



**Government Ayurvedic College
& Hospital, Patna, Bihar**

Established in 1926, Public/Government Institute
Affiliated College of Aryabhata Knowledge University, Patna

**Government Ayurvedic College Hospital
Patna, Bihar**

FACULTY OF AYURVED

*Approved by Ministry of Ayush,
Affiliated with Aryabhata Knowledge University,
Govt. of India and Central Council of Indian Medicine (CCIM).*

**Undergraduate (B.A.M.S)
&
Post- Graduate (M.D./M.S./Diploma in Ayurved)
Syllabus/ Curriculum
2016 courses**

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Preface

Ayurveda is accepted worldwide as one of the oldest traditional systems of medicine. The ancient insight in this traditional system of medicine is still not profoundly discovered. Ayurveda signifies as "the life-science " where ayur means "life" and veda means "science" in Sanskrit. Ayurveda is the upaveda i.e. "auxiliary knowledge of Atharvaveda in Vedic tradition with its prime origin from Atharva-Veda and a supplement of the Rig-Veda. Lord Dhanvantari is worshipped as the God of Ayurveda. The goal of this traditional medicine system is to prevent illness, disease cure and preserve life. Being originated in India Ayurveda extends its wings in various parts of the world. In ancient days Ayurveda was taught in Gurukula system, which is now evolved in to underundergraduate graduate courses from Institutions.

The Indian Medical Council was set up in 1971 by the Indian government to establish maintenance of standards for undergraduate and postgraduate education. It establishes suitable qualifications in Indian medicine and recognizes various forms of traditional practice including Ayurveda.

Ayurvedic practitioners also work in rural areas, providing health care to at least 500 million people in India alone. They therefore represent a major force for primary health care, and their training and placement are important to the government of India. Being a scientific medicine, Ayurveda has both preventive and curative aspects. The preventive component emphasizes the need for a strict code of personal and social hygiene, the details of which depend upon individual, climatic, and environmental needs.

Now Bachelor of Ayurvedic Medicine and Surgery, MD/MS in various discipline of Ayurveda started with the intention to encourage integrated teaching and de-emphasize compartmentalization of disciplines so as to achieve horizontal and vertical integration in different phases which helps to support National Health Services.

Looking into the health services provided to the public, understanding the need of practitioners of Ayurvedic system of medicine, as per the guidelines of apex body NCISM and suggestions provided by the faculty of various sections, stake holders and strategy of university this governance is framed

based on following aims and objectives -

Aims of BAMS programme

- To create an efficient Physician capable of functioning independently in both urban and rural environment.
- To produce graduates of Ayurveda with thoughtful knowledge having deep base of scientific knowledge in harmony with Ayurvedic fundamentals with extensive practical training who would be able to become an efficient teacher, research worker and Kaya Chikitsak (Physician) and Shalayachikitsak (Surgeon) competent to serve for health services.

Objectives

To develop following attitude and skills in our students -

- Knowledge of Ayurveda science, pertinent modern subjects, common investigations and their clinical interpretation, art of diagnosis of common ailments, selection and administration of suitable Pancha karma procedures, common single and compound drug formulations, Pathyaapathya, preventive measures, Rasayana, National Health Programme.
- Capable to perform Para surgical procedures, conduct deliveries and resuscitate newborn babies.

Faculty of Ayurved, Bharati Vidyapeeth (Deemed to be University), Pune

Vision-

To be a world class university for social transformation through dynamic education

Mission-

- To ensure the good health and longevity of mankind.
- To carve a niche for our college in the world of Ayurved education
- To provide
 - Borderless access to Ayurved education
 - Quality Ayurved education
- To promote
 - Quality research in diverse areas of health care system.
 - Extensive use of ICT for teaching, learning and governance.
 - To develop national and international networks with industry and other academic and research institutions.

Program Outcomes for Undergraduate Course of Ayurveda

- The Bachelor of Ayurved will have profound knowledge of Ashtanga Ayurved backed up by extensive practical training.
- This knowledge will be supplemented by scientific advances in modern medicine along with extensive practical training.
- The BAMS graduate will become a globally competent Ayurved practitioner and a research scholar to serve the health care services.

Program specific outcome

The BAMS degree holder should be capable of functioning independently in both urban and rural environments.

Course outcomes

After completion of B.A.M.S course the Graduates of Ayurved –

- Should have thorough knowledge of all the subjects including Sanskrit so that he/she can have the ability to interpret Sanskrit quotations from Classical texts of Ayurved.
- Must have the practical/ clinical skills of all the subjects.
- Are able to diagnose and treat the patients independently with Ayurved management.
- Should be able to conduct minor procedures and preliminary management of accidental cases.
- Should be able to treat the patients with empathy and have proper interpersonal and communication skills as competent health care professionals.
- Ought to have the current knowledge of recent advances in the field by self-learning and /or participating in continuing Medical Education Programs.
- Shall be able to critically analyze relevant published research literature and use them appropriately to influence practice of Ayurved.
- Must be able to participate in National health program.

Regulations governing the B.A.M.S. programme (CCIM- Minimum standards of Undergraduate Ayurved education- Regulations- 2016

Eligibility –

The student who failed in one or two subjects of First Professional shall be allowed to keep terms of the Second Professional session and to appear in Second Professional examination;

The student who failed in more than two subjects shall not be allowed to keep term in Second Professional session and the subsequent supplementary examination of First Professional shall be held at every six months.

Medium of instruction

The medium of instruction for the programme shall be Sanskrit or Hindi or any recognized regional language or English with use of Ayurvedic technical terms.

Total duration of course – Five and Half years

- a) First Profession- 18 Months [Course 2021], 12 Months [Course 2017]
- b) **Second Profession- 18 Months [Course 2021], 12 Months [Course 2017]**
- c) Third profession -12 Months [Course 2017]
- d) Forth Profession- 18 Months [Course 2017]
- e) Compulsory Internship- 12 Months

Total teaching hours for Second Professional session shall be not less than 2240 and the proportion of teaching hours in Lecture to Non-lecture shall be 1:2.

The Second Professional session shall ordinarily start after completion of First Professional examination.

Subjects taught, Number of lectures/ practical and demonstrations for various subjects [Second year B.A.M.S.]

The following subjects shall be taught as per the syllabus laid down by the National Commission for Indian System of Medicine from time to time, namely:-

Sl.No.	Subject Code	Subject	Equivalent Terms
1	AyUG-DG	Dravyaguna Vigyan	Pharmacology and Materia Medica- Herbal
2	AyUG-RB	Rasashastra evam Bhaishajyakalpana	Materia Medica- Minerals & Metals and Pharmaceutical Science
3	AyUG-RN	Roga Nidan evam Vikriti Vigyan	Methods of Diagnosis, Diagnostic Procedures and Pathology
4	AyUG-AT	Agad Tantra evam Vidhi	Clinical Toxicology and Medical Jurisprudence
		Vaidyaka	
5	AyUG-SA2	Samhita Adhyayan-2	Study of Ayurveda Classical Text
6	AyUG-SW	Swasthavritta evam Yoga	Lifestyle Management, Public Health and yoga
7		Elective (Minimum Three) Subjects	

(Teaching Hours for Second Professional B.A.M.S. Subjects)

Sl.No.	Subject Code	Number of teaching hours		
		Lectures	Non-Lectures	Total
1.	AyUG-DG	150	250	400
2.	AyUG-RB	150	300	450
3.	AyUG-RN	150	300	450
4.	AyUG-AT	100	200	300
5.	AyUG-SA2	100	140	240
6.	AyUG-SW	150	250	400
Total		800	1440	2240

The Second Professional examination shall ordinarily be held and completed by the end of the second professional session.

Scheme of Examination**Periodical assessment**

There shall be minimum three periodical assessments for each subject before First Term Test ordinarily at 6th month of respective professional B.A.M.S.) minimum of three periodical assessment before Second Term Test (ordinarily at 12th month of respective professional B.A.M.S.) and minimum of three periodical assessments before final university examinations (Summative Assessment) of respective professional B.A.M.S.

Scheme of Assessment (Formative and Summative)]

Sl. No.	Professional Course	Duration of Professional Course		
		First Term (1-6 Months)	Second Term (7-12 Months)	Third Term (13-18 Months)
1	First Professional B.A.M.S.	3 PA and First TT	3 PA and Second TT	3 PA and UE

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

***University Examination Shall be on entire syllabus.**

Theory i.e. Written by the MCQ, SAQ, LAQ as per MSE and Practical Examination by Practical / Clinical/ Viva.

- Internal evaluation shall be conducted by the College and Institute at the end of six months (First Term Test) for thirty per cent. of the syllabus and at twelve months (Second Term Test) for forty per cent. new part of the syllabus.
- The remaining thirty per cent. of syllabus shall be completed in the last six months (Third Term) before university examination;
- There shall be minimum three periodical assessments for each subject before First Term Test (ordinarily at 6th month of respective professional B.A.M.S.) minimum of three periodical assessment before Second Term Test (ordinarily at 12th month of respective professional B.A.M.S.) and minimum of three periodical assessments before final university examinations (Summative Assessment) of respective professional B.A.M.S.

