams & Wilkins; 2016 by M.D. Bickley, Lynn S. (Author), M.D. Szilagyi, Peter G. (Author), M.D. Hoffman, Richard M. (Editor) |
| 22 | 22. French's Index of Differential Diagnosis An A-Z 1 | 2016; CRC Press; by Mark T. Kinirons (Editor) |
| 23 | 23. Savills System Of Clinical Medicine | 14 th Edition 2005; CBS Publishers; by E C Warner (Author) |
| 24 | 24. Todd-Sanford-Davidsohn clinical diagnosis and management by laboratory methods | 2016; Saunders publishers; by Campbell James Todd (Author) |
| 25 | 25. Clinical Methods In Ayurveda | 2013; Chaukhamba Orientalia; by Prof. K.R. Srikantha Murthy (Author) |
| 26 | 26. Clinical Diagnosis in Ayurveda (A Practical book of Ayurvedic Diagnosis in the Light of Modern Medical Science) | 2015; Chaukhamba Sanskrit Pratishthan; by M. Srinivasulu (Author) |
| 27 | 27. Medical Laboratory Technology | 2009; Jaypee Brothers Medical Publishers; by Ramnik Sood (Author) |
| 28 | 28. Textbook of Medical Laboratory Technology | Revised Reprint 2021; B. Godkar, Darshan P. Godkar; Bhalani publishing house |
| 29 | 29. Practical biochemistry for medical, dental and allied courses | 3 rd Edition; by Bd Toora G Rajagopal (Author) |
| 30 | 30. Essential of clinical pathology | 2010; First edition; Jaypee Brothers Medical Publishers; by Shirish M Kawthalkar (Author) |
| 31 | 31. Textbook of human parasitology protozoology and helminthology | 2020; CBS Publishers by Sood R. (Author) |
| 32 | 32. Clinical Pathology & Clinical Bacteriology (For Medical Students and Practitioners) | Jaypee Brothers Medical Publishers; 9 th Edition; 2000 by Sachdev (Author) |
| 33 | 33. Practical Pathology | Arya Publications; by K. Uma Chaturvedi (Author), Tejindar Singh (Author) |
| 34 | 34. Text book on clinical biochemistry and hematology | Naveen Chandra, Anmol Publisher ; First edition, 2015 |

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| 35 | 35. Medical Laboratory Technology | Third Edition, 2019; NCBA publishers by C R Maiti |
| 36 | 36. Diagnosis and Treatment of Common Skin Diseases | 2016; Jaypee Brothers Medical Publishers; by Virendra N Sehgal (Author) |
| 37 | 37. Ananthanarayan and Paniker's Textbook of Microbiology | Eleventh Edition; 2020; Universities Press (India) Pvt. Ltd; by R Ananthanarayan and CK Jayaram Paniker (Author), Reba Kanungo (Editor) |
| 38 | 38. Learning Radiology: Recognizing the Basics | 2015; Saunders publishers; by William Herring MD FACR (Author) |
| 39 | 39. Radiology in Medical Practice | 2015; Elsevier India; by A B M Abdullah (Author) |
| 40 | 40. Clark's Positioning in Radiography | 13 th Edition; 2015; CRC Press; by A. Stewart Whitley (Author), Gail Jefferson (Author), Ken Holmes (Author), Charles Sloane (Author), Craig Anderson (Author), Graham Hoadley (Author) |
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| 42 | 42. Essentials Of ECG | 2017; Avichal Publishing Company; by Vipin Gupta (Author) |
| 43 | 43. Nidana chikitsa hastamalaka | 2016; Baidyanath Ayurved publication; by Vaidya Ranjit Rai Desai |
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| 50 | 50. Dermatological Diseases A Practical Approach | 3rd Edition – 2023; TreeLife Media (A division of Kothari Medical); by (Author), Venkataram Mysore, K H Satyanarayana Rao, Sacchidanand S, M Deepthi, (Editor) |
| 51 | 51. Introduction to Kayachikitsa | Chaukhamba Orientalia Varanasi; 3 rd Edition; 1996; C. Dwarakanath |

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| 52 | 52. Digestion and metabolism in Ayurveda | Chowkhambha Krishnadas Academy; 1997; 2 nd Edition; by C. Dwarakanath |
| 53 | 53. Ayurvedic Nadi Pariksha Vijnana | Chaukhamba Surbharati Prakashan; 2015; by Dr. Govind Prasad Upadhyay |
| 54 | 54. NAMASTE portal | http://namstp.ayush.gov.in/#/index |
| 55 | 55. AYUR PRAKRITI WEB PORTAL | http://www.ccras.res.in/ccras_pas/ |
| 56 | 56. AYUSH research portal | https://ayushportal.nic.in/ |
| 57 | 57. Dharaonline | http://www.dharaonline.org/Forms/Home.aspx |
| 58 | 58. Stanford Medicine25 | https://stanfordmedicine25.stanford.edu/ |
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| 62 | 62. DynaMed | www.dynamed.com |
| 63 | 63. ClinicalKey | www.clinicalkey.com |
| 64 | 64. Taber's Medical Dictionary | www.tabers.com/tabersonline |
| 65 | 65. MedlinePlus Medical Dictionary | https://medlineplus.gov/ |
| 66 | 66. WebMD Symptom Checker | https://symptoms.webmd.com/. |
| 67 | 67. Mayo Clinic Symptom Checker | https://www.mayoclinic.org/symptom-checker/select-symptom/itt-20009075. |
| 68 | 68. Simulated cases EM SIM CASES | https://emsimcases.com/ |
| 69 | 69. Daily rounds | https://dailyrounds.org/ |
| 70 | 70. Prognosis | https://play.google.com/store/apps/details?id=com.medicalj oyworks.prognosis&hl=en&gl=US&pli=1 |
| 71 | 71. PubMed Central | https://www.ncbi.nlm.nih.gov/pmc/ |
| 72 | 72. Radiopaedia | https://radiopaedia.org/ |

Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
| | | |

| | | |
|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
| | | |

| | | |
|-----------|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRay | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
| | | |
| | | |

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

Swasthavritta evam Yoga

(SUBJECT CODE : AyUG-SW)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-SW

Summary

| | | | |
|-------------------------------------|-----|-----|----------|
| Total number of Teaching hours: 400 | | | |
| Lecture hours(LH)-Theory | | 150 | 150(LH) |
| Paper I | 75 | | |
| Paper II | 75 | | |
| Non Lecture hours(NLH)-Theory | | 250 | 250(NLH) |
| Paper I & II | 75 | | |
| Non Lecture hours(NLH)-Practical | | | |
| Paper I & II | 175 | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | 100 | 60 | (Set SC) 10 | 30 |
| Paper II | 100 | | | | |
| Sub-Total | 200 | 200 | | | |
| Total marks | 400 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

PREFACE

Health care, especially the preventive health care is coming to a fore front, most so during recent years due to pandemic situation. In fact, the preventive health care is indeed the strength of Ayurveda as its primary motto itself is 'Swasthasya swasthya rakshanam', Keep sustaining health of a healthy and nourishes it. The students of Ayurveda need to understand it better, who can carry this message and contribute for building a healthy India, may the entire world. Keeping this in mind any effort to sensitize the student community to understand the basics of Swasthavritta, the preventive health care of Ayurveda is laudable. Swasthavritta is an important subject of the BAMS program for the undergraduate students of Ayurveda. The term Swastha means healthy individual and Vritta means actions or regimen thus Swasthavritta denotes the actions or regimen which can be observed to maintain the health of a healthy individual and to prevent the diseases. This subject refers to the Preventive medicine and social medicine/ Community medicine of contemporary medical science.

Swasthavritta deals with the Vaiyaktika swasthavritta (Individualized lifestyle including in terms of prevention, promotion & maintainance of health) incudes Dinacharya, Ritucharya, Sadvritta, Rasayana , Pathya-Apathya for both Swastha as well as disease condition. Samajika swasthavritta- Community health deals with Janapadodhwamsa, Environmental health, Occupational health, School health and National health programs etc, along with these topics Swasthavritta also deals Yoga and Naturopathy. Thus, Swasthavritta provides holistic health care to community.

New curriculum of Swasthavritta is designed considering cognitive, affective, and psychomotor domains. There are group discussions, workshops, field visits, health institutional visits, factory visits health surveys and activities beyond the textbook during the practical hours like preparation of charts, models, seminar presentations by students. Swasthavritta subject also deals with teaching learning methods like role play, flipped the classroom, etc. Some assessment methods like OSPE, PBL, DOPS, CBD, skill assessment, etc are incorporated.

This curriculum serves as a valuable resource for both educators and students, guiding them through the fascinating realm of swasthavritta. May the knowledge gained from this curriculum empower students to make a positive impact in promoting health, preventing diseases and creating a healthier society. This curriculum empowers the Ayurvedic graduates who capable of designing customized individualized lifestyle as well as community health measures as per Ayurvedic principles. This also makes graduates to become health educators, who will take part in national health programs, who can assess community needs and develop measures to counteract the health problems and make them to prepare competent community physicians.

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Course Code and Name of Course

| | |
|--------------------|-------------------------|
| Course code | Name of Course |
| AyUG-SW | Swasthavritta evam Yoga |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-SW At the end of the course AyUG-SW, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|--|--|
| CO1 | Demonstrate application of principles of Swasthavritta in lifestyle modifications. | PO1,PO2,PO4,PO6 |
| CO2 | Assess the health status and advise preventive & promotive measures according to Ayurveda principles | PO3 |
| CO3 | Demonstrate and advise Yoga and Naturopathy as health promotive and disease preventive regimen | PO1,PO4 |
| CO4 | Understand and apply the principles and components of primary health care and health policies to achieve the goal of health for all | PO2,PO5 |
| CO5 | Advocate and propagate preventive principles of Ayurveda and contemporary sciences through Information, Education and Communication(IEC) | PO8 |
| CO6 | Conduct community surveys and apply epidemiological principles for the assessment of health & morbidity as a community physician | PO2,PO5 |
| CO7 | Understand and apply the principles of environmental health and its effects on public health with control measures | PO3,PO4 |
| CO8 | Demonstrate skills and research aptitude for the promotion of health and prevention of diseases | PO9 |

Table 2 : Contents of Course

| Paper 1 Principles of Swasthavritta, Yoga and Naturopathy | | | | | |
|--|--|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | <p>Swastha and Swasthya Definition of Swasthavritta and its objective. Swasthalakshanas, Arogyalakshanas, Dhatusamyalakshanas. Concept of Health & Operational definition of health. Importance of Shodhana in Swastha in relation to Sanchita & Asanchitha Dosha & Classification of Swastha purusha as Sanchita dosha and Asanchita Dosha. Dimensions of health -Physical, Mental and Social. Concept of well-being : objective component of well-being - standard of living and level of living and subjective component of well-being - Quality of Life. One health concept / Vasudhaiva Kutumbakam” or “One Earth · One Family- One Future”.</p> | 1 | 6 | 3 | 0 |
| 2 | <p>Healthy Life style -Dinacharya (Daily regimen) Concept of Primordial, Primary, Secondary and Tertiary Prevention along with examples in Ayurveda. Importance of Ahara and Vihara as the health promotive and disease preventive measures. Importance of Niyata kala vihara (Dinacharya, Ritucharya) and Aniyata kala Vihara(Vegadharana, Vegaudirana, Ritushodhana, Brumhana and Bhutadi asparshana) for health promotion and disease prevention. Concept of waking up at 'Brahme muhurta' in the present scenario and the effect of early rise on health, sleep, alertness and memory. UshaJalapana' (Drinking water in early morning). Importance of Malatyaga in vata kaala - early morning (Good Bowel Habits.). Mukhaprakshalana and face washes used currently. Concept of Dantadhavana and modern-day brushing techniques and dentifrices. Concept of Jihwanirlekhana and the tools used in today's era and their benefits. Concept of Anjana as a health promotive measure. Kavala and gandusha for oral hygiene including mouthwashes available in the market. Abhyanga as as health promotive measure. Importance of the Tambula. Prayogika Dhoomapana (Practicable & non-practicable Dhoomapana- inhalation of herbal fumes/ herbal inhalers with their benefits and contraindications. Ill effects of tobacco smoking of various sorts viz. beedi, cigarette, hookah on health. Applied aspects of Sarvanga Abhyanga, Padabhyanga, Shiroabhyanga and their possible physiological effects. Application of Abhyanga according to different age groups and occupation/activity. Different snehas/oils to be used for daily abhyanga as per seasons and geographical variations. Concept of Vyayama and present-</p> | 1 | 38 | 8 | 5 |

| | | | | | |
|---|---|---|----|---|---|
| | <p>day practices such as aerobic exercises, muscle strengthening exercises etc. to be practiced as per prakriti, age and occupation. Ardhashakti lakshanas of vyayama and the consequences of ati vyayama. Udwartana, Utsadana Udgharshana . Snana- Types of different types of bath and Physiological effects of snana on body and mind. Importance and benefits of Anulepana. Merits and demerits of present-day applications like face powder, face pack, balm, lotions, lipsticks, deodorants and perfumes etc. Importance of proper clothing (Vastradharana) in social life.</p> | | | | |
| 3 | <p>Ratricharya Ratri bhojanvidhi and its relation to health. Ratri shayana vidhi in relation to the proper time of sleep. Relation between Nidra and health. Effects of Yukta & Ayukta nidra. Effects of Ratri Jagarana, Diwaswapna, Anidra, Atinidra and Akala Nidra. Ahara and Vihara Causing sound sleep as well as disturbed sleep. Formulation of the duration of sleep according to age and Sleep in healthy and ailing persons. Various Aspects of Sleep like: a. Daytime Sleepiness and Alertness b. Sleep Deprivation c. Sleep and Host Defense d. Master Circadian Clock and Master Circadian Rhythm e. Human Circadian Timing System and Sleep-Wake Regulation f. Circadian Rhythms in Sleepiness, Alertness, and Performance g. Circadian Disorders of the Sleep-Wake Cycle. Sleep apnea , insomnia, narcolepsy and restless leg syndrome. Solutions to Asatmya jagarana (sleep disorders). Importance of observing brahmacharya and abrahmacharya in ratricharya in relation to health. Brahmacharya with special reference to lifestyle guidelines. Reproductive and sexual health according Ayurveda.</p> | 1 | | 6 | 1 |
| 4 | <p>Ritucharya Classification of kaala , Adana kala and visarga kala , identification of seasons based on the ritu lakshanas in different geographical areas. Sanchaya- Prakopa- Prashamana of Dosha with their gunas in each ritu. Relation of Agni , Bala and Ritu with its application. Ritu shodhana for the prevention of diseases. Pathya - Apathya in regards to Ahara -Vihara in all six ritus in present scenario. Importance of ahara and vihara in ritu sandhi and Yamadanshtra kala. Rituharitaki as a rasayana with research updates. Effects of Rituviparyaya on health and its relation to janapadaudhwamsa/maraka vyadhis with present day examples.</p> | 1 | | 5 | 2 |
| 5 | <p>Roganutpadaniya Concept of vegadharana and vega-udirana in relation to health and morbidity. Symptoms and management principles of adharaniya vega janya vyadhis from</p> | 1 | 13 | 2 | 1 |

| | | | | | |
|---|---|---|----|----|----|
| | bruhattrayee. Concept of vegaudirana (viz. Use of snuffing powder, forcible evacuation of bowels & bladder etc.). Importance of dharaniya vegas in promotion of mental health. | | | | |
| 6 | Sadvritta Sadavritta measures for the maintenance of personal, social and spiritual health. Observance of Sadvritta for the prevention of Adharma. Achara Rasayana" and its role in the prevention and control of diseases. Characteristics of a mentally healthy person, warning signals of poor mental health, types of mental illness and causes of mental ill-health. Mental health services and comprehensive mental health programme. Role of trigunas and satvavajaya in mental health promotion in present era. Digital health promotion | 1 | | 2 | 1 |
| 7 | Ahara Significance of Ahara for health and well-being according to Ayurveda & Contemporary science. Classification of aharadravyas as per Ayurveda & Contemporary science. Ahara vidhividhana, Ahara sevanakala & Dwadasha ashanapravicharana. Applied aspect of Pathyahara, Apathyahara, Samashana, Adhyashana, Vishamashana. Ahara & vihara leading to Santarpanajanya evam Apararpanajanyavyadhi and importance of upavasa and concept of intermittent fasting. Benefits of Shadrasabhojana. Importance of Ashta aharavidhivishesha ayatanani in present era. Importance of Nityasevaniyadravyas in the maintenance of health. Properties (Guna & karmas) of Ahara dravyas in the following vargas with their nutritive value: Dhanyavarga – Shuka Dhanya (Cereals and Millets), Shami Dhanya (Pulses), Shaka and Haritavarga (Leafy and Non leafy vegetables), Kanda varga (roots and tubers), Phalavarga (Fruits), Taila varga (Fats and Oils), Ikshuvarga (Sugarcane Products) & Madyavarga (Alcoholic Beverages), Dugdhavarga (Milk and Milk products), Ahara Upayogi Varga (Spices & Condiments), Kritannavarga (Prepared Food), Mamsavarga (Meat types) and Jala Varga. Definition of Pro-biotics and Pre-biotics and their utility. Proximate principles of Food - Recommended Daily Allowance according to various conditions, Sources and deficiency diseases of Protein, Carbohydrate, Fats, Vitamins, and Minerals. Definition of Balanced diet and diet for an individual depending on age, body weight and physiological status and Social Aspects of Nutrition. Food hygiene, Sanitation of eating places, Preservation of food, Food handlers, Foodborne diseases, Food fortification, Food adulteration and Food toxicants. Milk Hygiene, Milk composition, Source of infection for Milk, Milk borne | 1 | 20 | 20 | 15 |

| | | | | | |
|---|--|---|----|----|---|
| | <p>diseases, Clean and Safe milk and Pasteurization of milk Meat Hygiene, Meat inspection, Slaughterhouse and Freshness of fish and egg. Safety and hygiene measures for Fruits and Vegetables. Formulation of Pathya-Apathya diet for prevention of lifestyle disorders such as Obesity, Diabetes mellitus, Cardiovascular diseases and Acid peptic diseases. Description of Food safety and standards regulation (Ayurveda Ahara Regulations), 2022 and Food safety and standards Act, 2006. Different Dietary Supplements and Ergogenic Aids. Impact of different dietary patterns: Mediterranean diet, Keto Diet, DASH diet, the MIND diet, Vegan diet, Ovo-lacto-vegetarian, Pesco- vegetarian, Plant-based diet, Intermittent diet, the Nordic diet, importance of organic foods, merits and demerits of genetically modified foods and inflammatory foods such as fried foods, cookies, hot dogs, red meat, refined grains, pizza, burger etc., and instant foods like Maggi etc., Concept of slow and fast foods and impact of cooking processes like boiling, steaming, sautéing, fermenting etc. (samskara) on health. Definition of Nutraceuticals, Nutrigenomics, Nutrigenetics. Concept of Viruddhaahara with classical and modern-day examples and the application of this in the prevention of diseases</p> | | | | |
| 8 | <p>Rasayana for Swastha Definition of Rasayana and benefits of Rasayana. Classification and types of Rasayana with examples. Urjaskara Rasayanas as per age and occupations /Activities .Antioxidant & immunomodulatory effects of Rasayana with reference to research articles. Importance of lifestyle counselling with its methods.</p> | 1 | 5 | 2 | 2 |
| 9 | <p>Yoga Etymology/derivation of the word 'Yoga'. Definitions of Yoga according to Patanjali Yogasutras, Bhagavad Gita and Charaka Samhita. Difference between Rajayoga, Hathayoga and Karmayoga. Yogabhyasa Pratibhandhakas and Yoga Siddhikarabhavas. Mitahara and Pathya-apathyas during Yogabhyasa . Concept of Panchakosha theory. Description of Ashtangas of Yoga - Yama , Niyama , Asana .Pranayama , Pratyahara, Dharana, Dhyana and Samadhi. Suryanamaskara . Description of Shatkarmas - Dhauti, Basti, Neti, Trataka, Nauli, and Kapalabhati. Bandha - procedure and benefits of Mulabandha, Jalandharabandha and Uddiyanabandha. Mudras - Shanmukhi mudra and Jnana mudra. Shatchakras and their importance in Yoga practice. Description of Ida-Pingala-Sushumna nadis and their importance in yoga practice. Concept of Moksha according to Charaka , Muktatmalakshana and Moksha upayas. Importance of International Day of Yoga (IDY).</p> | 2 | 18 | 22 | 6 |

| | | | | |
|--------------------|---|------------|--------------|--------------|
| | Adverse effects of improper Yoga practices | | | |
| 10 | Naturopathy Basic principles of Naturopathy. Concept of Panchabhutopasana. Therapeutic effects of Mud therapy. Therapeutic effects of Sun bath. Fasting therapy - its types and benefits. Hydrotherapy - types of water used based on the temperature and therapeutic effects of Hydrotherapy. Therapeutic effects of Massage | 2 | 5 | 4 |
| Total Marks | | 100 | 75 hr | 37 hr |

| Paper 2 Public health | | | | | |
|------------------------------|--|----------------|-----------------|-------------------------|-----------------------------|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non-Lecture hours |
| 11 | Janapadodhwamsa / Maraka Vyadhi Causes of Janapadodhwamsa/ maraka vyadhi. Manifestation and control measures of Janapadodhwamsa. Principles and uses of epidemiology. Dynamics of disease transmission. Theory of disease causation - epidemiological triad and natural history of disease. Concept of prevention, modes of intervention, risk factors, incidence and prevalence. Susceptible host and host defense. Immunizing Agents. Concept of vyadhikshamatwa. Investigation of an epidemic. Prevention and control of an epidemic. Sankramaka roga as per Ayurveda. Epidemiological determinants, brief pathology, transmission, incubation period, clinical features, diagnosis and preventive measures of 1. Droplet Infections such as Chicken Pox, Measles, Rubella, Diphtheria, Pertussis, Mumps, Tuberculosis, SARS, Influenza, Pneumonia, Covid-19 and Leprosy. 2. Water borne Infections / intestinal infections - Cholera, Polio, Viral Hepatitis, Typhoid. 3. Intestinal infestations – Ascariasis, Hook worm and Tape worm. 4. Emerging and re-emerging diseases. Explain Role of Ayurveda in Epidemics like COVID-19, Zika Virus, H1N1, H3N2, etc.,. 5. Sexually transmitted diseases (STDs) with prevention and control - HIV/ AIDS, Syphilis and Gonorrhoea. Role of Ayurveda in the prevention and control with recent research updates of Lifestyle diseases such as DM, Obesity, Coronary artery disease (CAD) and Cancer. Epidemic Diseases (Amendment) Ordinance Act, 2020 ., | 2 | 10 | 37 | 10 |
| 12 | Environmental health Air: Properties of Vayu and composition of air. Changes in | 2 | 16 | 10 | 5 |

| | | | | | |
|----|--|---|----|---|---|
| | <p>air of the occupied room. Comfort zone and indices of thermal comfort. Air pollution -causes, prevention and control. Effects of air pollution on health and social aspects .Effects of Global warming with recent updates. Definition of ventilation and types of Ventilation. Effects of high altitude and mountain air on health.Water : Safe and wholesome water and water requirements. Properties of water from different sources. Water pollution and health hazards. Contemporary and Ayurvedic methods of water purification. Hard Water - its effects on health and methods of removal of hardness. Quality of water stored in different vessels as per classics. Rain water harvesting - methods and its importance.Soil : Types of soil and relation between soil and health. Land pollution - its prevention and control. Land purification as per the classics. Social goals of Housing and Housing standards. The Building and other construction workers (Regulation of employment and conditions of services) Act, 1996 Effects of housing on health. Overcrowding and its impact on health. Light: Good lighting, natural lighting and artificial lighting. Biological effects of lighting.Noise : Definition of noise and its sources, effects on health and control measures. Radiation: Radiation - sources and effects on health and control measures.Waste disposal : Types of solid waste, Storage and collection of refuse. Methods of disposal of solid waste (Rural & urban). Excreta Disposal methods & Sanitary Latrines. Modern Sewage disposal methods. Disposal methods of Excreta during camps, fairs, and festivals. Bio-medical waste management and Bio-medical waste management rules, 2016. Environment protection Act,1986.</p> | | | | |
| 13 | <p>Disaster management Definition of disaster and disaster management. Effects of natural and man-made disasters.Epidemiologic surveillance and disease control measures.</p> | 2 | | 1 | 2 |
| 14 | <p>Occupational Health Definition of occupational health and Ergonomics. Occupational Hazards and Occupational diseases. Prevention and control of Occupational diseases . ESI Act ,1948 and The factories Act.1948. Role of Ayurveda in various Occupational health problems. The Merchant Shipping / Medical Examination Rules,2000</p> | 2 | 20 | 3 | 3 |
| 15 | <p>School health services Health problems of school children. Aspects of school health services.Duties of school medical officers. Healthy environment in the school.</p> | 2 | | 2 | 3 |
| 16 | <p>Disinfection</p> | 2 | | 2 | 3 |

| | | | | | |
|----|--|---|----|---|---|
| | Definition of different term used in relation to disinfection. Types of disinfection. Natural agents, Physical agents and Chemical agents of disinfection. Recommended disinfection procedures of feces & urine, sputum, and room. Ayurvedic disinfection methods. | | | | |
| 17 | Primary health care Definition of Primary Health Care. Principles and elements of primary health care. Levels of health care. Structure of Primary health care at village, sub-center, Primary health center (PHC), Community health center (CHC) and Rural hospital levels. Primary health care in Health insurance, Private agencies, Voluntary health agencies, NGOs and the AYUSH sector. Role of Ayurveda in Primary Health Care. | 2 | 20 | 2 | 1 |
| 18 | Mother and Child health care Objectives of Maternal and Child Care services. MCH problems & indicators of MCH care. | 2 | | 1 | 1 |
| 19 | Family welfare programme Definition of Demography and sources of demographic statistics in India. Demographic cycle & definition of life expectancy. Definition of family planning, eligible couple and target couple. Objectives of family planning. Problems of population explosion. National population policy. Methods of Contraceptive (Fertility Regulating Methods). | 2 | | 2 | 2 |
| 20 | Preventive Geriatrics Health problems of the aged and prevention and control measures. Relation between lifestyle and healthy aging. Role of Rasayana in preventive geriatrics. | 2 | | 1 | 1 |
| 21 | World Health Organization and International health agencies Definition of World Health organization. Structure, regions, and works of the World Health Organization. Functions of various international health agencies - United Nations health agencies, Bilateral health agencies and Non- Governmental agencies. Contribution of the World health organization to the global acceptance of Ayurveda. | 2 | 19 | 3 | 1 |
| 22 | Vital Statistics Definition of Vital Statistics. Sources of Vital statistics. Fertility, Morbidity and Mortality rates. Registration of Birth and Death Act, 1969 | 2 | | 1 | 1 |
| 23 | Health Administration Health administration including AYUSH at the Central, State, District, and Village levels. | 2 | | 2 | 1 |
| 24 | National Health Programmes | 2 | 15 | 7 | 3 |

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|--------------------|--|---|------------|--------------|
| | National Health Programs : Leprosy(NLEP), AIDS (NACP), Blindness (NPCB), Polio , National TB Elimination program , Vector born disease control program, RCH program, ICDS program, Universal Immunization program, National mental health program , National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) , Swachha Bharat mission, Ayushman Bharat Yojana, Ayushman Bharat Digital Mission, National health mission (NRHM&NUHM), National AYUSH Mission (NAM).National nutrition programs: National Iodine Deficiency Disorders Control program, National Iron Plus Initiative for Anemia Control, National Vitamin A prophylaxis program, Mid-Day Meal program & Balwadi nutrition program. | | | |
| 25 | National Health Policy National Health Policy (NHP) and the scope of Ayurveda in NHP. | 2 | 1 | 1 |
| Total Marks | | | 100 | 75 hr |
| | | | | 38 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 Principles of Swasthavritta, Yoga and Naturopathy | | | | | | | | | |
|--|--|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 Swastha and Swasthya (Lecture :3 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1 | Define Swasthavritta and describe its objective. | CK | MK | K | L | TT-Theory | S | I | |
| CO1 | Describe and compare Swasthalakshanas Arogyalakshanas, Dhatusamyalakshanas. Describe Concept of Health & Operational definition of health. | CC | MK | K | L&PP T | TT-Theory | S | I | |
| CO1 | Describe the Importance of Shodhana in Swastha in relation to Sanchita& Asanchitha Dosha & Classify Swastha purusha as Sanchita dosha and Asanchita Dosha. | CC | MK | KH | L | M-CHT | S | I | |
| CO1 | Explain the Physical, Mental and Social dimensions of health. | CK | MK | KH | L&G D | T- EW | S | I | |
| CO1,CO2 | Describe the objective component of well-being - standard of living and level of living and subjective component of well-being - Quality of Life. | CK | MK | KH | L | T- EW | S | I | |
| CO1,CO2,CO 7 | Explain one health concept / Vasudhaiva Kutumbakam” or “One Earth · One Family One Future” | CK | DK | K | L | T- EW | F | I | |

| Topic 2 Healthy Life style -Dinacharya (Daily regimen) (Lecture :8 hours, Non lecture: 5 hours) | | | | | | | | | |
|---|---|-----|----|----|-------------------|-----------|-----|---|----|
| CO1,CO2 | Explain the Primordial, Primary, Secondary, and Tertiary Preventive measures in the context of Ayurveda with examples | CK | MK | KH | L&PP T,SD L | TT-Theory | F&S | I | |
| CO1,CO2 | Explain the importance of Ahara and Vihara as the health promotive and disease preventive measures. | CK | MK | KH | L&PP T | TT-Theory | S | I | |
| CO1,CO2 | Describe the importance of Niyata kala vihara (Dinacharya, Ritucharya) and Aniyata kala Vihara (Vegadharana, Vegaudirana, Ritushodhana, Brumhana and Bhutadi asparshanaa) for health promotion and disease prevention. | CAN | MK | KH | L&PP T | T- EW | S | I | |
| CO1,CO2 | Explore and analyse the concept of waking up at 'Brahma muhurta' in the present scenario and the effect of early rise on health, sleep, alertness and memory | CAN | DK | KH | IBL | DEB | F | I | |
| CO1,CO2 | Describe the time, quantity and benefits of 'Usha Jalapana' (Drinking water in early morning). | CC | MK | K | L&PP T | T- EW | S | I | |
| CO1,CO2 | Explain the Importance of Malatyaga in vata kaala - early morning (Good Bowel Habits) | CK | MK | KH | L&PP T | TT-Theory | S | I | |
| CO1,CO2 | Explain the procedure, dravyas and benefits of Mukhaprakshalana and face washes used currently. | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Describe the time, procedure, benefits, contraindications and herbs used as per rasa for dantadhavana and modern-day brushing techniques and dentifrices. | CC | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Describe jihwanirlekhana, explain the tools used in today's era and their benefits. | CAP | MK | KH | SDL | TT-Theory | F&S | I | |
| CO1,CO2 | Explain the Anjana dravyas for Swastha and their benefits | CK | MK | K | L | INT | F&S | I | V- |

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| | | | | | | | | | SHL |
| CO1,CO2 | Describe the occupation /activity in which Anjana can be used as a health promotive measure | CS | NK | KH | SDL | O-QZ | F | I | |
| CO1,CO2 | Explain the dravyas used with their doses for Pratimarsha Nasya and their benefits. | CC | MK | KH | L&PP T | T- EW | F&S | I | V-PC |
| CO1,CO2 | Describe the various kaal for administering Pratimarsha Nasya as per day and season (ritu) | CAP | MK | KH | L&PP T | P-VIVA | F&S | I | V-PC |
| CO1,CO2 | Describe the occupation /activity in which Pratimarsha Nasya can be used as a health promotive measure. | CAP | MK | KH | L&G D | INT | F&S | I | V-PC |
| CO1,CO2 | Describe the ingredients, procedure and benefits of kavala and gandusha for oral hygiene including mouthwashes available in the market | CAP | MK | KH | L&PP T | TT-Theory | F&S | I | |
| CO1,CO2 | Mention different snehas/oils to be used for daily abhyanga as per seasons and geographical variations. | CK | MK | K | L&PP T | INT | F&S | I | |
| CO1,CO2 | Justify the importance of the classical tambula by comparing it with the present-day betel chewing. | CE | DK | KH | TBL | TT-Theory | F | I | |
| CO1,CO2 | Explain the practical application of Prayogika Dhoomapana (inhalation of herbal fumes/ herbal inhalers) with their benefits and contraindications | CAP | MK | SH | BL | TT-Theory | S | I | |
| CO1,CO2 | Explain the ill effects of tobacco smoking of various sorts viz. beedi, cigarette, hookah on health | CAP | MK | KH | ECE | P-CASE | F&S | I | |
| CO1,CO2 | Describe the applied aspects of Sarvanga Abhyanga, Padabhyanga, Shiroabhyanga and | CAP | MK | KH | DIS | T- EW | F&S | I | V-PC |
| CO1,CO2 | Explain the application of Abhyanga according to different age groups and occupation/activity. | CAP | DK | KH | SDL | T-CS | F | I | V-PC |

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| CO1,CO2 | Explain the indications, contraindications and benefits of Vyayama. | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Describe the types & benefits of vyayama and present-day practices such as aerobic exercises, muscle strengthening exercises etc.to be practiced as per prakriti, age and occupation. | CAP | MK | KH | DIS | CR-RED | F&S | I | |
| CO1,CO2 | Describe the assessment of ardhashakti lakshanas of vyayama and the consequences of ati vyayama. | CE | MK | KH | DIS | TT-Theory | F&S | I | |
| CO1,CO2 | Describe and compare the dravyas, benefits, and application of Udvartana, Udgharshana and Utsadana. | CAN | MK | KH | L&PP T | M-CHT | F&S | I | V-KC |
| CO1,CO2 | Explain the physiological effects of snana on body and mind and explain the reasons for contraindications of Snana. | CAN | MK | KH | L&PP T | CR-W | F&S | I | |
| CO1,CO2 | Explain the importance and benefits of Anulepana. | CK | MK | KH | L&PP T | P-VIVA | F&S | I | |
| CO1,CO2 | Describe the merits and demerits of present-day applications like face powder, face pack, balm, lotions, lipsticks, deodorants and perfumes. | CAP | NK | KH | PrBL | CL-PR | F | I | |
| CO1,CO2 | Explain the importance of proper clothing (vastradharana) in social life. | CK | MK | KH | L&PP T | INT | F&S | I | |
| Topic 3 Ratricharya (Lecture :6 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2 | Describe ratri bhojanvidhi and its relation to health. | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Describe ratri shayana vidhi in relation to the proper time of sleep. | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Explain the relation between Nidra and health. | CK | MK | KH | L&PP T | T- EW | F&S | I | |

