

Course curriculum for Second Professional BAMS

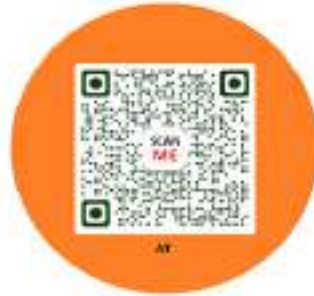
(PRESCRIBED BY NCISM)

शास्त्रं ज्योतिः प्रकाशार्थं दर्शनं बुद्धिरात्मनः।

Agad Tantra evam Vidhi Vaidyaka

(SUBJECT CODE : AyUG-AT)

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



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

II Professional Ayurvedacharya (BAMS)

Subject Code : AyUG-AT

Summary

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

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

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

PREFACE

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

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

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

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Course Code and Name of Course

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

Table 1- Course learning outcomes and matched PO

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

Table 2 : Contents of Course

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

	• 5.1 Visha upadrava • 5.2 Drug-induced toxicity • 5.3 Occupational hazards. • 5.4 Allergic manifestations • 5.5 Endocrine disrupters				
6	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.	2	11	2	5
7	Dermatological manifestations of visha/poisons. 7.1. Contact dermatitis and its management. 7.2. Signs and symptoms and management of abhyanga visha, lepa visha, vastra visha, paduka visha, abharana visha etc. with contemporary relevance. 7.3. Signs and symptoms and management of dermatological manifestations due to cosmetics, chemicals, occupational and other allergens. 7.4. Dermatological manifestation due to dooshivisha and garavisha. 7.5. Dermatological manifestation due to bites and stings.	2		6	2
8	Therapeutic utility of Agada yoga • 8.1 Dooshivishari agada • 8.2 Bilwadi agada • 8.3 Dashanga agada • 8.4 Murvadi agada • 8.5 Panchashirisha agada • 8.6 Vishaghna mahakashaya (Charaka Samhita) • 8.7 Ekasara gana (Sushruta Samhita)	2		1	0
9	Sthavara visha – Poisons of Plant origin 9.1. Cardiac Poisons - Vatsanabha, Karaveera, Digitalis, Tobacco and Cerbera odollam.	2	17	4	2

	9.2. Neurotoxic Poisons- Kupeelu, Ahiphena, Dhattura, Bhanga. 9.3. Irritant Poisons - Jayapala, Gunja, Bhallataka, Arka, Snuhi, Langali.				
10	Sthavara Visha – Poisons of Metallic origin 10.1. Arsenic. 10.2. Mercury. 10.3. Lead. 10.4. Copper	2		4	2
11	Jangama Visha 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.	2		10	6
12	Kritrima visha 12.1. Inorganic Acids – Sulphuric acid, Hydrochloric acid, Nitric acid. 12.2. Organic Acids - Oxalic acid, Carbolic acid, Formic acid. 12.3. Alkalies - Potassium hydroxide and Sodium hydroxide. 12.4. Asphyxiants – Carbon monoxide, Carbon dioxide. 12.5. Non-metallic poisons – Phosphorous, cyanide 12.6. Hydrocarbons – Kerosene. 12.7. Agrochemical Poisoning – Organo-phosphorus compounds, Carbamates, Organo-chlorine compounds, Aluminium phosphide. 12.8. Household poisons.	3	12	2	0
13	Substances of abuse 13.1. Madya and madatyaya, Alcoholism. 13.2. Addiction - Alcohol, Bhang, Opioids, Tobacco and Digital addiction. 13.3. Drugs of abuse- Lysergic acid diethylamide (LSD) and 3,4-Methylenedioxy methamphetamine (MDMA).	3		4	3

	13.4. Narcotic Drugs and Psychotropic Substances (NDPS) Act.				
14	Agada Tantra perspectives on cancer 14.1. Toxic carcinogens. 14.2. Toxicities due to chemo and radiotherapy and its Ayurvedic approach. 14.3. Agada and visha dravya prayoga in the prevention and management of cancer along with its research updates.	3		2	4
15	Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): 15.1 Forensic Medicine and Medical Jurisprudence. 15.2 Introduction to Indian Penal Code, Indian Evidence Act and Criminal Procedure Code.	1	10	1	0
16	Vaidya sadvritta : Duties and Responsibilities of medical practitioner 16.1 Vaidya sadvritta, medical ethics and code of conduct, Charaka oath and Hippocratic oath. 16.2 NCISM - constitution, objectives and functions. 16.3 Duties, rights and privileges of a registered medical practitioner. 16.4 Consent, professional secrecy and privileged communication. 16.5 Professional negligence, professional misconduct and unethical practices. 16.6 Defenses in medical negligence suits. 16.7 Medical records. 16.8 Consumer Protection Act.	1		6	4
17	Legal Procedures 17.1. Courts and their powers 17.2. Inquest, evidence and witnesses 17.3. Court procedures: summons, oath, recording of evidence and conduct money. 17.4. Conduct of a medical professional in the court of law.	1		4	4
18	Personal identity	1		2	2