Number of Papers and Marks Distribution for Second Professional BAMS Subjects

S. No.	Subject Code	Papers	Theory	Practical/Clinical Assessment					
				Practical/Clinical	Viva	Elective	IA	Sub Total	GRAND TOTAL
1.	AyUG-DG	2	200	100	70	-	30	200	400
2.	AyUG-RB	2	200	100	70	-	30	200	400
3.	AyUG-RN	2	200	100	70	-	30	200	400
4.	AyUG-AT	1	100	100	60	10 (Set-SA)	30	200	300
5.	AyUG-SA2	1	100	-	75	10 (Set-SB)	15	100	200
6.	AyUG-SW	2	200	100	60	10 (Set-SC)	30	200	400
Grand Total									2100

(Set-SA, SB, SC – sets of Electives for Second Professional BAMS)

Evaluation of Electives. -

Electives shall be evaluated in terms of attendance and assessment and based on evaluation; the student shall be awarded credits as well as grades as below.

- One credit shall be awarded for attending a minimum of five hours of a modular programme and a student can earn a maximum of five credits for each elective.
- Assessment shall be conducted at the end of each module and an average of five modular assessments shall be considered for grading i.e., up to 25 per cent. Bronze; 26-50 per cent. Silver; 51-75 per cent. Gold; 76 per cent. and above Platinum.
- Students may opt any one elective as per their choice from each set specified for respective professional B.A.M.S.
- Weightage of two marks for each credit and maximum of ten marks shall be awarded for each elective.
- Apart from three mandatory electives for each profession, students have freedom to choose and qualify as many numbers of additional electives as per their interest.
- Marks weightage shall be only for three electives per professional session i.e., one elective subject from each set of respective professional session.
- A separate online certificate shall be generated for each elective mentioning credits earned and grades obtained.

Before appearing for Third (Final) Professional examination the students shall have to pass all the subjects of first and second professional **and shall qualify for nine electives.**

Declaration of Class

A candidate obtaining sixty per cent. and above marks shall be awarded first class in the subject and seventy five percent and above marks shall be awarded distinction in the subject.

- The award of class and distinction shall not be applicable for supplementary examinations.

Dravyaguna Vigyan
AyUG-DG

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	

Contents of Course Paper 1 Fundamental Dravyaguna

Sr. No	List of Topics
1	1.Dravyaguna Vigyana
2	2.Dravya 2.1 Panchabhoutikatwa of Dravya 2.2 Classification of Dravya based on Utpattibheda, Yonibheda, Prayogabheda, Prabhavbheda, Doshagnabheda, Rasabheda and Karmbheda
3	3. Guna 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

4	<p>4. Rasa</p> <p>4.1 Meaning of “Rasa” in various contexts</p> <p>4.2 Shadrasa in relative correlation with taste of chemical constituents</p> <p>4.3 Rasotpatti and Panchabhoutika constitution of Shadrasa</p> <p>4.4 Rasopalabdhi and pathway of taste perception & sites of taste receptors in the body</p> <p>4.5 Rasa -Lakshana, Guna & Karmas of each Rasaon Dosha, Dhatu and Mala</p> <p>4.6 Atiyogalakshana,</p> <p>4.7 Clinical application and Research updates of Shadrasa</p> <p>4.8 Anurasa</p> <p>4.9 Rasa Sevanakrama of Aushadha</p>
5	<p>5. Vipaka</p> <p>5.1 Trividha Vipaka</p> <p>5.2 Vipak karma on Dosha, Dhatu and Mala</p> <p>5.3 Clinical application and Research updates</p> <p>5.4 Vipakopalabdhi (Determination of Vipaka) & Taratamya (Degree of variation)</p>
6	<p>6. Virya</p> <p>6.1 Difference between Guna and Virya</p> <p>6.2 Karmas of Virya on Dosha, Dhatu and Mala</p> <p>6.3 Clinical application and Research updates</p> <p>6.4 Viryaopalabdhi (Determination of Virya) and understanding of Virya with respect to actions of active constituents</p>
7	<p>7. Prabhava</p> <p>7.1 Samanapratyayarabdha and Vichitrapratyayarabdha</p> <p>7.2 Clinical application of Prabhava and Research updates</p>
8	<p>8. Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava</p> <p>Interrelation of Rasa-Guna-Virya-Vipaka-Prabhava with respect to their strength- Pharmacodynamics</p>

9	<p>9. Karma</p> <p>9. Individual Karma, correlation with contemporary pharmacological action, examples, clinical application and research updates</p> <p>9.1 Deepana</p> <p>9.2 Pachana</p> <p>9.3 Samshodhana</p> <p>9.4 Samshamana</p> <p>9.5 Anulomana</p> <p>9.6 Sransana</p> <p>9.7 Bhedana</p> <p>9.8 Rechana</p> <p>9.9 Chhedana</p> <p>9.10 Lekhana</p> <p>9.11 Grahi</p> <p>9.12 Sthambhana</p> <p>9.13 Madakari</p> <p>9.14 Pramathi</p> <p>9.15 Abhishyandi</p> <p>9.16 Vyavayi</p> <p>9.17 Vikashi</p> <p>9.18 Rasayana</p> <p>9.19 Vajeekarana</p> <p>9.20 Medhya</p>
10	<p>10. Karmas of Dashemani Gana</p>

11	<p>11. Principles of General Pharmacology</p> <p>11 Drug definition, drug dosage forms, route of drug administration, pharmacokinetics (ADME), pharmacodynamics, Drug dose, principles of drug action, mechanism of drug action & bioavailability</p> <p>11.1 Drugs Acting on Central Nervous System: Anaesthetics, Sedative Hypnotics, Antiepileptics, Antiparkinsonian, Antidepressants, Antianxiety Drugs, Opioid - Analgesics Drugs</p> <p>11.2 Drugs Acting on Peripheral (somatic) Nervous System: Skeletal Muscle Relaxants, Local Anaesthetics</p> <p>11.3 Autacoids and Related Drugs: Nonsteroidal, Anti-inflammatory (NSAIDs)/Antipyretic and Analgesics Drugs</p> <p>11.4 Drugs for Respiratory Disorders: Bronchodilators, Aerosols/ Inhalants, Expectorants, Antitussive Drugs</p> <p>11.5 Cardiovascular Drugs: Antihypertensive, Antianginal Drugs</p> <p>11.6 Drugs Acting on Kidney: Diuretics</p> <p>11.7 Drugs Affecting Blood: Haematinics, Coagulants, Anticoagulants, Hypolipidaemic Drugs</p>
	<p>11.8 Gastrointestinal Drugs: Antacid, Carminatives, Digestants, Antiemetics, Laxatives, Antidiarrhoeal, Hepatoprotective Drugs</p> <p>11.9 Antibacterial Drugs: Antibiotics, Antitubercular Drugs</p> <p>11.10 Antifungal, Antiviral, Antimalarial and Antihelminthic Drugs</p> <p>11.11 Hormones and Related Drugs: Thyroid Hormone, Thyroid Inhibitors, Insulin, Oral Antidiabetic, Hormonal Contraceptives, Uterine Stimulants, Uterine Relaxants Drugs</p> <p>11.12 Miscellaneous Drugs: Antiseptics and Disinfectants, Vaccines, Vitamins, Water imbalance and IV fluids</p>

12	12. Mishraka Gana 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.
13	13. Nomenclature of dravya as per Nighantu, Vedic taxonomy and Botany
14	14. Prashasta Bhesaja, Bhesaja Pariksha and drug evaluation method with correlation as per Pharmacognosy
15	15. Dravyasangrahana and Drug collection methods as per GFCP (Good Field collection practices)
16	16. GCP (Good cultivation practices), seed bank, conservation of medicinal plants, knowledge about RET (Rear, Endangered & Threatened) medicinal plants.
19	19. Adverse drug reaction and Pharmacovigilance with recent updates
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)
21	21. Vrikshayurveda and Ethno-medicine
22	22. Network pharmacology and Bioinformatics

Paper 2 Applied Dravyaguna

Sr. No	List of Topics
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23	1. Bhesajavacharaniya (Criteria's to be considered for selection of drugs in vyadhis)
24	2.1 Dravya (Drug) Nama-Guna-Karma Jnana Amalaki, Aragvadha, Arjuna, Ashok, Ashwagandha, Ativisha ,Bala, Bhallataka Bharangi Bhrungaraja,Bhumyamalaki ,Bilva, Brahmi, Chandana ,Chitraka, Dadima ,Dhataki ,Dhamasa ,Eranda ,Gokshura ,Guduchi ,Gugguka ,Haridra, Haritaki, Hingu, Jambu ,Jatamansi ,Jotishmati ,Kanchanar ,Kantakari Kapikachhu Karkatshrungi Katuki Khadir Kumari Kutaja Latakaranja Lodhra Agnimantha Ahiphena(NK) Ajamoda (DK) Asthishrunkhala Bakuchi Bruhati Chakramarda Dhanyaka Ela Gambhari Japa Jatiphala Jeeraka (DK)Kalamegha Kampillaka Kulatha (NK)Kumkum Lajjalu, Lavanga
25	2.2 Dravya (Drugs) Nama -Guna-Karma-Jnana Madanphala Mandukaparni Manjishta Maricha Meshashrungi 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 Vibhitaki Vidanga Yashtimadhu