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| CO1,CO2 | Describe effects of Yukta & Ayukta nidra. | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Explain the effects of Ratri Jagarana, Diwaswapna, Anidra, Atinidra and Akala Nidra. | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Identify Ahara and Vihara Causing sound sleep as well as disturbed sleep. | CAN | DK | KH | SDL | INT | F | I | |
| CO1,CO2 | Formulate the duration of sleep according to age, Sleep in healthy and ailing persons. | CE | DK | KH | SDL | INT | F | I | |
| CO1,CO2,CO 8 | Explain various Aspects of Sleep like: a. Daytime Sleepiness and Alertness b. Sleep Deprivation c. Sleep and Host Defense d. Master Circadian Clock and Master Circadian Rhythm e. Human Circadian Timing System and Sleep-Wake Regulation f. Circadian Rhythms in Sleepiness, Alertness, and Performance g. Circadian Disorders of the Sleep-Wake Cycle | CK | DK | KH | L&PP T | C-INT | F | I | |
| CO1,CO2,CO 8 | Explain Sleep apnoea , insomnia, narcolepsy and restless leg syndrome. Explain solutions to Asatmya jagarana (sleep disorders .) | CK | DK | KH | L&PP T | C-INT | F | I | |
| CO1 | Explain the importance of observing brahmacharya and abrahmacharya in relation to health | CAP | MK | KH | L&G D | TT-Theory | F&S | I | |
| CO1 | Describe Brahmacharya with specail reference to lifestyle guidelines | CAP | MK | KH | L&G D | TT-Theory | F&S | I | |
| CO1 | Describe reproductive and sexual health according to Ayurveda | CAP | MK | KH | L&G D | TT-Theory | F&S | I | |
| Topic 4 Ritucharya (Lecture :5 hours, Non lecture: 2 hours) | | | | | | | | | |
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| CO1 | Explain classification of kaala , distinguish Adana kala and visarga kala , identification of seasons based on the ritu lakshanas in different geographical areas. | CAP | MK | K | L&PP T | M-CHT | F&S | I | |
| CO1 | Analyse the Sanchaya- Prakopa- Prashamana of Dosha with their gunas in each ritu. | CAN | MK | K | L&PP T | PUZ | F&S | I | |
| CO1 | Describe the Relation of Agni , Bala and Ritu with its application. | CAP | MK | K | L&PP T | CL-PR | F&S | I | |
| CO1 | Explain ritu shodhana for the prevention of diseases. | CC | MK | KH | L | T- EW | F&S | I | |
| CO1 | Analyse Pathya - Apathya in regards to Ahara -Vihara in all six ritus in present scenario. | CAN | MK | K | FC | CL-PR | F&S | I | |
| CO1 | Explain the importance of ahara and vihara in ritu sandhi and yamadanshra kala. | CK | MK | KH | SDL | T- EW | F&S | I | |
| CO1 | Describe rituharitaki as a rasayana with research updates. | CE | DK | K | SDL | CR-RED | F | I | |
| CO1 | Explain the effects of Rituviparyaya on health and its relation to janapadaudhwansa/maraka vyadhis with present day examples. | CAP | MK | K | L&PP T | CL-PR | F&S | I | |
| Topic 5 Roganutpadaniya (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2 | Explain vegadharana and vega-udirana in relation to health and morbidity. | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Compare the symptoms and management principles of adharaniya vega janya vyadhis from bruhattrayee. | CAN | MK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Explain with examples the concept of vega-udirana (viz. Use of snuffing powder, forcible evacuation of bowels & bladder etc.). | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1,CO2 | Explain the importance of dharaniya vegas in promotion of | CK | MK | K | L&PP | T- EW | F&S | I | |

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| | mental health. | | | | T | | | | |
| Topic 6 Sadvritta (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Describe digital health | CK | DK | KH | L&G D | TT-Theory | F&S | I | |
| CO1,CO2 | Explain Promotion of Digital health | CAP | DK | KH | L&G D | TT-Theory | F&S | I | |
| CO1,CO2 | Describe Digital health problems | CAP | DK | KH | DIS | PP-Practical | F&S | I | V- SHL |
| CO1,CO2 | Understand and adopt the Sadavritta measures for the maintenance of personal ,social and spiritual health. | AFT- VAL | DK | D | RP | INT | F | I | |
| CO1,CO2 | Explain how the observance of Sadvritta helps for the prevention of Adharma. | CC | MK | KH | DIS | T- EW | F&S | I | |
| CO1,CO2 | Describe 'Achara Rasayana" and its role in the prevention and control of diseases. | CK | MK | K | L&PP T | TT-Theory | F&S | I | |
| CO1,CO2 | Explain characteristics of a mentally healthy person, warning signals of poor mental health, types of mental illness and causes of mental ill-health. | CK | MK | K | L&PP T | TT-Theory | F&S | I | |
| CO1,CO2 | Describe the mental health services and comprehensive mental health programme. | CK | MK | K | L&PP T | TT-Theory | F&S | I | |
| CO1,CO2 | Explain the role of trigunas and satvavajaya in mental health promotion in present era. | CAP | DK | KH | CBL | INT | F | I | V-KC |
| Topic 7 Ahara (Lecture :20 hours, Non lecture: 15 hours) | | | | | | | | | |
| CO1 | Explain significance of Ahara for health and well-being according to Ayurveda & Contemporary science Explain | CK | MK | K | L | T- EW | F&S | I | |

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|-----|--|-----|----|----|-----------|-------|-----|---|------|
| | significance of Ahara for health and well-being according to Ayurveda & Contemporary science | | | | | | | | |
| CO1 | Classify aharadravyas as per Ayurveda & Contemporary science | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1 | Enumerate and explain the features of Ahara vidhividhana, Ahara sevanakala & Dwadashashanapravicharana . | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1 | Discuss the applied aspect of Pathyahara, Apathyahara, Samashana, Adhyashana, Vishamashana. Discuss the Ahara & vihara leading to Santarpanjanya evam Apatarpanjanyavyadhi and importance of upavasa and effects of practice of intermittant fasting on health | CAN | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1 | Explain the benefits of Shadrasabhojana | CAP | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1 | Enumerate and explain the importance of Ashtaharavidhivisheshayatanani in present era | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1 | Explain the importance of Nityasevaniyadravyas in the maintenance of health | CAP | MK | KH | L&PP T | T- EW | F&S | I | H-DG |
| CO1 | Explain the properties (Guna& karmas) of Ahara dravyas in the following vargas with their nutritive value: Dhanyavarga – Shuka Dhanya (Cereals and Millets), Shami Dhanya (Pulses), Shaka and Haritavarga (Leafy and Non leafy vegetables), Kanda varga (roots and tubers), Phalavarga (Fruits), Taila varga (Fats and Oils), Ikshuvarga (Sugarcane Products)&Madyavarga(Alcoholic Beverages), Dugdhavarga (Milk and Milk products), Ahara UpayogiVarga (Spices & Condiments), Kritannavarga(Prepared Food), Mamsavarga (Meat types) and JalaVarga | CC | MK | KH | L&PP T | T- EW | F&S | I | H-DG |

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| CO1 | Define Pro-biotics and Pre-biotics and explain their utility | CK | DK | KH | IBL | INT | F | I | |
| CO1 | Explain the Proximate principles of Food, Recommended Daily Allowance according to various conditions, Sources, and deficiency diseases of Protein, Carbohydrate, Fats, Vitamins, and Minerals. | CC | MK | K | L_VC | COM | F&S | I | |
| CO1 | Define Balanced diet and explain diet for an individual depending on age, body weight and physiological status and explain the Social Aspects of Nutrition | CK | MK | KH | L&G D | T- EW | F&S | I | |
| CO1 | Explain Food hygiene, Sanitation of eating places, Preservation of food, Food handlers, Foodborne diseases, Food fortification, Food adulteration, and Food toxicants | CC | NK | KH | L&PP T,ML | P-REC,CHK | F | I | |
| CO1 | Explain Milk Hygiene, Milk composition, Source of infection for Milk, Milk borne diseases, Clean and Safe milk and Pasteurization of milk | CC | DK | KH | L&PP T,ML | P-REC,CHK | F | I | |
| CO1 | Explain Meat Hygiene, Meat inspection, Slaughterhouse and Freshness of fish and egg | CC | DK | KH | L&PP T,ML | P-REC,CHK | F | I | |
| CO1 | Explain safety and hygiene measures for Fruits and Vegetables | CC | NK | K | ML | O-QZ | F | I | |
| CO1 | Formulate a Pathya-Apathya diet for prevention of lifestyle disorders such as Obesity, Diabetes mellitus, Cardiovascular diseases and Acid peptic diseases | CAP | DK | D | SDL | P-REC,CHK | F | I | |
| CO1 | Describe Food safety and standards regulation(Ayurveda Ahara Regulations), 2022 and Food safety and standards Act, 2006. | CK | NK | K | ML | INT | F | I | |
| CO1 | Explain different Dietary Supplements and Ergogenic Aids | CK | NK | K | IBL | TT-Theory | F | I | |
| CO1 | Explain the impact of different dietary patterns: Mediterranean | CC | NK | KH | L&G | INT | F | I | |

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| | diet, Keto Diet, DASH diet, the MIND diet, Vegan diet, Ovo-lacto-vegetarian, pesco-vegetarian, plant-based diet, Intermittent diet, the Nordic diet, importance of organic foods, merits and demerits of genetically modified foods | | | | D | | | | |
| CO1 | Describe the Slow and Fast foods . Explain the impact of cooking processes like boiling, steaming, sautéing, fermenting etc. (samskara) on health and effect of instant foods like Maggi etc,.. | CC | NK | KH | DIS | TT-Theory | F | I | |
| CO1 | Define Nutraceuticals, Nutrigenomics, Nutrigenetics | CK | DK | K | L&PP T | T- EW | F | I | |
| CO1 | Explain the concept of Viruddhaahara with classical and modern-day examples and the application of this in the prevention of diseases | CK | MK | KH | ECE | T- EW | F&S | I | H-AT |
| Topic 8 Rasayana for Swastha (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Explain the importance of lifestyle counselling with its methods | CC | NK | K | L&G D | TT-Theory | F&S | I | |
| CO1 | Define Rasayana and mention the benefits of Rasayana | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1 | Classify the types of Rasayana with examples | CK | MK | K | L&PP T | T- EW | F&S | I | |
| CO1 | Explain Urjaskara Rasayanas as per age and occupations /Activities | CAP | MK | K | L&G D | T-CS | F&S | I | |
| CO1 | Explain the antioxidant&immunomodulatory effects of Rasayana with reference to research articles | CC | NK | K | L&G D | CR-RED | F | I | |
| Topic 9 Yoga (Lecture :22 hours, Non lecture: 6 hours) | | | | | | | | | |
| CO1 | Describe adverse effects of improper Yoga practices | CK | DK | KH | L&G | TT-Theory | F&S | II | |

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| CO3 | Describe Global importance of International Day of Yoga (IDY) | CK | NK | K | L&PP T | INT | F | II | |
| CO3 | Explain the etymology / derivation of the word 'Yoga' . | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO3 | Define Yoga according to Patanjali Yogasutras, Bhagavad Gita and Charaka Samhita. | CK | MK | K | L&PP T | TT-Theory | F&S | II | |
| CO3 | Distinguish between Rajayoga, Hathayoga and Karmayoga. | CAN | MK | KH | L&PP T | M-CHT | S | II | |
| CO3 | Explain Yogabhyasa Pratibhandhakas and Yoga Siddhikarabhavas. | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO3 | Describe Mitahara and Pathya-apathyas during Yogabhyasa. | CC | MK | KH | L&PP T | T- EW | F&S | II | |
| CO3 | Explain Panchakosha theory. | CC | MK | KH | L&PP T | M-POS | F&S | II | |
| CO3 | List out the Ashtangas of Yoga. | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO3 | Describe Yama and Niyama with meaning according to Yogasutras and Hathayogapradipika. | CC | MK | K | L&PP T | T- EW | F&S | II | |
| CO3 | Define Asana and explain the importance of asana. Distinguish between asana and physical exercise. | CK | MK | K | L&PP T | TT-Theory | F&S | II | |
| CO3 | Describe the procedure, benefits, indications, and contraindications of Standing Yoga Postures such as Ardhakatichakrasana, Padahastasana, Ardhashakrasana, and Trikonasana. | CC | MK | KH | L_VC | PRN | F&S | II | |

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| CO3 | Describe the procedure, benefits, indications and contraindications of Sitting Yoga postures such as Swasthikasana, Gomukhasana, Padmasana, Vajrasana, Bhadrasana, Shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, Ardhamatsyendrasana, and Siddhasana. | CC | MK | KH | L_VC | PRN | F&S | II | |
| CO3 | Describe the procedure, benefits, indications and contraindications of Supine Yoga postures such as Pavanamuktasana, Sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana and Setubandhasana. | CC | MK | KH | L_VC | PRN | S | II | |
| CO3 | Describe the procedure, benefits, indications, and contraindications of Prone Yoga postures such as Bhujangasana, Shalabhasana, Dhanurasana, and Makarasana. | CC | MK | KH | L_VC | PRN | F&S | II | |
| CO3 | Describe the procedure, benefits and contraindications of Suryanamaskara. | CC | MK | KH | L_VC | PRN | S | II | |
| CO3 | Define pranayama and explain its types, benefits, time of practice, and avara-pravara-madhyamalakshanas. | CC | MK | KH | L&PP T | T- EW | F&S | II | |
| CO3 | Describe the procedure of Nadishudhi Pranayama, its benefits, and Nadishudhilakshana. | CC | MK | KH | L_VC | PRN | S | II | |
| CO3 | Enumerate the Kumbhakabhedas. | CK | MK | K | L&PP T | TT-Theory | S | II | |
| CO3 | Describe the procedure and benefits of Suryabhedana, Ujjayi, Sheetal, Sitkari, Bhastrika, Bhramari, Murcha, and Plavini. | CC | MK | KH | L_VC | PRN | F&S | II | |
| CO3 | Enlist Shatkarmas of Yoga, indications and their importance. | CK | MK | K | L&PP T | TT-Theory | S | II | |
| CO3 | Describe the procedure, benefits, indications, contraindications, and precautions of Dhauti, Basti, Neti, Trataka, Nauli, and | CC | MK | KH | L_VC | T- EW | S | II | |

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| | Kapalabhati. | | | | | | | | |
| CO3 | Explain the term bandha & Describe the procedure and benefits of Mulabandha, Jalandharabandha, and Uddiyanabandha. | CC | MK | KH | L_VC | T-EW | S | II | |
| CO3 | Describe Mudras and explain the benefits of Shanmukhi mudra and Jnana mudra . | CC | DK | KH | L_VC | T-EW | F | II | |
| CO3 | Describe Shatchakras and explain their importance in Yoga practice. | CAP | DK | KH | L&PP T | T-OBT | F | II | |
| CO3 | Describe Ida-pingala-sushumna nadis and their importance in yoga practice. | CAP | NK | K | L&PP T | T-EW | F | II | |
| CO3 | Define Pratyahara and explain its importance in Yoga practice. | CAP | MK | KH | L&PP T | TT-Theory | S | II | |
| CO3 | Define Dharana and explain its importance in Yoga practice. | CAP | MK | KH | L&PP T | TT-Theory | S | II | |
| CO3 | Define Dhyana and explain its importance in Yoga practice. | CAP | MK | KH | L&PP T | TT-Theory | S | II | |
| CO3 | Describe Cyclic Meditation and Mindfulness meditation and their benefits. | CAP | DK | KH | L&PP T,L_ VC | CL-PR | F | II | |
| CO3 | Define Samadhi and explain its types and importance. | CK | MK | K | L&PP T | TT-Theory | S | II | |
| CO3 | Define Moksha according to Charaka and explain Muktatmalakshana and Moksha upayas. | CK | DK | K | L&G D | INT | F | II | |
| Topic 10 Naturopathy (Lecture :5 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO3 | Explain the basic principles of Naturopathy. | CK | DK | K | L&PP | INT | F&S | II | |

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| CO3 | Describe the concept of Panchabhutopasana. | CK | DK | KH | L&PP T | INT | F&S | II | |
| CO3 | Explain the procedure and therapeutic effects of Mud therapy. | CAP | MK | KH | L_VC | TT-Theory | F&S | II | |
| CO3 | Explain the procedure and therapeutic benefits of Sun bath. | CAP | MK | KH | L_VC | TT-Theory | F&S | II | |
| CO3 | Explain Fasting therapy and its types and benefits. | CK | MK | KH | L&PP T | TT-Theory | F&S | II | |
| CO3 | Explain hydrotherapy, types of water used based on the temperature and therapeutic effects of Hydrotherapy. | CAP | MK | KH | L_VC | TT-Theory | F&S | II | |
| CO3 | Describe types, methods and benefits of massage. | CAP | MK | KH | L_VC | TT-Theory | F&S | II | |

| Paper 2 Public health | | | | | | | | | |
|---|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 Janapadodhwamsa / Maraka Vyadhi (Lecture :37 hours, Non lecture: 10 hours) | | | | | | | | | |
| CO1 | Understanding the Epidemic Diseases (Amendment) Ordinance | CK | MK | KH | L&G | TT-Theory | F&S | II | |

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| | Act,2020 ., | | | | D | | | | |
| CO1 | Explain the causes of Janapadodhwamsa/ maraka vyadhi State the manifestation and control measures of Jnapadodhwamsa Explain the importance of Panchakarma and Rasayana in preventing Janapadodhwamsa | CK | MK | KH | L&PP T | T- EW | F&S | I | |
| CO1 | Define Epidemiology, enumerate and describe the principles and uses of epidemiology. | CK | MK | KH | L&G D | T- EW | S | I | |
| CO3 | Describe the basic terms of epidemiology.Explain and discuss the dynamics of disease transmission.Explain the theory of disease causation, epidemiological triad and natural history of disease. | CK | MK | KH | L&PP T | T- EW | S | II | |
| CO2 | Explain the concept of prevention, modes of intervention, risk factors, incidence and prevalence. | CK | MK | KH | L&PP T | T-EMI | S | II | |
| CO2 | Explain Susceptible host and host defense.Describe Immunizing Agents.Explain the concept of vyadhikshamatwa.Enlist methods to improve Vyadhikshamatwa.Classify Bala, enlist factors of Bala vriddhikara bhava. | CK | MK | KH | L&PP T | T- EW | F&S | II | |
| CO2 | Explain the investigation of an epidemic. Explain prevention and control of an epidemic. | CK | MK | KH | L&PP T | T- EW | F&S | II | |
| CO1 | Explain Sankramaka roga as per Ayurveda. | CK | MK | K | L&PP T | T- EW | S | II | |
| CO2 | Explain Epidemiological determinants, brief pathology ,transmission, incubation period , clinical features, diagnosis and preventive measures of 1.Droplet Infections such as Chicken Pox, Measles, Rubella, Diphtheria, Pertussis, Mumps, Tuberculosis, SARS, Influenza, Pneumonia, Covid-19 and Leprosy | CK | MK | KH | L&PP T,ED U,D_ BED | T- EW | F&S | II | |

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| CO2 | 2. Water borne Infections / intestinal infections - Cholera, Polio, Viral Hepatitis, Typhoid | CK | MK | K | L&PP T,D_ BED | T- EW | S | II | V-KC |
| CO2 | 3. Intestinal infestations – Ascariasis, Hook worm, Tape worm 4. Emerging and re-emerging diseases. Explain Role of Ayurveda in Epidemics like COVID-19, Zika Virus, H1N1, H3N2, etc | CK | MK | KH | L&G D,D_ BED | T- EW | S | II | |
| CO2 | 5. Sexually transmitted diseases (STDs) with prevention and control - HIV/ AIDS, Syphilis and Gonorrhoea. | CK | MK | KH | L&G D,D_ BED | T- EW | S | II | |
| CO2 | Explain the role of Ayurveda in the prevention and control with recent research updates of Lifestyle diseases such as DM, Obesity, Coronary artery disease (CAD) and Cancer | CK | MK | KH | L&PP T,D_ BED | T- EW | S | II | |
| Topic 2 Environmental health (Lecture :10 hours, Non lecture: 5 hours) | | | | | | | | | |
| CO1 | Understanding the Environment protection Act, 1986 | CK | MK | KH | L&G D | TT-Theory | F&S | II | |
| CO1 | Describe the properties of Vayu and state the composition of air. | CK | DK | KH | L | INT | F | II | |
| CO1 | Specify the changes in air of the occupied room. | CK | DK | KH | L | INT | F | II | |
| CO1 | Explain comfort zone and indices of thermal comfort. | CK | DK | KH | L | INT | F | II | |
| CO2 | Comprehend the causes, prevention and control of air pollution. Discuss the effects of air pollution on health and social aspects | CC | DK | KH | L | DEB | F | II | |
| CO2 | Elaborate the effects of Global warming with recent updates | CAP | DK | KH | L&G D | CR-RED | F | II | |
| CO2 | Define ventilation and illustrate its types. | CAP | DK | KH | L&G D | DEB | F | II | |

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| CO2 | Explain the effects of high altitude and mountain air on health. | CAP | DK | KH | L&G D | DEB | F | II | |
| CO1 | Explain safe and wholesome water and state water requirements. | CK | MK | KH | L&PP T | TT-Theory,V V-Viva | F&S | II | |
| CO1 | Explain the properties of water from different sources. | CK | MK | KH | L&PP T | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO6 | Explain water pollution and health hazards. | CAP | MK | KH | L&PP T,DIS | CL-PR | F&S | II | |
| CO1,CO6 | Describe the contemporary methods of water purification along with Ayurvedic methods. | CAP | MK | KH | L&PP T,DIS | CL-PR | F&S | II | |
| CO1,CO6 | Elucidate the effects of Hard Water on health and methods of removal of hardness. | CAP | MK | KH | L&PP T,DIS | CL-PR | F&S | II | |
| CO7 | Describe the quality of water stored in different vessels as per classics. | CAP | DK | SH | L | DEB | F | II | |
| CO7 | Explain the rain water harvesting methods and its importance | CAN | NK | SH | L | DEB | F | II | |
| CO7 | Enlist the types of soil. | CK | DK | KH | L&PP T | INT | F | II | |
| CO7 | Interpret the relation between soil and health. | CK | DK | KH | L&PP T | INT | F | II | |
| CO7 | Explain Land pollution and its prevention and control | CK | DK | KH | L&PP T | INT | F | II | |
| CO7 | Explain land purification as per the classics. | CAN | NK | KH | L&G D | T-OBT | F | II | |
| CO7 | Explain the Social goals of Housing and Housing | CE | DK | KH | L&G | T- EW | F | II | |

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| | standards. Understanding of The building and other construction workers Act,1996 | | | | D | | | | |
| CO7 | Analyze the effects of housing on health. | CE | DK | KH | L&G D | T- EW | F | II | |
| CO7 | Explain overcrowding and its impact on health | CE | DK | KH | L&G D | TT-Theory | F | II | |
| CO7 | Explain good lighting, natural lighting and artificial lighting | CK | DK | KH | L&PP T | M-POS | F | II | |
| CO7 | Explain the biological effects of lighting. | CK | DK | KH | L&PP T | M-POS | F | II | |
| CO7 | Define noise. Illustrate its sources, effects on health and control measures. | CK | DK | KH | L&PP T | PRN | F | II | |
| CO7 | Enlist the sources of Radiation and explain its effects on health and describe control measures. | CK | DK | KH | L | PRN | F | II | |
| CO7 | Enlist Different types of solid waste and Explain the Storage and collection of refuse. | CK | MK | KH | L,D- M | TT-Theory | S | II | |
| CO7 | Explain the Methods of disposal of solid waste (Rural & urban) | CK | MK | KH | D-M | M-MOD | S | II | |
| CO7 | Describe Bio-medical waste management and Bio-Medical waste management rules, 2016 | CK | MK | KH | D-M | TT-Theory | S | II | |
| CO7 | Enlist excreta Disposal methods and explain Sanitary Latrines | CAN | DK | KH | D-M | DEB | F | II | |
| CO7 | Explain the Modern Sewage disposal method | CAN | DK | KH | D-M | DEB | F | II | |
| CO7 | Describe the disposal methods of Excreta during camps, fairs, and festivals | CAN | DK | KH | D-M | DEB | F | II | |

| Topic 3 Disaster management (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
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| CO5 | Define disaster and explain disaster management | CK | DK | KH | L&G D | PRN | F | II | |
| CO5 | Explain effects of natural and man-made disasters | CK | DK | KH | L&G D | PRN | F | II | |
| CO2 | Explain epidemiologic surveillance and identify disease control measures | CAP | DK | KH | L&G D | PRN | F | II | |
| Topic 4 Occupational Health (Lecture :3 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1 | Understand the Merchant Shipping / Medical Examination Rules, 2000 | CK | DK | KH | L&G D | TT-Theory | F | II | |
| CO7,CO8 | Define Occupational Health and Ergonomics. | CK | MK | K | L&G D | TT-Theory | F&S | II | |
| CO7,CO8 | Explain occupational Hazards. | CK | MK | K | L&G D | T- EW | F&S | II | |
| CO7,CO8 | Enlist occupational diseases and explain their prevention & control. | CK | MK | K | L&G D | T- EW | F&S | II | |
| CO1 | Explain ESI Act, 1948 and The factories Act,1948 | CK | MK | K | L&PP T | T- EW | S | II | |
| CO1 | Describe the role of Ayurveda in various Occupational health problems. | CK | MK | KH | L&G D | TT-Theory | S | II | |
| Topic 5 School health services (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO2 | State the Health problems of school children. | CC | MK | KH | L&PP T | T- EW | F&S | II | |
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| CO2 | Mention the aspects of school health services. | CC | MK | KH | L&PP T | T- EW | F&S | II | |
| CO2 | Mention the duties of school medical officers. | CC | MK | KH | FV | T- EW | F&S | II | |
| CO2 | Explain how to Maintain a healthy environment in the school. | CC | MK | KH | FV | T- EW | F&S | II | |
| Topic 6 Disinfection (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2,CO 6,CO7 | Define the term disinfection | CK | MK | K | L | TT-Theory | F&S | II | |
| CO1,CO2,CO 6,CO7 | Enlist and explain the types of disinfection. | CK | MK | K | L&PP T | P-VIVA,P-PS | F&S | II | |
| CO1,CO2,CO 6,CO7 | Describe the Natural agents, Physical agents, and chemical agents of disinfection | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO1,CO2,CO 6,CO7 | Demonstrate the recommended disinfection procedures of feces & urine, sputum, and room. | PSY- MEC | DK | KH | L_VC | P-VIVA,QZ | F | II | |
| CO1,CO2,CO 6,CO7 | Explain Ayurvedic disinfection methods. | CK | DK | K | L&PP T | QZ | F | II | |
| Topic 7 Primary health care (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2,CO 3,CO4,CO5,C O8 | Define Primary Health Care. | CK | MK | K | L | TT-Theory | S | II | |
| CO1,CO2,CO 3,CO4,CO5,C O8 | Describe the principles and elements of primary health care and the levels of health care. | CK | MK | K | L&PP T | T- EW | F&S | II | |
| CO1,CO2,CO 3,CO4,CO5,C | Describe the Structure at village, sub-centre, PHC, CHC, Rural hospital levels | CK | MK | K | L&PP T | T- EW | F&S | II | |

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| O8 | | | | | | | | | |
| CO1,CO2,CO3,CO4,CO5,CO8 | Describe primary health care in Health insurance, Private agencies, Voluntary health agencies, NGOs, and the AYUSH sector | CK | DK | K | L&PP T | T-OBT | F | II | |
| CO1,CO2,CO3,CO4,CO5,CO8 | Describe the role of Ayurveda in Primary Health Care. | CK | MK | K | L&PP T | TT-Theory | F&S | II | |
| Topic 8 Mother and Child health care (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO2,CO3,CO8 | Describe the objectives of Maternal and Child Care services. | CK | MK | K | L | T- EW | F&S | II | |
| CO2,CO3,CO8 | Explain the MCH problems & enlist the indicators of MCH care | CC | MK | K | L&PP T | T- EW | F&S | II | |
| Topic 9 Family welfare programme (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO4,CO5,CO6 | Define demography and enlist the sources of demographic statistics in India. | CK | MK | K | L&PP T | TT-Theory | F&S | II | |
| CO4,CO5,CO6 | Describe the demographic cycle & define life expectancy. | CK | MK | K | L&PP T | CL-PR | F&S | II | |
| CO2,CO4,CO5 | Define family planning, eligible couple and target couple.Enlist & explain the objectives of family planning. | CK | MK | K | L&PP T | TT-Theory | F&S | II | |
| CO2,CO4,CO5 | Explain the problems of population explosion and describe national population policy. | CK | MK | K | DIS | TT-Theory | F&S | II | |
| CO2,CO4,CO5 | Classify and describe the Contraceptive methods (Fertility Regulating Methods). | CK | MK | K | L_VC | M-CHT | F&S | II | |
| Topic 10 Preventive Geriatrics (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |

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| CO8 | Enlist the health problems of the aged and explain their prevention and control measures | CK | MK | K | DIS | INT | F&S | II | |
| CO8 | Explain the relation between lifestyle and healthy aging. | CC | MK | K | DIS | INT | F&S | II | |
| CO8 | Describe the role of rasayana in preventive geriatrics. | CC | MK | K | L&PP T,W | INT | F&S | II | |
| Topic 11 World Health Organization and International health agencies (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO4 | Define and describe the structure, regions, and works of the World Health Organization | CK | MK | KH | L&G D | T- EW,P- VIVA | F&S | III | |
| CO4 | Describe the functions of various international health agencies - United Nations health agencies, bilateral health agencies, and Non- Governmental agencies | CK | MK | KH | L&G D | T- EW,P- VIVA | F&S | III | |
| CO4 | Describe the contribution of the world health organization to the global acceptance of Ayurveda | CK | MK | KH | L&G D | T- EW,P- VIVA | F&S | III | |
| Topic 12 Vital Statistics (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1 | Understanding of Registration of Birth and Death Act, 1969 | CK | MK | KH | L&G D | TT-Theory | F&S | II | |
| CO4,CO8 | Define Vital Statistics. Enumerate the sources ofVital statistics | AFT- RES | MK | SH | DIS | T- EW,P- VIVA | F&S | III | |
| CO4,CO8 | Describe Fertility , Morbidity and Mortality rates | AFT- RES | MK | SH | L&G D | T- EW,P- VIVA | F&S | III | |

| Topic 13 Health Administration (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
|---|--|----|----|----|----------------------|------------------|-----|-----|--|
| CO4,CO8 | Describe the health administration including AYUSH at the Central, State, District, and Village levels | CK | DK | KH | L&G D | T- EW,P- VIVA | S | III | |
| Topic 14 National Health Programmes (Lecture :7 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO4,CO8 | <p>State the vision/objective and outline the goals, strategies and plan of action of National Health Programs - Leprosy(NLEP), AIDS (NACP), Blindness (NPCB), Polio , National TB Elimination Program , Vector born disease control program, RCH program, ICDS program, Universal Immunization Program, National mental health program , National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS) , Swachha Bharat mission, Ayushman Bharat Yojana, Ayushman Bharat Digital Mission, National health mission (NRHM&NUHM), National AYUSH Mission (NAM).</p> <p>National nutrition programs- National Iodine Deficiency Disorders Control program, National Iron Plus Initiative for Anemia Control, National Vitamin A prophylaxis program, Mid-Day Meal program & Balwadi nutrition program.</p> | CK | MK | KH | L&PP T,DIS ,FV | T- EW,P- VIVA | F&S | III | |
| Topic 15 National Health Policy (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO4 | Describe the National Health Policy (NHP) and the scope of Ayurveda in NHP. | CK | MK | KH | L,L& PPT | T- EW,P- VIVA | F&S | III | |

List of Practicals (Term and Hours)

| PRACTICALS (Marks-100) | | | |
|-------------------------------|---|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | Dinacharya | 1 | 25 |
| 2 | Disinfectants | 1 | 2 |
| 3 | Ahara | 1 | 30 |
| 4 | Health Education (IEC) | 2 | 10 |
| 5 | Yoga performance | 2 | 35 |
| 6 | Community survey | 3 | 20 |
| 7 | Local Health Educational Visits | 3 | 36 |
| 8 | Visit to Observe National Health Programs and Ayurveda Centre | 3 | 12 |
| 9 | Monitoring of health and hygiene | 1 | 5 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Show s how/ Know s how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|---------------------------|--|----------------------|--|--|-------------------------|--|---------------------------------------|------------|-----------------------|
| Topic 1 Dinacharya | | | | | | | | | |
| CO1 | Collect and Compare different Dantadhawana Churnas/ Tooth pastes available in the market and choose/ advise the appropriate one based on the need. | PSY-ADT | DK | D | PrBL | PRN | F | I | |
| CO1 | Collect and Compare different JiwhaNirlekhanaYantra(Tongue cleaners) available in the local area/ market and choose/advise the appropriate one for swastha | PSY-ADT | DK | D | PrBL | PRN | F | I | |
| CO1 | Collect different dravya/kashaya/mouthwashes available in the market for kavala and gandusha; demonstrate the procedure of kavala and gandusha with appropriate liquids /dravyas for swastha | PSY-ADT | MK | D | PrBL, D,PR A | PRN | F&S | I | |
| CO1 | Collect different types of Anjana (Collyriums) available in the market, Demonstrate Anjana procedure as per local traditions and | PSY-ADT | MK | D | PrBL, PT,D | PRN | F&S | I | |

| | | | | | | | | | |
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| | advise different types of Anjana for swastha. | | | | | | | | |
| CO1 | Demonstrate Pratimarsha Nasya with Anutaila/ Sesame oil and prescribe the appropriate taila for Pratimarsha Nasya for swastha. | PSY-ADT | MK | D | PrBL, PT,D | DOPS | F&S | I | |
| CO1 | Demonstrate Prayogika Dhoomapana and advise prayogika dhoomapana dravya for swastha. | PSY-ADT | MK | D | PrBL, PT,D | DOPS | F&S | I | |
| CO1 | Demonstrate the procedure of Abhyanga techniques for full body abhyanga, padabhyanga and shiroabhyanga and prescribe suitable taila for Abhyana for Swatha. | PSY-ADT | MK | D | PrBL, PT,D | DOPS | F&S | I | |
| CO1 | Demonstrate the procedure of Udwartana techniques and prescribe suitable dravya for Udwartana for Swatha. | PSY-ADT | MK | D | PrBL, PT,D | DOPS | F&S | I | |
| CO2 | Prescribe appropriate dinacharya module regarding ahara and vihara as per age and occupation /activity. | CE | MK | SH | PrBL | P-CASE | F&S | I | |
| CO2 | Advise /counsel people regarding healthy lifestyle based on the Ayurvedic principles (one student should counsel at least five person and should be documented). | CE | MK | SH | PrBL | P-CASE | F&S | I | |
| Topic 2 Disinfectants | | | | | | | | | |
| CO7 | Identify and demonstrate the suitability, dose, dilution, and contact period of the following disinfectants: Bleaching powder, Dettol, Lysol, Savlon. | PSY-ADT | MK | SH | CBL | PP-Practical | S | II | |
| CO7 | Observe the procedure of fumigation of the operation theatre. | AFT-REC | NK | D | D | P-VIVA | F | II | |
| CO7 | Write the mode of working and uses of an autoclave. | CK | DK | KH | SDL | T- EW | F | II | |

| Topic 3 Ahara | | | | | | | | | |
|---------------|--|---------|----|----|------|--------------|-----|---|------|
| CO8 | Collect and compile different regional staple food articles. | PSY-SET | MK | D | SDL | COM | F | I | H-DG |
| CO8 | Mention the nutritive value of the following preparations per 100gm and calculate the food portions/serving size of the following recipes: a. Yusha b.Yavagu c.Odana d.Krushara e.Peya f.Panaka g.Takra h.Manda i.Vilepi | CE | MK | D | PT | P-EN | F&S | I | |
| CO8 | Plan a dietary Menu according to different Prakriti (preparation of diet chart considering all ahara vargas for eka doshaja , dvidoshaja prakriti) | PSY-GUD | MK | SH | TBL | P-MOD,P-POS | F | I | |
| CO8 | Plan the dietary menu for different occupations / Activities, Age groups, and physiological conditions. (diet chart for 1-5 years child, 6-18 years,18& above till 60 years, above 60 years, sedentary, sedentary intellectuals, night shifts , drivers, standing professionals. physiological conditions like Garbhini,Sutika, Kshirapa, Ksheerada, Ksheerannada, Annada etc,..) | PSY-GUD | MK | D | CBL | P-CASE | F&S | I | |
| CO8 | Plan Ahara-Vihara based on the different Ritus(preparation of diet and lifestyle charts for each ritu) | PSY-GUD | MK | D | PrBL | M-CHT | F | I | |
| CO8 | Plan a dietary menu for any one individual according to prakriti, agni, Sara, satva, age, sex, occupation/ activity, and season based on the regional food habits with serving sizes with different food exchange/options. | PSY-GUD | MK | D | IBL | P-CASE | F | I | |
| CO8 | Document the maintenance of various equipment and appliances used in the kitchen/ diet section of the hospital such as cooking gas, pressure cooker, mixer-grinder, microwave oven, refrigerator | AFT-RES | NK | D | PL | PP-Practical | F | I | |
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| CO8 | Assess various Anthropometric variables like Weight, height, and BMI (including differentiation between Sara)and Mid-arm Circumference in order to assess the state of nutrition. | AFT-RES | MK | D | PSM | PP-Practical | F | I | |
| Topic 4 Health Education (IEC) | | | | | | | | | |
| CO5 | Demonstrate communication methods for health education. | PSY-SET | MK | SH | DIS, W | P-RP,M-POS,OSPE ,DOPS | F&S | II | |
| CO5 | Demonstrate/present different health education materials (dinacharya practices, sadvritta practices,family planning methods, breast feeding techniques, environmental hygiene, preventive and control measures of communicable and non - communicable diseases etc.) to the target population in the community. | AFT-RES | MK | SH | DIS,T PW,R P | DOPS,Log book | F&S | II | |
| Topic 5 Yoga performance | | | | | | | | | |
| CO3 | Perform four Standing Postures namely - Ardhatichakrasana, Padahastasana, Ardachakrasana, and Trikonasana step by step with Sthiti, main procedure, and vishrama. | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Perform eleven Sitting Postures namely - Swastikasana, Gomukhasana, Padmasana, Vajrasana, Bhadrasana, Shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, Ardhamatsyendrasana, and Siddhasana step by step with Sthiti, main procedure, and vishrama. | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Perform seven Supine Postures namely - Pavanamuktasana, Sarvangasana, Matsyasana, Halasana, Chakrasana, Shavasana, and Setubandhasana step by step with Sthiti, main procedure and visrama | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Perform four Prone Postures namely - Bhujangasana, | PSY- | MK | SH | KL | DOPS | S | II | |

| | | | | | | | | | |
|--|---|---------|----|----|---------|-----------|-----|-----|--|
| | Shalabhasana, Dhanurasana, and Makarasana step by step with Sthiti, main procedure and vishrama. | ADT | | | | | | | |
| CO3 | Perform Nadishuddhi Pranayama with inhalation-retention-exhalation in the ratio of 1:4:2 in a comfortable sitting posture. | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Perform Kumbhakabhedas namely - Suryabhedana, Ujjayi, Sitkari, Sheetali, Bhastrika and Bhramari. | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Perform Jalaneti, Kapalabhati and Trataka. | PSY-ADT | MK | SH | KL | DOPS | S | II | |
| CO3 | Demonstrate and instruct Common Yoga Protocol of IDY (International Day of Yoga). | PSY-ADT | DK | SH | EDU | DOPS | F | II | |
| Topic 6 Community survey | | | | | | | | | |
| CO6 | Conduct minimum 05 Family surveys using structured questionnaire in specific rural populations and report the survey finding and discuss possible solutions to the family | PSY-SET | MK | D | ECE | DOPS | F&S | III | |
| CO6 | Conduct minimum 05 Family surveys using structured questionnaire in specific urban populations and report the survey finding and discuss possible solutions to the family. | PSY-SET | MK | D | ECE | DOPS | F&S | III | |
| Topic 7 Local Health Educational Visits | | | | | | | | | |
| CO2 | Report the functioning of milk dairy such as methods of processing and preservation of milk, testing of milk before and after pasteurization and the standards of milk & milk products. | PSY-SET | MK | KH | EDU, FV | P-VIVA,RK | F&S | III | |
| CO2,CO7 | Report and explain the various process involved in large-scale water purification. | PSY-MEC | MK | KH | D-M,FV | P-VIVA,RK | F&S | III | |
| CO2,CO7 | Explain and Report the processes involved in modern sewage treatment. | PSY-MEC | MK | KH | D-M,FV | P-EXAM,RK | F&S | III | |

| | | | | | | | | | |
|--|---|---------|----|----|---------------|-----------------|-----|-----|------|
| CO1,CO2,CO5,CO6,CO8 | Explain and report the various measures adopted in the industry for the prevention and control of occupational diseases. | CC | MK | KH | TPW, FV | P-VIVA,RK | F&S | III | |
| CO1,CO2,CO8 | Explain and Report the food safety standards and methods of food processing techniques. | CC | MK | K | PrBL, RLE, FV | P-VIVA,RK | F&S | III | |
| CO3,CO6 | Report and explain various naturopathic treatment methods. | CC | MK | KH | L_VC,EDU, FV | P-EXAM,RK | F&S | III | |
| Topic 8 Visit to Observe National Health Programs and Ayurveda Centre | | | | | | | | | |
| CO4,CO8 | Report the functioning of National Health Programs at Primary health centers/Community health centers/District hospitals and Govt. Ayurveda Dispensary | PSY-SET | MK | SH | L_VC,IBL, FV | T- EW,P-VIVA,RK | F&S | III | V-KC |
| CO4 | Report the functioning of a Primary Health Centre/ Community Health Centre/ Rural Hospital/ District Hospital with regards to the implementation of different National Health Programmes viz. infectious disease control, immunization, ANC, Family planning etc. | AFT-RES | DK | D | FV | Log book | F | III | |
| CO4 | Report the structure and functioning of an Ayurvedic Dispensary/ Taluk Hospital/ District Hospital available in the district. | AFT-RES | DK | D | FV | Log book | F | III | |
| Topic 9 Monitoring of health and hygiene | | | | | | | | | |
| CO2,CO6,CO7,CO8 | Collect the demographic profile of allotted 2 subjects/Individuals (one from the community and one from employees of the college/hospital) and conduct clinical examination (Assess Prakriti, Sattva, Saara, etc.) | AFT-RES | MK | D | IBL | P-CASE,RK | F&S | I | |
| CO2,CO6,CO7,CO8 | Conduct periodic check-ups for allotted individual/employer (2) health status / occupational health status and if any treatment | AFT-RES | MK | D | PT | P-CASE,OSCE | F | I | |

| | | | | | | | | | |
|-----------------|---|---------|----|----|------|----------|---|----|--|
| | is prescribed then coordinate the treatment under the overall guidance of the Mentor | | | | | | | | |
| CO2,CO6,CO7,CO8 | Counsel the adopted individuals/employer (2) and analyze the health trajectory(individual following the prescribed regimen) of the adopted individual/employer under the overall guidance of the mentor | AFT-RES | MK | D | PT | P-SUR,RK | F | II | |
| CO2,CO6,CO7,CO8 | Document the maintenance of water sanitation, waste disposal, food hygiene, etc., in the hospital canteen/ pathya section/cafeteria | CE | MK | KH | PrBL | RK | F | I | |

Table 4a: List of Practical

| S.No | Name of practical | Term | Activity | Practical hrs |
|------|-------------------|------|---|---------------|
| 1 | Dinacharya | 1 | <ol style="list-style-type: none"> 1. Analyze the composition of different Dantadhawana Churnas/ Tooth pastes and tooth brushes available in the market 2. Analyze different Jivwa Nirlekhana Yantra (Tongue cleaners) available in the local area/ market 3. Demonstrate the procedure of kavala and gandusha with appropriate liquids /dravyas for swastha 4. Demonstrate Anjana procedure as per local traditions and advise different types of Anjana for swastha. 5. Demonstrate Pratimarsha Nasya with Anutaila/ Sesame oil and prescribe the appropriate taila for Pratimarsha Nasya for swastha. 6. Demonstrate Prayogika Dhoomapana (Practicable and Non- practicable Dhoomapana)and advise prayogika dhoomapana dravya for swastha. 7. Demonstrate the procedure of Abhyanga techniques for full body abhyanga, padabhyanga and shiroabhyanga and prescribe suitable Taila for Abhyana for Swatha. 8. Demonstrate the procedure of Udwartana techniques and prescribe suitable dravya for Udwartana for Swatha. 9. Prescribe appropriate dinacharya module regarding ahara and vihara as per age and occupation /activity. 10. Advise /counsel people regarding healthy lifestyle based on the Ayurvedic principles (one student should counsel at least five person and should be documented). | 25 |
| 2 | Disinfectants | 1 | Identify and demonstrate the suitability, dose, dilution, and contact period of the following disinfectants : Bleaching powder, Dettol, Lysol, Savlon . Observe the procedure of fumigation of the operation theatre. Write the mode of working and uses of an autoclave. | 2 |

| | | | | |
|---|------------------------|---|---|----|
| 3 | Ahara | 1 | <p>Collect, compile and document region wise different varieties of Ahara Varga (Millets, cereals, pulses, vegetables, varieties of milk/oil/honey/ available in the market). Demonstrate the therapeutic indication and nutritive values of Pathya kalpanas a. Manda b. Peya c. Vilepi d. Yavagu e. Odana f. Krishara g. Yusha h. Takra .</p> <p>Prepare the dietary regime according to different Prakriti. Prepare/Prescribe the dietary regime for different occupations / activities, age groups, and physiological conditions. Prepare/Prescribe the diet and lifestyle regimen (pathya- apathya) with reference to Ahara and Vihara for each ritu. Conduct diet counselling according to prakriti, agni, sara, satva, age, sex, occupation/ activity, and prevailing season based on the regional food habits with serving sizes with different food exchange/options for 5 persons. Assess various anthropometric variables like weight, height, and BMI and mid-arm circumference etc., in order to assess the state of nutrition of five individuals.</p> | 30 |
| 4 | Health Education (IEC) | 2 | <p>Demonstrate communication methods for health education. Demonstrate/ Present different health education materials (dinacharya practices, Sadvritta practices, family planning methods, breastfeeding techniques, etc.) patients and general public .</p> | 10 |
| 5 | Yoga performance | 2 | <p>Perform four Standing Postures namely - Ardhakatichakrasana, Padahasthasana, Ardhashakrasana, and Trikonasana step by step with sthiti, main procedure and vishrama.</p> <p>Perform eleven Sitting Postures namely - Swasthikasana, Gomukhasana, Padmasana, Vajrasana, Bhadrasana, Shashankasana, Ushtrasana, Pashchimottanasana, Suptavajrasana, Ardhamatsyendrasana, and Siddhasana step by step with sthiti, main procedure and vishrama.</p> <p>Perform seven Supine Postures namely - Pavanamuktasana, Sarvangasana,</p> | 35 |

| | | | | |
|---|---------------------------------|---|--|----|
| | | | <p>Matsyasana, Halasana, Chakrasana, Shavasana, and Setubandhasana step by step with sthiti, main procedure and visrama</p> <p>Perform four Prone Postures namely - Bhujangasana, Shalabhasana, Dhanurasana, and Makarasana step by step with Sthiti, main procedure and vishrama. Perform Jalaneti and kapalbhati . Perform Anuloma – Viloma Pranayama in a comfortable sitting posture. Perform Nadishuddhi Pranayama with inhalation-retention-exhalation in the ratio of 1:4:2 in a comfortable sitting posture. Perform Kumbhakabhedas namely - Suryabhedana, Ujjayi, Sitkari, Sheetali, Bhastrika and Bhramari.</p> <p>Demonstrate and instruct Common Yoga Protocol of IDY (International Day of Yoga).</p> | |
| 6 | Community survey | 3 | <p>Conduct minimum 05 Family surveys using a structured questionnaire in specific rural populations and report the survey findings and discuss possible solutions to the family.</p> <p>Conduct minimum 05 family surveys using a structured questionnaire in specific urban populations and report the survey findings and discuss possible solutions to the family.</p> | 20 |
| 7 | Local Health Educational Visits | 3 | <p>Report the functioning of milk dairies such as methods of processing and preservation of milk, testing of milk before and after pasteurization, and the standards of milk & milk products. Report the various process involved in water purification plant. Report the processes involved in modern sewage treatment plant. Report the various measures adopted for the prevention and control of occupational diseases in any industry. Report the food safety standards and methods of food processing techniques adopted in any food industry. Report the various treatment modalities adopted in Naturopathy and Yoga canthers.</p> <p>Note : Swasthavritta, Agada Tantra.</p> | 36 |

| | | | | |
|-----------------|---|---|--|------------|
| | | | Dravyaguna & Rasashastra - Combined out campus visits can be palled wherever feasible. | |
| 8 | Visit to Observe National Health Programs and Ayurveda Centre | 3 | Report the functioning of a Primary health centre/Community health centre/Rural hospital/District hospital with regards to the implementation of different National Health Programmes viz. infectious disease control, immunization, ANC, Family planning etc. Report the structure and functioning of a Ayurveda Dispensary/ Taluk Hospital /District Hospital available in the district. | 12 |
| 9 | Monitoring of health and hygiene | 1 | Conduct periodic check-ups , collect demographic profile and clinical examination of allotted 2 subjects/Individuals - Assess Prakriti, Satva, Sara, etc.)for their health status / occupational health status and if any treatment is prescribed then coordinate the treatment under the overall guidance of the teacher/Mentor. Counsel and advice the allotted 2 subjects a healthy regime prescription and analyze their health status after following the healthy regime under the overall guidance of the teacher/mentor. Document the maintenance of water sanitation, waste disposal including biomedical waste in the hospital. | 5 |
| Total Hr | | | | 175 |

Activity

| CO | Topic name | Activity Details | Hours # |
|-----|------------|--|---------|
| CO1 | Dinacharya | Demonstration, Making posters, Real-life experiences , Roleplay , We- based activities | 5 |

| | | | |
|---------|-------------------------|---|----|
| | | Example - Collection and analyze of different tooth paste/tooth brushes, mouth washes and collyriums available in the market including GMP pharmacies | |
| CO1 | Ratricharya | Chart preparation and real-life experiences of Ratri bhojana and Sleep principles | 1 |
| CO1 | Ritucharya | Assessment of changes happening in the human body in particular ritu Poster preparation of food recipes in different ritus | 2 |
| CO1 | Sadvritta | Role play | 1 |
| CO1 | Ahara | Listing of Ahitakara (Junk) food habits, Gathering information of Organic farming and Organic food items , Application of Ashtaahara vidhivesesha ayatana in real life - Team base project, Roleplay , Presentation & Collection of Research updates in the field of Ayurvedic food | 15 |
| CO1 | Roganutpadaniya | Survey and documentation on effect of Adharaneeya vega on different occupations | 1 |
| CO1 | Rasayana for swastha | Poster making and Library work | 2 |
| CO1 | Nidra | Survey on sleep and awakening patterns among the staff and students | 1 |
| CO7 | Yoga | Participation in International day of Yoga , Poster presentation of Yogic practices as per diseases , Preparation of Short videos on Yoga and Conducting Quiz | 7 |
| CO2,CO5 | Disaster management | Group discussion | 2 |
| CO1 | Janapadodwamsa | Assignment , Symposiums and Problem-based learning | 10 |
| CO1,CO5 | Environmental health | Seminars, Quiz andm PBL | 5 |
| CO3 | Disinfection | PBL | 3 |
| CO2 | Family welfare programe | Roleplay , Web-based learning and Discussion | 2 |

| | | | |
|---------------------|--|--|---|
| CO7,CO8 | Mother and child health care | PBL | 1 |
| CO8 | Preventive geriatrics | Group discussion and Seminar | 1 |
| CO4,CO8 | National health programs | Web-based learning , Assignments and Participating in celebration of health related days | 3 |
| CO3 | School health services | Role play and Presentations | 2 |
| CO7,CO8 | Occupational health | Poster making , PBL and Group discussion | 3 |
| CO2,CO3,CO4,CO5,CO8 | Primary health care | Group discussions | 2 |
| CO3 | Naturopathy | Web-based learning , Tutorials and Group discussions | 4 |
| CO4 | World health organizations and International health agencies | Web-based learning and Quiz | 1 |
| CO8 | Health Statistics | Presentations and Seminars | 1 |

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 14 |
| 2 | Lecture with Power point presentation | 61 |
| 3 | Lecture & Group Discussion | 16 |
| 4 | Lecture with Video clips | 15 |

| | | |
|----|------------------------|---|
| 5 | Discussions | 6 |
| 6 | Inquiry-Based Learning | 1 |
| 7 | Project-Based Learning | 1 |
| 8 | TBL | 1 |
| 9 | Flipped classroom | 1 |
| 10 | Blended Learning | 1 |
| 11 | ECE | 1 |
| 12 | Self-directed learning | 8 |
| 13 | Demo on Model | 6 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand Total |
|--------------|--------|--------|-------------------------------|------|----------|----|-----------|-------------|
| | | | Practical | Viva | Elective | IA | Sub Total | |
| AyUG-SW | 2 | 200 | 100 | 60 | 10 | 30 | 200 | 400 |

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|---------------------|---------------------------------|---------------------------|---------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|--|--------------|--------------|-------------------|---------------------------------|-----------------------------------|----------------------|--------------------------|
| | A 6 | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/3) | Converted to 30 Marks (D/15*30) | Term Test (Marks converted to 30) | Sub Total _/60 Marks | Term Assessment (.../30) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks)(MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert to 30 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-SW

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

Similar for Paper II

6 F Distribution of theory examination

| Paper 1 Principles of Swasthavritta, Yoga and Naturopathy | | | | | | |
|--|--|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | Swastha and Swasthya | 1 | 6 | Yes | Yes | No |
| 2 | Healthy Life style -Dinacharya (Daily regimen) | 1 | 38 | Yes | Yes | Yes |
| 3 | Ratricharya | 1 | | Yes | Yes | No |
| 4 | Ritucharya | 1 | | Yes | Yes | Yes |
| 5 | Roganutpadaniya | 1 | 13 | Yes | Yes | No |
| 6 | Sadvritta | 1 | | Yes | Yes | No |
| 7 | Ahara | 1 | 20 | Yes | Yes | Yes |
| 8 | Rasayana for Swastha | 1 | 5 | Yes | Yes | No |
| 9 | Yoga | 2 | 18 | Yes | Yes | Yes |
| 10 | Naturopathy | 2 | | Yes | Yes | No |
| Total Marks | | | 100 | | | |

| Paper 2 Public health | | | | | | |
|------------------------------|---------------------------------|-------------------|--------------------|-------------------------|--------------------------|-------------------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 11 | Janapadodhwamsa / Maraka Vyadhi | 2 | 10 | Yes | Yes | Yes |
| 12 | Environmental health | 2 | 16 | Yes | Yes | Yes |

| | | | | | | |
|--------------------|--|---|------------|-----|-----|-----|
| 13 | Disaster management | 2 | | Yes | Yes | No |
| 14 | Occupational Health | 2 | 20 | Yes | Yes | No |
| 15 | School health services | 2 | | Yes | Yes | No |
| 16 | Disinfection | 2 | | Yes | Yes | No |
| 17 | Primary health care | 2 | 20 | Yes | Yes | Yes |
| 18 | Mother and Child health care | 2 | | Yes | Yes | No |
| 19 | Family welfare programme | 2 | | Yes | Yes | No |
| 20 | Preventive Geriatrics | 2 | | Yes | Yes | No |
| 21 | World Health Organization and International health agencies | 2 | 19 | Yes | Yes | No |
| 22 | Vital Statistics | 2 | | Yes | Yes | No |
| 23 | Health Administration | 2 | | Yes | Yes | No |
| 24 | National Health Programmes | 2 | 15 | Yes | No | Yes |
| 25 | National Health Policy | 2 | | Yes | Yes | No |
| Total Marks | | | 100 | | | |

6 G Blue print of paper I & II

| Paper No:1 | | |
|-------------|---|---|
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <ol style="list-style-type: none"> 1. Swastha and Swasthya 2. Healthy Life style -Dinacharya (Daily regimen) 3. Ratricharya 4. Ritucharya 5. Roganutpadaniya 6. Ahara 7. Sadvritta 8. Rasayana for Swastha 9. Yoga 10. Naturopathy 11. Swastha and Swasthya 12. Healthy Life style -Dinacharya (Daily regimen) 13. Ritucharya 14. Ratricharya 15. Roganutpadaniya 16. Sadvritta 17. Ahara 18. Rasayana for Swastha 19. Yoga 20. Naturopathy |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <ol style="list-style-type: none"> 1. Swastha and Swasthya 2. Healthy Life style -Dinacharya (Daily regimen) 3. Ratricharya 4. Ritucharya 5. Roganutpadaniya 6. Sadvritta 7. Naturopathy / Yoga 8. Ahara |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable</p> | <ol style="list-style-type: none"> 1. Healthy Life style -Dinacharya (Daily regimen) 2. Ritucharya 3. Ahara 4. Yoga |

| | to know | |
|--------------------|---|--|
| Paper No:2 | | |
| Question No | Type of Question | Question Paper Format |
| Q1 | <p>Multiple choice Questions 20 Questions 1 mark each All compulsory</p> <p>Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ</p> | <ol style="list-style-type: none"> 1. Janapadodhwamsa / Maraka Vyadhi 2. Environmental health 3. Disaster management 4. Occupational Health 5. School health services 6. Disinfection 7. Primary health care 8. Mother and Child health care 9. Family welfare programme 10. Preventive Geriatrics 11. World Health Organization and International health agencies 12. Vital Statistics 13. Health Administration 14. National Health Policy 15. National Health Programmes 16. Janapadodhwamsa / Maraka Vyadhi 17. Environmental health 18. Occupational Health 19. National Health Programmes 20. Family welfare programme |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <ol style="list-style-type: none"> 1. Janapadodhwamsa / Maraka Vyadhi 2. Disaster management 3. Environmental health 4. School health services 5. Occupational Health 6. Mother and Child health care 7. Family welfare programme 8. Preventive Geriatrics |
| Q3 | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable</p> | <ol style="list-style-type: none"> 1. Janapadodhwamsa / Maraka Vyadhi 2. Environmental health 3. Primary health care 4. National Health Programmes |

to know

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|------|--|-------|
| 1 | Yoga - Demonstration of 4 Asanas and 1 Pranyama or Shatkarma procedure Any four asanas from following list for demonstration- Trikonasana, Ardhakatichakrasana, Gomukhasana, Bhadrasana, Pavanamuktasana, Sarvangasana, Bhujangasana and Shalabhasana. Each asana will carry 4 marks x 4 = 16 Procedure -1 mark, Final posture Holding time - 1, Breathing pattern-1 mark and On site viva - 1 mark Any one Pranayama among Nadishuddhi, Suryabhedana, Seetali, Seetkari , Bhramari or any one shatkarma among Neti and Kapalabhati Each pranayama or Shatkarma will carry 4 marks | 20 |
| 2 | Diet and Lifestyle advice case sheet A. Advise on Diet case - 25 Marks - Scenario will be given and asking student to prescribe diet as per the age, prakriti, occupation, agni bala etc,.. B. Advise on Lifestyle - 15 Marks - Scenario will be given and asking student advise lifestyle modifications such as Brahme muhurta uthishteth, Vyayama, Kavala- gandusha, Abhyanga, Udwartana ,Pratimarsha nasya etc,.. , | 40 |
| 3 | Problem-based evaluation - Disinfection, Communicable diseases Environmental health, & Non- Communicable including deficiency diseases , A. Disinfection (identification, dose, suitsbility , dilution and contact period), Communicable diseases (giving scenarios and identifying diseases and mentioning preventive measures) and Environmental health (giving scenarios related environmental health issues and asking students to mention preventive and control measures) - 15 Marks B. Non- Communicable diseases (creating scenarios and asking to identify the diseases with preventive and control methods) and deficiency diseases (creating scenarios and asking students to indentify the deficiency conditions and asking the students to recommend the nutrients with nutritional profile etc., - 15 Marks | 30 |
| 4 | Practical Records | 10 |
| 5 | Viva Viva on Project work (Activity based) - 10 Marks | 60 |

Viva on I Paper - 25 Marks

A. Definition of Swastha , Swasthya, Swasthavritta and Health, dimensions of health, objective and subjective components of well-being- 2Mark

B. Benefits of Ushajala pana, Kavala , Gandusha, Dantadhavana, Anjana, Abhyanga,Udvaartana, Vyayama, Snana and Tambula - 4 Mark

C. Rarti bhojana, Definition of Nidra , Types of nidra, Ahita nidra, definitions of sleep disorders , Definitions of Brahmacharya and Abrahmacharya and Adanakala and Visarga kala ritus, Doshavastha ,Balavastha,Agniavastha of different ritus , Definition of Ritusandhi, Yamadamshttra - 2 Marks

D. Adharaneeya vegas , Dharaneeya vega , definition of sadvritta and Acararasayana - 2 Marks

E. Importance of Ahara, classification of foods, Aharasevana kala, Ashta ahara vidhivishesha ayatana, Dwadasaha asana pravicarana with slokas , listing of nityasevana ahara dravya(Preferebly sloka), meaning of Pathya , Samashana, Adhyashana, Vishamasana. Sources and deficiency diseases of nutrients, Pastuerization of milk and its methods, meaning of different diet patterns, definition of nutrogenomics, nutracueticals, nutrigenetics and viridhha ahara . Definition, benefits and types of rasayana and definition of anti-oxidants with examples- 10 Marks

F. Definitions of Yoga , Meaning and types of Yama , Niyama, Asana,Pranayama, Pratyahara, Dharana, Dhyana,Samadhi (slokas mandatory), listing of shatkarma and indications of shatkarma (sloka mandatory), types of Bamdha, names of Shatchakra, diferences between Sushumna, Pingala and Ida nadi, definition of Moksha, Muktatma lakshana , Moksha upaya, , Basic principles of Naturopathy, Types of Fasting, Hydrotherapy and Massage - 5

Paper II - 25 Marks

| | | |
|--------------------|---|------------|
| | <p>A. Meaning and causes of Janapadodhwamsa, Definitions of terms related to Epidemiology and infectious diseases, Dynamics of disease transmission, Immunizing agents and Immunization schedule. Definition of vyadhikshamatva, Causative organisms and preventive measures of Communicable diseases -5 Marks</p> <p>B. Composition of Air, Definition of Comfort zone, Ventilation and its types, Definition of safe and wholesome water, Sources and types of Water , Purification methods of water as per Ayurveda & Contemporary medicine, Definition of different types of waste, Definition of disaster and types of disasters- 5Marks</p> <p>C. Definition of occupational health, listing out occupational hazards and diseases. Est act & Factories act, Health problems of school children, definition of different terms related to disinfection, types and agents of disinfection - 5 Marks</p> <p>D. Definition, principles and elements of Primary health care, population coverage , functions and staff pattern at Sub-centre, Primary health centre and Community health centre, Objectives, problems and indicators of MCH, Definitions of demography, family planning ,eligible couple and target couple and methods of family planning - 5Marks</p> <p>E . Definition of Geriatrics,Problems of aged, Definition,structure and regions of WHO, Year of establishment , head quarters and main functions of international health agencies, Definition and sources of vital statistics, organizational structure of health administration , Year of establishment and main objectives of different national health programmes- 5 Marks</p> | |
| 6 | Elective (Set SC) | 10 |
| 7 | Internal Assessment - | 30 |
| Total Marks | | 200 |

References Books/ Resources

| S.No | Book | Resources |
|-------------|--|--|
| 1 | Relevant portions of Charaka, Sushruta, Vagbhata, Sarngadhara, Bhavaprakasha, Yogaratnakara, Madhavanidana and Bhelasamhita.- relevant Samhithas | Print /online samhithas |
| 2 | Swasthavritta Samucchaya | Vaidya . Rajeswaradutta shastri , Chaukhambha Viswabharathi, Varanasi, India |
| 3 | Swasthavrittavigyan | Dr.Ramaharsha singh , Chaukhambha Publishing house, Varanasi, India |
| 4 | Yoga sutras of Patanjali | BKS Iyengar , Published by Harper collins , Publishers India , Newdelhi |
| 5 | Hathayogapradipika | Swami Muktibodananda , Published by Yoga publications trust, Ganga darshan, Munger, Bihar, India |
| 6 | Gheranda samhitha | Edited with Sweta , English commentary of Mrs.Shweta Bhat and Edited by Goswami Prahlad Giri, Published by Krishnadas Academy , Varanasi- 221001 |
| 7 | Yoga deepika | BKS Iyengar , Published by Harper collins , Publishers India , Newdelhi |
| 8 | Light on Yoga | BKS Iyengar , Published by Harper collins , Publishers India , Newdelhi |
| 9 | Light on Pranayama - | BKS Iyengar , Published by Harper collins , Publishers India , Newdelhi |
| 10 | The Foundations of Contemporary Yoga | Professor RH Singh , Published by Chaukhambha Sanskrit Pratishtan, Newdelhi .. |
| 11 | Park's Text book of Preventive and Social Medicine | K.Park , Published by M/s BANARASIDAS BHANOT, LABALPUR, INDIA |
| 12 | Text book of Preventive and Social Medicine | MC Gupta & BK Mahajan, Published by JAYPEE BROTHERS , Medical publishers , Newdelhi |
| 13 | Dr. Reddy's comprehensive guide to Swasthavritta | Dr.P.Sudhakar Reddy , Published by Chaukhambha Sanskrit Pratishtan, New Delhi |
| 14 | Indian food composition Tables | T Longvah , Published by National institute of Nutrition, Hyderabad |
| 15 | Food and nutrition | Swaminathan , Published by Banglore Printing & Publishing Co.Ltd, Banglore |
| 16 | Swasthavrittasudha | Vd.Kashinath Samagandi, Published by Ayurveda Sanskrit hindi pustak bhandar , Jaipur . |

| | | |
|----|--|---|
| 17 | S.Kashi's Text book of Svasthavrtttamritam | Vd.Kashinath Samagandi, Published by Ayurved sanskrit hindi pustak bhandar, Jaipur |
| 18 | Text Book of Swasthavrittam | Dr. Mangala Gouri V Rao, Chaukhambha Orientalia, Varanasi, India (2022) |
| 19 | Text book on Swasthavritta | Dr.P. Sudhakar Reddy , Dr.Beena MD Publishers : Chaukhambha Orientalia, Varanasi, India Year : 2022 |
| 20 | Bhojanakutuhalam | Raghunatha suri, Edited by Scholars of the Centre for Theoretical foundations (CTF), Institute of Ayurveda and Integrative Medicine I-AIM, FRLHT , Bengaluru- 560064 |
| 21 | Kshemakutuhalam | Compiled by Kshema sharma , Published By Indian institute of Ayurveda & Integrative medicine , Bengaluru-560064 |
| 22 | Recent trends in Community Medicine | Suryakantha AH, Published by JAPEEPY BROTHERS |
| 23 | The Essentials of Natur cure | Dr.Mangala Gouri.V. Rao, Published by Chaukhambha Orientalia, Varanasi |
| 24 | WHO | https://www.who.int |
| 25 | Food laws | https://www.corpseed.com/knowledge-centre/food-laws-and-regulations-in-india |
| 26 | Food acts | : https://fssai.gov.in/cms/food-safety-and-standards-act-2006.php |
| 27 | National health programs | https://ncdc.mohfw.gov.in/index4.php?lang=1&level=0&linkid=55&lid=138 |
| 28 | Family welfare programme | https://ncdc.mohfw.gov.in/index4.php?lang=1&level=0&linkid=55&lid |
| 29 | Health & Family welfare | https://www.india.gov.in/topics/health-family-welfare |
| 30 | Census of India | : https://censusindia.gov.in |
| 31 | Hatha yoga Pradeepika | Pandith. Hariprasad Tri[athi, Published by Chaukhambha Krishna das Academy, Varanasi , India |
| 32 | A Complete Handbook of Nature cure | H.K.BAKHRU , JAICO Publishing house, Bombay |
| 33 | Yoga & Ayurveda | Satyendra prasad MIshra , Published by Chaukhambha Sanskrit Samsthan , Varanasi |
| 34 | The Yoga Science | Dr. Ravi R Javalgekar , Published by Chaukhambha Sanskrit Sansthan , Varanasi, India |
| 35 | Concept of Ayurveda for perfect Health & Longevity | Vaidya H.S. Kasture , Published by Shree baidyanath Ayurveda Bhavan Private LTD, Nagpure , India |

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| 36 | Essentials of Community medicine practicals | DK Mahabalaraju, Published by JAYPEE BROTHERS Medical publishers , Newdelhi |
| 37 | Positive health through Ayurveda | Dr.LP Gupta & Dr.LV Guru, Published by Chaukhambha sanskrit Pratishtana , Newdelhi |
| 38 | Food Science | B Srilakshmi , Published by NEW AGE INTERNATIONAL (P)LIMITED, PUBLISHERS , NEWDELHI |
| 39 | Apollo Clinical Nutrition- Handbook | Anita Jatan, Daphnee DK, Haritha Shyam, Priyanka Rohatgi and Kajal Pandya Yeptho- Published by JAYPEE BROTHERS MEDICAL PUBLISHERS PVT LTD, NEWDELHI |

Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
| | | |

| | | |
|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
| | | |

| | | |
|----|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRy | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
| | | |
| | | |

Course curriculum for Second Professional BAMS

(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

Samhita Adhyayan-2

(SUBJECT CODE : AyUG-SA2)

(Applicable from 2021-22 batch, from the academic year 2023-24 onwards for 5 years or until further notification by NCISM, whichever is earlier)



॥ आयुषे सर्वलोकानाम् ॥



BOARD OF AYURVEDA
NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE
NEW DELHI-110058

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-SA2

Summary

| | | | |
|-------------------------------------|-------|-----|----------|
| Total number of Teaching hours: 240 | | | |
| Lecture hours(LH)-Theory | | 100 | 100(LH) |
| Paper I | 100 | | |
| Non Lecture hours(NLH)-Theory | | 140 | 140(NLH) |
| Paper I | (40) | | |
| Non Lecture hours(NLH)-Practical ## | | | |
| Paper I | (100) | | |

| Examination (Papers & Mark Distribution) | | | | | |
|--|------------------------|---------------------------|------|----------------|----|
| Item | Theory Component Marks | Practical Component Marks | | | |
| | | Practical | Viva | Elective | IA |
| Paper I | 100 | - | 75 | (Set SB) 10 | 15 |
| Sub-Total | 100 | 100 | | | |
| Total marks | 200 | | | | |

Important Note:-The User Manual II BAMS is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual II before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic.