List of Practical's- Total Marks 200

Practicals (Marks-100)	
S.No	List of Topics
1	1. Assessment and Understanding the relation between Parthivatwa & subjective/ objective parametric tests
2	2. Assessment of objective parametric measures of Guna
3	3. Assessment of Rasa
4	4.Comparative organoleptic and macroscopic examination
5	5. Microscopic Identification of genuine and adulterated drug
6	6. Demonstration of skills to identify the medicinal plants in the college garden.
7	7. Out campus visit (Cultivated gardens, Tissue culture lab, Herbaria, Pharmacognosy lab, Quality control lab and Forest plant demonstration)
8	8. Dravya prayoga
9	9. Physico-chemical study
10	10. Phytochemical

11	11. Thin Layer Chromatography (TLC) technique
12	12. Demonstration of skills to identify the medicinal plants in the college garden
13	13. Out campus visit (cultivated gardens & In-situ plant demonstration)
14	14. Ekala dravya prayoga
15	15. Different Cultivation technique including methods mentioned in Vrikshayurveda
16	16. Exercise on Network pharmacology
17	17. Preparations of digital herbarium
18	18. Demonstration of skills to identify the medicinal plants in the college garden
19	19. Out campus visit (cultivated gardens & In-situ plant demonstration)
20	20. Ekala dravya prayoga

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	2) Skill based assessment -There shall be three components in skill assessment A. Identify and separate Grahya & Agraha of given sample- 10 minutes B. Identifying and grouping of drugs of given Mishraka Gana- 10 minutes	30

	<p>C. Understand the clinical scenario and identify five suitable single drug- 10minutes</p> <p>Instructions:</p> <p>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> <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 stationshall 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:</p> <p>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>	
3	<p>3. QC practical (30 minutes)-Performance based components</p> <p>3.1. Comparison Macroscopic evaluation of one genuine and one</p>	40

	<p>adulterant sample -10 marks- 15 minutes</p> <p>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</p> <p>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</p>	
4	<p>4. Viva voce (10 minutes per student) Questions should be asked on following topics -</p> <p>1. Fundamentals (Dravya, Guna, Rasa, Vipaka, Veerya & Prabhav)- 3 questions- 15 marks</p> <p>2. Karmas, Dashemani, Mishrak Gana- 3 questions- 15 marks</p> <p>3. Pharmacology & Network pharmacology- 3 questions- 15 marks</p> <p>4. Clinical application of drugs- 3 questions - 15 marks</p> <p>5. Viva on practical records -06 marks</p> <p>6. Communication skill (4 marks)</p>	70
5	5. Internal Assessment	30

References Books/ Resources

- 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, Gujurat Ayurveda University, Jamnagar
- 5 Bhava Prakash Nighantu Vd. Krishna Chandra Chuneekar 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
- 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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- 50 Research updates of Karma
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Rasashastra evam Bhaishajyakalpana AyUG-RB

Total number of Teaching hours

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

Contents of Course-

Sr. No	List of Topics
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>
2	<p>2.Paribhasha (Terminology)</p> <ul style="list-style-type: none"> • Definition and Importance of Paribhasha • Word Derivation- Aushadha, Bheshaja, Kalpana, Kashaya, Pancha kashaya Yoni, Samskara <p style="text-align: right;">3.Dravya/Varga Paribhasha- (Classical Names, English names,Chemical Composition/ Formula)</p> <ul style="list-style-type: none"> • Rasa, Maharasa, Uparasa, Dhatuvarga, Upadhatu, Ratna, Uparatna, Sudhavarga, Sikatavarga, Lavanavarga, Visha, Upavisha, Kajjali, Mitranpanchaka, Dravaka Gana, • Sandigdha(Contraversial): Vaikranta, Chapala,Rasanjana, Pushpanjana, Vahnijara, Girisindura, Kankushtha. • Anupalabdha (Not Available): Rasaka, Sauviranjana • Krutrima (Artificial): Sasyaka, Gandhaka, Kasisa, Rasanjana, Hingula • Pratinidhi (Substitute) : Vajrabhave Vaikranta, Suvarna-Suvarna Makshika <p>4. Prakriya Paribhasha-</p> <ul style="list-style-type: none"> • Shodhana: Types of Shodhana, Samanya Shodhana, Vishesha Shodhana, Different techniques used for Shodhana, Swedana, Mardana, Dhalana, Nirvapa, Nirjaleekarana, Nimajjana, Bhavana,Bharjana • Marana,: Definition, Importance of Marana, Types of Marana- Agnipaka Method, Putapaka Method, Kupipakwa Method, Bhanupaka Method, Swanga Sheeta • Amrutikarana, Lohitakarana • Sattvapatana, Shuddhavarta, Beejavarta • Druti: Definition, Druti lakshana • Parada Samskara: Definition, Importance, Ashtasamskara <p>Parada Jaranaa, Murchchhana, Names of Parad-Bandhas</p>

	<p>5) Pramanikarana Paribhasha (Terms for Standardization)-</p> <ul style="list-style-type: none"> • Grahy-Agrahyattva, Siddhilakshana <p>Bhasma pariksha: Varitara, Rekhapurnata, Unama, Slakshnattva, Sukshma, Anjana Sannibha, Dantagre na</p> <p>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> <ul style="list-style-type: none"> • Definition, Classical Types <p>Classical and Modern- Conversion chart as per AFI,Scientific Metrology C) Essential Kala- mana.</p>
3	<p>3.Adharbhuta Siddhanta (Application of fundamental principles)</p> <p>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 • 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, PrabhavaAnukta Visheshokta grahana: Considering Anukta Dravya <p>Aushadha Namakarana: Naming a Preparation</p> <p>Aushadha Sevana Kala: Time of Drug Administration</p> <p>Saveeryata Avadhi (Shelf life of different kalpana)</p> <p>Aushadha Matra:Dosage / Posology</p> <p>Anupana &Sahapana (Adjuvant)</p> <p>Yougika Dravya Siddhanta(Drug Combination)</p>

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 Sharava Yantra Palika Yantra Sthali Yantra Swedana Yantra Vidyadhara Yantra</p> <p>Modern Machinery-Grinder</p> <p>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</p>
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5	<p>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 / Bhandha Puta Musha Samanya Musha Crucibles- Silica Mudra Sandhi Bandhan Material Koshthi- Chullika Angar Koshthi Satwapatan Bhrashtri Gas Stove Hot Plate Heating Mantle Induction Stove Hot Air Oven Muffle Furnace- Horizontal and Vertical Heating Material- Solid- Kashtha, coal(wooden / stone), Kshara, Lavana, Valuka, Shakrit, Dhanya Drava- Jala/ steam, Taila Indirect heating- Dhanya Rashi, Bhugarbha sthapanana</p>
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<p>6</p>	<p>6.Kalpana 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 Kalpana (Primary dosage forms): Swarasa, Kalka, Kwatha, Hima, Phanta Upaklpana (Secondary dosage forms): Kalka: Churna Kalpana Kwatha: Pramathya Kalpana, Paniya Kalpana, Ushnodaka, Ksheera Paka Kalpana, Laksha Rasa, Mamsa Rasa Hima Kalpana : Mantha Kalpana, Udaka Kalpana, Panaka Kalpana Phanta Kalpana: Arka</p>
<p>7</p>	<p>7.Kalpana 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 Kalpana, market survey Sneha Kalpana Aims of Sneha Kalpana, 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 andKsheerabala Bala Taila, Concept of Avartana, Research updates on snehakalpana, market survey Sandhana Kalpana 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 Pathya Kalpana 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>

	<p>Ksheerabala Bala Taila, Concept of Avartana, Research updates on snehkalpana, market survey</p> <p>Sandhana Kalpana 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 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 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 Must to know Drugs</p> <p>Parada (mercury) Abhraka (Biotite Mica) Makshika (Chalco-pyrite) Shilajatu(Asphaltum Punjabiannum) Gandhaka (Sulfur) Gairika(Red Ochre) Kankshi (Alum) Haratala (Orpiment) Manahshila (Realgar) Kampillaka(Mallotus Philippinensis) Navasadara (Ammonium chloride) Hingula (Red Cinnabar) Swarna (Gold) Rajata (Silver) Tamra (Copper) Loha (Iron) Mandur (rust iron) Vanga (Tin) Naga (Lead) Yashada (Zinc) Mukta (Pearl), Pravala (Coral) Vajra (Diamond) Kaparda (Cowries) Shukti (Oyster Shell) Shankh (Conch Shell) Godanti (Gypsum) Samudraphena (Cattle Fish bone) Kukkutanda twak (Hen's EggShell)</p>