In case of difficulty and questions regarding curriculum write to cur.imp@ncismindia.org

Details in Practical list, Table 4 and Table 4a

PREFACE

In continuation with the curriculum reforms started previous year, **Samhita Adhyayan-2** focuses on learning Samhita with due significance to the methodology of textual structuring and interpretation. Charakasamhita is taken as a model text here considering its vast contributions to Ayurveda. Students who learn Ayurveda will benefit by Samhita Adhyayan to comprehend sense of importance of its traditional classical literature. SA2 tries to justify the methodology of structuring samhita and appraise the importance of tools of decoding samhita such as tantrayukti and vyakhyana. Relating and interpreting the various references, explaining and interpreting important sidhantas, applying sidhantas in clinical practice, making use of specific diagnostic and assessment guidelines mentioned in Carakasamhita, demonstrating principles of management of various clinical conditions etc. are some of the thrust areas addressed. Importance of by hearting important slokas also is highlighted. The content of SA2 belongs to 54 chapters of Carakasamhita viz. Sutrasthana (18 chapters 13-30, initial 12 chapters already dealt in SA1), Nidanasthana (8 chapters), Vimanasthana (8 chapters), Shareerasthana (8 chapters) and Indriyasthana (12 chapters). Each chapter is taken as a unit in the syllabus. A chapter starts with short introduction (**adhyaya parichaya**) through justifying the position of the chapter and introducing key terms in the chapter. This is followed by explaining important sidhantas (**sidhanta-vivarana**) in the chapter. At the end summary of the chapter (**adhyayasangraha**) is done with the help of summarizing slokas at the end of the chapter. This will help students to map the whole content of the chapter, even though some of them are not dealt in detail during sidhanta-vivarana. **Sloka sangraha** (compilation of sloka) compiles the most important slokas in the chapter. Application of **Tantrayukti** and **Vyakhyana** in proper understanding of Samhita also is envisaged as a separate section while planning practicals. Efforts have been taken to design some interesting and innovative activities and practical as a part of developing this syllabus. They have been added to respective tables here. It does not restrict our teachers from designing and implementing more attractive and effective activities or customizing those ones which are enlisted, as and when needed, without losing spirit of the new outlook.

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Course Code and Name of Course

| | |
|--------------------|-----------------------|
| Course code | Name of Course |
| AyUG-SA2 | Samhita Adhyayan-2 |

Table 1- Course learning outcomes and matched PO

| SR1 CO No | A1 Course learning Outcomes (CO) AyUG-SA2 At the end of the course AyUG-SA2, the students should be able to- | B1 Course learning Outcomes matched with program learning outcomes. |
|--------------------------|--|--|
| CO1 | Justify the Methodology of structuring samhitas and appraise the importance of tools of decoding Charakasamhita (Tantrayukti and vyakhyana) | PO1 |
| CO2 | Relate and interpret various references of concepts in Charakasamhita | PO1 |
| CO3 | Explain and interpret biological factors and their measurements in the manifestation of diseases. | PO1,PO3 |
| CO4 | Explain and utilize various siddhantas in different dimensions of clinical practice. | PO1,PO3,PO5 |
| CO5 | Demonstrate the knowledge of dravya and adravya based therapeutics. | PO1,PO3,PO5 |
| CO6 | Apply diagnostic guidelines regarding diseases including arishta lakshana based on the principles mentioned in Charakasamhita | PO1,PO3,PO7 |
| CO7 | Explore the determinants of health in the background of Charakasamhita. | PO1 |
| CO8 | Develop ethical professional and moral codes and conducts as a physician. | PO6,PO8,PO9 |

Table 2 : Contents of Course

| Paper 1 | | | | | |
|----------------|--|--------------------|---------------------|---------------------------------|--|
| Sr. No | A2 List of Topics | B2 Term | C2 Marks | D2 Lecture hours | E2 Non- Lecture hours |
| 1 | Cha.Su.13- Sneha Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sneha yoni 2. Chaturvidha sneha and its qualities 3. Sneha kaala and its anupana 4. Pravicharana sneha 5. Acchapeya 6. Sneha matra and its indications 7. Introduction to sneha yogya and ayogya purusha 8. Introduction to ayoga, samyak yoga and atiyoga of snehapana 9. Koshta pariksha 10. Introduction to snehapana vidhi 11. Introduction to sadyasneha 12. Sneha vyapat kaarana, lakshana and chikitsa III. Adhyaya sangraha | 1 | 37 | 3 | 1 |
| 2 | Cha.Su.14- Sveda Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Benefits of swedana 2. Swedana bheda 3. Swedana vidhi 4. Samyak swinna lakshana 5. Atiswinna lakshana and chikitsa 6. Swedana yogya and ayogya 7. Trayodasha agni sweda vivarana 8. Dasha vidha niragni sweda III. Adhyaya sangraha | 1 | | 2 | 1 |
| 3 | Cha.Su.15- Upakalpaneeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Samshodhana upayogi dravya sangraha 2. Aturalaya nirmana 3. Introduction to vamaana vidhi 4. Samsarjana krama 5. Introduction to virechana vidhi 6. Benefits of samshodhana III. Adhyaya sangraha | 1 | | 2 | 3 |
| 4 | Cha.Su.16- Chikitsaprabhritiya Adhyaya I. Adhyaya parichaya | 1 | | 2 | 2 |

| | | | | |
|---|--|---|---|---|
| | II. Siddhanta vivarana 1. Samyak virikta – avirikta - ativirikta lakshana 2. Bahudosha lakshana 3. Benefits of samshodhan 4. Importance of samshodhan 5. Samshodhana atiyoga and ayoga chikitsa 6. Swabhavoparama vada 7. Chikitsa paribhasha 8. Qualities of chikitsa-prabhrita vaidya III. Adhyaya sangraha | | | |
| 5 | Cha.Su.17- Kiyantashiraseeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Importance of shiras 2. Introduction to shiroroga, hridroga, vidradhi, madhumeha and madhumeha pidaka 3. 62 types of permutation and combination of doshas 4. Trayodasa sannipata (13 types of combination of doshas) 5. 12 types of vishama sannipata (Doshavikalpa) 6. Types of kshaya 7. Ojus 8. Doshagati III. Adhyaya sangraha | 1 | 3 | 0 |
| 6 | Cha.Su.18-Trisotheeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Types of shotha 2. Trividha bodhya (three types of assessment of diseases) 3. Ekadeshaja shotha 4. Aparisankhyeyatwa of roga 5. Anukta roga (unnamed diseases) and its management 6. Karmas of prakrita doshas III. Adhyaya sangraha | 1 | 1 | 3 |
| 7 | Cha.Su.19-Ashtodareeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sankhya samprapti of samanyaja vyadhi 2. Tridosha pradhanyata 3. Nija-agantu sambandha III. Adhyaya sangraha | 1 | 1 | 3 |
| 8 | Cha.Su.20- Maharoga adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Vyadhibheda (classification of disease) 2. Agantu-mukha (causes of agantu diseases) 3. Trividha-prerana (three etiological factors) 4. Samanyaja-nanatmaja-vikara – classification | 1 | 2 | 2 |

| | | | | |
|----|---|---|---|---|
| | 5. Vataja-nanatmaja vikaras, atmarupa and prakupitakarma 6. Pittaja- nanatmaja vikaras, atmarupa and prakupitakarma 7. Kaphaja- nanatmaja vikaras, atmarupa and prakupitakarma III. Adhyaya sangraha | | | |
| 9 | Cha.Su.21- Ashtauninditeeya adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Ashta nindita purusha 2. Ati sthula and ati karshya 3. Ashta dosha of sthaulya 4. Dosha-lakshana-hetu of karsya and sthaulya 5. Prasasta purusha lakshana 6. Chikitsa sutra of sthaulya and karsya 7. Nidra paribhasha 8. Arha and varjya for divaswapna 9. Effects of ratri jagarana and divaswapna 10. Types of Nidra III. Adhyaya sangraha | 1 | 3 | 3 |
| 10 | Cha.Su.22- Langhanabrimhaneeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Shadupakrama 2. Swarooma and lakshana of shadupakrama 3. Dasavidhalanghana 4. Dasavidhalanghana-prayoga-niyama 5. Properties of dravyas used in shadupakrama 6. Samyaklakshana of langhana, brimhana and sthambhana 7. Atiyoga and ayoga of shadupakrama III. Adhyaya sangraha | 1 | 3 | 2 |
| 11 | Cha.Su.23- Santarpaneeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Santarpana dravya 2. Santarpanajanya vyadhi 3. Chikitsasutra of santarpanajanya vyadhi 4. Apatarpanajanya vyadhi 5. Chikitsasutra of apatarpanajanya vyadhi III. Adhyaya sangraha | 1 | 2 | 0 |
| 12 | Cha.Su.24- Vidhishoniteeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Shonita-pradhanyata 2. Shonita-dushti-karana 3. Shonitajanya roga 4. Shonita-dushti-chikitsa 5. Raktadushtilakshana in relation to dosha | 1 | 3 | 2 |

| | | | | |
|----|--|---|---|----|
| | 6. Vishuddharaktalakshana 7. Vishuddharakta-purusha-lakshana 8. Pathya in raktamoksha 9. Introduction to mada-murchaya-sanyasa III. Adhyaya sangraha | | | |
| 13 | Cha.Su.25- Yajjapurushheeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Factors responsible for generation of purusha and diseases 2. Concept of hita ahara and its importance 3. Different factors related with ahara like aharayoni, prabhava, udarka, upayoga, rasa, gurvadi guna etc 4. Agryasangraha- (Aushadha- Anna-Vihara) 5. Terminology of pathya and apathya 6. Enumeration of aasavayoni III. Adhyaya sangraha | 1 | 2 | 4 |
| 14 | Cha.Su.26- Atreyabhadhrakaapyeeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sambhasha parishat on number of rasa 2. Gunas of parthivadi dravyas 3. Dravya prabhava and guna prabhava 4. Dravya karmukata siddhanta (pharmacodynamics) with respect to adhikarana, kala, karma, veerya, upaya and phala 5. Paradi guna 6. Rasadi-panchaka – Additional knowledge 7. Examples of samanapratyarabdha and vichitra pratyabarabdha dravyas 8. Properties of vipaka 9. Perception of rasa, vipaka and veerya 10. Examples of prabhava 11. Types of viruddha and management of complications 12. Principles of treatment of diseases caused by viruddha ahara III. Adhyaya sangraha | 1 | 3 | 3 |
| 15 | Cha.Su.27- Annapaana vidhi Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Benefits of hita ahara 2. Examples of hita ahara and ahita ahaara 3. Ahara vargas 4. Importance of anna III. Adhyaya sangraha | 1 | 4 | 2 |
| 16 | Cha.Su.28- Vividhashitapeeteeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana | 1 | 4 | 14 |

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|----|---|---|----|---|---|
| | 1. Caturvidha-ahara 2. Difference between hita aahara and ahita aahara 3. Susceptibility to diseases (with respect to pathya and apathya) 4. Vyadhi-saha shareera 5. Dhatupradoshaj, upadhatupradoshaj, indriyapradoshaja, malapradoshaja vikaras and treatment principles 6. Shakhagati and koshtagati of doshas 7. Causes of health and diseases 8. Importance of prajnaaparadha III. Adhyaya sangraha | | | | |
| 17 | Cha.Su.29- Dashapraanaayataneeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Enumeration of dasa pranaayatana 2. Terminology of praanaabhisara vaidya and rogaabhisara vaidya, chadmachara, yogya bhisak and karmakovida III. Adhyaya sangraha | 2 | | 2 | 2 |
| 18 | Cha.Su.30- Arthedashamahamooleeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Importance of hridaya 2. Best factors for life (shreshtatama bhava) 3. Four types of Ayu 4. Shashwatatwa of Ayurveda 5. Quality of Learner of Ayurveda 6. Ashtaprashna 7. Dashaprakaran 8. Synonyms of tantra III. Adhyaya sangraha | 2 | | 2 | 0 |
| 19 | Cha.Ni.01-Jwara nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Description of nidanapanchaka 2. Nidanaparyaya 3. Vyadhiparyaya 4. Ashtavidha jwaranidana , samprapti and lakshana. 5. Jwarapurvarupa 6. Jwara mahaprabhava vivarana 7. Jwara samkshipta chikitsa sutra. 8. Importance of ghrutapaan in jeerna jwara. III. Adhyaya sangraha | 2 | 19 | 2 | 2 |
| 20 | Cha.Ni.02-Raktapitta nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Raktapitta paryaya and nirukti. 2. Raktapitta nidana, purvarupa, upadrava | 2 | | 2 | 2 |

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| | 3. Raktapitta marga, dosha anubhandha and sadhyaasadyata. 4. Raktapitta chikitsa sutra III. Adhyaya sangraha | | | |
| 21 | Cha.Ni.03-Gulma nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sankhya samprapti 2. Gulma sthanas 3. Nidana, lakshana and samprapti of vata-pitta-kahpaja gulma 4. Shonita gulma 5. Gulma purvarupa 6. Sadhya asadhya 7. Chikitsa sutra III. Adhyaya sangraha | 2 | 2 | 2 |
| 22 | Cha.Ni.04-Prameha nidana adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sankhyasamprapti (vimsatiprameha) 2. Sampraptighataka (doshavishesha and dushyavishesha) 3. Nidanapanchaka of doshaja prameha (vata, pitta and kapha) 4. Sadhyasadyata 5. Poorvarupa 6. Upadrava 7. Chikitsasutra III. Adhyaya sangraha | 2 | 2 | 3 |
| 23 | Cha.Ni.05-Kushta nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Saptadravya of kushta 2. Aneka rupa of kushta 3. Samanya nidana and samanya purvarupa 4. Sadhyasadyata 5. Sapta kushta lakshana 6. Upadrava III. Adhyaya sangraha | 2 | 2 | 4 |
| 24 | Cha.Ni.06-Shosha nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Vishesha nidana, samprapti and lakshana of shosha 2. Purvarupa 3. Ekadasa rupa 4. Sadhyasadyata III. Adhyaya sangraha | 2 | 2 | 2 |

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|----|--|---|----|---|---|
| 25 | Cha.Ni.07-Unmada nidana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sankhya samprapti 2. Unmadaabhimukha karana (predisposing factors of unmada) 3. Unmada nirvacana (ashta vibhrama) 4. Purvarupa 5. Vata-pitta-kapha-sannipataj unmada lakshna 6. Role of prajnaparadha 7. Chikitsasutra of unmada 8. Agantuja unmada- nidana, purvarupa, lakshana, chikitsa sutra III. Adhyaya sangraha | 2 | | 2 | 4 |
| 26 | Cha.Ni.08-Apasmara nidana adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Definition of apasmara 2. Apasmaraabhimukakarana (predisposing factors of unmada) 3. Vishesh lakshana of apasmara 4. Cikitsasutra 5. Nidanarthakara roga 6. Vyadhisankara 7. Suddha-asuddha cikitsa 8. Sadhyasadyata – nirvacana 9. Tiryaggatadosha - cikitsasutra III. Adhyaya sangraha | 2 | | 2 | 4 |
| 27 | Cha.Vi.01- Rasa vimana Adhyayam I. Adhyaya parichaya II. Siddhanta vivarana 1. Importance and objective of vimanasthana 2. Prakritisamasamaveta and vikrutivishamasamaveta siddhanta 3. Chaturvidha Prabhava (rasa-dravya-dosh-vikara prabhava) 4. Examples of dravyaprabhava- taila, ghruta and madhu. 5. Dravyas which are avoided for regular consumption 6. Satmyaparibhasha and types 7. Aharavidhi visheshayatana 8. Ahara vidhi vidhana and bhojyasaadgunyam III. Adhyaya sangraha | 3 | 24 | 2 | 3 |
| 28 | Cha.Vi.02-Trividha kaksheeya Adhyayam I. Adhyaya parichaya II. Siddhanta vivarana 1. Three divisions of amashaya for deciding aharamatraa 2. Matraavat ahaara lakshan | 3 | | 2 | 0 |

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| | <p>3. Amatravatva of ahara 4. Effects of heenamaatra and atimatra of ahara 5. Mental factors which affect the digestion of food 6. Two types of amadosha 7. Hetu-linga and aushasda of amadosha 8. Demarcation of amasaya III. Adhyaya sangraha</p> | | | |
| 29 | <p>Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Importance of timely collection of medicines. 2. Janapadodhwamsakara samanya bhavas (four causes of epidemic diseases) 3. Lakshanas of vikrut vayu, jala, desha and kala. 4. Chikitsa siddhanta of janapadodhwamsakara vikaras 5. Role of adharma in janapadodwamsa 6. Niyata and aniyata ayu 7. Daiva and purushakara 8. Examples of hetuviparita chikitsa in jwara 9. Apatarpana and its types 10. Description of desha III. Adhyaya sangraha</p> | 3 | 2 | 2 |
| 30 | <p>Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Three methods of diagnosing diseases 2. Characteristics of aptopadesh, pratyaksha and anumana 3. Application of aptopadesha, pratyaksha and anumana in clinical examination III. Adhyaya sangraha</p> | 3 | 2 | 3 |
| 31 | <p>Cha.Vi. 05- Sroto vimana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Srotas paribhasha 2. Types of srotas 3. Types of srotodushti 4. Hetu, lakshan and chikitsa of strotodushti III. Adhyaya sangraha</p> | 3 | 2 | 2 |
| 32 | <p>Cha.Vi. 06-Roganika vimana adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Dvididha vyadhi bhedha based on prabhava, bala, adhishtana, nimitta, ashaya bheda. 2. Vyadhi aparisamkheyatva 3. Relation between shareerika and manasika dosha. 4. Anubhandhy-anubandha roga 5. Agni bheda, prakruti bheda.</p> | 3 | 2 | 2 |

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| | 6. Vatala prakrutigata roga, their hetu and chikitsa, pitta prakrutigata roga, their hetu and chikitsa-kapha-prakrutigata roga, their hetu and chikitsa 7. Raja vaidya gunas III. Adhyaya sangraha | | | | |
| 33 | Cha.Vi. 07- Vyadhita rupeeeya vimana Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Dvididha vyadhita purusha based on severity of disease and clinical presentation 2. Krimi bheda 3. Trividha chikitsa III. Adhyaya sangraha | 3 | | 2 | 2 |
| 34 | Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam. I. Adhyaya parichaya II. Siddhanta vivarana 1. Shastra pareeksha 2. Means of learning shastra 3. Adhyayana and adhyapana vidhi 4. Sambhasaha vidhi- Types 5. Three types of parishat 6. Vadamarga padani 7. Methodology of Vada and its benefits 8. Dashavidha pareeksya bhava 9. Dashavidha atura pareeksha III. Adhyaya sangraha | 3 | | 5 | 11 |
| 35 | Cha.Sha.01-Katithapurushheeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sareera and sareerasthana 2. Purusha and its types 3. Manonirupanam 4. Atmalinga 5. Ashtaprakriti and shodasavikara 6. Srishtyutpatti and pralaya 7. Trividha dukhahetu 8. Prajnaparadha 9. Daiva 10. Naishtikichikitsa 11. Vedana and vedana adhishtana 12. Vedanasahetu 13. Moksha 14. Smriti hetus III. Adhyaya sangraha | 2 | 13 | 2 | 3 |
| 36 | Cha.Sha.02-Atulyagothreeyam Adhyaaya I. Adhyaya parichaya II. Siddhanta vivarana | 2 | | 1 | 0 |

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|----|--|---|---|---|
| | 1. Prerequisites of conception 2. Shodashadhatu in shareera 3. Sexual abnormalities 4. Sadyogriheeta garbhinee lakshana 5. Ativahikapurusha 6. Daiva & paurusha 7. Roganutpatti III. Adhyaya sangraha | | | |
| 37 | Cha.Sha.03-Khuddika garbhavakranti Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Matrujadi bhavas in garbha 2. Beeja & beejabhaga III. Adhyaya sangraha | 2 | 1 | 0 |
| 38 | Cha.Sha.04-Mahatee garbhavakranti Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Garbha & garbhaposhana 2. Garbhopaghatakara bhava 3. Congenital abnormalities 4. Trividhasatva bheda (manasaprakriti) III. Adhyaya sangraha | 2 | 1 | 2 |
| 39 | Cha.Sha.05-Purushavichaya Shareera Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Lokapurushasamyā 2. Hetwadi panchaka 3. Satya buddhi III. Adhyaya sangraha | 2 | 1 | 4 |
| 40 | Cha.Sha.06-Sareeravichaya adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Definition of sareera 2. Samanyavishesha sidhanta – applied aspect 3. Shareera dhatuguna 4. Shareeravridhikarabhava 5. Balavridhikarabhava 6. Aharaparinamakarabhava 7. Sareeraguna bheda 8. Kala-akala mrityu 9. Param ayu karanam III. Adhyaya sangraha | 2 | 1 | 2 |
| 41 | Cha.Sha.07- Sareerasankhya sareera Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Paramanu bheda of shareera | 2 | 1 | 2 |

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| | III. Adhyaya sangraha | | | | |
| 42 | Cha.Sha.08-Jathisutreeya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sutikagara 2. Garbhopaghatakara bhava III. Adhyaya sangraha | 2 | | 1 | 12 |
| 43 | Cha.In.1-Varnasvariya Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Factors for assessing rishta 2. Six types of prakruti bheda 3. Rishtaadhikara kruta vikruti bheda 4. Prakruta and vaikarika varna 5. Varnavishayak arishta 6. Prakruta and vaikarika swara 7. Swara vishayak arishta III. Adhyaya sangraha | 3 | 7 | 1 | 1 |
| 44 | Cha.In.2-Pushpitakam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Gandha vishayaka samgrah 2. Rasa vishayaka arishta III. Adhyaya sangraha | 3 | | 1 | 0 |
| 45 | Cha.In.3-Parimarshaneeyam Indriyam Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sparshagamy bhava (palpable signs) 2. Sparshavishayak arishta lakshana III. Adhyaya sangraha | 3 | | 1 | 0 |
| 46 | Cha.In.4-Indriyanee kam Indriya adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Indriya vishayaka arishta samanya niyama (general rule regarding involvement of indriya) III. Adhyaya sangraha | 3 | | 1 | 0 |
| 47 | Cha.In.5-Purvarupeeyam Indriyam Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Jvara rupa vishayaka poorvaroopiya rishta (rishta based on purvarupa of jvara) 2. Swapna bheda (types of swapna) III. Adhyaya sangraha | 3 | | 1 | 2 |
| 48 | Cha.In.6-Katamanisharireeyam Indriyam Adhyaya I. Adhyaya parichaya | 3 | | 1 | 0 |

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|--------------------|---|------------|---------------|---------------|
| | II. Sidhanta vivarana 1. Rishta related to pureesha, mutra and swayathu III. Adhyaya sangraha | | | |
| 49 | Cha.In.7-Pannarupiyam Indriyam Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Pratichaya vishayaka arishta 2. Chaya vikruti arishtas 3. Five types chaya bheda 4. Seven types prabha bheda III. Adhyaya sangraha | 3 | 1 | 0 |
| 50 | Cha.In.8-Avakshiraseeyam Indriyam Adhyaya I. Adhyaya parichaya II. Adhyaya sangraha | 3 | 1 | 0 |
| 51 | Cha.In.9-Yasya shyavanimittiya Indriya Adhyaya I. Adhyaya parichaya II. Sidhanta vivarana 1. Ashtamaharogas III. Adhyaya sangraha | 3 | 1 | 0 |
| 52 | Cha.In.10-Sadyomaraneeyam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sadyo maraneeya arishtas III. Adhyaya sangraha | 3 | 1 | 0 |
| 53 | Cha.In.11-Anujyotiyam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Definition of Arishta III. Shloka sangraha | 3 | 1 | 0 |
| 54 | Cha.In.12-Gomayachurniyam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Mumurshu lakshana, 2. Prashasta doota lakshana and mangalika dravya. 3. Arogya janaka bhava III. Adhyaya sangraha | 3 | 1 | 17 |
| Total Marks | | 100 | 100 hr | 140 hr |

Table 3: Learning objectives (Theory) of Course

| Paper 1 | | | | | | | | | |
|--|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| A3 Course outcome | B3 Learning Objective (At the end of the session, the students should be able to) | C3 Doma in/sub | D3 Must to know / desirable to know / Nice to know | E3 Level Does/ Show s how/ Know s how/ Know | F3 T-L meth od | G3 Assessment (Refer abbreviations) | H3 Form ative/ summ ative | I3 Term | J3 Integr ation |
| Topic 1 Cha.Su.13- Sneha Adhyaya (Lecture :3 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as sneha, snehayoni, caturvidhasneha, acchasnehapaana, sadyasneha and pravicharana. | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO4,CO5 | Enlist sthavara and jangam snehayoni Ch Su 13/9-11 | CK | MK | K | L&G D,ML | M-POS,TT- Theory | F&S | I | |
| CO4,CO5 | Justify why tila taila is the best among taila varga. Ch Su 13/12 | CK | MK | KH | L,L& PPT, DA | T-EMI | F&S | I | |
| CO4,CO5 | Explain qualities and mode of action of eranda taila Ch. Su 13/12 | CK | DK | KH | L,L_ VC,D A | T-EMI | F&S | I | |
| CO4,CO5 | Enlist four types of sneha and justify sarpi as the best (shreshta). | CC | MK | KH | L,DIS | PRN,TT-Theo | F&S | I | |

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|-------------|---|-----|----|----|------------------------------|---------------------------------|-----|---|------|
| | Ch .Su 13/13 | | | | ,DA | ry,VV-Viva | | | |
| CO4,CO5 | Explain snehapaan kaala and anupaan Ch .Su 18-22 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Define and enlist 24 types of pravicharana sneha and other types of sneha pravicharana. Ch Su 13/23, 24, 25, 27, 28 | CC | MK | KH | L&G D | CL-PR,TT-Th eory,VV-Viva | F&S | I | |
| CO4,CO5 | Explain acchasnehapaana and its importance Ch Su 13/26 | CK | DK | KH | L&G D,RP, PL | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Enlist types of snehamatra Ch.Su 13/29-30 | CC | MK | KH | L&G D,RE C | QZ ,TT-Theor y,VV-Viva | F&S | I | |
| CO4,CO5 | Mention rule for duration of snehapaana Ch. Su 13/51 | CC | MK | KH | L&G D,BS | PUZ,TT-Theo ry,VV-Viva | F&S | I | |
| CO4,CO5 | Mention yogya and ayogya for snehana Ca Su 13/52-56. | CC | DK | KH | L,L& PPT,L &GD, CBL | TT-Theory,V V-Viva | F&S | I | V-PC |
| CO4,CO5 | Summarize samyak snigdha lakshana, asnigdha lakshana and atisnigdha lakshana. Ch Su 13/57-59 | CC | DK | KH | L&G D,D | P-ID,TT-Theo ry,VV-Viva | F&S | I | |
| CO2,CO4,CO5 | Summarise snehavyapat karana, lakshana and chikitsa Ch Su 75-79 | CAP | NK | KH | L&G D,PL | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Figure out importance of pathya and apathya in snehapaan.Ch Su 13/60-61-64 | CK | DK | KH | L&G D,SD L | M-CHT,TT-T heory,VV- Viva | F&S | I | |
| CO4,CO5 | Explain pathyaapathya to be followed during and after | CC | MK | KH | L&G | CHK,TT-Theo | F&S | I | |

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|--|--|-------------|----|----|----------------------|-----------------------------------|-----|---|--|
| | snehapana. Ch Su 62-64 | | | | D,ED U | ry,VV-Viva | | | |
| CO4,CO5 | Explain criteria's for assessing koshta. Ch Su 13/ 65-69. | CC | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5,CO 6 | Illustrate types of koshtha in patients undergoing snehapana | PSY- SET | NK | SH | CBL, CD,D _BED | P-ID,VV-Viva | F&S | I | |
| CO4,CO5 | Mention some examples for recipes of vicharanasneha.Ch Su 13/82-94 | CK | DK | K | L,L& PPT | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Interpret the role of agni in sadyasneha Ca Su 13/96-97 | CK | DK | K | L,L& GD,I BL | TT-Theory,V V-Viva | F&S | I | |
| CO1,CO2 | Recite sutra no. Ch Su 13/13-17, 22, 57-59. | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per Ch Su 13/100. | CK | NK | K | SDL | P-VIVA | F&S | I | |
| CO4,CO5 | Relate dravya classification mentioned in Ch Su 1 (trividha) with snehayoni | CAP | MK | KH | DIS | PRN | F | I | |
| Topic 2 Cha.Su.14- Sveda Adhyaya (Lecture :2 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as agnisweda, niragnisweda, snigdhapurva, ruskhapurva and trayodasasweda | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO4,CO5 | Explain the benefits of swedana. Ch Su 14/ 3-5 | CC | MK | KH | L&G | TT-Theory,V | F&S | I | |

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| | | | | | D,RL E | V-Viva | | | |
| CO4,CO5 | Explain samyak swedana and ati swedana lakshana Ch Su 14/13-15 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Summarize the indications and contraindications for swedana Ch Su 14/ 16-24. | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Differentiate pinda sweda, nadi sweda, avagah sweda and upanaha sweda with respect to the drugs used and procedure. Ch Su 14/25-37. | CC | DK | KH | L&G D,L_ VC,C BL | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Enlist 13 types of agni sweda. Ch Su 14/39-63 | CC | MK | KH | L&PP T,L_ VC | QZ ,TT-Theor y,VV-Viva | F&S | I | |
| CO4,CO5 | Enlist 10 types of niragnisweda Ch. Su 14/64. | CC | MK | KH | L,L& GD | O-QZ,TT-The ory,VV-Viva | F&S | I | |
| CO4,CO5 | Enlist three classifications of dvididha sweda. Ch Su 14/66 | CK | MK | KH | L&G D | M-CHT,TT-T heory,VV- Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 14/4,5,39,40,64. | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Su 14/68-71 | CK | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 3 Cha.Su.15- Upakalpaneeya Adhyaya (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |

| | | | | | | | | | |
|---------|--|-------------|----|----|----------------------|---------------------------|-----|---|--|
| CO1,CO2 | Explain basic meaning and importance of key terms in the chapter such as sambharan, aturaalaya, samsarjan krama. | CK | MK | K | L&G D,BS | QZ ,COM,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Summarize the guidelines for Vaidyas before commencing chikitsa Ch Su 15/3-5. | CK | DK | KH | L&G D | M-CHT,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Enlist samshodhana upayogi dravya sangraha Ch Su 15/6 | CK | MK | KH | L&G D | QZ ,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Figure out the procedure of vamana karma. Ch Su 15/9-15 | CC | DK | KH | L&G D,RP | CHK,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Explain samsarjana krama Ch Su 15/16 | CC | MK | KH | L,L& GD | CL-PR,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Identify merits of samsarjanakrama in patients | PSY- SET | NK | SH | BS,IB L,D_ BED | P-CASE,SP | F&S | I | |
| CO4,CO5 | Outline procedure for virechana karma Ch Su 15/17-18 | CC | DK | KH | L&G D,RP | CHK,TT-Theory,VV-Viva | F&S | I | |
| CO4,CO5 | Explain benefits of samshodhana. Ch Su 15/22. | CC | MK | KH | L,L& GD | TT-Theory,VV-Viva | F&S | I | |
| CO5,CO7 | Relate the structure of aturalaya (hospital) with the present scenario | CAP | DK | KH | DIS,B S,PrB L | DEB,M- MOD,INT | F | I | |
| CO1 | Recite sutra Ch Su 15/22 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1 | Summarize the chapter as per sutra Ch Su 15/2-25 | CK | NK | K | SDL | P-VIVA | F&S | I | |

| Topic 4 Cha.Su.16- Chikitsaprabhritiya Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
|---|---|-------------|----|----|--------------------|-----------------------------------|-----|---|--|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance. | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms such as bahudosha lakshana, swabhaavoparamvaada, chikitsaprabhirta. | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO4,CO5 | Summarize samyak virikta –avirikta – ativirikta lakshana. Ch Su 16/6-10 | CC | DK | KH | L&G D,D | RS,TT-Theory ,VV-Viva | F&S | I | |
| CO4,CO5 | Explain bahudosha lakshana Ch Su 16/13-16 | CC | MK | KH | L&G D | PUZ,TT-Theo ry,VV-Viva | F&S | I | |
| CO3,CO6 | Identify bahudoshalakshana in patients | PSY- SET | DK | SH | CBL, D_BE D | P-VIVA | F&S | I | |
| CO4,CO5 | Explain benefits and importance of samshodhana. Ch .Su 16/16-21 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Explain swabhavoparama vada Ch Su 16/ 27-32 | CC | MK | KH | L&G D,BS | DEB,TT-Theo ry,VV-Viva | F&S | I | |
| CO2,CO5 | Outline chikitsa of ayoga, atiyoga of samsodhana | CAP | DK | KH | L_VC ,CBL, D | SP,TT-Theory ,VV-Viva | F&S | I | |
| CO4,CO5 | Define chikitsa Ch Su 16/34-36 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO8 | Appreciate benefits of chikitsa prabhirta bhishak. Ch Su. 16/37-38 | CK | DK | KH | L&G D,D | TT-Theory,V V-Viva | F&S | I | |
| CO1 | Recite sutras Ch Su 16/13-21,27,28,34-36 | CK | MK | K | SDL, | P-REC | F&S | I | |

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| | | | | | REC | | | | |
| CO4,CO6,CO7 | Relate swabhavoparama with concept of nidana parivarjana | CAP | MK | KH | DIS | PRN | F | I | |
| CO1 | Summarize the chapter as per sutra Ch Su 16/39-41 | CK | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 5 Cha.Su.17- Kiyantashiraseeya Adhyaya (Lecture :3 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&GD | INT,TT-Theory,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as doshagati, doshavikalpa, trayodasasannipata | CK | MK | K | L&GD,BS | QZ ,COM,TT-Theory,VV-Viva | F&S | I | |
| CO2,CO3 | Explain importance of shiras. Ch Su 17/12 | CK | MK | K | L&GD | TT-Theory,VV-Viva | F&S | I | |
| CO3,CO4 | Enlist types of siroroga, hridroga and vidradhi | CC | MK | KH | L&GD | SP,TT-Theory | F&S | I | |
| CO3,CO4 | Figure out 62 types of permutation and combination of doshas Ch Su 17/41-44 | CK | DK | K | L&GD,GBL | PUZ,TT-Theory,VV-Viva | F&S | I | |
| CO3,CO4 | Figure out 12 types of vishama sannipata Ch Su 17/45-61 | CK | DK | K | L&GD | M-POS | F&S | I | |
| CO3,CO4,CO6 | Complement knowledge about kshayalaskhana of dosha-dhatumala to the existing understanding (additional important features mentioned in CS) | CK | DK | KH | DIS,FC | TT-Theory,VV-Viva | F&S | I | |
| CO3,CO4 | Interpret dosha-vikalpa (combinations of doshas) in different conditions. Ch.Su. 17/45-61 | CAP | MK | KH | IBL,CBL | P-PS,TT-Theory,VV-Viva | F&S | I | |

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| CO3,CO7 | Complement knowledge of Ojus to the existing understanding (additional important features mentioned in CS) Ch Su 17/73-77 | CC | MK | K | DIS,FC | TT-Theory | F&S | I | H-RN |
| CO3,CO4,CO6 | Outline the samprapti of madhumeha and importance of ojus. Ch Su 17/78-81 | CAP | MK | KH | L&GD | TT-Theory | F&S | I | |
| CO2,CO3,CO4,CO7 | Define the term “gati” and Classify and explain various kinds of gati. Ch.Su 17/112 - 118 Cakrapani | CK | MK | K | L&GD,RP | TT-Theory,VV-Viva | F&S | I | |
| CO2,CO4,CO6 | Interpret asaya apakarsha-gati in relationship with dosha-gati. Ch.Su. 17/45-46 | CC | DK | KH | L&GD | TT-Theory | F&S | I | |
| CO3,CO4,CO7 | Explain kshayahetu Ch.Su. 17/ 76-77 | CC | MK | KH | L&GD | TT-Theory,VV-Viva | F&S | I | |
| CO3,CO4,CO6 | Illustrate dosha-gati in clinical conditions | CAP | MK | KH | CBL,D | P-RP,P-CASE | F&S | I | |
| CO3,CO4 | Explain identification of dosha vriddhi, kshaya, samya Ch.Su. 17/ 62 | CC | MK | KH | L | CL-PR,TT-Theory,VV-Viva | F&S | I | |
| CO1 | Recite sutras Ch Su 17/12, 41-44, 62, 112-118 | CK | MK | K | SDL,REC | P-REC | F&S | I | |
| CO1 | Summarize the chapter as per sutra Ch Su 17/120-121 | CK | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 6 Cha.Su.18-Trisotheeya Adhyaya (Lecture :1 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&GD | INT,TT-Theory,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as trisotha, trividhabodhya sangraha and anukta roga | CC | MK | K | L&PP T | TT-Theory,VV-Viva | F&S | I | |
| CO5 | Name and explain trividha-bodhya-sangraha (three-fold method | CC | MK | K | L&GD | TT-Theory,V | F&S | I | |

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| | for understanding disease – vikara prakriti, samuthana and adhithana) Ca.Su. 18/55, 46-47 | | | | D | V-Viva | | | |
| CO3,CO6 | Illustrate use of trividha-bodhya-sangraha in anuktavyadhi Ch Su 18/44-45 | CAP | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO5 | Outline pradesika sotha (local edema) Ch Su 18/19-36 | CC | DK | K | L&G D,L_ VC | P-ID,TT-Theo ry,VV-Viva | F&S | I | |
| CO3,CO6 | Explain aparisankhyeyatwa of diseases (innumerability) Ch Su 18/42 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3 | Complement tridosha-samanyakarma with additional details mentioned in CS | CC | MK | K | BS,IB L,FC | PRN,TT-Theo ry,VV-Viva | F&S | I | |
| CO1 | Recite sutras Ch Su 42,43,44-47 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1 | Summarize the chapter as per sutra Ch Su 18/54-56 | CK | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 7 Cha.Su.19-Ashtodareeya Adhyaya (Lecture :1 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as nijavyadhi (intrinsic diseases), samanyaja-vyadhi (general diseases) and sankhyasamprapti (enumeration of types of diseases) | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO2,CO3 | Outline the types of diseases (sankhyasamprapti) mentioned in the chapter | CK | DK | K | L&G D,GB L | QZ ,PUZ,TT- Theory,VV- Viva | F&S | I | |

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| CO3,CO4 | Illustrate the importance of tridosha in occurrence of diseases Ch Su 19/5 | CC | MK | KH | DIS,S DL | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO4 | Explain the relationship between Nija and Agatu rogas (intrinsic and extrinsic diseases) Ch Su 19/6,7 | CK | MK | K | L&G D,PL | TT-Theory,V V-Viva | F&S | I | |
| CO6,CO8 | Classify diseases in Ayurveda using available online resources (Activity, ref: activity table) | CAP | DK | KH | DIS,B L | SA,TT-Theory ,VV-Viva | F | I | |
| CO1,CO2 | Recite sutras Ch Su 19/5, 6 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Su 19/8,9 | CK | NK | K | SDL | P-VIVA | F&S | I | |
| CO3,CO6,CO 7 | Summarize different classifications of diseases mentioned in deerghanjeeviteeya, tisraishaneeya, ashtodareeya, maharoga and roganeeka | CC | MK | KH | DIS, W | P-POS | F | I | |
| Topic 8 Cha.Su.20- Maharoga adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms such as agantumukha, trividhaperana, samanyaja-vikara, nanatmaja-vikara and atmarupa | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO3,CO5 | Explain the basis for the classification of diseases. Ch.Su. 20/3 | CK | MK | K | L&G D,ML | M-CHT,TT-T heory,VV- Viva | F&S | I | |
| CO5 | Define nija and agantuja vyadhi. Ch.Su. 20/7 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO5 | Describe kaarana for nija and agantuja vyadhi. Ch.Su. 20/4-5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |

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| CO3,CO5 | Enlist nanatmajavyadhi of vata and relate guna, atmarupa, vikritakarma of vata and its upakrama. Ch.Su. 20/12,13 | CAP | MK | K | L&G D | M-CHT,VV- Viva | F&S | I | |
| CO3,CO5 | Enlist nanatmajavyadhi of pitta and relate guna, atmarupa, vikritakarma of pitta, and its upakrama Ch.Su. 20/14-16 | CAP | MK | K | L&G D | M-CHT,VV- Viva | F&S | I | |
| CO3,CO5 | Enlist nanatmajavyadhi of Kapha and Relate guna, atmarupa, vikritakarma of Kapha and its Upakrama. Ch.Su. 20/17-19 | CAP | MK | K | L&G D | M-CHT,VV- Viva | F&S | I | |
| CO4,CO6,CO 8 | Make monographs of nanatamaja-vikaras (Activity, see activity list) | CAP | DK | KH | TPW, BL | M-CHT,CR- W | F | I | |
| CO3,CO6,CO 7 | Relate paribhasha of different terms in nanatmajavyadhi with descriptions available in Ashatanga sangraha Su 20/18 | CC | DK | KH | DIS | T-OBT | F | I | |
| CO1,CO2 | Recite sutras Ch. Su. 20/ 3, 4, 5, 11,14, 17, 20-22 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Su 20/ 23-25 | CC | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 9 Cha.Su.21- Ashtauninditeeya adhyaya (Lecture :3 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms such as ashtaninditapurusha, ashtadosha of atisthaulya, prasastapurushalakshana | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO2 | Enlist ashtaninditapurusha Ch Su 21/3 | CK | MK | K | L&G D,RP | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Enlist ashtadosha of atisthoola purusha and justify its ashtadosha Ch.Su. 21/4 | CAP | MK | K | L&G D,RP | P-SUR,CL- PR,VV-Viva | F&S | I | |
| CO4,CO5,CO | Outline the diagnostic features of atisthula. Ch.Su.21/9 | CC | MK | K | L&G | TT-Theory,V | F&S | I | |

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|---|--|-----|----|----|--------------------|---------------------------|-----|---|--|
| 7 | | | | | D | V-Viva | | | |
| CO5,CO6,CO7 | Outline hetu and samprapti of atisthauya Ch.Su. 21/4-8 | CAP | DK | K | L&PP T | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Describe chikistasutra for atisthula purusha and mention different formulations. Ch.Su. 21/20- 28 | CAP | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO5,CO6 | Describe hetu, dosha and lakshana for atikrusha purusha. Ch.Su. 21/11-15 | CC | MK | K | L&PP T | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Describe chikistasutra for atikrusha purusha and mention different formulations Ch.Su. 21/20, 29-34 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO6 | Interpret why atisthula purusha is difficult to treat compared to krushapurusha Ch.Su. 21/16-17 | CAP | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO5 | Enlist the features of ideal physique in individuals (prashasta purusha lakshana) Ch.Su. 21/18-19 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO7 | Define nidra and enlist its types Ch Su 21/35&58 | CK | MK | K | L&PP T | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO7 | Determine significance of nidra as an etiological factor of sthauya and karsya and its role in management of the same Ca.Su. 21/51 | CAP | MK | KH | DIS,C BL,F C | CL-PR | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 21/ 3,4,16, 18, 19, 35, 50, 58 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Su 21/60-62 | CC | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 10 Cha.Su.22- Langhanabrimhaneeya Adhyaya (Lecture :3 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |

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| CO2 | Explain basic meaning and importance of key terms such as shadupakrama and dasavidhalanghana | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO2,CO4,CO 5 | Enlist and define shadupakrama. Ch.Su. 22/4, 9-12 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO2,CO5,CO 7 | Explain properties of dravyas used in shadupakrama with examples. Ch.Su. 22/12-17 | CK | MK | K | L&PP T,PB L | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Enlist dasavidha-langhana and their indications Ch.Su. 22/19-23 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO2,CO4,CO 5 | Relate gurvadi guna and samanya visesha sidhanta with shadupakrama Ch Su 22/12-17 | CK | DK | KH | DIS,F C | T-EMI,VV- Viva | F&S | I | |
| CO4,CO5 | Identify dasavidhalanghana in treatment guidelines mentioned for different diseases | CAP | NK | KH | IBL,C BL | T-OBT,VV- Viva | F&S | I | |
| CO4,CO5 | Explain samyaklakshana of langhana, brimhana and sthambhana Ch Su 22/34,35,38,40 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Outline atiyoga and ayogalakshana of brimhana, langhana and sthambhana Ch Su 22/36-38 | CK | DK | K | L&G D,CB L | M-CHT,TT-T heory,VV- Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 21/9-24 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize chapter as per sutra Ch Su 22/44 | CC | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 11 Cha.Su.23- Santarpaneeya Adhyaya (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |

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| CO2 | Explain basic meaning and importance of key terms such as santarpana and apatarpana | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO3,CO5 | Enlist santarpanadravya Ch Su 23/3-5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3 | Enlist santarpanajanyavyadhis Ch Su 23/5-7 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO6 | Explain chikitsa-sutra for santarpana-janya-roga. Ch.Su. 23/ 8 | CAP | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3 | Explain apatarpanajanya vyadhis Ch Su 23/26-29 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO6 | Outline the management approach to apatarpana janya vyadhi Ch Su 23/30-32 | CC | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 23/ 5-7, 26-29 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO2 | Summarize chapter as per sutra Ch Su 23/40 | CC | NK | K | SDL | P-VIVA | F&S | I | |
| Topic 12 Cha.Su.24- Vidhishoniteeya Adhyaya (Lecture :3 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning and importance of key terms such as sonitadushti and visuddharakta | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO3,CO4,CO 7 | Explain causative factors for raktadushti Ch.Su. 24/ 5-10 | CK | MK | K | L&G D | CHK | F&S | I | |

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| CO4,CO6 | Explain diagnostic criteria of raktadushti. Ca.Su. 24/17 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO6,CO 7 | Enlist rakta-dushtijanya-roga. Ch.Su. 24/11-16, 28/11-13 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Explain treatment principles of rakta-dushti. Ch.Su. 24/18. | CC | MK | K | L&G D | INT,VV-Viva | F&S | I | |
| CO3,CO4,CO 7 | Explain visudha-rakta lakshana Ch Su 23/22 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO4,CO 5 | Explain visuddha-rakta-purusha lakshana Ch Su 23/24 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO6,CO 7 | Relate the concept of raktadushti with similar references such as Ch.vi. 5/26 | CC | MK | KH | DIS | T-OBT | F | I | |
| CO4,CO5,CO 7 | Explain pathya in raktamoksha Ch Su 24/23 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5,CO 6 | Summarize the samprapti of mada, murchaya and sanyasa Ch Su 24/25-29 | CAP | DK | KH | L&G D,IBL ,RP | PUZ,TT-Theo ry,VV-Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 24/ 14,18,20,21,22,24 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO2 | Summarise the chapter as per sutra Ch Su 24/59-60 | CC | NK | K | SDL | TT-Theory,V V-Viva | F&S | I | |
| Topic 13 Cha.Su.25- Yajjapurusheeya Adhyaya (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1 | Justify the position of the Yajjapurusheeya chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |

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| CO2 | Explain basic meaning and importance of key terms in the chapter such as Hita, Ahita, Pathya and Apathya | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO4,CO7 | Justify the role of different factors responsible for formation of purusha Ch Su 25/3-29 | CC | DK | KH | L&G D,ML | TT-Theory,V V-Viva | F&S | I | |
| CO1,CO8 | Appreciate importance of sambhasha in bringing out scientific conclusions | AFT- REC | NK | KH | L&G D,RP, PL | SA,TT-Theory ,VV-Viva | F&S | I | |
| CO2,CO3 | Differentiate factors related with ahara like Aharayoni, Prabhava, udarka, Upayoga, Rasa, Gurvadi Guna etc Ch Su 25/36 | CK | MK | KH | L&G D,LS | T-OBT,TT-Th eory,VV-Viva | F&S | I | |
| CO3,CO4,CO 5 | Enlist important agryas related with aushadha, anna and vihara Ch Su 25/38-40 | CK | DK | K | L&G D,FC, GBL | T-OBT,TT-Th eory,VV-Viva | F&S | I | H-DG ,H- RN |
| CO4,CO5,CO 7 | Define pathya and explain its importance Ch Su 25/45-47 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO7,CO 8 | Justify importance of hitahara and ahitahara (See activity list) | CAP | DK | KH | DIS,F C | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO5 | Mention asavayonis Ch Su 25/49 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 25/ 29,31,33,45,46,47,50 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1 | Summarize the chapter with shloka number Ch Su 25/51 | CK | NK | K | SDL | TT-Theory,V V-Viva | F&S | I | |
| Topic 14 Cha.Su.26- Atreyabhadraakaapyeya Adhyaya (Lecture :3 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its | CC | MK | K | L&G | INT,TT-Theor | F&S | I | |

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| | importance | | | | D | y,VV-Viva | | | |
| CO2 | Explain basic meaning and importance of key terms such as dravyaprabhava, gunaprabhava, rasapanchaka and viruddha | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | I | |
| CO2,CO3,CO 5 | Enlist gunas of parthivadi dravyas Ch Su 26/11 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Differentiate dravyaprabhava and gunaprabhava with examples Ch Su 26/13 | CK | MK | KH | L&G D | PUZ,TT-Theo ry,VV-Viva | F&S | I | H-DG |
| CO4,CO5 | Explain dravyakarmukata siddhant with examples Ch Su 26/13 | CK | MK | KH | L&G D,DA | TT-Theory,V V-Viva | F&S | I | H-DG |
| CO4,CO5,CO 6 | Explain the importance of paradi gunas as chikitsopayogi gunas (in diagnosis and treatment). Ch Su 26/29-35 (see activity list, activity no.5) | CK | DK | KH | L&G D,FC, SDL | TT-Theory,V V-Viva | F&S | I | |
| CO2,CO5 | Complement the existing knowledge of 'rasadi panchaka' with additions from Charakasamhita. | CK | DK | K | FC,S DL | T-OBT,TT-Th eory,VV-Viva | F&S | I | |
| CO2,CO5 | Differentiate the properties of three types of 'Vipakas' Ch Su 26/58-63 | CK | MK | K | DIS,F C | TT-Theory,V V-Viva | F&S | I | |
| CO4,CO5 | Explain method of perception of rasa,veerya and vipaka of dravyas Ch Su 26/66 | CC | MK | KH | L&G D,D | DEB,TT-Theo ry,VV-Viva | F&S | I | H-DG |
| CO2,CO4,CO 5 | Enlist the examples of prabhava Ch Su 26/68-70 | CK | MK | K | L&G D,ED U,SD L | TT-Theory,V V-Viva | F&S | I | H-DG |
| CO4,CO5,CO 7 | Enlist the types of viruddhaahara and principles of management of diseases caused by viruddhaahara. Ch Su 26/86, 104-105 | CK | MK | K | L&G D,BL, | P-PS,TT-Theo ry,VV-Viva | F&S | II | |

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| CO4,CO5 | Illustrate vichitra-pratyayarabdha with examples Ch Su 26/48-52 | CAP | MK | KH | DIS,I BL | P-ID,TT-Theo ry,VV-Viva | F&S | II | |
| CO1,CO2 | Recite the shlokas Ch Su 26/13,36,37,61,62,66,81,85 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO4,CO5 | Relate different sidhantas on dravya mentioned in Ch.Su1, Ch Su 4, Ch Su 27 and Ch Vi 1 | CC | MK | KH | DIS,F C | CL-PR | F | I | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Su 26/107-113 | CK | NK | K | SDL | TT-Theory,V V-Viva | F&S | II | |
| Topic 15 Cha.Su.27- Annapaana vidhi Adhyaya (Lecture :4 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2,CO5,CO 7 | Enlist the characteristics of hitahara and examples of hitaahara and ahitaahara. Ch Vi 27/3 | CK | MK | K | SDL | P-VIVA | F&S | I | |
| CO2,CO5,CO 7 | Classify ahara into different vargas Ch Su 27/26 | CK | MK | K | FC,S DL | P-VIVA | F&S | I | |
| CO4,CO5,CO 7 | Illustrate ahara-dravya through exhibition (See activity list, activity no.7) | CS | DK | SH | PrBL, RLE | Log book,TR | F | I | |
| CO1,CO2 | Summarise the chapter as per Ch Su 27/351-352 | CC | NK | K | SDL | TT-Theory,V V-Viva | F&S | I | |
| Topic 16 Cha.Su.28- Vividhashitapeeteeya Adhyaya (Lecture :4 hours, Non lecture: 14 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | I | |
| CO2 | Explain basic meaning of key terms in the chapter such as | CK | MK | K | L&G | QZ ,COM,TT- | F&S | I | |

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| | chaturvidha ahara, vyadhisaha sareera, dhatu-upadhatu-mala-indriya-pradoshajavyadhi | | | | D,BS | Theory,VV-Viva | | | |
| CO2,CO7 | Enlist the four types of aahara Ch Su 28/3 | CK | MK | K | L&G D,ML | M-CHT,VV-Viva | F&S | I | |
| CO2,CO7 | Explain factors influencing susceptibility to diseases which modify the effects of pathya and apathya Ch Su 27/7 | CK | MK | KH | L&G D,SD L | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO7 | Enlist the vyadhi- asaha shareera Ch Su 27/7 | CK | MK | KH | L&G D,IBL | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO4,CO5,CO7 | Outline dhatu-upadhatu-mala-indriya pradoshaja vyadhi (diseases caused by doshas situated in different dhatus, upadhatu, malas and indriyas) explain their treatment principles Ch Su 27/9-30 | CC | MK | KH | L&G D,IBL ,LS | T-OBT,M-CH T,TT-Theory, VV-Viva | F&S | I | |
| CO3,CO4,CO7 | Explain mechanism koshtagati and sakhagati Ch Su 27/31-33 | CC | MK | KH | L&G D,FC | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO7 | Emphasize the role of Prajnaparadha in causation of diseases Ch Su 27/39-40 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | I | |
| CO1,CO2 | Recite sutras Ch Su 27/9-19,35-39, 45 | CK | MK | K | SDL, REC | P-REC | F&S | I | |
| CO1,CO2 | Summarize the chapter as per Ch Su 28/45-48 | CK | NK | K | SDL | T-OBT,TT-Theory,VV-Viva | F&S | I | |
| CO3,CO6 | Relate dhatupradoshaja vyadhi with explanations in other contexts such as Ch.vi. 5/ 10-22, Ch.Su. 28/ 09- 19, Ch.Vi. 5/8 and dhatugatha avastha described in Ashtangasangraha Sutasthana | CC | DK | KH | DIS,B S | CL-PR | F | I | |

Topic 17 Cha.Su.29- Dashapraanaayataneeya Adhyaya (Lecture :2 hours, Non lecture: 2 hours)

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| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as pranaayatan, praanabhisara, rogaabhisara, chadmachara, yogya chikitsak, karma kovidah. | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO3,CO 7 | Enlist dasha praanayatanas. Ch Su 29/3,4 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO8 | Enlist two types of bhishak. Ch Su 29/5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO8 | Explain the qualities of pranaabhisar, rogabhisara and bhishakchadmacahara Ch Su 29/7 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO8 | Appreciate the social hazards caused due to quackery | AFT- REC | DK | KH | BS,S DL | CR-W,VV- Viva | F&S | II | |
| CO8 | Enlist qualities of yogya chikitsak Ch Su 29/ 13. | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO8 | Illustrate characteristics of different types of vaidya through skit (see activity no.8) | PSY- SET | DK | SH | RP,F V | PRN | F | II | |
| CO1,CO2 | Recite sutras Ch Su 29/3,4,13. | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutra Ch. Su 29/14 | CK | MK | K | SDL | T-OBT,TT-Th eory,VV-Viva | F&S | II | |
| CO8 | Relate different references related to good qualities of Vaidya from different chapters Ch Su 11/50-53 | CC | MK | KH | FC | CL-PR,DEB | F | II | |

| Topic 18 Cha.Su.30- Arthedashamahamooleeya Adhyaya (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
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| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as artha, mahamula, mahaphala, shashwatatva | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 7 | Explain the importance of hrudaya. Ch Su 30/3,4,5,6,7 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Relate concept of hridaya with details given in trimarmeeya, sareerasthana etc. | CK | MK | KH | L&G D,FC | T-OBT | F | II | |
| CO3,CO4,CO 7 | Explain the importance of ojas and its sthana Ch Su 30/8-12. | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 7 | Define terms dhamani, srotas, sira. Ch Su 30/12 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 7 | Explain shresthatama bhava Ch Su 30/15 | CK | NK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO5,CO 8 | Explain Ayurvedavid lakshana and their method of understanding in the form of vakyashah, vakarthashah, arthavayavashah Ch Su 30/16 | CK | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 7 | Outline lakshana of sukhayu, asukhayu, hitayu and ahitayu Ch Su 30/24, 25 | CK | DK | KH | L&G D,IBL | PUZ,TT-Theo ry,VV-Viva | F&S | II | |
| CO3,CO4 | Define objective (prayojana) of Ayurveda Ch Su 30/26 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO5,CO 8 | Appreciate eternity of Ayurveda Ch Su 30/27 | CC | MK | KH | L&G D,BS | TT-Theory,V V-Viva | F&S | II | |

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| CO3,CO4,CO7,CO8 | Explain qualities of learner of Ayurveda and their objectives. Ch Su 30/29 | CC | DK | K | L&GD | TT-Theory,VV-Viva | F&S | II | |
| CO3,CO4,CO7 | Enlist dashaprakaran of tantraartha. Ch Su 30/32. | CK | MK | KH | L,L&GD | P-VIVA,TT-Theory,VV-Viva | F&S | II | |
| CO3,CO4 | Outline the ashtasthanas of Charaka Samhita Ch Su 30/32 | CK | MK | K | L&GD | TT-Theory,PP-Practical,VV-Viva | F&S | II | |
| CO3,CO4,CO6 | Enlist paryayas of Ayurveda. Ch Su 30/31 | CK | MK | K | L&GD | TT-Theory,PP-Practical,VV-Viva | F&S | II | |
| CO4,CO5 | Explain characteristics of pallavagrahi bhishak or consequences of incomplete knowledge with examples Ch Su 30/72-81. | CK | DK | K | L&GD | TT-Theory,PP-Practical,VV-Viva | F&S | II | |
| CO3,CO5,CO8 | Appreciate importance of Shastra jnana Ch Su 30/84-85 | AFT-VAL | DK | KH | L&GD,BS | VV-Viva | F&S | II | |
| CO1,CO2 | Explain importance of sangraha adhyayas | CC | DK | K | BL,SDL | VV-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Su 30/3,410,11,12. | CK | MK | K | SDL,REC | P-REC | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutras Ch Su 30/86-87 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | II | |
| Topic 19 Cha.Ni.01-Jwara nidana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1 | Describe the sthana adhikarana (objectives) of Nidanasthana Ch.Ni.1/15 | CK | MK | K | L | P-VIVA,TT-Theory | F | II | |

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| CO1 | Justify the position of the chapter in the samhita and its importance | CK | MK | K | L | T-EMI | F | II | |
| CO2 | Explain basic meaning and importance of key terms such as nidanapanchaka and jwara | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO4,CO6,CO 7 | Explain nidanapanchaka with suitable examples. Ch.Ni.1/6-13 | CK | MK | KH | L&G D,FC | P-VIVA,TT- Theory | F&S | II | |
| CO4,CO6 | Differentiate vyadhibodhaka nidana and vyadhi janaka nidana Ch Ni 1/1 Cakrapani commentary | CAN | DK | KH | L&G D,TB L | VV-Viva | F | II | |
| CO2,CO4,CO 6 | Enlist synonyms of nidana (causative factors) and roga (disease) Ch Ni 1/3,5 | CK | MK | KH | L | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Explain the importance of nidanapanchaka Ch.Ni 1/13 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO6 | Explain nidanapanchaka and elaborate nidana (causative factor), purvarupa (premonitory symptoms) lakshana/rupa (symptoms) | CK | MK | KH | L&G D | T- EW | F | II | |
| CO4,CO6,CO 7 | Describe upashaya along with its types in detail Ch Ni 1/10 | CC | MK | SH | L&G D,BS | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Interpret the classification of samprapti (pathogenesis) Ch Ni 1/12 | CK | MK | KH | L&PP T,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Diffrentiate the samanya and vishesha samprapti of disease | CAP | MK | SH | L_VC ,DIS | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4 | Describe the vishesha nidana (specific factors of diseases) prakopa karana (causes of aggravation),samprapti (pathogenesis) | CAP | MK | KH | L&G D | TT-Theory,V V-Viva | F | II | |

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| | and lakshana (symptoms) of jwara (fever) | | | | | | | | |
| CO3,CO6 | Outline vataja, pittaja, kaphaja, samsarga and sannipataja jwara Ch Ni 1/19-30 | CC | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 6 | Describe agantuja jwara nidana (causes factor of exogenous fever) Ch Ni 1/30,31 | CK | MK | KH | L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 5 | Differentiate nava and jeerna jwara chikitsa sutra (line of treatment) Ch Ni 1/36 | CK | MK | K | L,L& GD | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Ni/3,5,7-11,38-40 | CK | MK | K | SDL, REC | P-REC | F | II | |
| CO1,CO2 | Summarize the chapter as per sutras given at the end of the chapter Ch Ni 1/42-44 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 20 Cha.Ni.02-Raktapitta nidana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as pratimargaharana, sadhyasadhyata, raktapitta | CK | MK | KH | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO4,CO 6 | Justify raktapitta paryaya and nirukti Ch Ni 2/5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Outline raktapitta nidana and samprapti (etiology and pathogenesis of raktapitta) | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 6 | Define raktapitta and outline raktapitta purvarupa (premonitory features of raktapitta) upadrava (complication of raktapitta) Ch Ni 2/6,7 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |

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| CO4,CO6 | Relate concept of trividha gati (adha, urdhwa, tiryag) with samprapti of raktapitta Ch Ni 2/8 | CAP | DK | KH | L&G D | T-EMI,TT-Theory,VV-Viva | F&S | II | |
| CO4,CO5,CO7 | Explain concept of pratimargaharana in the context of raktapitta Ch Ni 2/9 | CAP | MK | KH | L&G D,LS | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Illustrate sadhyasadyata of raktapitta Ch Ni 2/9,12-20 | CAP | MK | KH | L&G D,PL | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Outline asadhya lakshana of raktapitta (features of incurable disease) Ch Ni 2/23-26 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Ni/19,27 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO2 | Summarize the chapter as per sutra Ch Ni 2/28,29 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 21 Cha.Ni.03-Gulma nidana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita | CC | MK | K | L&G D | INT,TT-Theory,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as gulma, panchagulma and raktagulma | CK | MK | K | L&G D,BS | QZ ,COM,TT-Theory,VV-Viva | F&S | II | |
| CO2,CO4,CO6 | Demonstrate the prakruti samasamveta and vikruti vishama samaveta siddhanta in the context of gunma Ch.Ni 3/6 | CAP | DK | KH | L&G D,IBL | INT,TT-Theory,VV-Viva | F | II | |
| CO3,CO6 | Mention the importance of gulmasthanana in samprapti Ch Ni 3/7 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO6 | Outline the features of vataja-pittaja-kaphaja and raktaja gulma along with samprapti lakshana (pathogenesis and clinical features) Ch Ni 3/6-11 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |

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| CO3,CO6 | Describe raktaja gulma samprapti, lakshana (pathogenesis and clinical features) Ch Ni 3/13-14 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Outline poorvarupa of gulma Ch Ni 3/15 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO5 | Outline treatment principle of gulma Ch Ni 2/16,17 | CAP | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Summarise the chapter as per sutra Ch Ni 3/18 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 22 Cha.Ni.04-Prameha nidana adhyaya (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as kleda, vikaravighatakara bhava | CK | MK | KH | L&G D,BS | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO4,CO 6 | Describe the concept of kleda and its role in samprapti of prameha Ch Ni 4/6-8 | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO4,CO6,CO 7 | Summarise the sankhyasamprapti of prameha Ch Ni 4/11,25,39 | CK | MK | K | L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Enlist causative factors and samprapi ghatakas in prameha Ch Ni 4/7 | CK | MK | K | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Explore the sootra 'eha khalu nidana-dosha-dooshya vishesahebhyo.....' in the manifestation of diseases Ch Ni 4/4 | CAP | MK | KH | L&G D,BS, CBL | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Relate nidana, dosha, dushya and samprapti of vataja, pittaja and kaphaja prameha Ch Ni 4/5,8,24,36,37 | CC | MK | KH | L&G D,CB | TT-Theory,V V-Viva | F&S | II | |

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| CO2,CO3,CO 6 | Justify the role of samprapti ghatakas in diagnosed cases of prameha | PSY- SET | NK | SH | L&G D,CB L,D_ BED | P-PS,TT-Theo ry,VV-Viva | F&S | II | H-RN |
| CO2,CO4,CO 5 | Outline the chikitsas sutra of prameha Ch Ni 4/49 | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO4,CO6 | Explain sadhyasadhyata of prameha Ch Ni 4/11,27,38 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Describe purvarupa and upadrava of prameha Ch Ni 4/47,48 | CC | MK | K | L_VC ,CBL | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO3,CO7 | Relate predisposing factors of prameha with present day lifestyle | CAP | DK | KH | DIS,F C | VV-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Ni 4/3,4,48,49 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarise the chapter as per sutra Ch Ni 4/53-55 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 23 Cha.Ni.05-Kushta nidana Adhyaya (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as saptadravya, saptakushta | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO4,CO6,CO 7 | Enlist and explain saptadravya of kushta Ch Ni 5/3 | CC | MK | KH | L&G D,CB | TT-Theory,V V-Viva | F&S | II | |

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|--|---|----|----|----|--------------------|---------------------------|-----|----|------|
| | | | | | L | | | | |
| CO2,CO3,CO6 | Explain the role of 'kleda' in the manifestation of kushta Ch Ni 5/3 | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO2,CO3,CO6 | Outline anekarupa of kushta (multiplicity) based on vedana, varna, samsthana and prabhava Ch Ni 5/4 | CC | DK | KH | L_V _VC ,CBL | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO2,CO3,CO6 | Enlist saptakushta with their dosha predominance Ch Ni 5/5 | CK | MK | K | L&G D,BL | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO6 | Outline samanyanidana of kushta Ch Ni 5/6 | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6 | Enlist purvarupa of kushta Ch Ni 5/7 | CC | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO4,CO6 | Outline upadrava of kushta Ch Ni 5/11 | CC | DK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO6 | Explain sadhyasadhyata of kushta Ch Ni 5/9 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Ni 5/3,5 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarise the chapter as per sutra Ch Ni 5/16 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 24 Cha.Ni.06-Shosha nidana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |

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|--|---|-----|----|----|-------------------|-----------------------------------|-----|----|--|
| CO2 | Explain basic meaning and importance of key terms such as chaturvidha ayatana and ekadasarupa | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO3,CO 6 | Explain role of four aetiological factors (chaturvidha-ayatana) in samprapti of shosha. Ch Ni 6/4,6,7(1),8,10 | CC | MK | KH | L&PP T,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Enlist ekadasarupa of shosha Ch Ni 6/14 | CK | MK | K | L&G D,ML | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Outline the purvarupa of sosha Ch Ni 6/13 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 6 | Explain sadhyasadhyata of shosha Ch Ni 6/15,16 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6,CO 7 | Relate concept of dharaneeya adharaneeya vega to the context of shosha nidana | CAP | MK | KH | DIS | CL-PR | F | II | |
| CO3,CO4,CO 7 | Justify the importance of ashtaahara vidhi visesha ayatana in the context of prevention of shosha | CAP | MK | KH | DIS,F C | CL-PR | F | II | |
| CO1,CO2 | Recite sutras Ch Ni 6/3,5,7,9,11,14 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarise the chapter as per sutra Ch 6/17 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 25 Cha.Ni.07-Unmada nidana Adhyaya (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance` | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as ashtavibhrama, doshonmada and bhutonmada | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |

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|-----------------|---|-----|----|----|-------------------|----------------------------------|-----|----|--|
| CO2,CO3,CO6 | Define unmada and enlist ashtavibhrama Ch N 7/5 | CK | MK | K | L&G D | QZ ,TT-Theor y,VV-Viva | F&S | II | |
| CO2,CO3,CO6 | Illustrate ashtavibhrama in different types of unmada | CAP | NK | KH | L_VC ,CBL | TT-Theory,V V-Viva | F | II | |
| CO4,CO6,CO7 | Explain sankhyasamprapti of unmada Ch Ni 7/3 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO6,CO7 | Interpret unmada abhimukha karana (predisposing factors for unmada) in the contemporary scenario Ch Ni 7/3-4 | CC | DK | KH | L_VC ,CBL | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO6 | Interpret the role of prajnaparadha as an important etiological factor in the background of unmada Ca.Ni. 7/19-22 | CC | DK | KH | L&G D,L_ VC | CR-RED,TT- Theory,VV- Viva | F&S | II | |
| CO4,CO6,CO7 | Summarise different descriptions of concept of prajnaparadha as aetiological factor Ch Su 8, 11, Ch Vi Ch Sa 1, Ch Vi 3 | CC | MK | KH | DIS,F C | PRN | F | II | |
| CO2,CO3,CO6 | Outline the purvarupa of unmada Ch Ni 7/6 | CC | DK | K | L_VC ,CBL | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO5 | Explain chikitsasutra of unmada Ch Ni 7/8,9 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO4,CO6 | Differentiate doshonamda and bhutonmada Ch Ni 7/10-11 | CC | DK | KH | L&PP T | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO6 | Summarize causes, features purpose (prayojana) and treatment of agantu unmada Ch Ni 7/12-17 | CK | DK | K | L&PP T | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Recite sutras Ch Ni 7/ 3,5,19-22 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarise the chapter based on Sutra Ch Ni 7/24 | CK | NK | K | SDL | T-OBT | F&S | II | |

| Topic 26 Cha.Ni.08-Apasmara nidana adhyaya (Lecture :2 hours, Non lecture: 4 hours) | | | | | | | | | |
|--|--|----|----|----|----------------------------|-----------------------------------|-----|----|------|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as nidanarthakara roga, vyadhisankara, tiryaggata dosha | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO4,CO 6 | Define apasmara Ch Ni 8/5 | CK | MK | K | L,L& PPT | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Explain apasmaraabhimukhakarana (predisposing factors of apasmara) Ch Ni 8/4 | CK | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Outline visesha-lakshana of apasmara Ch Vi 8/8 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Explain cikitsasutra of apasmara Ch Ni 8/10 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Explain nidanarthakara roga Ch Ni 8/16-19 | CC | MK | KH | L&G D,L_ VC,C BL | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 6 | Explain vyadhisankara Ch Ni 8/21-22 | CC | MK | KH | L&PP T,L_ VC,C BL | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO2,CO4,CO 5 | Differentiate sudha and asuddha chikitsa Ch Ni 8/23 | CC | MK | KH | L&G D,BS, CBL | TT-Theory,V V-Viva | F&S | II | |