	Tankana kshara (Borax)
9	<p>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)</p>
10	<p>10.Rasadravya Parichaya III Synonyms, Mineralogical 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) Vaidurya (Cats eye) Mriga shringa (Stag horn) Sikata (Silica) Vyomashma (Sangeyashab - Jade) Kousheyashma (Asbestos) Badarshama (silicate of lime)</p>

11	<p>11.Kalpana Nirman -III (Method of Preparation of different dosage forms)</p> <p>Sharkara Kalpana 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> <p>Gudapaka General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of ManibhadraGuda, Guda Pippali</p> <p>Lavana Kalpana General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Narikela Lavana</p> <p>Kshara Kalpana General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Kadali Kshara, chinch Kshara</p> <p>Ayskriti Kalpana General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example Ayaskriti</p> <p>Lepa Kalpana General Method of Preparation, importance of temperature, precautions, confirmatory tests, packing, preservation, shelf life with Example of Avalgunjadi Lepa, Keshavardhaka Lepa.</p>
12	<p>12.Chaturvidha Rasayana Introduction, definition, importance, types, Procedure, necessary equipment, Shelf life with following exampleKharaliya Rasayana: Shwasakuthara rasa and Vatavidwansana rasa</p> <p>Parpati Rasayana: Loha parpati and sudha parpati</p> <p>Kupipakwa Rasayana: Rasasidhura and Rasa karpura Pottali Rasayana: Tamragarbha pottali and Loha garbha pottali</p>
13	<p>13.Current and emerging trend in Ayurvedic pharmaceuticals</p> <p>Cosmetics-Formulation, Regulatory ProvisionsBrief</p> <p>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 CosmeticsIntroduction to Dosage formsIntroduction, Classification of Dosage forms(Solid dosage forms, Liquid dosage forms and Semisolid dosage forms), Need of dosage forms.</p>

14	<p>14.GMP(Schedule T) &Regulatory aspects of Ayurvedic drugs Brief overview of following Drug and Cosmetics Act 1940 and Rules 1945 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.</p>
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Paper 2 Ayurvediya Aushadhi Prayoga Vigyana

Sr. No	List of Topics
15	<p>1.Aushadhi Prayoga Vigyana Introduction, Ethymology, Scope of Aushadhi Prayoga vigyana Prashastha bhesaja Lakshana</p>
16	<p>2.Single drug (Herbal &Mineral) Single drug its variety of formulations and their different indications• Chemical/phyto-chemical composition</p> <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 <p>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</p>

	<p>Bhallataka Modaka (B.R. Pleeha-Yakrit Rogadhikara) Bhallataka Ghrita (B.R. Gulma Rogadhikara) Bhallataka Guda (B.R. Arsha Rogadhikara) Bhallatakadi Taila (B.R. Nadivrina Rogadhikara) Bhallataka Avaleha (B.R. Arsha Rogadhikara) Bhallatakadi Lepa (B.R. Kushta Rogadhikara) Bhallatakadi Kwatha (B.R. Urusthabha Rogadhikara)Note: For Bhallataka additional ashud- dha, 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)</p> <ul style="list-style-type: none"> • Single drug/ formulation and its mode of action indifferent indications •Chemical/phytochemical composition • Pharmacodynamics and pharmacokinetics as performulation • 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 andtheir shantyupaya, • Research updates and clinical evidences for each ofthe following formulations: Ab- hraka Bhasma <p>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 Shuddha Kankshi Mukta Pishti &Bhasma Pravala Pishti &Bhasma</p>

	<p>Vajra Bhasma Kaparda Bhasma Shankh Bhasma Godanti Bhasma Shuddha Tankana Shuddha Kankshi</p>
18	<p>4.Aushadhi Kalpa -I (Compound formulations)</p> <ul style="list-style-type: none"> • Chemical/phytochemical composition • Pharmacodynamics and pharmacokinetics as per formulation • Therapeutic properties and its mode of action indifferent 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 sevanajanyavyadhi and their shantyupaya, • Research updates and clinical evidences for each of the following formulations: <p>Kharaliya Rasayana</p> <ul style="list-style-type: none"> • 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 <p>Chandraprabha Vati : A.F.I. - I, Vati Gutika, 12:10,Sha.Sa.M.7/40</p> <ul style="list-style-type: none"> • 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 <p>Brihat Vata Chintamani Rasa : A.F.I. - I, Rasayoga, 20:26, .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. <p>Kharaliya Rasayana / 80</p> <ul style="list-style-type: none"> • 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 • Makaradhawa : 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 indifferent 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 sevanejanya vyadhiand their shantyupaya, • 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) 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) Chittrakadi 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 Gutti (AFI Part III page 232)</p>
20	<p>6.Dosage Forms &Cosmetic Products</p> <p>Definition of dosage form,-Cosmetics</p> <p>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>

21	<p>7.Nutraceuticals Introduction Types, non Indian nutraceuticals and their uses Ayurvedic Perspective of Nutraceuticals with special reference to dietic 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 ksheera paka Sports endeavor: Kharjuradi mantha Mental health: Brahma Rasayana</p>
22	<p>8.Anupana Prayoga for Aushadhi Kalpa</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</p> <ul style="list-style-type: none"> • Karna (Through Ear)- Taila, Ghrita • Akshi (Through Eyes)- - Ghrita, Taila, • 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 • Guda (Anal Route)- Dosage forms - Vartis, taila, ghrita,kalka, churna, kashaya <p>Mutra marga (Through urethra)- Uttara Basti with Dosage forms- Taila, ghrita 8. Yoni marga (Through vagina)- Yoni Dharana, Yoni</p> <ul style="list-style-type: none"> • Dhavana, Yoni Pichu, Yoni Dhoopana
24	<p>10.Rational prescription along with safe dispensing of Ayurvedic formulations. Rational prescription along with safe dispensing of Ayurvedic formulations as per NABH guideline</p>
25	<p>11.Traditional &Local health Practices Introduction to Traditional &Local health Practices and Government initiatives to preserve it. Brief introduction to TKDL</p>

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
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List of Practicals

- 1.Paribhasha concept based Practicals
- 2.Panchavidha Kashaya Kalpana & their Upakalpana Practicals
- 3.Rasa Dravya Aushadhi Nirmana Practicals
- 4 Bheshaja Kalpana Practicals –
- 5.Bheshaja Kalpana Practicals -II
- 6.Dosage Forms & Self-care Products Practicals
- 7.Field Visit/ Study Tour
- 8.Hospital IPD Practical
9. Drug Dispensing Practical
- 10.Quality Control Practicals

Distribution of Practical Exam Total 200 Marks

S.No	Heads	Marks
1	1.Spotting (10 sample + 5 Instruments/ equipments) Identification (1 mark) answering sub question related to spotter(1 mark) 15x2=30 marks Choose Spotter from below mentioned list. 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)	30

	<p>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.Khatika 33.Dugdhapashana (Talc) 34.Vimala 35.Rasaka 36.Yantra</p>	
2	<p>2. Long Practical Selection of Ingredients with proportion(10Marks) Preparation following SOP (15 marks) Demonstration of Siddhi lakshana(05Marks) on site viva (10 Marks) List of Long Practicals 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 10.Arka Lavana 11.Narikela Lavana 12.Atasi Upanaha 13.Dasha- nasamskara churna 14.Gandhaka Malahara 15.Dashanga Lepa 16.Mustadi Pramathya 17. Shadanga Paneeya 18.Kharjuradi Mantha 19.Chincha 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>	40
3	<p>3.Short Practical Selection of Ingredients with proportion(5Marks) Preparation following SOP (5 marks) Demonstration of Siddhi lakshana(5Marks) on site viva (5 Marks) List of Short Practicals 1.Godanti Shodhana 2. Shankha Shodhana 3.Kapardika shodhana 4.Guggulu Shodhana 5.Gandhaka Shodhana 6.Vanga Shodhana</p>	20

	<p>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</p>	
4	4.Practical Record Four Record books- for each record book 2.5 Marks	10
5	<p>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 Raasadravya –(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 dose & anupana-2Marks)-15Marks (Select the yoga having at least 5 ingredients) 7. Siddhi lakshana & quality control tests –(2 questions 5 marks each)-10 Marks 8.D& C act, GMP, FSSAI- 2 Marks 9.Viva on Non Lecture hour activity book-8 Marks 10.Communication skills -5 Marks</p>	70
6	6. Internal assessment	30

References Books/ Resources

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26. Introduction to Ayurvedic Pharmaceutics Dr Devendra Joshi & Dr Geeta Joshi Chaukhambha Orientalia
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RogaNidan evam VikritiVigyan