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|--|--|-------------|----|----|-----------------------------|----------------------------|-----|-----|------|
| CO2,CO4,CO6 | Define and relate different types of sadhyasadhya Ch Ni 8/33-35 | CC | MK | KH | DIS,P BL,C BL,P ER | TT-Theory,V V-Viva | F&S | II | H-RN |
| CO2,CO4,CO5 | Describe tiryagatadosha - cikitsasutra Ch Ni 8/36-39 | CK | MK | K | L&G D | TT-Theory | F&S | II | |
| CO6,CO8 | Document experiences of physicians on nidanarthakara roga (Activity no.9) | PSY- SET | DK | KH | DIS,T PW | C-INT | F | II | |
| CO4,CO6,CO7 | Summarise the information gathered from Nidanasthana through Quiz (activity no.10) | CAP | DK | KH | FC,D | QZ | F | II | |
| CO1,CO2 | Recite sutras Ch Ni 8/3, 5, 16-22, 33-35,36-39 | CK | MK | K | SDL, REC | P-REC | F&S | II | |
| CO1,CO2 | Summarise the chapter based on sutra 42-44 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 27 Cha.Vi.01- Rasa vimana Adhyayam (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Explain sthana adhikarana of (objectives) of Vimanasthana Ch Vi 1/3 | CK | MK | K | L&G D,LS | CR-W,TT-The ory,VV-Viva | F&S | III | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO4 | Explain basic meaning and importance of key terms such as prakritisama samaveta, vikirti vishama samaveta, ahara vidhi visesha ayatana, satmya | CK | MK | K | DIS,P rBL | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO4 | Explain the prakrutisamasamavet and vikrutivishamasamavet siddhanta with suitable examples. Ch Vi 1/9,10 | CK | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | H-DG |
| CO2,CO4,CO5 | Explain chaturvidha prabhava(rasa-dravya-dosh-vikara prabhava) with examples Ch Vi 1/12 | CK | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | H-DG |

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|--|--|-----|----|----|------------------|---------------------------------|-----|-----|------|
| CO2,CO4 | Describe the dravyaprabhava in taila,ghrita and madhu with the help of 'samanya vishesha siddhanta' Ch Vi 1/14 | CC | MK | KH | L&G D,BL | DEB,TT-Theo ry,VV-Viva | F&S | III | |
| CO2,CO5,CO 7 | Explain the dravyas which should be avoided for regular consumption Ch Vi 1/15-19 | CC | MK | KH | L&G D,RL E | M-CHT,TT-T heory,VV- Viva | F&S | III | |
| CO2,CO4,CO 7 | Explain satmya and its types Ch Vi 1/20 | CC | MK | KH | L&G D,BS | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Summarize ashta aharavidhivisheshayatana and its role in preservation of health. Ch Vi 1/20-23 | CK | MK | K | L&G D,PS M | DEB,TT-Theo ry,VV-Viva | F&S | III | H-SW |
| CO2,CO4,CO 7 | Relate concept of satmya with satmyapareeksha Ch.Vi 8 | CC | MK | KH | DIS | CL-PR | F | III | |
| CO2,CO7 | Explain aharavidhi vidhana and bhojya sadgunya Ch Vi 1/24,25 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | H-SW |
| CO3,CO7 | Appreciate the importance of popularizing importance of dietary rules (see activity list) | CAP | DK | KH | PrBL | Log book | F | III | |
| CO4,CO5 | Differentiate and apply samanagunadravya and samanagunabhuyishtadravya Ca Vi 1/7 | CAP | NK | KH | DIS | CL-PR | F | III | |
| CO1,CO2 | Recite sutras Ch Vi 1/9,10,20,24 | CK | MK | K | SDL, REC | P-VIVA,TT- Theory | F&S | III | |
| CO1,CO2 | Summarize the chapter based on sutra Ch Vi 1/27,28 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 28 Cha.Vi.02-Trividha kuksheeya Adhyayam (Lecture :2 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |

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|-----------------|---|-----|----|----|---------------------------|-----------------------------------|-----|-----|--|
| CO2 | Explain basic meaning of key terms such as trividha kukshi, matra-amatra ahara, amadosha, amavisha | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | III | |
| CO2,CO4,CO 7 | Explain aharamatra based on trividha kukshi Ch Vi 2/3 | CC | MK | KH | L&G D,IBL | C-INT,TT-The ory,VV-Viva | F&S | III | |
| CO2,CO7 | Explain the matrvat ahara (ideal quantity of food) and amatrvatwa of ahara with its types Ch Vi 2/6 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO4,CO7 | Justify effects of heenamatra and atimatra ahara Ch Vi 2/7 | CAP | MK | KH | L&G D,PB L,FC | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Enlist and explain the mental factors affecting digestion of food Ch Vi 2/8 | CC | MK | KH | L_V C ,EDU | TT-Theory,V V-Viva | F&S | III | |
| CO4,CO5 | Outline hetu, linga and aushadha of two types of amadosha Ch Vi 2/10-13 | CC | MK | KH | L&PP T,CB L,PE R | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Explain the concept of amavisha Ch Vi 2/12 | CC | MK | KH | L&G D,CB L | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3,CO 4 | Define amasaya with reference to its position Ch Vi 2/17 | CK | MK | K | L&G D,D- M | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Recite sutras Ch Vi 2/9 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | III | |
| CO2 | Summarize the chapter based on sutra Ch Vi 2/19 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |

| Topic 29 Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
|---|---|-----|----|----|-------------------------|-----------------------------------|-----|-----|--|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms like janapadodhwamsa, daiva and purushakara | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | III | |
| CO2,CO5 | Justify the importance of timely collection of medicines Ch Vi 3/4 | CAP | DK | K | L&G D,BS | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Enlist the common causes of janapadodhwamsa Ch Vi 3/6 | CC | MK | KH | L&G D,BS, FC | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Describe the lakshanas of dushti of vayu, jala, desha and kala. Ch Vi 3/7 | CC | MK | KH | L_V C ,PBL, RP | TT-Theory,V V-Viva | F&S | III | |
| CO4,CO7 | Interpret janapadodhwamsa in contemporary epidemiology (see also activity list) | CAP | NK | KH | DIS,B S,PBL ,FV | Log book,VV- Viva | F&S | III | |
| CO2,CO5 | Summarize the treatment principles of janapadodhwamsakara vikaras Ch Vi 3/12-18 | CK | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Explain the role of adharma in janapadodhwamsa Ch Vi 3/20 | CC | MK | KH | DIS,B S | DEB,TT- Theory | F&S | III | |
| CO2,CO7 | Outline the concept of Niyat and Aniyat Ayu. Ch Vi 3/28-35 | CC | DK | KH | L&G D,PB L | DEB,TT-Theo ry,VV-Viva | F&S | III | |
| CO3,CO4,CO | Relate concept of daiva and purushakara with references Ca Sha | CC | MK | KH | DIS,F | CL-PR | F | III | |

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| 7 | 2/44. Ca Sh 6/27. | | | | C | | | | |
| CO2,CO4,CO7 | Differentiate daiva and purushakara Ch Vi 3/29-30 | CC | MK | K | L&G D,BS | CR-W,TT-Theory,VV-Viva | F&S | III | |
| CO4,CO5 | Explain hetuviparit chikitsa in jwara Ch Vi 3/39-40 | CC | MK | KH | L&G D,CB L | INT,TT-Theory,VV-Viva | F&S | III | |
| CO4,CO5 | Explain apatarpana and its types. Ch Vi 42-44 | CC | MK | KH | L&G D,CB L | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO7 | Explain concept of desha Ch Vi 3/47-48 | CC | MK | K | L_VC ,DIS, FV | PA,TT-Theory,VV-Viva | F&S | III | |
| CO2,CO4,CO7 | Summarise the term karma with reference to different contexts | CC | MK | KH | DIS,F C | PRN | F | III | |
| CO1,CO2 | Recite sutras Ch Vi 3/6,10 | CK | MK | K | SDL, REC | P-REC,TT-Theory | F&S | III | |
| CO1,CO2 | Summarize the chapter based on sutra Ch Vi 3/49-52 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 30 Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theory,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as trividha roga visesha vijnana | CK | MK | K | L&G D | QZ ,COM,TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Explain the application of aptopadesha, pratyaksha and anumana | CC | MK | KH | L,CB | P-PS,TT-Theo | F&S | III | H-RN |

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| | in clinical examination. Ch Vi 4/3-8 | | | | L | ry,VV-Viva | | | |
| CO2 | Recite sutra Ch Vi 4/4,12 | CK | MK | K | SDL, REC | P-VIVA,P- REC | F&S | III | |
| CO1,CO2 | Summarise the chapter as per sutra no. Ch Vi. 4/13-14 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 31 Cha.Vi. 05- Sroto vimana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as srotas, srotodushti | CK | MK | K | L | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Explain importance of srotas Ch Vi 5/3-4 | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | III | |
| CO2 | Enlist the types of srotas Ch Vi 5/7 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3 | Explain types and general causative factors of srotodushti Ch Vi 5/23,24 | CK | MK | K | L&G D | T-OBT,TT-Th eory,VV-Viva | F&S | III | H-RN |
| CO4,CO5 | Explain hetu, lakshan and chikitsa of specific srotodushti Ch Vi 5/8, 10-22, 26-28 | CK | MK | K | L&G D,CB L | TT-Theory,V V-Viva | F&S | III | H-RN |
| CO1,CO2 | Recite sutras Ch Vi 5/3,4,7,9-27 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | III | |
| CO1,CO2 | Summarize the chapter based on Ch Vi5/28-30 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |

| Topic 32 Cha.Vi. 06-Roganika vimana adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |
|---|--|----|----|----|-------------|----------------------------|-----|-----|------|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as rogameeka, anubandhya, anubandhy | CK | MK | K | L | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO3 | Enlist the types of diseases based on prabhav, bala, adhishtana, nimmitta, ashay. Ch Vi 6/3 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | H-RN |
| CO2 | Explain the rationale behind classification of diseases. Ch Vi 6/4 | CC | MK | KH | L&G D,BS | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO3 | Enlist the diseases caused by shareera and manas doshas.Explain the relation between shareera and manasa doshas. Ch Vi 6/6-9 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3 | Explain anubandhya and anubandha doshas Ch.Vi6/11 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3,CO 7 | Explain four types of agni. Ch Vi 6/12 | CK | MK | K | L&G D,PL | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO7 | Enlist types of shareera prakruti Ch Vi 6/13 | CK | MK | K | L&G D | P-ID,TT-Theo ry,VV-Viva | F&S | III | |
| CO2,CO7 | Summarize the treatment principles of Prakrutika doshas (Vatala ,Pittal,Shlemal Prakrutis) Ch Vi 6/14-18 | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Enlist qualities of Rajavaidya Ch Vi 6/19 | CK | MK | K | L,RP | P-RP,VV- Viva | F&S | III | |
| CO1 | Summarize the chapter based on sutras Ch Vi 6/42-44 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 33 Cha.Vi. 07- Vyadhita rupeeeya vimana Adhyaya (Lecture :2 hours, Non lecture: 2 hours) | | | | | | | | | |

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| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theory, VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as dviddah vyadhita prurusha | CK | MK | K | L | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3 | Explain two types of vyadhita purusha (guru vyadhita and laghu vyadhita) Ch Vi 7/3,4 | CC | MK | KH | L,RP | TT-Theory,V V-Viva | F&S | III | H-RN |
| CO2,CO8 | Explain two types of vaidya (jnani and ajnani) Ch Vi 7/4 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3,CO4,CO5 | Enlist the types of krimis (see activity list also) Ch Vi 7/9 | CC | MK | KH | L&G D,FC, EDU | QZ ,PUZ,TT- Theory,VV- Viva | F&S | III | H-RN |
| CO4,CO5 | Explain the trividha chikitsa Ch Vi 7/14 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2 | Recite sutra Ch Vi 7/28 | CK | MK | K | REC | VV-Viva | F&S | III | |
| CO1,CO2 | Summarize the chapter with the help of Slokas 31 and 32 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 34 Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam. (Lecture :5 hours, Non lecture: 11 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theory, VV-Viva | F&S | III | |
| CO1,CO2,CO4 | Explain the basic meaning and importance of sastrapareeksha, trividha upaya, tadvidyasambhasha, karya abhiivritti ghataka, dasavidha pareekshyabhava, dasavidha atura pareeksha | CC | MK | K | L | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Explain shashtrapareeksha. Ch Vi 8/3 | CC | MK | K | L&G D,BL | DEB,TT-Theo- ry,VV-Viva | F&S | III | |

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| CO2 | Enlist the three means of knowledge (trividha upaya). Ch Vi 8/6 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2 | Explain the adhyayan and adhyapana vidhi. (also see activity list) Ch Vi 8/7,8 | CK | MK | K | L,W | SA,VV-Viva | F&S | III | |
| CO1,CO2 | Outline sambhashavidhi C Vi 8/16-18 | CK | DK | KH | L&G D,ED U | DEB,TT-Theo ry,VV-Viva | F&S | III | |
| CO1 | Describe three types of parishat Ch Vi 8/19,20 | CK | DK | K | L,RP, SDL | P-RP,VV- Viva | F&S | III | |
| CO1,CO2 | Enlist vadamarga padani Ch Vi 8/27 | CK | DK | K | L,FC | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Explain dashavidha pareekshya bhavas. Ch Vi 8/68-77, 84 | CK | MK | K | L&G D,BL | QZ ,TT-Theor y,VV-Viva | F&S | III | |
| CO3,CO4,CO 6,CO7 | Explain dhatusamya pareeksha Ch Vi 8/89 | CC | MK | KH | L,DIS | CHK,TT-Theo ry,VV-Viva | F&S | III | |
| CO1,CO2,CO 6 | Explain dashavidha aturapareeksha. Ch Vi 8/94 -123 | CC | MK | KH | L&G D,CB L | PUZ,TT-Theo ry,VV-Viva | F&S | III | H-RN |
| CO1,CO2 | Recite the sutras Ch Vi. 8/ 3,6 68-78. | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | III | |
| CO1,CO2 | Summarize the chapter with the help of shlokas 52-56 | CC | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 35 Cha.Sha.01-Katithapurushheya Adhyaya (Lecture :2 hours, Non lecture: 3 hours) | | | | | | | | | |
| CO1,CO2 | Describe the sthana adhikarana (objectives) of sharirasthana Cha.Sha 8/69 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |

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| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms purusha, mana, atma, yoga and moksha | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO4 | Define ekadhatupurusha, shaddhatvatmak purush, chaturvimashataika purusha and rashi purusha, Ca Sha 1/16, 17, 35 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 4 | Explain lakshana, guna, vishaya and karma of manas and its role in jnanotpatti krama Ca Sha 1/ 18-24 | CC | MK | K | L&G D,FC | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4 | Enlist ashtaprakruti and shodasha vikara. Ca Sha 1/63-64 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4 | Explain srustiutpatti krama and pralaya Ca Sha 1/ 66-69 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO 7 | Identify atmalinga as basic features of living organism Ca Sha 1/70-74 | CC | MK | K | DIS,F C | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO5 | Explain naishtiki chikitsa Ca Sha 1/86-94 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO7 | Explain dukhahetavah (causes of misery) Ca Sha 1/98 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 4,CO7 | Outline asatmyendriyarthasamyoga as a cause of diseases Ca Sha 1/118-128. | CC | MK | KH | L&G D,FC | DEB,TT-Theo ry,VV-Viva | F&S | II | |
| CO2,CO4,CO | Define and explain prajnaaparadha, with terms dhivibhramsha, | CC | MK | KH | L&G | TT-Theory,V | F&S | II | |

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| 7 | dhriti vibhramsha, smriti vibhramsha. Ca Sha 1/99-102. | | | | D | V-Viva | | | |
| CO2,CO4,CO7 | Describe vedana, vedana adhishtana and vedana nivrutti Ca Sha 1/134-137. | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO7 | Define state of Yoga Ca Sha 1/138-141 | CK | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4,CO7 | Outline mokshaprapti upaya. Ca Sha 1/142-146 | CC | DK | KH | L&G D,BS | P-VIVA,TT- Theory | F&S | II | |
| CO1,CO4,CO7 | Explain lakshana of Prashaanta Bhutaatma. Ca Sha 1/155-156 | CK | DK | K | L&G D | VV-Viva | F&S | II | |
| CO2,CO3,CO4,CO7 | Enlist and explain smriti hetu Ch Sha 1/148-149 | CC | MK | KH | L&PP T | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Relate smritihetus with process of learning | CAP | NK | KH | L_VC ,BS | VV-Viva | F | II | |
| CO3,CO8 | Illustrate smritihetus through game (activity no.11) | PSY- SET | DK | SH | EDU, SDL, PSM, GBL | O-GAME | F | II | |
| CO1,CO2 | Recite sutras Cha.Sha.16 -23, 28-30,36, 63, 64,70-74, 98,102,109,137-139, 148,149 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO2 | Summarize the chapter based on sutra Ca. Sha 1/ 156 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |
| Topic 36 Cha.Sha.02-Atulyagothreeyam Adhyaaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Shareerasthana and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |

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|-----------------|--|----|----|---|------------------|-----------------------------------|-----|----|--|
| CO2 | Explain basic meaning and importance of key terms in the chapter atulya-gotra, beeja, dwireta, kliba, prajnaparadha, pratikarma, daiva | CK | DK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO3,CO7 | Enlist prerequisites for conception Ch Sha 2/4 | CK | MK | K | L&G D | QZ ,TT-Theor y,VV-Viva | F&S | II | |
| CO3,CO7 | Summarize the factors affecting conception, foetus Cha Sha 2/6-12 | CK | DK | K | L&G D | QZ ,TT-Theor y,VV-Viva | F&S | II | |
| CO2,CO7 | Enlist shodasa dhatu (16 factors) in the formation of fetus Ch Sha 2/32,33 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Outline features of multiple pregnancies, dwireta (hermaphroditism) and other types of sexual abnormalities Ca sh 2/12-14, 18-21 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Explain lakshanas of sadyogruhit garbhini lakshana. Ca Sha 2/23-27 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Explain ativahika purusha (factors carrying from previous birth to next birth). Ca Sha 2/31-32 | CK | MK | K | L&G D,IBL | CR-W,TT-The ory,VV-Viva | F&S | II | |
| CO3,CO7 | Differentiate daivakara and purushaakara Ca Sha 2/44. | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7,CO 8 | Explain niroga lakshana. Ca sha 1/46-47 | CK | DK | K | L&G D,CB L | CHK,TT-Theo ry,VV-Viva | F | II | |
| CO1,CO2 | Recite sutras Cha.Sha.2/26, 27, 35,44,45-47 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1,CO2 | Summarize thechapter based on Ca Sha 2/48 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |

| Topic 37 Cha.Sha.03-Khuddika garbhavakranti Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
|---|---|-----|----|----|-------------|-----------------------------------|-----|----|--|
| CO1,CO2 | Justify the position of the chapter in the Shareerasthana and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as matrija, pitrija, sattvaja, satmyaja, rasaja, atmaja bhavas, beeja and beejabhaga | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO3,CO7 | Enlist factors responsible for the formation, growth of the embryo Cha Sha 3/3 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO3,CO 7 | Outline the sambhasha parishat on garbha utpatti (formation of embryo) and factors contributed from different agents like satva, satmya etc. Ch Sha 3/4 | CK | DK | K | L&G D | PRN,DEB | F&S | II | |
| CO3,CO7 | Explain matruja, pitruja, atmaja, satmyaja, rasaja, satvaja bhavas of garbha Ch Sha 3/6-14 | CK | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO3,CO 7 | Explain role of beeja-beejabhaga dushti in congenital abnormalities Ch Sha 3/17 | CAP | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Recite sutras no Ch Sha 3/17 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1 | Summarize the chapter based on sutra Ch Sha 3/26-27. | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |
| Topic 38 Cha.Sha.04-Mahatee garbhavakranti Adhyaya (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Shareerasthana and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms such as garbhopaghatakar bhava, manas prakriti. | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |

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| CO3,CO7 | Define garbha Ch. Sha 4/5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Enlist components of shad dhatvaatmak purush Ca Sh 4/6 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Explain functions of atma in the formation of garbha. Ch sha 4/8 | CK | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Outline maasanumasik garbha poshana Ch Sha 4/9-11,20-24 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Explain garbhopaghatakara bhavas. Ch Sh 4/18 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO3,CO7 | Summarize the causes of congenital abnormalities Ch Sha 4/30-32 | CK | MK | K | L&G D | P-POS,TT- Theory | F&S | II | |
| CO3,CO7 | Explain qualities of satva-raja-tama. Cha Sh 4/36 | CK | MK | KH | L&G D | QZ ,TT-Theor y,VV-Viva | F&S | II | |
| CO3,CO7 | Outline features of shodash manasa prakritis (sixteen types of mental constitution). Ch Sha 4/36-40 | CK | DK | KH | L&G D,L_ VC,C BL | PM,TT-Theor y,VV-Viva | F&S | II | |
| CO3,CO6 | Identify some important features of manasaprakriti in individuals (also see activity list) | PSY- SET | NK | SH | CBL, RP,D | P-RP,VV- Viva | F | II | |
| CO1,CO2 | Recite sutras Ch Sha 4/6,36 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutras given at the end of the chapter Ca Sha 4/42-45. | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |

Topic 39 Cha.Sha.05-Purushavichaya Shareera Adhyaya (Lecture :1 hours, Non lecture: 4 hours)

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| CO1,CO2 | Justify the position of the chapter in the Samhita | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain the basic meaning and importance of key terms in the chapter such as lokapurushasamyata, hetwadi panchaka and satya buddhi | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO4,CO 7 | Define loka purusha samya siddhanta Ch Sh. 4/13; 5/3 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4 | Illustrate loka -purusha samya siddhanta with examples Ch Sha 5/5 | CAP | DK | KH | DIS,B S,PER | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO7 | Define and describe satyabuddhi Ch Sh.5/7,16-19 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4 | Enlist and describe hetvadi panchaka Ch Sh.5/8 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO4,CO7 | Illustrate pravritti-nivritti upaya (see activity list) | CAP | DK | KH | D | P-PS,TT-Theo ry,VV-Viva | F | II | |
| CO1,CO2 | Recite sutras Ch Sha 5/ 3, 5, 8,16 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Sh 5/25,26 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |

Topic 40 Cha.Sha.06-Sareeravichaya adhyaya (Lecture :1 hours, Non lecture: 2 hours)

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|---------|---|----|----|---|----------|---------------------------|-----|----|--|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain the basic meaning and importance of key terms in the | CK | MK | K | L&G | QZ ,COM,TT- | F&S | II | |

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| | chapter such as vriddhikara bhava, kala kaala mrityu and param ayu | | | | D,BS | Theory,VV-Viva | | | |
| CO2 | Define shareera Ch. Sh.6/4 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO4 | Apply samanya visesha siddhanta in shareera Ch.Sh.6/11 | CAP | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Describe shareera vrudhikara bhava Ch.Sh.6/12 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Describe bala vrudhikara bhava Ch.Sh.6/13 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Explain ahara parinamakara bhava Ch.Sh.6/14,15 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO7 | Classify shareera-gunas into malarupa and prasadarupa Ch.Sh..6/16,17 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Explain the concept of kala and Akala Mrithyu Ch.Sh 6/28 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2,CO7 | Define parama ayu karanam Ch.Sh 6/30 | CK | DK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO7 | Analyse data related to akala-mrityu (see activity list) | CAP | DK | KH | DIS,I BL,E DU | M-CHT | F | II | |
| CO1,CO2 | Recite the sutra Ch Sha 6/4, 5-11, 12,13, 17, 28, 30 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Sh 6/31-34 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | II | |

| Topic 41 Cha.Sha.07- Sareerasankhya sareera Adhyaya (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
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| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain the basic meaning and importance of key terms in the chapter such as chetanaadishtana, pranayathana, koshtanga, pratyanga, anjali pramana etc. | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2,CO3,CO 7 | Explain paramanu bheda shariram Ch Sha 7/17 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO1,CO2 | Recite sutra Ch Sha 7/17 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | II | |
| CO1,CO2 | Summarize the chapter as per sutra Ch Sha 7/19, 20 | CK | NK | K | SDL | T-OBT | F&S | II | |
| Topic 42 Cha.Sha.08-Jathisutreya Adhyaya (Lecture :1 hours, Non lecture: 12 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | II | |
| CO2 | Explain basic meaning and importance of key terms in the chapter such as jathi, pumsavana, sutikagara etc | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | II | |
| CO2 | Enlist garbha upaghatakara bhava Ch.Su 8/21 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | II | |
| CO2 | Describe the infrastructure of a sutikagaram Ch. Su 8/33 | CK | NK | K | PrBL, SDL | M-MOD,TT- Theory | F&S | II | V-BL |
| CO3,CO8 | Demonstrate garbhopghatakabhava through skit (see activity list) | PSY- SET | DK | KH | ML,R P | QZ ,CHK,VV- Viva | F | II | |
| CO1,CO2 | Summarize the chapter as per the sutra Ch Sha 8/68,69 | CK | NK | K | SDL | T-OBT,VV- | F&S | II | |

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| | | | | | | Viva | | | |
| Topic 43 Cha.In.1-Varnasvariya Indriya Adhyaya (Lecture :1 hours, Non lecture: 1 hours) | | | | | | | | | |
| CO1,CO2 | Describe sthana adhikarana (objectives) of Indriyasthana | CK | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | KH | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as arishta, vikritibheda, varna, swara etc. related to rishta | CK | MK | K | L&G D,BS | QZ ,COM,TT- Theory,VV- Viva | F&S | III | |
| CO2,CO6 | Enlist factors for assessing rishta Ref: Ch. In 1/3 | CK | MK | K | L&G D,BL | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Enlist six types of prakruti bheda. Ch In 1/5 | CK | MK | K | L&G D,ED U | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Enlist vikritibheda (types of vikriti) in the context of rishta Ch In 1/6,7, 17-23 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Explain prakruta and vaikarika varna Ch In 1/8,9 | CK | MK | K | L&G D,ML | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Summarize varnavishayak arishta (rishta related to varna) Ch In 1/9-13 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Explain prakruta and vaikarika swara (normal and abnormal voices) Ch In 1/14 | CK | MK | K | L&G D,ED U | QZ ,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO6 | Summarize swara vishayak arishta (arishta related to voice) Ch In 1/15,24,25 | CC | DK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |

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|---|---|----|----|----|---------|---------------------------|-----|-----|--|
| CO1,CO2 | Summarize the chapter Ch In 1/26 | CC | NK | KH | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 44 Cha.In.2-Pushpitakam Indriya Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the sequence | CK | MK | K | L&GD | INT,TT-Theory,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as niyatarishta, aniyatarishta | CK | MK | K | L&GD,BS | QZ ,COM,TT-Theory,VV-Viva | F&S | III | |
| CO6 | Outline gandhavishayak arishta (prognostic signs identified through smell) Ch In 2/7-16 | CK | DK | K | L&GD | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO3,CO6 | Summarize rasavishayak arishta (prognostic signs related to taste) Ch In 2/17-22 | CK | DK | K | L&GD | TT-Theory,VV-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter Ch In 3/23 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 45 Cha.In.3-Parimarshaneeyam Indriyam Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&GD | INT,TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Enlist Sparshagamy bhava (palpable signs) in arishta Ch In 3/4 | CK | MK | K | L&GD | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Explain Sparshavishayak Arishta lakshna (based on palpation) Ch In 3/5,6 | CK | MK | K | L&GD | TT-Theory,VV-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per the sutras given at the end of the chapter Ch In 3/7 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 46 Cha.In.4-Indriyaneekam Indriya adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |

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|--|---|----|----|----|-------------|---------------------------|-----|-----|--|
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F | III | |
| CO2,CO6 | Explain indriya vishayaka arishta samanya niyama (general rule regarding involvement of indriya) Ch In 4/3-6 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per the sutras given at the end of the chapter Ch In 4/27 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 47 Cha.In.5-Purvarupeeyam Indriyam Adhyaya (Lecture :1 hours, Non lecture: 2 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and its importance | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO6 | Enlist jvara rupa vishayaka poorvaroopiya rishta (rishta based on purvarupa of jvara) Ch In 5/3-5 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO3,CO 4 | Define swapna Ch In 5/41-42 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Enlist and explain swapna bheda (types of swapna) Ch In 5/43 | CC | MK | KH | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Recite sutra Ch In 5/41-43 | CK | MK | K | SDL, REC | P-REC,TT- Theory | F&S | III | |
| CO1,CO2 | Summarise the chapter as per sutra Ch In 5/47 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 48 Cha.In.6-Katamanisharireeyam Indriyam Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita and explain basic meaning and importance of key terms in the chapter | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO3,CO 6 | Outline arishta related to pureesha, mutra and swayathu Ch In 6/11-19 | CC | DK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |

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|--|--|----|----|---|----------|-----------------------|-----|-----|--|
| CO1,CO2 | Summarise the chapter as per sutras given at the end of the chapter Ch In 6/25 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 49 Cha.In.7-Pannarupiyam Indriyam Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter in the Samhita | CK | MK | K | L&G D | INT,TT-Theory,VV-Viva | F&S | III | |
| CO2,CO3,CO6 | Explain basic meaning and importance of chaya, pratichaya and prabha | CC | MK | K | L&G D | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Explain pratichaya vishayaka arishta. Ch In 7/4-6 | CK | MK | K | L&G D | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Explain chaya vikruti arishtas. Ch In 7/4-6 | CK | MK | K | L&G D | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Enlist five types chaya Ch In 7/10-13 | CK | MK | K | L&G D | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO6 | Enlist seven types of prabha Ch In 7/14-15 | CK | MK | K | L&G D | TT-Theory,VV-Viva | F&S | III | |
| CO2,CO3,CO6 | Differentiate chaya and prabha Ch In 7/16-17 | CC | MK | K | L_VC | TT-Theory,VV-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter Ch In 7/32 | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |
| Topic 50 Cha.In.8-Avakshiraseeyam Indriyam Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify position of the chapter in Samhita | CC | MK | K | L&G D | INT,TT-Theory,VV-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per sutra given at the end of the chapter | CK | NK | K | SDL | T-OBT,VV-Viva | F&S | III | |

| Topic 51 Cha.In.9-Yasya shyavanimitiya Indriya Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
|--|---|----|----|---|----------|---------------------------|-----|-----|--|
| CO1 | Justify position of the chapter in Samhita | CK | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2 | Explain basic meaning and importance of key terms such as ashtamaharoga | CC | MK | K | L | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO4,CO 6 | Enlist ashtamaharogas Ch In 9/8-9 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per the sutra given at the end of the chapter Ch In 9/23,24 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 52 Cha.In.10-Sadyomaneeyam Indriya Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify position of the chapter and key terms in the chapter | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO6 | Explain sadyomaneeya arishtas Ch In 10/3-20 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per the sutras given at the end of the chapter Ch In 10/21 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |
| Topic 53 Cha.In.11-Anujyotiyam Indriya Adhyaya (Lecture :1 hours, Non lecture: 0 hours) | | | | | | | | | |
| CO1,CO2 | Justify the position of the chapter and explain key terms such as arishta Ch In 11/29 | CC | MK | K | L&G D | INT,TT-Theor y,VV-Viva | F&S | III | |
| CO2,CO6 | Define arishta Ch In 11/29 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Recite sutra Ch In 11/29 | CK | MK | K | SDL | P-VIVA,TT- Theory | F&S | III | |

| Topic 54 Cha.In.12-Gomayachurniyam Indriya Adhyaya (Lecture :1 hours, Non lecture: 17 hours) | | | | | | | | | |
|---|--|----|----|---|----------|---------------------------|-----|-----|--|
| CO1,CO2 | Justify the position of the chapter and explain key terms such as mumurshu, prasasta duta and mangalika dravya | CC | MK | K | L&G D | INT,TT-Theory, VV-Viva | F&S | III | |
| CO2,CO6 | Summarize mumurshu lakshana Ch In 12/9-25 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO6 | Outline prashasta doota lakshana and mangalika dravya Ch In 12/71-80 | CK | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO2,CO4 | Define arogya in the context of arishta Ch In 12/87 | CC | MK | K | L&G D | TT-Theory,V V-Viva | F&S | III | |
| CO1,CO2 | Summarise the chapter as per sutra given at the end of the chapter Ch In 12/89 | CK | NK | K | SDL | T-OBT,VV- Viva | F&S | III | |

List of Practicals (Term and Hours)

| PRACTICALS (As a part of NLH) | | | |
|--------------------------------------|--|-------------|--------------|
| S.No | List of Topics | Term | Hours |
| 1 | SHLOKA PATHANA- 1 | 1 | 10 |
| 2 | LEARNING THROUGH VYAKHYANA-1 | 1 | 3 |
| 3 | OBSERVING THE PRACTICAL UTILITY OF SNEHANA AND SWEDANA | 1 | 2 |
| 4 | IDENTIFICATION OF BAHUDOSHA LAKSHANA IN PATIENTS | 1 | 2 |
| 5 | ASSESSMENT OF DISEASES BASED ON TRIVIDHA BODHYA SANGRAHA | 1 | 2 |
| 6 | IDENTIFICATION OF ASHTA DOSHA IN STHOULYA | 1 | 2 |
| 7 | CLINICAL OBSERVATIONS ON NIJA AGANTUJA RELATIONSHIP | 1 | 2 |
| 8 | CLINICAL OBSERVATION ON SHADUPAKRAMA | 1 | 2 |
| 9 | ASSESSMENT OF RAKTA DUSHTI KARANA IN SPECIFIC CLINICAL CONDITIONS | 1 | 2 |
| 10 | OBSERVATIONS ON USE OF AGRYA AUSHADHA IN CLINICAL PRACTICE | 1 | 2 |
| 11 | ASSESSMENT OF DHATU-UPADHATU-MALA PRADOSHAJA VIKARAS IN PATIENTS | 1 | 3 |
| 12 | SHLOKA PATHANA- 2 | 2 | 10 |
| 13 | LEARNING THROUGH VYAKHYANA-2 | 2 | 3 |
| 14 | CASE TAKING IN RELATION TO NIDANA PANCHAKA | 2 | 12 |
| 15 | DIFFERENTIAL DIAGNOSIS OF SKIN DISEASES BASED ON GUIDELINES ON KUSHTA | 2 | 2 |
| 16 | PRAMANA PARIKSHA | 2 | 2 |
| 17 | IDENTIFICATION OF VIKARAVIGHATA BHAVA ABHAVA IN PATIENTS | 2 | 2 |
| 18 | EXPLORATION OF LOKA PURUSHA SAMYA VADA IN THE BACKGROUND OF ONE HEALTH | 2 | 2 |
| 19 | SHLOKA PATHANA-3 | 3 | 10 |
| 20 | LEARNING THROUGH VYAKHYANA-3 | 3 | 3 |
| 21 | LEARNING THROUGH SAMBHASHA PARISHAD | 3 | 6 |
| 22 | SROTAS PROFORMA | 3 | 2 |

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|----|--|---|---|
| 23 | LEARNING THROUGH TANTRA YUKTI | 3 | 5 |
| 24 | ASSESSMENT OF HEALTH THROUGH DHATU SAMYA PAREEKSHA | 3 | 2 |
| 25 | AGNI ASSESSMENT BASED ON APACHARA | 3 | 2 |
| 26 | TRIVIDHA ROGA VISHESHAVIJNANA IN DIAGNOSIS | 3 | 3 |
| 27 | ASSESSMENT OF UPASAYA AND ANUPASAYA IN PATIENTS | 3 | 2 |

Table 4: Learning objectives (Practical)

| A4 Course outcome | B4 Learning Objective (At the end of the session, the students should be able to) | C4 Doma in/sub | D4 Must to know / desirable to know / Nice to know | E4 Level Does/ Show s how/ Know s how/ Know | F4 T-L meth od | G4 Assessment (Refer abbreviations) | H4 Form ative/ summ ative | I4 Term | K4 Integr ation |
|---|---|-----------------------------|---|---|--------------------------------|---|--|-------------------|------------------------------|
| Topic 1 SHLOKA PATHANA- 1 | | | | | | | | | |
| CO1,CO2 | Recite the selected slokas in each chapter | CK | MK | K | REC | PP-Practical,V V-Viva | F&S | I | |
| CO1,CO2 | Compile slokas selected for recitation | CK | MK | K | SDL | PP-Practical,V V-Viva | F&S | I | |
| Topic 2 LEARNING THROUGH VYAKHYANA-1 | | | | | | | | | |
| CO1,CO2 | Interpret selected sutras with the help of Ayurveda Deepika Vyakhyana of Carakasamhita | CC | MK | KH | L&G D,DIS ,TBL | PP-Practical,V V-Viva | F&S | I | |
| CO1,CO2 | Prepare narrative summary of vyakhyana for the specified sutras | CAP | MK | KH | SDL | PP-Practical,V V-Viva | F&S | I | |
| CO1,CO2 | Appreciate importance of Vyakhyana in learning Samhita | AFT- REC | MK | KH | D | P-VIVA | F&S | I | |
| Topic 3 OBSERVING THE PRACTICAL UTILITY OF SNEHANA AND SWEDANA | | | | | | | | | |
| CO4,CO5 | Identify and compile experiences of people undergoing sneha- | CAP | MK | KH | SDL, | PP-Practical | F&S | I | V-PC |

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| | sweda | | | | RLE | | | | |
| Topic 4 IDENTIFICATION OF BAHUDOSHA LAKSHANA IN PATIENTS | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Assess Bahudoshalakshana in patients | PSY-SET | MK | SH | CBL,PT | PP-Practical,V V-Viva | F&S | I | |
| CO3,CO4,CO6,CO7 | Appreciate the role and importance of assessing bahudosha lakshana in clinical practice | AFT-REC | MK | SH | CBL,PRA | PP-Practical,V V-Viva | F&S | I | |
| Topic 5 ASSESSMENT OF DISEASES BASED ON TRIVIDHA BODHYA SANGRAHA | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Assess diseases based on trividha-bodhya-sangraha ie. vikaraprakriti(nature of disease), samuthana (causative factors) and adhishtana (site of disease) | PSY-SET | MK | SH | CBL,PRA | PP-Practical,V V-Viva | F&S | I | |
| CO3,CO4,CO6,CO7 | Appreciate role and importance of trividhabodhyasangraha in clinical practice | AFT-REC | MK | SH | CBL,PRA | PP-Practical,V V-Viva | F&S | I | |
| Topic 6 IDENTIFICATION OF ASHTA DOSHA IN STHOULYA | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Assess ashtadosha of atisthoulya in subjects | PSY-SET | MK | SH | CBL,D | TT-Theory,V V-Viva | F&S | I | |
| CO3,CO4,CO6,CO7 | Maintain good communication skills with patients | AFT-RES | MK | SH | CBL,D,PR A | TT-Theory,V V-Viva | F&S | I | |
| Topic 7 CLINICAL OBSERVATIONS ON NIJA AGANTUJA RELATIONSHIP | | | | | | | | | |
| CO3,CO4,CO6,CO8 | Identify relationship between nija and agantu in clinical conditions | PSY-SET | MK | SH | CBL,PT,D | PP-Practical,V V-Viva | F&S | I | |
| CO4,CO8 | Develop good rapport with patients | AFT-VAL | MK | SH | CBL,PT,D | P-VIVA,VV-Viva | F&S | I | |

| Topic 8 CLINICAL OBSERVATION ON SHADUPAKRAMA | | | | | | | | | |
|--|---|---------|----|----|------------------|--------------------------|-----|---|--|
| CO3,CO4,CO5,CO8 | Identify shadupakrama in treatment plans of different diseases | PSY-SET | MK | SH | CBL,PT,D | PP-Practical,V V-Viva | F&S | I | |
| CO5,CO8 | Develop good communications skills in clinics | AFT-REC | MK | SH | CBL,PT,D | PP-Practical,V V-Viva | F&S | I | |
| Topic 9 ASSESSMENT OF RAKTA DUSHTI KARANA IN SPECIFIC CLINICAL CONDITIONS | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Identify raktadushti karanas in patients affected by raktadushti, especially, skin diseases | PSY-SET | MK | SH | CBL,D,PR A | PP-Practical,V V-Viva | F&S | I | |
| CO3,CO4,CO6,CO7 | Develop good communication skills with patients | AFT-REC | MK | SH | CBL,D,PR A | PP-Practical,V V-Viva | F&S | I | |
| Topic 10 OBSERVATIONS ON USE OF AGRYA AUSHADHA IN CLINICAL PRACTICE | | | | | | | | | |
| CO1,CO4,CO5 | Justify use of agraushadhas in common clinical conditions | PSY-MEC | MK | SH | PER | P-VIVA | F&S | I | |
| CO8 | Develop good communication skills | AFT-REC | MK | SH | DIS,PER | P-VIVA | F&S | I | |
| Topic 11 ASSESSMENT OF DHATU-UPADHATU-MALA PRADOSHAJA VIKARAS IN PATIENTS | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Identify dhatu-mala-upadahtu pradoshaja vikaras in patients | PSY-SET | MK | SH | CBL,PT,D_ BED | P-EXAM,VV- Viva | F&S | I | |
| CO3,CO4,CO8 | Develop rapport with patients | AFT-REC | MK | SH | CBL,D_BE D | P-VIVA,VV- Viva | F&S | I | |

| Topic 12 SHLOKA PATHANA- 2 | | | | | | | | | |
|--|--|-------------|----|----|----------------------|------------------|-----|-----|--|
| CO2 | Recite the selected slokas in each chapter | CK | MK | K | REC | P-VIVA | F&S | II | |
| CO2 | Compile slokas selected for recitation | CK | MK | K | TBL, SDL | P-VIVA | F&S | II | |
| Topic 13 LEARNING THROUGH VYAKHYANA-2 | | | | | | | | | |
| CO2 | Interpret selected sutras with the help of Ayurveda Deepika Vyakhyana of Carakasamhita | CAP | MK | KH | L&G D,DIS ,TBL | P-VIVA | F&S | II | |
| CO2 | Prepare narrative summary of vyakhyana for the specified sutras | CAP | MK | KH | DIS,S DL | P-VIVA | F&S | II | |
| CO1,CO2 | Appreciate importance of Vyakhyana in learning Samhita | AFT- REC | MK | KH | D | P-VIVA | F&S | II | |
| Topic 14 CASE TAKING IN RELATION TO NIDANA PANCHAKA | | | | | | | | | |
| CO3,CO4,CO 6,CO7 | Perform case taking based on nidana-panchaka | PSY- SET | MK | SH | CBL, D_BE D | P-VIVA | F&S | II | |
| CO8 | Develop rapport with patients | AFT- REC | MK | SH | CBL, D_BE D | T-EMI,P- VIVA | F&S | II | |
| CO6,CO8 | Develop clinical skills based on Ayurvedic clinical methods | PSY- SET | MK | SH | CBL, D_BE | PP-Practical | F&S | III | |

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| | | | | | D | | | | |
| Topic 15 DIFFERENTIAL DIAGNOSIS OF SKIN DISEASES BASED ON GUIDELINES ON KUSHTA | | | | | | | | | |
| CO4,CO6,CO8 | Assess skin diseases based on Ayurvedic parameters | PSY-SET | MK | SH | CBL, D_BE D | PP-Practical | F&S | II | |
| CO6,CO8 | Develop skills based on Ayurvedic clinical methods | AFT-REC | MK | SH | D_BE D | PP-Practical | F&S | II | |
| Topic 16 PRAMANA PARIKSHA | | | | | | | | | |
| CO3,CO4,CO6,CO7 | Assess physiometry based on pramana-pareeksha mentioned in Ayurveda | PSY-SET | MK | SH | D | VV-Viva | F&S | II | |
| CO8 | Appreciate importance of Ayurvedic methods of measurements | AFT-REC | MK | SH | D | VV-Viva | F&S | II | |
| Topic 17 IDENTIFICATION OF VIKARAVIGHATA BHAVA ABHAVA IN PATIENTS | | | | | | | | | |
| CO2,CO3,CO4,CO6,CO7 | Apply the concept of "vikaravisatabhavabhavapractivisesha" in understanding diseases | CAP | MK | KH | CBL, CD | P-VIVA | F&S | II | |
| CO6 | Perform case taking based on the concept of vikaravighata bhava abhava | PSY-SET | MK | SH | CD,D | P-VIVA | F&S | II | |
| Topic 18 EXPLORATION OF LOKA PURUSHA SAMYA VADA IN THE BACK GROUND OF ONE HEALTH | | | | | | | | | |
| CO4,CO7,CO8 | Apply lokapurusha-samyasidhanta in contemporary life | CAP | MK | KH | DIS,BS,PrBL | VV-Viva | F&S | II | |
| Topic 19 SHLOKA PATHANA-3 | | | | | | | | | |
| CO1,CO2 | Recite the selected slokas in each chapter | CK | MK | K | REC | VV-Viva | F&S | III | |

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|--|--|---------|----|----|-------------|----------------|-----|-----|--|
| CO1,CO2 | Compile slokas selected for recitation | CK | MK | K | SDL | VV-Viva | F&S | III | |
| Topic 20 LEARNING THROUGH VYAKHYANA-3 | | | | | | | | | |
| CO1,CO2 | Interpret selected sutras with the help of Ayurveda Deepika Vyakhyana of Carakasamhita | CAP | MK | KH | L,LS | VV-Viva | F&S | III | |
| CO1,CO2 | Prepare narrative summary of vyakhyana for the specified sutras | CC | MK | KH | SDL | VV-Viva | F&S | III | |
| CO1,CO2 | Appreciate importance of Vyakhyana in learning Samhita | AFT-REC | MK | KH | D | P-VIVA | F&S | III | |
| Topic 21 LEARNING THROUGH SAMHASHA PARISHAD | | | | | | | | | |
| CO1,CO2 | Demonstrate Sambhasha parishat to discuss different topics | PSY-ADT | MK | SH | D | P-VIVA | F&S | III | |
| CO8 | Appreciate the importance of collective thinking in learning Ayurveda | AFT-VAL | MK | SH | DIS,D | P-VIVA | F&S | III | |
| Topic 22 SROTAS PROFORMA | | | | | | | | | |
| CO4,CO6,CO8 | Assess involvement of srotas in clinical conditions | PSY-SET | MK | SH | D_BE D | VV-Viva | F&S | III | |
| CO8 | Develop clinical skills based on Ayurvedic clinical methods | AFT-REC | MK | SH | D_BE D | VV-Viva | F&S | III | |
| Topic 23 LEARNING THROUGH TANTRA YUKTI | | | | | | | | | |
| CO1,CO2,CO4 | Apply tantrayukti and interpret the sutras | CAP | MK | KH | TBL, D | P-VIVA | F&S | III | |
| CO1 | Appreciate the importance of Tantrayukti in interpreting Samhita | CAP | MK | KH | DIS,T BL | P-VIVA,VV-Viva | F&S | III | |

| Topic 24 ASSESSMENT OF HEALTH THROUGH DHATU SAMYA PAREEKSHA | | | | | | | | | |
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| CO3,CO4,CO 6 | Assess health of a person based through dhatu-samya-pareeksha | PSY- SET | MK | SH | CBL, D_BE D | P-VIVA | F&S | III | |
| CO8 | Appreciate health of a person through interaction | AFT- RES | MK | SH | D_BE D | P-VIVA,VV- Viva | F&S | III | |
| Topic 25 AGNI ASSESSMENT BASED ON APACHARA | | | | | | | | | |
| CO3,CO4,CO 7 | Assess agni based on apachara-visesha | PSY- SET | MK | SH | DIS,D _BED | P-VIVA | F&S | III | |
| CO8 | Develop good rapport with patients | AFT- REC | MK | SH | CBL, D_BE D | P-VIVA | F&S | III | |
| Topic 26 TRIVIDHA ROGA VISHESHA VIJNANA IN DIAGNOSIS | | | | | | | | | |
| CO4,CO6,CO 7 | Demonstrate trividha roga visesha vijnana in clinical methods | PSY- SET | MK | SH | DIS,C BL,D | P-VIVA | F&S | III | |
| CO8 | Appreciate the importance of Ayurvedic parameters in clinical methods | AFT- VAL | DK | SH | DIS,C BL,D | P-VIVA | F&S | III | |
| Topic 27 ASSESSMENT OF UPASAYA AND ANUPASAYA IN PATIENTS | | | | | | | | | |
| CO3,CO5,CO 6 | Identify upasaya-anupasaya in patients | PSY- SET | MK | SH | CBL, D_BE D | P-VIVA | F&S | III | |
| CO8 | Appreciate wellness of patients | AFT- REC | DK | SH | D_BE D | P-VIVA | F&S | III | |

Table 4a: List of Practical (As a part of NHL)

| S.No | Name of practical | Term | Activity | Practical hrs |
|------|-------------------|------|---|---------------|
| 1 | SHLOKA PATHANA- 1 | 1 | <p>Purpose: To by heart sutras selected from Charakasamhita</p> <p>Teacher's role: Teachers should instruct the students to by heart the slokas when the respective portions are over. A log book may be kept by the teacher to mark the date and signature to note the satisfactory recitation of the slokas by the students. The performance of students can be considered for formative assessment. During summative assessment, sloka recitation will be a part of practical examination.</p> <p>Students role: To by heart the selected slokas given below and to compile minimum 100 sutras (three terms)</p> <p>Sutras suggested:</p> <ol style="list-style-type: none"> 1. Cha.Su.13- Sneha Adhyaya- 13-17, 22, 57-59 2. Cha.Su.14- Sveda Adhyaya- 4,5,39,40,64 3. Cha.Su.15- Upakalpaneeya Adhyaya – 22 4. Cha.Su.16- Chikitsaprabhritiya Adhyaya - 13-21,27,28,34-36 5. Cha.Su.17- Kiyantashiraseeya Adhyaya- 12, 41-44, 62, 112-118 6. Cha.Su.18-Trisotheeya Adhyaya- 42-43, 44-47 7. Cha.Su.19-Ashtodareeya Adhyaya- 5,6 8. Cha.Su.20- Maharoga adhyaya- 3, 4, 5, 11,14, 17, 20-22 9. Cha.Su.21- Ashtauninditeeya adhyaya- 3,4,16, 18, 19, 35, 50, 58 10. Cha.Su.22- Langhanabrimhaneeya Adhyaya- 9-24 11. Cha.Su.23- Santarpaneeya Adhyaya- 5-7, 26-29 12. Cha.Su.24- Vidhisoniteeya Adhyaya- 14,18,20,21,22,24 13. Cha.Su.25- Yajjapurusheeya Adhyaya- 29,,31,33,45,46,47,50 14. Cha.Su.26- Atreyabhadraakaapeeeya Adhyaya- 13,36,37,61,62,66,81,85,86 15. Cha.Su.27- Annapaanvidhi Adhyaya- 351-352 16. Cha.Su.28- Vividhaasheetapeetiya Adhyaya- 9-19,35-39, 45 | 10 |

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| 2 | LEARNING THROUGH VYAKHYANA-1 | 1 | <p>Purpose: To familiarize and expose the students to the relevant vyakhyana of Charaka Samhita. The following specific portions in the Vyakhyana are selected for this purpose.</p> <ol style="list-style-type: none"> 1. Cha.Su.20- Maharoga adhyaya - 11,16,19 2. Cha.Su.26- Atreyabhadraakaapeeya Adhyaya - 13,29 3. Cha.Su.28- Vividhaasheetapeetiya Adhyaya - 7 <p>Teacher's role: Teachers will teach those sutras along with the commentary and explain the importance of vyakhyana in better understanding of sutras.</p> <p>Students' role: Students will prepare a narrative summary of all the proposed vyakhyanas to highlight their importance in interpreting the sutras. During viva students are asked to interpret the respective sutras along with its vyakhyana.</p> | 3 |
| 3 | OBSERVING THE PRACTICAL UTILITY OF SNEHANA AND SWEDANA | 1 | <p>Purpose: To familiarize commonly available snehayogas and commonly undertaken swedaprayogas. (Ref: Ch Su 13,14)</p> <p>Teacher's role: Make five or six groups and instruct them to enlist available ghruta and taila yoga in hospital pharmacy. Enlist the types of swedana followed in panchakarma theatre in the hospital.</p> <p>Student's role: Student in groups should document the assigned work in a prescribed format and present to all in the class.</p> | 2 |
| 4 | IDENTIFICATION OF BAHUDOSHA LAKSHANA IN PATIENTS | 1 | <p>Purpose: To assess bahudosha lakshana with the help of proforma in patients posted in hospital wards. (Ref: Ch Su 16/13-16)</p> <p>Teacher's role: Teacher should introduce the proforma in the class and guide the students how to furnish the proforma. Teacher may identify patients exhibiting bahudosha lakshana from the ward, those who are posted for Shodhana. Collect the</p> | 2 |

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| | | | <p>proformas duly filled by students and analyze the data and discuss with students.</p> <p>Students' role: Student should interact with given patient and identify the Bahudosha lakshanas available in the patient and document in the proforma (minimum three cases).</p> | |
| 5 | ASSESSMENT OF DISEASES BASED ON TRIVIDHA BODHYA SANGRAHA | 1 | <p>Purpose: To orient students on the use of trividha-bodhya-sangraha (i.e, vikaraprakriti, adhishtana, samuthana) in understanding diseases and thereby enabling them using the unique assessment protocol mentioned in Caraka samhita. (Ref: Ch Su 18/44-47 along with Chakrapani commentary)</p> <p>Teacher's role: Introduce the concept of trividha bodhya sangraha, Introduce the case proforma in the class, demonstrate case taking based on trividha-bodhya-sangraha</p> <p>Students role: Fill up the observations in the proforma during their routine clinical posting (minimum 3 cases).</p> | 2 |
| 6 | IDENTIFICATION OF ASHTA DOSHA IN STHOULYA | 1 | <p>Purpose: To identify prevalence of ashtadosha of sthauilya in individuals (Ref: Ch Su 21/4)</p> <p>Teacher's role: Explain ashtadosha in the class; Introduce the questionnaire to document ashtadosha in individuals; Demonstrate the questionnaire in obese individuals</p> <p>Students role: Students will furnish the questionnaire among five people of different age groups and prepare a report based on the findings of the questionnaire survey.</p> | 2 |
| 7 | CLINICAL OBSERVATIONS ON NIJA AGANTUJA RELATIONSHIP | 1 | <p>Purpose: To explore relationship between nija and agantu diseases (Ref: Ch Su 19/7)</p> <p>Teacher's role: Teacher explains nija-agantu relationship with examples in the class; Demonstrate some cases where disease starts as agantu and advance to nija and vice versa.</p> <p>Students' role: Observe minimum three</p> | 2 |

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| | | | cases in OP/IP and make reports to establish the relationship between nija and agantu. | |
| 8 | CLINICAL OBSERVATION ON SHADUPAKRAMA | 1 | <p>Purpose: To explore application of shadupakrama in therapeutics (Ref Ch Su 22)</p> <p>Teacher's role: After teaching shadupakrama, teachers shall identify some cases in the hospital to demonstrate any one or more upakramas; Try to include cases with varieties of upakrama; Train students to see patients, explore the case sheets and hospital records to find out upakramas adopted to a particular patient.</p> <p>Students' role: Observe minimum three cases from hospital and go through case sheets to identify types of upakrama adopte; Interact with interns, teachers to map the upakramas adopted in each patient; Make reports on type of upakrama, nature of medicines used and effects of upakramas based on the above observations; Document observations in three cases</p> | 2 |
| 9 | ASSESSMENT OF RAKTA DUSHTI KARANA IN SPECIFIC CLINICAL CONDITIONS | 1 | <p>Purpose: To identify raktadushtikaranas in cases where raktadushti is suspected (Ref: Ch Su 24/5-10)</p> <p>Teacher's role: Teach raktadushti karana; Select some cases where raktadushti is suspected; Demonstrate presence of raktadushti karanas in one or two cases; Assign cases to students to identify presence of raktadushtikarana</p> <p>Student's role: Identify presence of raktadushti karanas in three cases with the help of questionnaire provided; Document the observations</p> | 2 |
| 10 | OBSERVATIONS ON USE OF AGRYA AUSHADHA IN CLINICAL PRACTICE | 1 | <p>Purpose: To justify the importance of agryoushadha in clinical practice (Ref: Ch Su 25/38-40)</p> <p>Teacher's role: Identify some important agryoushadhas from the list given in Annapanachatushka; Divide the whole class into five or six groups and assign</p> | 2 |

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| | | | <p>each group with two or three agrya aushadhas</p> <p>Students role: Make monographs of agryoushadha; Interact with practitioners and collect details of use of these aushadhas in routine practice; Document the observations in the record book.</p> | |
| 11 | ASSESSMENT OF DHATU-UPADHATU-MALA PRADOSHAJA VIKARAS IN PATIENTS | 1 | <p>Purpose: To identify dhatu-upadhatu-mala pradoshaja vikaras in selected cases. (Ref Ch Su 27/9-22)</p> <p>Teacher's role: Demonstrate the proforma in a few cases.</p> <p>Students' role: Make five case sheets reporting the findings of the assessment.</p> | 3 |
| 12 | SHLOKA PATHANA- 2 | 2 | <p>See Practical.1 for instructions</p> <p>Sutras suggested:</p> <ol style="list-style-type: none"> 1. Cha.Su.30- Arthedashamahamooleeyam Adhyaya - 3,4,10,11,12 2. Cha.Ni.01-Jwara nidana Adhyaya- 3,5,7,8,9,10,11,38-40 3. Cha.Ni.02-Raktapitta nidana Adhyaya- 19,27 4. Cha.Ni.04-Prameha nidana adhyaya- 3, 4, 48-49 5. Cha.Ni.05- Kushta nidana Adhyaya- 3,4,5,8 6. Cha.Ni.06-Shosha nidana Adhyaya- 3, 5,7,9,11,14 7. Cha.Ni.07- Unmada nidana Adhyaya- 5,19-22 8. Cha.Ni.08- Apasmara nidana adhyaya- 3,5,17-22, 33-35,37-39 9. Cha.Sha.1-Katithapurushheeya Adhyaya- 16-23, 28-30,36, 63, 64,70-74, 98,102,109,137-139, 148,149 10. Cha.Sha.02-Atulyagothreeyam Adhyaaya- 26, 27, 35,44,45-47 11. Cha.Sha.03-Khuddika garbhavakranti Adhyaya- 17 12. Cha.Sha.04-Mahatee garbhavakranti Adhyaya- 6,36 13. Cha.Sha.05-Purushavichaya Shareera Adhyaya- 3, 5, 8,16 | 10 |

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| | | | 14. Cha.Sha.06-Sareeravichaya adhyaya-4, 5-11, 12,13, 17, 28, 30 15. Cha.Sha.07- Sareerasankhya sareera Adhyaya | |
| 13 | LEARNING THROUGH VYAKHYANA-2 | 2 | See Practical No.2 for instructions Suggested sutras: 1. Cha.Ni. 4-Prameha nidana adhyaya -4 2. Cha.Sha.1-Katithapurushheya Adhyaya-21 3. Cha.Sha. 6- Sareeravichaya adhyaya -9-11 | 3 |
| 14 | CASE TAKING IN RELATION TO NIDANA PANCHAKA | 2 | Purpose: To map the disease process through nidana-panchaka (Ref: Ch Ni 1) Teacher's role: Demonstrate the case proforma in patients; Assign five patients to students for documenting nidanapanchaka Students role: Furnish the case proforma in five patients | 12 |
| 15 | DIFFERENTIAL DIAGNOSIS OF SKIN DISEASES BASED ON GUIDELINES ONKUSHTA | 2 | Purpose: To familiarize differential diagnosis of kushta through Ayurvedic parameters (Ref: Ch Ni 5) Teacher's role: Demonstrate case taking in a few cases Students role: Furnish the case proforma for minimum three cases of skin diseases | 2 |
| 16 | PRAMANA PARIKSHA | 2 | Purpose: To familiarize Ayurvedic methods of physiometry (Ref: Ch Sha 7) Teacher's role: Preparing measurement methods based on anguleprmana and anjaleepramana as explained in Ayurveda; Demonstrating such methods in healthy individuals Students role: Assessing physiometry based on the guidelines given by the teacher in three individuals/peers and document the observations | 2 |
| 17 | IDENTIFICATION OF VIKARAVIGHATA BHAVA ABHAVA IN PATIENTS | 2 | Purpose: To explore concept of vikaravighata-bhava-abhava in clinical scenario. (Ref: Ch Ni 4/3 along with Chakrapani commentary) | 2 |

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| | | | <p>Teachers role: Divide class into four or five groups and assign most commonly seen diseases to each group (Eg. Prameha); Conduct group discussions to identify risk factors / protective factors of respective diseases through literature review, interaction with peers and teachers; Sum up findings of group discussions and prepare check list for each disease</p> <p>Student's role: Conduct group discussions to identify risk/protective factors of disease assigned to them; Prepare check list for each disease regarding probable risk/protective factors; Identify presence/absence of items in the check list in minimum of three cases of the respective disease</p> | |
| 18 | EXPLORATION OF LOKA PURUSHA SAMYA VADA IN THE BACK GROUND OF ONE HEALTH | 2 | <p>Purpose: To explore loka-purusha-samya in the background of one health movement (Ref: Ch Sha 5)</p> <p>Teacher's role: Conduct discussions in the class to identify how nature is related to human being; Explore this relationship in the background of concept of one health; conduct discussions</p> <p>Students role: Conduct the discussions and prepare a summary report</p> | 2 |
| 19 | SHLOKA PATHANA-3 | 3 | <p>Refer Practical No.1 for instructions</p> <p>Sutras suggested:</p> <ol style="list-style-type: none"> 1. Cha.Vi. 01- Rasa vimaana Adhyayam-10,24 2. Cha.Vi. 02-Trividha kuksheeya Adhyayam-15-18 3. Cha.Vi. 04-Trividha roga vishesha vijnyaneeya adhyaya-4,12 4. Cha.Vi. 05- Sroto vimana Adhyaya-3,4,7,9-27 5. Cha.Vi. 06-Roganika vimana adhyaya -19 6. Cha.Vi. 07- Vyadhita rupeeeya vimana Adhyaya-28 7. Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam-3,6,68-78 8. Cha.In.5-Purvarupeeyam Indriyam Adhyaya-43 9. Cha.In.11-Anujyotiyam Indriya | 10 |

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| | | | Adhyaya-29 | |
| 20 | LEARNING THROUGH VYAKHYANA-3 | 3 | Refer Practical No.2 for instructions Sutras suggested: 1. Cha.Vi.01- Rasa vimaana Adhyayam -10 2. Cha.Vi.08- Rogabhashagjiteeyam Adhyaayam-68 -80 | 3 |
| 21 | LEARNING THROUGH SAMHASHA PARISHAD | 3 | Purpose: To familiarize the method of Sambhasha parishad in bringing out scientific discussions. (Ref: Ch Vi 8) Teacher's role: Prepare guidelines for conducting Sambhasha parishat as per descriptions in Vadamarga; Demonstrate parishat in the class either through a video demonstration or otherwise; Divide the class into four or five groups and assign one topic each for them; Evaluate the group presentations based on the guidelines Student's role: Each group will prepare and demonstrate a parishat in the subject concerned; Prepare summary of the parishat Suggested topics: 1. Relevance of Daivavyapasraya cikitsa 2. Rakta as fourth dosha 3. Relevance of food classification 4. Specific agrya related to vihara (Eg: vishado rogavardhananam) 5. Importance of naming of disease 6. Relevance of viruddha ahara | 6 |
| 22 | SROTAS PROFORMA | 3 | Purpose: To assess status of srotodushti in different clinical conditions (Ref: Ch Vi 5) Teacher's role: Demonstrate the proforma for assessment of srotas in clinical conditions Students role: Furnish the srotas proforma in at least three cases | 2 |
| 23 | LEARNING THROUGH TANTRA YUKTI | 3 | Purpose: Demonstrate use of tantrayukti in different sutras Teachers role: Identify and demonstrate application of tantrayukti in different sutras | 5 |

Student's role: Identify tantrayukti and prepare summary on justifying importance of tantrayukti in selected sutras

Suggested Tantrayuktis:

1. Adhikaran - commonly seen in many sutras
2. Yoga - commonly seen in many sutras
3. Padartha - commonly seen in many sutras
4. Vakyasesha - commonly seen in many sutras
5. Upadesha - Ca. Su. 13/18-19, Ca. Su. 13/94
6. Niyoga - Ca. Su. 13/34, Ca. Ni. 3/17
7. Apadesha - Ca. Su. 13/13, Ca. Su. 18/44-46, Ca. Su. 26/41, Ca. Ni. 2/12-17
8. Samuchaya - Ca. Su. 13/23-25, Ca. Su. 20/8, Ca. Su. 23/5-7, Ca. Su. 23/27-30, Ca. Ni. 3/7
9. Nidarshana - Ca. Su. 13/96-97, Ca. Su. 17/75(1), Ca. Su. 14/5, Ca. Su. 19/5, Ca. Su. 30/5
10. Nirvachana - Ca. Su. 16/31-32, Ca. Su. 16/34, Ca. Su. 17/95, Ca. Su. 21/9, Ca. Su. 25/4, 11. Ca. Su. 29/4, Ca. Su. 30/5, Ca. Su. 30/12, Ca. Su. 30/24
12. Vidhana - Ca. Su. 15/11, Ca. Su. 15/16, Ca. Su. 16/27
13. Prasanga - Ca. Su. 17/113, Ca. Su. 20/8, Ca. Su. 25/4, Ca. Ni. 1/3, Ca. Sa. 1/118-126
14. Viparyaya - Ca. Su. 25/31, Ca. Sa. 6/6, Ca. Sa. 6/9, Ca. Ni. 3/7, Ca. Ni. 3/9, Ca. Ni. 3/11
15. Ekantika - Ca. Su. 15/5, Ca. Su. 20/22, Ca. Su. 21/20, Ca. Su. 25/31, Ca. Su. 30/25, Ca. Ni. 1/32
16. Atitaveksha - Ca. Su. 22/31, Ca. Su. 28/25-30
17. Anagataveksha - Ca. Su. 15/5, Ca. Su. 28/30, Ca. Vi. 8/93, Ca. Vi. 8/135, Ca. Vi. 8/136
18. Swasangya - Ca. Su. 30/3
19. Prayojana - Ca. Su. 30/26, Ca. Sa. 5/5
20. Anumata - Ca. Su. 26/64-65, Ca. Su. 16/28, Ca. Sa. 1/16
21. Vikalpa - Ca. Su. 26/105
22. Pradesha - Ca. Su. 27/329, Ca. Vi. 8/137

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| | | | <p>23. Sambhava - Ca. Su. 28/45 24. Hetwartha - Ca. Ni. 2/21, Ca. Ni. 4/4, Ca. Ni. 7/28, Ca. Vi. 3/40 25. Atidesha - Ca. Sa. 6/11 26. Apavarga - Ca. Su. 26/106 27. Uddhara - Ca. Su. 25/29 28. Anaikantika - Ca. Su. 15/4 29. Pratyutsara and Uddhara - Ca. Su. 25/10-28 30. Nirnaya - Ca. Su. 25/29 31. Apavarga - Ca. Vi. 1/10</p> | |
| 24 | ASSESSMENT OF HEALTH THROUGH DHATU SAMYA PAREEKSHA | 3 | <p>Purpose: To assess health status of a person based on dhatusamya pareeksha. (Ref: Ch Vi 8/89) Teacher's role: Demonstrate use of proforma in healthy subjects Students role: Assess dhatusamya in ten individuals using the proforma</p> | 2 |
| 25 | AGNI ASSESSMENT BASED ON APACHARA | 3 | <p>Purpose: To familiarise the assessment of agni based on apacara-visesha (Ref: Ch Vi 6/12) Teacher's role: Explain the concept of agnipareeksha based on apacharavisesha; Demonstrate the questionnaire in a few subjects Students role: Assess agni of ten individuals using the proforma</p> | 2 |
| 26 | TRIVIDHA ROGA VISHESHAVIJNANA IN DIAGNOSIS | 3 | <p>Purpose: To justify the role of trividha-rogavisesha vijnana (pratyaksha, anumana and aptopadesa) in clinical methods. (Ref: Ch Vi 4) Teacher's role: Demonstrate the use of pratyaksha, anumana and aptopadesa in case taking, stressing on use of sense organs (smell, touch, vision and sound), methods of inference and importance of aptopadesa (writing respective references relevant in a particular case); Assigning cases to demonstrate the above methods Students role: Prepare reports on application of trividha visesha vijnana in three cases</p> | 3 |

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| 27 | ASSESSMENT OF UPASAYA AND ANUPASAYA IN PATIENTS | 3 | <p>Purpose: To justify importance of upasaya and anupasaya clinical examination (Ref: Ch Ni 1 with Chakrapani commentary)</p> <p>Teacher's role: Demonstrate identification of upasaya and anupasaya in selected cases</p> <p>Students role: Identify upasaya and anupasaya in a minimum of three cases and document it</p> | 2 |
| Total Hr | | | | 100 |

Activity

| CO | Topic name | Activity Details | Hours # |
|-------------|---------------------------------|---|---------|
| CO5,CO7 | Cha.Su.15-Upakalpaneeya Adhyaya | Expert Lecture on Aturalaya: This activity will evoke an interest among students about planning for construction of Hospitals and Nursing homes. Topic: Standard guidelines to setup Ayurveda Clinics, Nursing Homes and Hospitals. | 1 |
| CO6,CO7,CO8 | Cha.Su.19-Ashtodareeya Adhyaya | Activity on Disease classification: Teacher should give an insight to NAMASTE portal published by Ministry of AYUSH. Students should go through with every standardised Ayurveda terminologies related to disease classification and also National Ayurveda Morbidity codes. | 2 |
| CO4,CO6,CO8 | Cha.Su.20- Maharoga adhyaya | Compilation/ Making monograph on Nanatmaja vikara: Steps (1) Teacher should make teams of 3-5 students.(2) An Editorial team for making monograph has to be made including experts of Roga Nidana. (3) Divide the 140 diseases into available number of teams. (4) Teacher should provide a format to collect data on each diseases which must include pictorial representation of disease and cross references. (5) The Editorial team will collect the data from all teams and edit in the form of a | 3 |