Ayu- RN

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	

Contents of Course

Paper 1 Fundamental Principles of Vikriti Vigyan

Sr. No	List of Topics
1	1. Roganidana – Pathophysiology and clinical diagnosis
2	2. Pareeksha Roga and RogiPareeksha
3	3. Methods of Rogipareeksha
4	4. Sapekshanidana - Vyavacchedakanidana Sapekshanidana - Vyavacchedakanidana of Ukta/Anuktavyadhi: Methods of differential diagnosis
5	5. Upashaya/ Anupashaya
6	6. DoshaVikriti A. Nidana (Vyadhijanakahetu) B. Agni bheda and Vikriti C. DoshaVridhhi, Kshaya and Dushta Karma, Ashyapakarsha, Avarana, Samsargaja, Sannipataja. D. Doshaswabhaba - Nityasamshleshita (Leena) dosha and Pariccheditadosha E. Paridhavamnanadosha
7	7. Doshagati and Rogamarga

8	8. Srotodushti Samanyasrotodustinidana and lakshana
9	9. Concept of Ama A. Samanyanidana, and Samanyalakshana B. Bheda (Anna rasa. Mala sanchaya (Dhatwagnimandyanit). Doshadushti)
10	10. Assessment of Ama Sama and niramadoshalakshana, Pureeshalakshana
11	11. Sthanasamshtaya – Poorvaroopa
12	12. Dushyadushti A. Dhatu and mala vriddhikshayalakshana B. Specific Srotodustilakshana in relation to Dosha, Upadhatu, Mala, Indriya, Avayava, and Manadushtilakshana
13	13. Samprapti A. Sampraptibheda B. Vyadhijanma and Vyadhijanya
14	14. Rupa Pratyatma/ Samanya/ VishishtaRupa
15	15. Vyadhinamakarana
16	16. Vyadhi A. Definition, B. Classification – Dwividha/ Trividha/ Chaturvidha/ Saptavidha (Adibala/ Sahaja - Genetic, Janmabala/ Garbhaja - Congenital, Doshabala/ Jataja Acquired, Sanghatabala/ Peedaja - Traumatic, Daivabala/ Prabhavaja - Iatrogenic, Kalabala/ Kalaja – Environmental and Geriatric, Swabhavabalapravrutta), etc.
17	17. Ashtanindita (Endocrine disorders)
18	18. Janapadodhwamsavikara (Pandemic disorders)
19	19. NidanarthakaraVyadhi, Vyadhisankara
20	20. Vyadhikshamatva A. VikaravighataBhava&Abhava, SatmyaB. Ojus - Bheda – Two types and Four types C. Doshapaka D. ImmunityE. Healing/repair
21	21. RogibalaPareeksha
22	22. DhatuPaka A. DhatupakaB. Ojodustilakshana C. Asatmya - Immune pathologyD. Cell Injury and Cellular adaptations E. Inflammation F. Haemodynamic disorders G. Neoplasia

23	23. Infection and Nutritional disorders
24	24. Upadrava
25	25. Arishta
26	26. Vyadhibalapareeksha
27	27. Sadhyasadhyatva – Prognosis
28	28. Digital health and Artificial intelligence in the context of Roganidana
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29	1. Agnimandya – Ajeerna, Anaha, Adhmana, Atopa
30	2. Chhardi
31	3. Amlapitta
32	4. Shoola ParinamaShoola, AnnadravaShoola
33	5. Atisara, and Pravahika
34	6. Grahani
35	7. Visuchika, Alasaka, Vilambika
36	8. Common GIT diseases Ulcerative dyspepsia and Non-ulcerative dyspepsia, Irritable Bowel Syndrome, Inflammatory Bowel Diseases
37	9. Mutrakrichhra
38	10. Mutraghata
39	11. Common Urinary diseases Urinary Tract Infection, Prostatomegaly, Nephrotic syndrome, Nephritic syndrome, Acute Kidney Injury and Chronic Kidney Disease
40	12. Hikka
41	13. Shwasa

42	14. Kasa
43	15. Rajayakshma&Shosha
44	16. Common lung disorders Pneumonia, Chronic Obstructive Pulmonary Disease, Pleural effusion, Bronchiectasis
45	17. Jwara Jwarabheda - Doshaja and Agantuja (Abhishangajwara), VishamaJwara, PunaravartakaJwara, Jwaraavastha - Ama, Pachyamana and NiramaJwara
46	18. Masurika – Romantika
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 descrip- tion of Common infective fevers – Typhoid, Dengue, Influenza, Chikungunya, E. Common regional disorders presenting with fever
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50	22. Hematopoietic diseases Anaemia, Nutritional anaemia, Thalassemia, Sickle cell Anaemia, Leukaemia, Thrombocytopenia
51	23. Hridroga
52	24. Shotha
53	25. Cardiovascular disorders Coronary Artery Disease (Ischemic Heart Disease, and Myocardial Infarction) and Congestive cardiac failure
54	26. Kamala
55	27. UdaraRoga
56	28. Hepatobiliary diseases Liver cirrhosis, Alcoholic and Non - Alcoholic Liver Disease, Hepatitis, Jaundice and Ascites
57	29. Kushtha - MahaKushtha&KshudraKushtha
	(According to Charaka)

58	30. Sheetapitta
59	31. Shwitra
60	32. Visarpa
61	33. Skin diseases Allergic disorders - Eczema, Urticaria; Squamous lesions -Psoriasis, Lichen planus; Bullous lesion – Pemphigus and Pemphigoid; Mycotic skin diseases; Leprosy; Vitiligo; Cellulitis
62	34. Galaganda
63	35. Thyroid disorders Hypothyroidism and hyperthyroidism
64	36. Sthoulya – Karshya
65	37. Obesity
66	38. Prameha
67	39. Diabetes Mellitus and Pancreatitis
68	40. Vatavyadhi Samanyanidana, Samanyapurvarupa, Samanyalakshana
69	41. Snayugatavata Snayugatavata, Akshepaka – Apatanaka; Ardita, Pakshaghata, Kampavata, Gridhrasi, Vishwachi, Pangutwa Diseases of bone and Joints - Osteoarthritis, Osteoporosis. Frozen Shoulder, Calcaneal spur/ Plantar fasciitis, Tennis elbow, Carpel tunnel syndrome; Muscular diseases - Muscular Dystrophy
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: LumbagoSciatica syndrome, Brachial neuralgia, Cervical and Lumbar Spondylosis
71	43. Sandhigatavata and Asthimajjagatavata Sandhigatavata, Katigraha, Manyasthambha, Vatakantaka, Avabahuka, Amsashosha
72	44. Diseases of bone, joints, and muscles

List of Practicals

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

Distribution of Practical Exam

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)X-Ray/ECG/ Clinical sign picture/ Slide/ Diagnostic report/ Causative factors</p> <p>X-Ray (Assessment format) 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 <p>(By assessing size, shape, density, and location of structures) – Airway/ Bones and soft tissue/ Cardiac/ Diaphragm/ Effusion/ Gastric bubble/ Hila and mediastinum)</p> <p>ECG (Assessment format): 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): 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): 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
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	<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 	
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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) • PradhanaVedana with Kala prakarsha (Chief complaints with duration) • Vartamanavyadhivruddhant (History of present illness) • PoorvavyadhiVrittanta (Past illness) • Kula vruttanta (Family history) • ChikitsaVruddhant (Treatment history) • VayaktikaVruddhant (Personal history) – Ahara, Vihara, Vyasana, Vyayamashakti, Mala pravritti, Mutrapravritti, Raja pravritti, Koshta, 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 Ashtasthanapareeksha • Systemic examination - Pratyaksha and AnumanaPariksha/PanchajnanendriyatahaPareeksha (Affected system/ systems), Srotopareeksha and Manapareeksha <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 (Vyavachedakanidana and vyadhivinishchaya) 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 pratyatmalakshana • Arriving at a final diagnosis based on the clinical acumen • Drafting the sampraptighataka (Involvement of dosha, dushya, indriya, manas, agni, koshta, srotas, srotodushtiprakara, udbhavasthana, sancharasthanavyaktasthana, rogamarga, upadrava, arishta, sadhyasadhya) 	40
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3	<p>Demonstration: Clinical examination on the simulator or a patient or Simulated patient (SP) (1 Demonstration X30 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: Pareeksha, DoshaVkruti, Dhatu and Srotovaigunya, Ama, NidanaPanchaka, Kriyakala, Vyadhi, Vyadhikshamatwa, DhatuPaka etc. Annavaha, Pureeshavaha, Pranavaha, Mutravaha, Rasavaha, Raktavaha, Medovaha, Vatavyadhi, Snayugata, Sandhigatavikara etc. (20 Marks)</p> <p>DK: Rogi and RogaBalapareeksha, Doshagata and Rogamarga, Nidanarthakararoga, Vyadhinamakarana, 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)</p> <p>Link to existing literature and critical thinking:</p> <p>MK: Pareeksha, DoshaVkruti, Dhatu and Srotovaigunya, Ama, NidanaPanchaka, Kriyakala, Vyadhi, Vyadhikshamatwa, DhatuPakaetc.Annavaha, Pureeshavaha, Pranavaha, Mutravaha, Rasavaha, Raktavaha, Medovaha, Vatavyadhi, Snayugata, Sandhigatavikara etc. (20 Marks)</p> <p>DK:</p>	70

	Rogi and RogaBalapareeksha, Doshagata and Rogamarga, Nidanarthakara- roga, Vyadhinamakarana, Sadyasadyata, Upadrava etc. (10 Marks)	
5	Internal assessments	30

References Books/ Resources

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2. Charaka Samhita Agnivesh, Charaka, Dridhbala . Reprint. Varanasi: Chowkhamba Sanskrit Series Office; 2009. Charaka Samhita
3. Susruta Samhita Acharya YT, editor. Sushruta Samhita of Sushruta. Reprint ed. Varanasi: Chaukhambha Orientalia; 2017
4. Ashtanga Hrudaya Sadashiva HS, editor. 1st ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2011. Astanga Hrudaya of Vagbhata
5. Ashtanga Sangraha Vagbhata. Ashtanga Sangraha. Edited by Shivprasad Sharma. Chowkhambha Sanskrit series office, Varanasi
6. Roga vigyan evum vikruti vigyan Yashwant Govind Joshi
7. Roganidan evum vikruti vigyan Prof. Ajay Kumar Sharma; Chaukhambha Bharati Academy
8. Textbook of Ayurvediya vikrtivijnana & Roga Vijnana Dr. Parameswarappa S. Byadgi; Chaukhambha publications, New Delhi
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12. Davidson's Principles and Practice of Medicine 24th Edition 2022 by Ian Penman (Editor), Stuart H. Ralston (Editor), Mark Strachan (Editor), Richard Hobson (Editor); Elsevier publishers
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14. Boyds Textbook of Pathology 10th Edition by J R Bhardwaj, Prabal Deb (Author), Wolters Kluwer India (Publisher)
15. Kundu's Bedside Clinics in Medicine 2020; KSP Udyog Publisher; Arup Kumar Kundu 16. P. J. Mehta's Practical Medicine 21st Edition – 2021; The National Book Depot; Nihar P Mehta, SP Mehta, SR Joshi
17. Macleod's Clinical Examination 13th Edition, 2013 by J. Alastair Innes, Anna R. Dover, Karen Fairhurst
18. Clinical Methods in Medicine : Clinical Skills and Practices 2015; Jaypee Brothers Medical Publishers; S. N. Chugh, Eshan Gupta
19. Chamberlain's Symptoms and Signs in Clinical Medicine 2010; CRC Press; Andrew R. Houghton & David Gray
20. Hutchison's Clinical Methods: An Integrated Approach to Clinical Practice 2012; Elsevier publishers Michael Glynn, William M. Drake
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. French's Index of Differential Diagnosis An A-Z 1 2016; CRC Press; by Mark T. Kinirons (Editor)
23. Savills System Of Clinical Medicine 14th Edition 2005; CBS Publishers; by E C Warner (Author)
24. Todd-Sanford-Davidsohn clinical diagnosis and management by laboratory methods 2016; Saunders publishers; by Campbell James Todd (Author)
25. Clinical Methods In Ayurveda 2013; Chaukhamba Orientalia; by Prof. K.R. Srikantha Murthy (Author)
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. Medical Laboratory Technology 2009; Jaypee Brothers Medical Publishers; by Ramnik Sood (Author)
28. Textbook of Medical Laboratory Technology Revised Reprint 2021; B. Godkar, Darshan P. Godkar; Bhalani publishing house
29. Practical biochemistry for medical, dental and allied courses 3 rd Edition; by Bd Toora G Rajagopal (Author)
30. Essential of clinical pathology 2010; First edition; Jaypee Brothers Medical Publishers; by Shirish M Kawthalkar (Author)
31. Textbook of human parasitology protozoology and helminthology 2020; CBS Publishers by Sood R. (Author)
32. Clinical Pathology & Clinical Bacteriology (For Medical Students and Practitioners) Jaypee Brothers Medical Publishers; 9th Edition; 2000 by Sachdev (Author)
33. Practical Pathology Arya Publications; by K. Uma Chaturvedi (Author), Tejindar Singh (Author)
34. Text book on clinical biochemistry and hematology Naveen Chandra, Anmol Publisher ; First edition, 2015
35. Medical Laboratory Technology Third Edition, 2019; NCBA publishers by C R Maiti
36. Diagnosis and Treatment of Common Skin Diseases 2016; Jaypee Brothers Medical Publishers; by Virendra N Sehgal (Author)
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39. Radiology in Medical Practice 2015; Elsevier India; by A B M Abdullah (Author)
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51. Introduction to Kayachikitsa Chaukhamba Orientalia Varanasi; 3rd Edition; 1996; C. Dwara-kanath
52. Digestion and metabolism in Ayurveda Chowkhambha Krishnadas Academy; 1997; 2nd Edition; by C. Dwarakanath
53. Ayurvedic Nadi Pariksha Vijnana Chaukhamba Surbharati Prakashan; 2015; by Dr. Govind Prasad Upadhyay
54. NAMASTE portal <http://namstp.ayush.gov.in/#/index>
55. AYUR PRAKRITI WEB PORTAL http://www.ccras.res.in/ccras_pas/
56. AYUSH research portal <https://ayushportal.nic.in/>
57. Dharaonline <http://www.dharaonline.org/Forms/Home.aspx>
58. Stanford Medicine25 <https://stanfordmedicine25.stanford.edu/>
59. Medscape Clinical Reference www.medscape.com
60. UpToDate www.uptodate.com
61. Merck Manual Professional Edition www.merckmanuals.com/professional
62. DynaMed www.dynamed.com
63. ClinicalKey www.clinicalkey.com
64. Taber's Medical Dictionary www.tabers.com/tabersonline
65. MedlinePlus Medical Dictionary <https://medlineplus.gov/>
66. WebMD Symptom Checker <https://symptoms.webmd.com/>.
67. Mayo Clinic Symptom Checker <https://www.mayoclinic.org/symptom-checker/selectsymptom/itt-20009075>.
68. Simulated cases EM SIM CASES <https://emsimcases.com/>
69. Daily rounds <https://dailyrounds.org/>
70. Prognosis <https://play.google.com/store/apps/details?id=com.medicalj oyworks.prognosis&hl=en&gl=US&pli=1>
71. PubMed Central <https://www.ncbi.nlm.nih.gov/pmc/>
72. Radiopaedia <https://radiopaedia.org/>

Agad Tantra evam Vidhi Vaidyaka
AyUG-AT

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

Contents of Course-**Total Marks- 100**

Sr. No	List of Topics
1	<p>Concepts of Agada Tantra (Clinical Toxicology)</p> <p>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.</p>
2	<p>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.</p>

3	<p>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.</p>
4	<p>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</p>
5	<p>Visha Upadrava and diseases caused due to exposure to Visha/poisons 5.1 Visha upadrava 5.2 Drug-induced toxicity 5.3 Occupational hazards. 5.4 Allergic manifestations 5.5 Endocrine disrupters</p>
6	<p>Environmental Toxicology 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.</p>
7	<p>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.</p>
8	<p>Therapeutic utility of Agada yoga 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)</p>
9	<p>Sthavara visha – Poisons of Plant origin 9.1. Cardiac Poisons - Vatsanabha, Karaveera, Digitalis, Tobacco and Cerbera odollam 9.2. Neurotoxic Poisons- Kupeelu, Ahiphena, Dhattura, Bhanga. 9.3. Irritant Poisons - Jayapala, Gunja, Bhallataka, Arka, Snuhi, Langali..</p>

10	<p>Sthavara Visha – Poisons of Metallic origin</p> <p>10.1. Arsenic. 10.2. Mercury. 10.3. Lead. 10.4. Copper</p>
11	<p>Jangama Visha</p> <p>11.1. Sarpa visha 11.2. Loota visha 11.3. Vrischika 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.</p>
12	<p>Kritrima visha</p> <p>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.</p>
13	<p>Substances of abuse</p> <p>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). 13.4. Narcotic Drugs and Psychotropic Substances (NDPS) Act.</p>
14	<p>Agada Tantra perspectives on cancer</p> <p>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.</p>
15	<p>Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka):</p> <p>15.1 Forensic Medicine and Medical Jurisprudence. 15.2 Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.</p>
16	<p>Vaidya sadvritta : Duties and Responsibilities of medical practitioner</p> <p>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.</p>

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.
18	Personal identity 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).
20	Asphyxial deaths 20.1. Hanging. 20.2. Strangulation and suffocation 20.3. Drowning.
21	Injury 21.1. Basics of injury 21.2. Mechanical injury 21.3. Firearm injury 21.4. Thermal injury 21.5. Dowry death
22	Pregnancy, delivery and abortion 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.
23	Sexual offences 23.1. Rape 23.2. Medico-legal aspects of sexual offences 23.3. Protection of Children from Sexual Offences (POCSO) Act
24	Forensic psychiatry. 24.1. Common symptoms associated with psychiatric disorders 24.2. Lucid interval 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.