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| | | book. (6) The content should be reviewed by Experts and made as E-Monograph (PDF)/ Book. | |
| CO4,CO7 | Cha.Su.21- Ashtauninditeeya adhyaya | Video making on concept of Nidra: Steps (1) Teacher should explain the content on which students should make video (2) The Minimum duration of Video should be 3 minutes. (3) Video can be in regional languages. (4) Teacher should select the best videos and can publish in social media after rectifying the content of the video. | 1 |
| CO4,CO5,CO7 | Cha.Su.25- Yajjapurushheeya Adhyaya | Justifying concept of Hita and Ahita ahara: Steps (1) Students should be divided in to groups and assign some of the Hita and Ahita ahara dravya (2) Student should find and discuss the logical explanations on justifying the given dravya as Hita or Ahita | 2 |
| CO4,CO5,CO7 | Cha.Su.26- Atreyabhadraakaapyeeya Adhyaya | Application of paradi guna: Steps (1) Any probable drug or treatment plan to be selected and assign to various groups (2) Students should view them through paradi guna and document it. | 2 |
| CO5,CO8 | Cha.Su.27- Annapaanvidhi Adhyaya | Collection of different dravya's: Steps (1) Student should collect different dravya's available in their locality. (2) Student should exhibit the same and discuss with experts. (3) Document opinion given by experts. | 2 |
| CO4,CO8 | Cha.Su.29- Dashapraanaayataneeya Adhyaya | Skit on different types of vaidya in relation to medical ethics: Steps (1) The class has to be divided into teams and they should be assigned to write a story for skit, considering different qualities of vaidya (2) They should perform the skit after Screening done by concerned teachers | 2 |
| CO4,CO6 | Cha.Ni. 08- Apasmara nidana adhyaya | Documentation of Nidanarthakara roga: Student should discuss and document the experiences of practising physicians of their | 2 |

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| | | Hospital or outside about Nidanarthakara roga. | |
| CO3,CO4,CO6,CO7 | Cha.Ni. 08- Apasmara nidana adhyaya | Quiz on Nidana sthana: Steps (1) Teacher should give a written test including important multiple choice questions of nidana sthana. (2) The highest scoring students should be selected and made into different teams as per the convenience. (3) The selected students should be conducted quiz with different rounds considering the content of the Nidana sthana. | 2 |
| CO3,CO4,CO7 | Cha.Sha.1-Katithapurshaya Adhyaya. | Game on Ashta smruti karana: Steps (1) Plan the Memory check games by using Different materials such as Drugs, Books and instruments.(2) Students should be subjected for memory check sessions. (3) Later their experiences should be interpreted through Ashta smruti karana. | 2 |
| CO4,CO6,CO7 | Cha.Sha. 04- Mahatee garbhavakranti Adhyaya | Identify film/Tv serial characters having different qualities of Trividha satwa and their varieties: Steps (1) Students has to be divided into teams and each team should be assigned some of the satwa. (2) The team should collect the video clips of those characters and has to present to all after getting scrutinized by teachers. | 2 |
| CO4,CO8 | Cha.Sha. 05- Purushavichaya Adhyaya | Adopting pravrutti and nivrutti upayas in present era: Steps (1) Teacher should make teams and assign different pravrutti and nivrutti upayas.(2) Team should present the pravrutti and nivrutti upayas considering relevance in present era. | 2 |
| CO4,CO7,CO8 | Cha.Sha. 06- Sareeravichaya adhyaya | Analysing Data on causes of akala mrutyu: Students should search and collect data from online sources published by Govt or Private Authorities about the causes of Akala mrutyu. Analyse and present the data and discuss on Akala mrutyu in the class. | 2 |

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|-----------------|---|--|---|
| CO4,CO7 | Cha.Sha.08- Jathisutreeya Adhyaya | Street play on awareness of garbhopaghatakara bhava: Steps (1) Teacher should make teams and explain about the structure of street play (2) Student should create a narrative story to present the concept in public (3) Minimum duration of the play is 15 minutes | 2 |
| CO7,CO8 | Cha.Vi.01- Rasa vimaana Adhyayam | Digital Posters for public awareness on Ahara vidhi: Steps (1) Teacher should assign the topic to the students individually or in group. (2) Student should make a digital posters or infographics with the help of various online tools such as CANVA etc. | 2 |
| CO4,CO7,CO8 | Cha.Vi. 03- Janapadodwansaneeya Vimanam Adhyaya | Short Documentary on any of the Janapadodhwamsakara bhava: Steps (1) Teacher should guide the students on Janapadodhwamsakara bhava (2) Students should be taught on what is documentaries and should fix the duration of video. (3) Teams should be made and they have to shoot and edit the videos on any of the janapadodhwamsakara bhava. (4) Present the documentaries and share experience. | 2 |
| CO4,CO8 | Cha.Vi. 8-Rogabhishagjiteeyam Adhyaayam. | Identifying Adhyayana vidhi: Steps (1) Teacher should guide the students to identify and document different individual and group learning techniques. (2) Students should present and share experience on their learning techniques | 2 |
| CO3,CO4,CO7 | Cha.In.5-Purvarupeeyam Indriyam Adhyaya | Identifying types of swapna: Steps (1) Teacher should assist to make a Proforma for different types of Swapna. (2) Student should assess the proforma with Healthy individuals or diseased and analyse the Data. | 2 |
| CO3,CO4,CO7,CO8 | Cha.In.12-Gomayachurni yam Indriya Adhyaya | Discussion on death signs: Steps (1) Teacher should assign set of students to interact with | 1 |

| | | | |
|-------------|---------------------------------|--|---|
| | | concerned ICU Doctors/ Nurses or assistants. (2) Students should interact with them based on arishta lakshanas and document it. | |
| CO3,CO6,CO7 | Cha.In.01-Varnaswareeya Adhyaya | Use of various standard tools for assessing factors related to arishta : Students are assigned with some of the standard tools to assess various factors relevant in arishta-vijnana available in the following source: https://www.carakasamhitaonline.com/mediawiki-1.32.1/index.php?title=Varnasvariyaam_Indriyam_Adhyaya#Assessment_of_complexion | 2 |

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

| Sr No | Teaching learning methods in the course | No of Activities |
|-------|---|------------------|
| 1 | Lecture | 30 |
| 2 | Lecture with Power point presentation | 17 |
| 3 | Lecture & Group Discussion | 364 |
| 4 | Lecture with Video clips | 20 |
| 5 | Discussions | 37 |
| 6 | Brainstorming | 58 |
| 7 | Inquiry-Based Learning | 14 |
| 8 | PBL | 6 |
| 9 | CBL | 48 |
| 10 | Project-Based Learning | 5 |
| 11 | TBL | 1 |
| 12 | Team project work | 2 |
| 13 | Flipped classroom | 29 |
| 14 | Blended Learning | 9 |
| 15 | Edutainment | 9 |
| 16 | Mobile learning | 7 |

| | | |
|----|------------------------|-----|
| 17 | Role plays | 15 |
| 18 | Self-directed learning | 105 |
| 19 | Problem solving method | 2 |
| 20 | Workshops | 2 |
| 21 | Game-Based Learning | 4 |
| 22 | Demo on Model | 1 |
| 23 | Library Session | 4 |
| 24 | Peer learning | 6 |
| 25 | Real life experience | 4 |
| 26 | Recitation | 40 |
| 27 | Presentations | 3 |
| 28 | Case diagnosis | 1 |
| 29 | Drug analysis | 4 |
| 30 | Demonstration | 9 |
| 31 | Demonstration bedside | 4 |
| 32 | Field visit | 3 |

These are overall teaching learning methods listed in Table 3 and 4. Teachers can select the best possible method amongst the given methods as per objective, available time etc.

Table 6: Assessment Summary: Assessment is subdivided in A to H points

6 A-Number of Papers and Marks Distribution

| Subject Code | Papers | Theory | Practical/Clinical Assessment | | | | | Grand Total |
|--------------|--------|--------|-------------------------------|------|----------------|----|-----------|-------------|
| | | | Practical | Viva | Elective | IA | Sub Total | |
| AyUG-SA2 | 1 | 100 | - | 75 | 10 (Set SB) | 15 | 100 | 200 |

6 B - Scheme of Assessment (formative and Summative)

| PROFESSIONAL COURSE | DURATION OF PROFESSIONAL COURSE | | |
|---------------------|---------------------------------|---------------------------|---------------------------|
| | First Term (1-6 Months) | Second Term (7-12 Months) | Third Term (13-18 Months) |
| Second | 3 PA & First TT | 3 PA & Second TT | 3 PA & UE** |

PA: Periodical Assessment; **TT:** Term Test; **UE:** University Examinations.

**** University Examination shall be on entire syllabus**

6 C - Calculation Method for Internal assessment Marks

| TERM | PERIODICAL ASSESSMENT* | | | | | TERM TEST** | TERM ASSESSMENT | |
|-----------------|---|--------------------|--------------------|--------------------------|--|--|----------------------------|---------------------------------|
| | A | B | C | D | E | F | G | H |
| | 1 (15 Marks) | 2 (15 Marks) | 3 (15 Marks) | Average (A+B+C/ 3) | Converted to 15 Marks (D/15*15) | Term Test (Marks converted to 15) (15 Marks) | Sub Total _/30 Marks | Term Ass essment (.../15) |
| FIRST | | | | | | | E+F | (E+F)/2 |
| SECOND | | | | | | | E+F | (E+F)/2 |
| THIRD | | | | | | NIL | | E |
| Final IA | Average of Three Term Assessment Marks as Shown in 'H' Column. | | | | | | | |
| | Maximum Marks in Parentheses *Select an Evaluation Method which is appropriate for the objectives of Topics from the Table 6 D for Periodic assessment. Conduct 15 marks assessment and enter marks in A, B, and C. ** Conduct Theory (100 Marks) (MCQ(20*1 Marks), SAQ(8*5), LAQ(4*10)) and Practical (100 Marks) Then convert total to 15 marks. | | | | | | | |

6 D - Evaluation Methods for Periodical Assessment

| S. No | Evaluation Methods |
|-------|---|
| 1 | Activities Indicated in Table 3 - Column G3 as per Indicated I, II or III term in column I3 |

Evaluation Methods in MSE

1. Practical / Clinical Performance
2. Viva Voce, MCQs, MEQ (Modified Essay Questions/Structured Questions)
3. Open Book Test (Problem Based)
4. Summary Writing (Research Papers/ Samhitas)
5. Class Presentations; Work Book Maintenance
6. Problem Based Assignment
7. Objective Structured Clinical Examination (OSCE), Objective Structured Practical Examination (OPSE), Mini Clinical Evaluation Exercise (Mini-CEX), Direct Observation of Procedures (DOP), Case Based Discussion (CBD)
8. Extra-curricular Activities, (Social Work, Public Awareness, Surveillance Activities, Sports or Other Activities which may be decided by the department).
9. Small Project etc.

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-SA2

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

| | | Number of Questions | Marks per question | Total Marks |
|-----|---------------------------------|----------------------------|---------------------------|--------------------|
| Q 1 | MULTIPLE CHOICE QUESTIONS (MCQ) | 20 | 1 | 20 |
| Q 2 | SHORT ANSWER QUESTIONS (SAQ) | 8 | 5 | 40 |
| Q 3 | LONG ANSWER QUESTIONS (LAQ) | 4 | 10 | 40 |
| | | | | 100 |

6 F Distribution of theory examination

| Paper 1 | | | | | | |
|---------|---|-----------|------------|-----------------|------------------|----------------------|
| Sr. No | A List of Topics | B Term | C Marks | MCQ (1 Mark) | SAQ (5 Marks) | LAQ (10 Marks) |
| 1 | Cha.Su.13- Sneha Adhyaya | 1 | 37 | Yes | Yes | Yes |
| 2 | Cha.Su.14- Sveda Adhyaya | 1 | | Yes | Yes | Yes |
| 3 | Cha.Su.15- Upakalpaneeya Adhyaya | 1 | | Yes | Yes | Yes |
| 4 | Cha.Su.16- Chikitsaprabhritiya Adhyaya | 1 | | Yes | Yes | Yes |
| 5 | Cha.Su.17- Kiyantashiraseeya Adhyaya | 1 | | Yes | Yes | Yes |
| 6 | Cha.Su.18-Trisotheeya Adhyaya | 1 | | Yes | Yes | Yes |
| 7 | Cha.Su.19-Ashtodareeya Adhyaya | 1 | | Yes | Yes | No |
| 8 | Cha.Su.20- Maharoga adhyaya | 1 | | Yes | Yes | No |
| 9 | Cha.Su.21- Ashtauninditeeya adhyaya | 1 | | Yes | Yes | Yes |
| 10 | Cha.Su.22- Langhanabrimhaneeya Adhyaya | 1 | | Yes | Yes | Yes |
| 11 | Cha.Su.23- Santarpaneeya Adhyaya | 1 | | Yes | Yes | Yes |
| 12 | Cha.Su.24- Vidhishoniteeya Adhyaya | 1 | | Yes | Yes | Yes |
| 13 | Cha.Su.25- Yajjapurushheeya Adhyaya | 1 | | Yes | Yes | Yes |
| 14 | Cha.Su.26- Atreyabhadhrakaapyeeya Adhyaya | 1 | | Yes | Yes | Yes |
| 15 | Cha.Su.27- Annapaana vidhi Adhyaya | 1 | | Yes | Yes | No |
| 16 | Cha.Su.28- Vividhashitapeeteeya Adhyaya | 1 | | Yes | Yes | Yes |

| | | | | | | |
|----|---|---|----|-----|-----|-----|
| 17 | Cha.Su.29- Dashapraanaayataneeya Adhyaya | 2 | | Yes | Yes | No |
| 18 | Cha.Su.30- Arthedashamahamooleeya Adhyaya | 2 | | Yes | Yes | Yes |
| 19 | Cha.Ni.01-Jwara nidana Adhyaya | 2 | 19 | Yes | Yes | Yes |
| 20 | Cha.Ni.02-Raktapitta nidana Adhyaya | 2 | | Yes | Yes | Yes |
| 21 | Cha.Ni.03-Gulma nidana Adhyaya | 2 | | Yes | Yes | No |
| 22 | Cha.Ni.04-Prameha nidana adhyaya | 2 | | Yes | Yes | Yes |
| 23 | Cha.Ni.05-Kushta nidana Adhyaya | 2 | | Yes | Yes | Yes |
| 24 | Cha.Ni.06-Shosha nidana Adhyaya | 2 | | Yes | Yes | Yes |
| 25 | Cha.Ni.07-Unmada nidana Adhyaya | 2 | | Yes | Yes | Yes |
| 26 | Cha.Ni.08-Apasmara nidana adhyaya | 2 | | Yes | Yes | Yes |
| 27 | Cha.Vi.01- Rasa vimana Adhyayam | 3 | 24 | Yes | Yes | Yes |
| 28 | Cha.Vi.02-Trividha kuksheeya Adhyayam | 3 | | Yes | Yes | Yes |
| 29 | Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya | 3 | | Yes | Yes | Yes |
| 30 | Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya | 3 | | Yes | Yes | Yes |
| 31 | Cha.Vi. 05- Sroto vimana Adhyaya | 3 | | Yes | Yes | Yes |
| 32 | Cha.Vi. 06-Roganika vimana adhyaya | 3 | | Yes | Yes | Yes |
| 33 | Cha.Vi. 07- Vyadhita rupeeeya vimana Adhyaya | 3 | | Yes | Yes | Yes |

| | | | | | | |
|----|--|---|----|-----|-----|-----|
| 34 | Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam. | 3 | | Yes | Yes | Yes |
| 35 | Cha.Sha.01-Katithapurushheeya Adhyaya | 2 | 13 | Yes | Yes | No |
| 36 | Cha.Sha.02-Atulyagothreeyam Adhyaaya | 2 | | Yes | Yes | No |
| 37 | Cha.Sha.03-Khuddika garbhavakranti Adhyaya | 2 | | Yes | Yes | No |
| 38 | Cha.Sha.04-Mahatee garbhavakranti Adhyaya | 2 | | Yes | Yes | Yes |
| 39 | Cha.Sha.05-Purushavichaya Shareera Adhyaya | 2 | | Yes | Yes | No |
| 40 | Cha.Sha.06-Sareeravichaya adhyaya | 2 | | Yes | Yes | No |
| 41 | Cha.Sha.07- Sareerasankhya sareera Adhyaya | 2 | | Yes | Yes | No |
| 42 | Cha.Sha.08-Jathisutreeya Adhyaya | 2 | | Yes | Yes | No |
| 43 | Cha.In.1-Varnasvariyaam Indriya Adhyaya | 3 | 7 | Yes | Yes | No |
| 44 | Cha.In.2-Pushpitakam Indriya Adhyaya | 3 | | Yes | No | No |
| 45 | Cha.In.3-Parimarshaneeyam Indriyam Adhyaya | 3 | | Yes | No | No |
| 46 | Cha.In.4-Indriyaneekam Indriya adhyaya | 3 | | Yes | No | No |
| 47 | Cha.In.5-Purvarupeeyam Indriyam Adhyaya | 3 | | Yes | Yes | No |
| 48 | Cha.In.6-Katamanisharireeyam Indriyam Adhyaya | 3 | | Yes | No | No |
| 49 | Cha.In.7-Pannarupiyam Indriyam Adhyaya | 3 | | Yes | Yes | No |
| 50 | Cha.In.8-Avakshiraseeyam Indriyam | 3 | | Yes | No | No |

| | | | | | |
|--------------------|---|------------|--|-----|----|
| | Adhyaya | | | | |
| 51 | Cha.In.9-Yasya shyavanimittiya Indriya Adhyaya | 3 | | Yes | No |
| 52 | Cha.In.10-Sadyomaraneeyam Indriya Adhyaya | 3 | | Yes | No |
| 53 | Cha.In.11-Anujyotiyam Indriya Adhyaya | 3 | | Yes | No |
| 54 | Cha.In.12-Gomayachurniyam Indriya Adhyaya | 3 | | Yes | No |
| Total Marks | | 100 | | | |

6 G Blue print of paper I

| Paper No:1 | | |
|--------------------|--|---|
| Question No | Type of Question | Question Paper Format |
| Q1 | Multiple choice Questions 20 Questions 1 mark each All compulsory Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ | <ol style="list-style-type: none">1. Cha.Su.13- Sneha Adhyaya / Cha.Su.14- Sveda Adhyaya2. Cha.Su.17- Kiyantashiraseeya Adhyaya / Cha.Su.15- Upakalpaneeya Adhyaya3. Cha.Su.20- Maharoga adhyaya / Cha.Su.18-Trisotheeya Adhyaya / Cha.Su.19-Ashtodareeya Adhyaya4. Cha.Su.22- Langhanabrimhaneeya Adhyaya / Cha.Su.21- Ashtauninditeeya adhyaya5. Cha.Su.23- Santarpaneeya Adhyaya / Cha.Su.24- Vidhishoniteeya Adhyaya6. Cha.Su.28- Vividhashitapeeteeya Adhyaya / Cha.Su.26- Atreyabhadraakaapeeya Adhyaya / Cha.Su.25- Yajjapurushheeya Adhyaya7. Cha.Su.30- Arthedashamahamooleeya Adhyaya / Cha.Su.29- Dashapraanaayataneeya Adhyaya8. Cha.Ni.02-Raktapitta nidana Adhyaya / Cha.Ni.01-Jwara nidana Adhyaya9. Cha.Ni.04-Prameha nidana adhyaya / Cha.Ni.03-Gulma nidana Adhyaya10. Cha.Ni.05-Kushta nidana Adhyaya / Cha.Ni.06-Shosha nidana Adhyaya11. Cha.Ni.08-Apasmara nidana adhyaya / Cha.Ni.07-Unmada nidana Adhyaya12. Cha.Vi.02-Trividha kuksheeya Adhyayam / Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya / Cha.Vi.01- Rasa vimana Adhyayam13. Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya / Cha.Vi. 05- Sroto vimana Adhyaya14. Cha.Vi. 06-Roganika vimana adhyaya / Cha.Vi. 07- Vyadhita rupeeya vimana Adhyaya15. Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam.16. Cha.Sha.02-Atulyagothreeyam Adhyaaya / Cha.Sha.01-Katithapurushheeya Adhyaya17. Cha.Sha.04-Mahatee garbhavakranti Adhyaya / Cha.Sha.03-Khuddika garbhavakranti Adhyaya / Cha.Sha.05-Purushavichaya Shareera Adhyaya18. Cha.Sha.07- Sareerasankhya sareera Adhyaya |

| | | |
|-----------|--|---|
| | | <p>/ Cha.Sha.06-Sareeravichaya adhyaya / Cha.Sha.08-Jathisutreeya Adhyaya</p> <p>19. Cha.In.1-Varnasvariya Indriya Adhyaya / Cha.In.2-Pushpitakam Indriya Adhyaya / Cha.In.4-Indriyaneekam Indriya adhyaya / Cha.In.5-Purvarupeeyam Indriyam Adhyaya</p> <p>20. Cha.In.9-Yasya shyavanimittiya Indriya Adhyaya / Cha.In.11-Anujyotiyam Indriya Adhyaya / Cha.In.8-Avakshiraseeyam Indriyam Adhyaya / Cha.In.12-Gomayachurniyam Indriya Adhyaya</p> |
| Q2 | <p>Short answer Questions Eight Questions 5 Marks Each All compulsory</p> <p>Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know</p> | <p>1. Cha.Su.13- Sneha Adhyaya / Cha.Su.14- Sveda Adhyaya / Cha.Su.16- Chikitsaprabhritiya Adhyaya / Cha.Su.20- Maharoga adhyaya / Cha.Su.18-Trisotheeya Adhyaya / Cha.Su.17- Kiyantashiraseeya Adhyaya / Cha.Su.15- Upakalpaneeya Adhyaya / Cha.Su.19-Ashtodareeya Adhyaya</p> <p>2. Cha.Su.28- Vividhashitapeeteeya Adhyaya / Cha.Su.26- Atreyabhadraakaapeeya Adhyaya / Cha.Su.25- Yajjapurushheeya Adhyaya / Cha.Su.22- Langhanabrimhaneeya Adhyaya / Cha.Su.23- Santarpaneeya Adhyaya / Cha.Su.24- Vidhishoniteeya Adhyaya / Cha.Su.21- Ashtauninditeeya adhyaya / Cha.Su.30- Arthedashamahamooleeya Adhyaya / Cha.Su.29- Dashapraanaayataneeya Adhyaya / Cha.Su.27- Annapaana vidhi Adhyaya</p> <p>3. Cha.Ni.04-Prameha nidana adhyaya / Cha.Ni.05-Kushta nidana Adhyaya / Cha.Ni.03-Gulma nidana Adhyaya / Cha.Ni.08-Apasmara nidana adhyaya / Cha.Ni.02-Raktapitta nidana Adhyaya / Cha.Ni.06-Shosha nidana Adhyaya / Cha.Ni.01-Jwara nidana Adhyaya / Cha.Ni.07-Unmada nidana Adhyaya</p> <p>4. Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya / Cha.Vi.02-Trividha kuksheeya Adhyayam / Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya / Cha.Vi.01- Rasa vimana Adhyayam</p> <p>5. Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam. / Cha.Vi. 06-Roganika vimana adhyaya / Cha.Vi. 05- Sroto vimana Adhyaya / Cha.Vi. 07- Vyadhita rupeeya vimana Adhyaya</p> |

| | | |
|------------------|--|--|
| | | <p>6. Cha.Sha.02-Atulyagothreeyam Adhyaaya / Cha.Sha.01-Katithapurushheeya Adhyaya / Cha.Sha.04-Mahatee garbhavakranti Adhyaya / Cha.Sha.03-Khuddika garbhavakranti Adhyaya</p> <p>7. Cha.Sha.07- Sareerasankhya sareera Adhyaya / Cha.Sha.06-Sareeravichaya adhyaya / Cha.Sha.08-Jathisutreeya Adhyaya / Cha.Sha.05-Purushavichaya Shareera Adhyaya</p> <p>8. Cha.In.11-Anujyotiyam Indriya Adhyaya / Cha.In.1-Varnasvariyaam Indriya Adhyaya / Cha.In.7-Pannarupiyam Indriyam Adhyaya / Cha.In.10-Sadyomaraneeyam Indriya Adhyaya / Cha.In.12-Gomayachurniyam Indriya Adhyaya / Cha.In.5-Purvarupeeyam Indriyam Adhyaya</p> |
| <p>Q3</p> | <p>Long answer Questions Four Questions 10 marks each All compulsory</p> <p>All questions on must know. No Questions on Nice to know and Desirable to know</p> | <p>1. Cha.Su.13- Sneha Adhyaya / Cha.Su.14- Sveda Adhyaya / Cha.Su.16- Chikitsaprabhritiya Adhyaya / Cha.Su.18-Trisotheeya Adhyaya / Cha.Su.17- Kiyantashiraseeya Adhyaya / Cha.Su.15- Upakalpaneeya Adhyaya</p> <p>2. Cha.Su.28- Vividhashitapeeteeya Adhyaya / Cha.Su.26- Atreyabhadraakaapeeya Adhyaya / Cha.Su.25- Yajjapurushheeya Adhyaya / Cha.Su.22- Langhanabrimhaneeya Adhyaya / Cha.Su.23- Santarpaneeya Adhyaya / Cha.Su.24- Vidhishoniteeya Adhyaya / Cha.Su.21- Ashtauninditeeya adhyaya / Cha.Su.30- Arthedashamahamooleeya Adhyaya</p> <p>3. Cha.Ni.04-Prameha nidana adhyaya / Cha.Ni.05-Kushta nidana Adhyaya / Cha.Ni.08-Apasmara nidana adhyaya / Cha.Ni.02-Raktapitta nidana Adhyaya / Cha.Ni.06-Shosha nidana Adhyaya / Cha.Ni.01-Jwara nidana Adhyaya / Cha.Ni.07-Unmada nidana Adhyaya</p> <p>4. Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya / Cha.Vi.02-Trividha kuksheeya Adhyayam / Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam. / Cha.Vi. 06-Roganika vimana adhyaya / Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya / Cha.Vi. 05- Sroto vimana Adhyaya / Cha.Vi. 07- Vyadhita rupeeya vimana Adhyaya / Cha.Vi.01- Rasa</p> |

6 H Distribution of Practical Exam

| S.No | Heads | Marks |
|--------------------|--------------------------|------------|
| 1 | Viva on Practical record | 10 |
| 2 | Shloka recitation | 10 |
| 3 | Viva on vyakhyana | 5 |
| 4 | Viva on Sutrasthana | 20 |
| 5 | Viva on Nidanasthana | 10 |
| 6 | Viva on Vimanasthana | 10 |
| 7 | Viva on Shareerasthana | 5 |
| 8 | Viva on Indriyasthana | 5 |
| 9 | Electives (Set SB) | 10 |
| 10 | IA | 15 |
| Total Marks | | 100 |

References Books/ Resources

| S.No | Book | Resources |
|------|---|---|
| 1 | Charakasamhita with Cakrapani Commentary | Yadavji Trikamji, editor. Agnivesha. Charaka Samhita. Ayurveda Dipika. Chakrapanidatta (comm)(Sanskrit) Varanasi: Chaukambha Sanskrit Sansthan |
| 2 | Charak Samhita (English Commentary) | Ram Karan Sharma and Bhagawan Dash, editor. Charak Samhita (English Commentary): Varanasi: Chowkambha Sanskrit Series |
| 3 | Charak Samhita (Hindi commentary) | Harishchandra Singh Kushvaha, editor and translator. Charak Samhita (Hindi Commentary): Varanasi: Chaukambha Orientalia |
| 4 | Charak Samhita (Hindi commentary) | Jayadev Vidyalkar, editor. Charak Samhita (Hindi commentary): Motilal Banarsi Dass Publishers Pvt. Ltd |
| 5 | Charak Samhita (Hindi commentary): Vaidya Atridev Vidyalkar | Charak Samhita (Hindi commentary): Vaidya Atridev Vidyalkar |
| 6 | Charak Samhita (Hindi commentary) | Gorakhanath Chaturvedi and Kashinath Pandeya Shastri, editor. Charak Samhita (Hindi commentary): Varanasi: Chaukhambha Bharati Academy |
| 7 | Charak Samhita (Hindi commentary) | Brahmanand Tripathi, editor. Charak Samhita (Hindi commentary): Varanasi: Chaukhamba Surbharati Prakashan |
| 8 | Charak Samhita (Hindi commentary): Dr. Ravidatta Tripathi | Vidyadhar Shukla and Ravidatta Tripathi Charak Samhita (Hindi commentary): Varanasi: Chaukhamba Sanskrit Pratishtan |
| 9 | Charaka Samhita (Hindi commentary) | Banwari Lal Gaur, editor. Charaka Samhita (Hindi commentary): Rashtriya Ayurved Vishwavidyalaya |
| 10 | Legacy of Caraka | M S Valiathan, Legacy of Caraka (English): Hyderabad: Orient Longman |
| 11 | Charakasamhita | Charak e-Samhita –National Institute of Indian Medical Heritage – http://niimh.nic.in/ebooks/ecaraka |
| 12 | Charakasamhita | Charakasamhitaonline.com - www.charakasamhitaonline.com |
| 13 | Illustrated Carakasamhita, Dr. R Vidyath | R Vidyath, editor. Illustrated Carakasamhita (English Commentary): Varanasi Chaukhambha Prakashak |
| 14 | Namaste Portal | NAMASTE - Portal (ayush.gov.in) |
| 15 | CCRAS Prakriti tool | CCRAS Prakriti Tool http://www.ccras.res.in/ |
| 16 | Sanskrit English Dictionary | Monnier Williams. A Sanskrit English Dictionary. Delhi. Motilal Banarsidasspublishers Pvt Ltd. |

| | | |
|----|-----------------------|--|
| 17 | Shabdakalpadruma | Raja Radha Kanta Deva, Shabda Kalpa Drum: Varanasi: Chowkhamba Sanskrit Series Office |
| 18 | Vaidyak Shabda Sindhu | Kaviraj Shri Nagendra Nath Sen Vaidya Shastri, Vaidyak Shabda Sindhu: Varanasi: Chowkhamba Orientalia |

Abbreviations

Assessment

| S.No | Short form | Discription |
|------|------------|-------------------------------|
| 1 | T-EMI | Theory extended matching item |
| 2 | T- EW | Theory Essay writing |
| 3 | T- MEQs | Theory MEQs |
| 4 | T-CRQs | Theory CRQs |
| 5 | T-CS | Theory case study |
| 6 | T-OBT | Theory open book test |
| 7 | P-VIVA | Practical Viva |
| 8 | P-REC | Practical Recitation |
| 9 | P-EXAM | Practical exam |
| 10 | PRN | Presentation |
| 11 | P-PRF | Practical Performance |
| 12 | P-SUR | Practical Survey |
| 13 | P-EN | Practical enact |
| 14 | P-RP | Practical Role play |
| 15 | P-MOD | Practical Model |
| 16 | P-POS | Practical Poster |
| 17 | P-CASE | Practical Case taking |
| 18 | P-ID | Practical identification |
| 19 | P-PS | Practical Problem solving |
| 20 | QZ | Quiz |
| 21 | PUZ | Puzzles |
| 22 | CL-PR | Class Presentation, |
| 23 | DEB | Debate |
| 24 | WP | Word puzzle |
| 25 | O-QZ | Online quiz |
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|----|--------------|------------------------------|
| 26 | O-GAME | Online game-based assessment |
| 27 | M-MOD | Making of Model |
| 28 | M-CHT | Making of Charts |
| 29 | M-POS | Making of Posters |
| 30 | C-INT | Conducting interview |
| 31 | INT | Interactions |
| 32 | CR-RED | Critical reading papers |
| 33 | CR-W | Creativity Writing |
| 34 | C-VC | Clinical video cases, |
| 35 | SP | Simulated patients |
| 36 | PM | Patient management problems |
| 37 | CHK | Checklists |
| 38 | OSCE | OSCE |
| 39 | OSPE | OSPE, |
| 40 | Mini-CEX | Mini-CEX |
| 41 | DOPS | DOPS |
| 42 | CWS | CWS |
| 43 | RS | Rating scales |
| 44 | RK | Record keeping |
| 45 | COM | Compilations |
| 46 | Portfolios | Portfolios |
| 47 | Log book | Log book |
| 48 | TR | Trainers report |
| 49 | SA | Self-assessment |
| 50 | PA | Peer assessment |
| 51 | 360D | 360-degree evaluation |
| 52 | TT-Theory | Theory |
| 53 | PP-Practical | Practical |
| 54 | VV-Viva | Viva |

Domain

| S.No | Short form | Discription |
|------|------------|-----------------------------|
| 1 | CK | Cognitive/Knowledge |
| 2 | CC | Cognitive/Comprehension |
| 3 | CAP | Cognitive/Application |
| 4 | CAN | Cognitive/Analysis |
| 5 | CS | Cognitive/Synthesis |
| 6 | CE | Cognitive/Evaluation |
| 7 | PSY-SET | Psychomotor/Set |
| 8 | PSY-GUD | Psychomotor/Guided response |
| 9 | PSY-MEC | Psychomotor/Mechanism |
| 10 | PSY-ADT | Psychomotor Adaptation |
| 11 | PSY-ORG | Psychomotor/Origination |
| 12 | AFT-REC | Affective/ Receiving |
| 13 | AFT-RES | Affective/Responding |
| 14 | AFT-VAL | Affective/Valuing |
| 15 | AFT-SET | Affective/Organization |
| 16 | AFT-CHR | Affective/ characterization |

T L method

| S.No | Short form | Discription |
|------|------------|---------------------------------------|
| 1 | L | Lecture |
| 2 | L&PPT | Lecture with Power point presentation |
| 3 | L&GD | Lecture & Group Discussion |
| 4 | L_VC | Lecture with Video clips |
| 5 | DIS | Discussions |
| 6 | BS | Brainstorming |
| 7 | IBL | Inquiry-Based Learning |
| 8 | PBL | PBL |
| 9 | CBL | CBL |
| 10 | PrBL | Project-Based Learning |
| 11 | TBL | TBL |
| 12 | TPW | Team project work |
| 13 | FC | Flipped classroom |
| 14 | BL | Blended Learning |
| 15 | EDU | Edutainment |
| 16 | ML | Mobile learning |
| 17 | ECE | ECE |
| 18 | SIM | Simulation |
| 19 | RP | Role plays |
| 20 | SDL | Self-directed learning |
| 21 | PSM | Problem solving method |
| 22 | KL | Kinesthetic Learning |
| 23 | W | Workshops |
| 24 | GBL | Game-Based Learning |
| 25 | D-M | Demo on Model |
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|-----------|-------|---------------------------|
| 26 | LS | Library Session |
| 27 | PL | Peer learning |
| 28 | RLE | Real life experience |
| 29 | REC | Recitation |
| 30 | SY | Symposium |
| 31 | TUT | Tutorial |
| 32 | PER | Presentations |
| 33 | PT | Practical |
| 34 | XRay | X ray identification |
| 35 | CD | Case diagnosis |
| 36 | LRI | Lab report interpretation |
| 37 | DA | Drug analysis |
| 38 | D | Demonstration |
| 39 | D_BED | Demonstration bedside |
| 40 | D_L | Demonstration Lab |
| 41 | DG | Demonstration Garden |
| 42 | FV | Field visit |
| 43 | PRA | Practical |
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