26	<p>Laws, Acts, Rules and Regulations</p> <p>26.1 Clinical Establishments Act</p> <p>26.2 State AYUSH registration board rules and regulations.</p> <p>26.3 Medicare Service Persons and Medicare Service Institutions (Prevention of violence and damage or loss to property) Act, 2008.</p> <p>26.4 Drugs and Cosmetics Act and Rules – Schedules related to poison.</p> <p>26.5 The Occupational Safety, Health and Working Conditions Code, 2020</p> <p>26.6 Employees State Insurance Act, 1948.</p> <p>26.7 Rights of Person with Disability Act, 2016.</p>
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List of Practicals- (Marks-200)

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

16	Topics related to regional preference
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Distribution of Practical Exam

Sr No.	Heads	Marks
1	Spotting (15 specimens of 4 marks each) 1.1. Snake – 2 specimens 1.1.1 Identification - 1 mark 1.1.2 Differentiating features of poisonous/ non-poisonous snake – 1 mark 1.1.3 Important clinical signs - 1 mark 1.1.4 Ayurvedic management - 1 mark 1.2. Mineral poisons/ Kritrima visha (1 specimen each)-2 specimens 1.2.1. Identification - 1 mark 1.2.2 Identification of symptom clusters mimicking other diseases and their differential diagnosis - 2 marks 1.2.3 Method of detoxification and Antidotes - 1 mark 1.3. Toxic plants – 2 specimens 1.3.1 Identification with scientific, family and sanskrit names 1 mark 1.3.2 Mode of use in Visha cases – 1 mark 1.3.3 detoxification method, Class of poison and Active principles present in the plant - 1 mark 1.3.4 Antidotes used against the specimen - 1 mark 1.4. Antitoxic plants – 3 specimens 1.4.1 Identification with scientific, family and sankrit names - 1 mark 1.4.2 Mode of use in visha - 1 mark 1.4.3 Active principles - 1 mark 1.4.4 Important formulations - 1 mark 1.5. Injuries – 2 specimens 1.5.1. Identify the injury - 1 mark 1.5.2. Identify the weapon/criminal act causing such injury - 2 mark 1.5.3. Medico-legal importance - 1 marks 1.6. News item – paper cuttings or other medico-legal case scenarios – 2 specimens 1.6.1. Identify the crime – 1 mark 1.6.2. Relevant IPC/CrPC sections associated with the crime – 1 mark 1.6.3. Relevant Act related to the crime – with sub-questions related to its sub-sections, punishment etc. - 2 marks 1.7. Jangama visha – other poisonous creatures – 2 specimens 1.7.1. Identification – 1 mark 1.7.2. Adhishtana/samanya lakshana/ chikitsa – 2 marks 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)	60
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 CaseCase scenarios with pictures to diagnose a specific case of poisoning and specific questions asked regarding its clinical examination, investigations, treatment, prognosis etc.	10
5	Clinical Applications of Agada 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	Viva Questions will be asked on the following topics 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	10
8	IA	30

References Books/ 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 DR V P JOGLEKAR, RASHTRIYA SHIKSHAN MANDAL, PUNE
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

Samhita Adhyayan-2
AyUG-SA2

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

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2	<p>Cha.Su.14- Sveda Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Benefits of swedana 2. Swedana bh eda 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
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4	Cha.Su.16- Chikitsaprabhritiya Adhyaya I. Adhyaya parichaya 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
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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

8	<p>Cha.Su.20- Maharoga adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Vyadhibheda (classification of disease) 2. Agantu-mukha (causes of agantu diseases) 3. Trividha-prerana (three etiological factors) 4. Samanyaja-nanatmaja-vikara – classification 5. Vataja-nanatmaja vikaras, atmarupa and prakupitakarma 6. Pittaja- nanatmaja vikaras, atmarupa and prakupitakarma 7. Kaphaja- nanatmaja vikaras, atmarupa and prakupitakarma <p>III. Adhyaya sangraha</p>
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<p>12</p>	<p>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 6. Vishuddharaktalakshana 7. Vishuddharakta-purusha-lakshana 8. Pathya in raktamoksha 9. Introduction to mada-murchaya-sanyasa III. Adhyaya sangraha</p>
<p>13</p>	<p>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</p>
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16	<p>Cha.Su.28- Vividhashitapeeteeya Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 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 <p>III. Adhyaya sangraha</p>
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19	<p>Cha.Ni.01-Jwara nidana Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 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. <p>III. Adhyaya sangraha</p>
20	<p>Cha.Ni.02-Raktapitta nidana Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Raktapitta paryaya and nirukti. <ol style="list-style-type: none"> 2 Raktapitta nidana, purvarupa, upadrava 3. Raktapitta marga, dosha anubhandha and sadhyaasadyata. 4. Raktapitta chikitsa sutra <p>2. III. Adhyaya sangraha</p>
21	<p>Cha.Ni.03-Gulma nidana Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Sankhya samprapti 2. Gulma sthanas 3. Nidana, lakshana and samprapti of vata-pitta-kaphajagulma 4. Shonita gulma 5. Gulma purvarupa 6. Sadhya asadhya 7. Chikitsa sutra <p>III. Adhyaya sangraha</p>
22	<p>Cha.Ni.04-Prameha nidana adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Sankhyasamprapti (vimsatiprameha) 2. Sampraptighataka (doshavishesha and dushyavishesha) 3. Nidanapanchaka of doshaja prameha (vata, pitta and kapha) <p>Sadhyasadhyata Poorvarupa Upadrava Chikitsasutra</p> <p>III. Adhyaya sangraha</p>

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24	<p>Cha.Ni.06-Shosha nidana Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Vishesha nidana, samprapti and lakshana of shosha 2. Purvarupa 3. Ekadasa rupa 4. Sadhyasadhyata <p>III. Adhyaya sangraha</p>
25	<p>Cha.Ni.07-Unmada nidana Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 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, chikitsasutra <p>III. Adhyaya sangraha</p>
26	<p>Cha.Ni.08-Apasmara nidana adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Definition of apasmara 2. Apasmaraabhimukakarana (predisposing factors of unmada) 3. Vishesha lakshana of apasmara 4. Chikitsasutra 5. Nidanarthakara roga 6. Vyadhisankara 7. Suddha-asuddha cikitsa 8. Sadhyasadhyata – nirvacana 9. Tiryaggatadosha - cikitsasutra <p>III. Adhyaya sangraha</p>

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28	<p>Cha.Vi.02-Trividha kuksheeya Adhyayam</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Three divisions of amashaya for deciding aharamatraa <ol style="list-style-type: none"> 2 Matraavat ahaara lakshan 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 <p>III. Adhyaya sangraha</p>
29	<p>Cha.Vi.03-Janapadodhwansaneeya Vimanam Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 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 adharna 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 <p>III. Adhyaya sangraha</p>
30	<p>Cha.Vi.04-Trividha roga vishesha vijnyaneeya adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 1. Three methods of diagnosing diseases 2. Characteristics of aptopadesh, pratyaksha and anumana 3. Application of aptopadesha, pratyaksha and anumana in clinical examination <p>III. Adhyaya sangraha</p>

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34	<p>Cha.Vi. 08-Rogabhishagjiteeyam Adhyaayam.</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <ol style="list-style-type: none"> 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 <p>III. Adhyaya sangraha</p>
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50	<p>Cha.In.8-Avakshiraseeyam Indriyam Adhyaya I. Adhyaya parichaya II Adhyaya sangraha</p>
51	<p>Cha.In.9-Yasya shyavanimitiya Indriya Adhyaya I. Adhyaya parichaya II. Sidhanta vivarana 1. Ashtamaharogas III. Adhyaya sangraha</p>
52	<p>Cha.In.10-Sadyomaraneeyam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Sadyo maraneeya arishtas III. Adhyaya sangraha</p>
53	<p>Cha.In.11-Anujyotiyam Indriya Adhyaya I. Adhyaya parichaya II. Siddhanta vivarana 1. Definition of Arishta III. Shloka sangraha</p>

54	<p>Cha.In.12-Gomayachurniyam Indriya Adhyaya</p> <p>I. Adhyaya parichaya</p> <p>II. Siddhanta vivarana</p> <p>1. Mumurshu lakshana, 2. Prashasta doota lakshana and mangalika dravya. 3. Arogya janaka bhava</p> <p>III. Adhyaya sangraha</p>
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Practicals Topic list (Marks-100)

S.No	List of Topics
1	SHLOKA PATHANA- 1
2	LEARNING THROUGH VYAKHYANA-1
3	OBSERVING THE PRACTICAL UTILITY OF SNEHANA AND SWEDANA
4	IDENTIFICATION OF BAHUDOSHA LAKSHANA IN PATIENTS
5	ASSESSMENT OF DISEASES BASED ON TRIVIDHA BODHYA SANGRAHA
6	IDENTIFICATION OF ASHTA DOSHA IN STHOULYA
7	CLINICAL OBSERVATIONS ON NIJA AGANTUJA RELATIONSHIP
8	CLINICAL OBSERVATION ON SHADUPAKRAMA
9	ASSESSMENT OF RAKTA DUSHTI KARANA IN SPECIFIC CLINICAL CONDITIONS
10	OBSERVATIONS ON USE OF AGRYA AUSHADHA IN CLINICAL PRACTICE
11	ASSESSMENT OF DHATU-UPADHATU-MALA PRADOSHAJA VIKARAS IN PATIENTS
12	SHLOKA PATHANA- 2
13	LEARNING THROUGH VYAKHYANA-2
14	CASE TAKING IN RELATION TO NIDANA PANCHAKA

15	DIFFERENTIAL DIAGNOSIS OF SKIN DISEASES BASED ON GUIDELINES ON KUSHTA
16	PRAMANA PARIKSHA
17	IDENTIFICATION OF VIKARAVIGHATA BHAVA ABHAVA IN PATIENTS
18	EXPLORATION OF LOKA PURUSHA SAMYA VADA IN THE BACK GROUND OF ONE HEALTH
19	SHLOKA PATHANA-3
20	LEARNING THROUGH VYAKHYANA-3
21	LEARNING THROUGH SAMHASHA PARISHAD
22	SROTAS PROFORMA
23	LEARNING THROUGH TANTRA YUKTI
24	ASSESSMENT OF HEALTH THROUGH DHATU SAMYA PAREEKSHA
25	AGNI ASSESSMENT BASED ON APACHARA
26	TRIVIDHA ROGA VISHESHAVIJNANA IN DIAGNOSIS
27	ASSESSMENT OF UPASAYA AND ANUPASAYA IN PATIENTS

Distribution of marks for 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 Indriyasthan	5
9	Electives	10
10	IA	15
Total Marks		100

References Books/ 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: Chaukhamba 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.carakasamhitaonline.com
- 13 Illustrated Charakasamhita, Dr. R Vidyanath R Vidyanath, editor. Illustrated Charakasamhita (English Commentary): Varanasi Chaukhamba 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

Swasthavritta evam Yoga**AyUG-SW**

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	

Contents of Course-

Sr. No	A2 List of Topics
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&AsanchithaDosha& Classification of Swasthapurusha as Sanchitadosha and AsanchitaDosha. 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>
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 Niyatakalavihara (Dinacharya, Ritucharya) and Aniyatakalavihara (Vegadharana, Vegaudirana, Ritushodhana, Brumhana and Bhutadiasparshana) for health promotion and disease prevention. Concept of waking up at 'Brahmemuhurta' 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 vatakaala - 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. Abhyangaas as health promotive measure. Importance of the Tambula. PrayogikaDhoo-</p>

	<p>mapana(Practicable&nonpracticableDhoomapana- 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 SarvangaAbhyanga, 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>
	<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 ativyayama. 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- Ratrichojanvidhi and its relation to health. Ratrishayanavidhi in relation to the proper time of sleep. Relation between Nidra and health. Effects of Yukta&Ayuktanidra. Effects of RatriJagarana, Diwaswapna, Anidra, Atinidra and AkalaNidra. 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 Asatmyajagarana (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>
4	<p>Ritucharya- Classification of kaala , Adana kala and visargakala , identification of seasons based on the ritulakshanas in different geographical areas. Sanchaya- Prakopa- Prashamana of Dosha with their gunas in each ritu. Relation of Agni ,Bala and Ritu with its application. Ritushodhana 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 ritusandhi and Yamadanshrakala. Rituharitaki as a rasayana with research updates. Effects of Ritu viparyaya on health and its relation to janapadaudhwamsa/marakavyadhis with present day examples.</p>
5	<p>Roganutpadaniya- Concept of vegadharana and vega-udirana in relation to health and morbidity. Symptoms and management principles of adharaniyavegajanyavyadhis from bruhattrayee. Concept of vegaudirana (viz. Use of snuffing powder, forcible evacuation of bowels & bladder etc.). Importance of dharaniyavegas in promotion of mental health</p>

6	<p>Sadvritta Sadvritta measures for the maintenance of personal ,social and spiritual health. Observance of Sadvritta for the prevention of Adharma. AcharaRasayana" 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 illhealth. Mental health services and comprehensive mental health programme. Role of trigunas and satvavajaya in mental health promotion in present era. Digital health promotion</p>
7	<p>Ahara Significance of Ahara for health and well-being according to Ayurveda & Contemporary science. Classification of aharadravyas as per Ayurveda & Contemporary science. Ahara-vidhividhana, Aharasevanakala&Dwadashaashanpravicharana . Applied aspect of Pathyahara, Apathyahara, Samashana, Adhyashana, Vishamashana. Ahara&vihara leading to SantarpanajanyaevamApatarpanajanyavyadhi and importance of upavasa and concept of intermittent fasting. Benefits of Shadrasabhojana. Importance of Ashtaaharavidhivisheshaayatanani in present era. Importance of Nityasevaniyadravyas in the maintenance of health. Properties (Guna& karmas) of Aharadravyas in the following vargas with their nutritive value: Dhanyavarga – ShukaDhanya (Cereals and Millets), ShamiDhanya (Pulses), Shaka and Haritavarga (Leafy and Non leafy vegetables), Kanda varga (roots and tubers), Phalavarga (Fruits), Tailavarga (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.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 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, Pescovegetarian, 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. UrjaskaraRasayanas as per age and occupations /Activities .Antioxidant &immunomodulatory effects of Rasayana with reference to research articles. Importance of lifestyle counselling with its methods.</p>
9	<p>Yoga Etymology/derivation of the word 'Yoga'. Definitions of Yoga according to PatanjaliYogasutras, Bhagavad Gita and CharakaSamhita. Difference between Rajayoga, Hathayoga and Karmayoga.YogabhyasaPratibhandhakas and Yoga Siddhikarabhavas. Mitahara and Pathya-apathyas during Yogabhyasa . Concept of Pan-chakosha 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 Uddi-yanabandha. Mudras - Shanmukhi mudra and Jnana mudra. Shatchakras and their importance in Yoga practice. Description of Ida-Pingala-Sushumnanadis and their importance in yoga practice.Conceptof Moksha according to Charaka , Muktatmalakshana and Moksha upayas.Importance of International Day of Yoga (IDY). Adverse effects of improper Yoga practices</p>
10	<p>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</p>
Paper 2 Public health Total Marks-100	
11	<p>Janapadodhwamsa / MarakaVyadhi Causes of Janapadodhwamsa/ marakavyadhi. 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. Sankramakaroga 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, ZikaVirus , H1N1,H3N2,etc,. 5.Sexually transmitted diseases (STDs) with prevention and control - HIV/ AIDS, Syphilis and Gonorrhea. 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 .,</p>

12	<p>Environmental health Air: Properties of Vayu and composition of air. Changes in 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 Biomedical 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>
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>
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>
16	<p>Disinfection 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.</p>
17	<p>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.</p>
18	<p>Mother and Child health care</p>

	Objectives of Maternal and Child Care services. MCH problems & indicators of MCH care.
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).
20	Preventive Geriatrics Health problems of the aged and prevention and control measures. Relation between life-style and healthy aging. Role of Rasayana in preventive geriatrics.
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.
22	Vital Statistics Definition of Vital Statistics. Sources of Vital statistics. Fertility , Morbidity and Mortality rates. Registration of Birth and Death Act, 1969
23	Health Administration Health administration including AYUSH at the Central, State, District, and Village levels.
24	National Health Programmes 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.

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

Distribution of Practical Exam

S.No	Heads	Marks
1	Yoga - Demonstration of 4 Asanas and 1 Pranyama or Shatkarmaproedure 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 KapalabhatiEach 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, agnibalaetc,.. B. Advise on Lifestyle - 15 Marks Scenario will be given and asking student advise lifestyle modifications such as Brahmehurtau- thishteth, Vyayama, Kavala- gandusha,Abhyanga, Udwartana ,Pratimarshanasyaetc,.. ,	40

3	<p>Problem-based evaluation - Disinfection, Communicable diseases Environmental health, & Non- Communicable including deficiency diseases.</p> <p>A. Disinfection (identification, dose, suitsbility , dilution and contactperiod), 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</p> <p>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 nutrional profile etc., - 15 Marks</p>	30
4	Practical Records	10
5	Viva Viva on project work (Activity Based) -10 marks	60

References Books/ Resources

- 1 Relevant portions of Charaka, Sushruta, Vagbhata, Sarngadhara, Bhavaprakasha, Yogaratnakara, Madhavanidana and Bhelasamhita.- relevant Samhithas Print /online samhithas
- 2 SwasthavrittaSamucchaya 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 , New delhi
- 8 Light on Yoga BKS Iyengar , Published by Harper collins , Publishers India , New delhi
- 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 , New delhi
- 13 Dr. Reddy's comprehensive guide to Swasthavritta Dr.P.Sudhakar Reddy , Published by Chaukhambha Sanskrit Pratishtan, New Delhii
- 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 byb 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 MDPublishers : 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-lawsand-regulations-in-india>
- 26 Food acts : <https://fssai.gov.in/cms/food-safety-and-standardsact-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>
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