	18.1. Identification data 18.2. Age 18.3. Race, religion, sex. 18.4. Moles, tattoos, scars, occupational marks & hairs. 18.5. Hand writing, dactylography, DNA typing and superimposition				
19	Thanatology 19.1. Death 19.2. Signs of death. 19.3. Medicolegal autopsy and exhumation. 19.4. The Transplantation of Human Organs and Tissues Act (THOTA).	2	12	6	2
20	Asphyxial deaths 20.1. Hanging. 20.2. Strangulation and suffocation 20.3. Drowning.	2		4	2
21	Injury 21.1. Basics of injury 21.2. Mechanical injury 21.3. Firearm injury 21.4. Thermal injury 21.5. Dowry death	2		5	3
22	Pregnancy, delivery and abortion • 22.1 Medico-legal aspects of pregnancy, delivery, infanticide and battered baby syndrome. • 22.2 Abortion, Medical Termination of Pregnancy (MTP) Act and Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act. • 22.3 Medico-legal aspects of artificial insemination and surrogacy.	3	6	2	3
23	Sexual offences 23.1. Rape 23.2. Medico-legal aspects of sexual offences 23.3. Protection of Children from Sexual Offences (POCSO) Act	3		2	1
24	Forensic psychiatry. 24.1. Common symptoms associated with psychiatric disorders 24.2. Lucid interval	3	7	2	2

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

Table 3: Learning objectives (Theory) of Course

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

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

CO1,CO2,CO3	Explain the various sources of exposure of visha like anna, paana, vastra, abhyanga, lepa, paduka, abharana, etc.	CK	DK	K	L&PP T,L& GD	T- EW,CL- PR,M-CHT	F&S	I	
CO1,CO2,CO3	Describe the Ayurvedic methods of detection of food and beverages contaminated with visha.	CC	MK	KH	L&PP T,L_ VC,S DL,D	T- EW,P-VIV A,P-EXAM	F&S	I	
CO1,CO2,CO3	Define adulteration, describe the methods of detection of adulterants and its relevance in Agada Tantra.	CAP	DK	KH	L_VC ,SDL, PT	T- EW,P-VIV A,P- EXAM,OSPE ,RK	F&S	I	
CO1,CO2,CO3	Describe the modern analytical techniques for the detection of poison (in contaminated articles) like chromatography, spectroscopy, etc.	CC	NK	KH	L&PP T,L& GD,L _VC	T- EW,P- VIVA,CL-PR	F&S	I	
CO1,CO2,CO3	Define viruddha ahara and explain its types.	CC	MK	KH	L&PP T,L& GD,B S	T- EW,P- VIVA,INT	F&S	I	
CO1,CO2,CO3	Discuss and illustrate the contemporary importance of viruddha ahara with examples	CAN	MK	KH	L&G D,BS, SDL	T- EW,QZ ,CL-PR	F&S	I	
CO1,CO2,CO3	Discuss the application of concepts of viruddha ahara in the prevention and management of diseases.	CAP	MK	KH	L&G D,BS, SDL	T- EW,P-VIV A,CR-RED	F&S	I	
CO1,CO2,CO3	Describe food poisoning, its types and management.	CC	MK	KH	L&PP T,L&	T- EW,P-VIV A,CR-RED	F&S	I	

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

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

					BL				
CO2,CO3,CO 4	Discuss the application of the treatment principles of Agada Tantra in various allergic manifestations.	CAP	MK	KH	L&G D,BS, CBL	T-EMI,P-VIV A,PRN,CL-PR	F&S	I	
CO2,CO3,CO 4	Define and enlist endocrine disruptors and discuss its Agada Tantra perspectives.	CAP	DK	KH	L&PP T,DIS ,BS,C BL	CL-PR,M- CHT,COM	F&S	I	
Topic 6 Environmental Toxicology (Lecture :2 hours, Non lecture: 5 hours)									
CO4,CO5	Define environmental toxicology.	CK	DK	K	L&PP T,DIS	PRN,M-POS	F&S	II	
CO3,CO4,CO 5	Describe the lakshanas and chikitsa of vishakta bhoomi, vishakta jala, and vishakta vayu.	CK	DK	K	L&PP T	P-VIVA,P- MOD	F&S	II	
CO4,CO5	Define pollution. Describe various pollutants and explain water pollution, soil pollution, air pollution,along with their health hazards.	CK	DK	KH	L&PP T,BS	T- EW,T-CS,P RN,P-MOD	F&S	II	
CO4,CO5	Describe the health effects of biological, chemical and nuclear warfare.	CK	NK	K	L&G D,SD L	PRN,QZ	F&S	II	
CO4,CO5	Define ecotoxicology & biomagnification.	CK	NK	KH	L&G D,SD L	PRN,CL-PR	F&S	II	
CO4,CO5	Explain the concept of toxicovigilance	CC	DK	K	FC,S DL	P-POS,CL- PR,CR-RED	F	II	
Topic 7 Dermatological manifestations of visha/poisons. (Lecture :6 hours, Non lecture: 2 hours)									

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

3,CO4	Doohivishari Agada, Bilwadi Agada, Dashanga Agada, Murvadi agada and Panchashririsha Agada.				T,DIS ,CBL	CASE			
CO1,CO2,CO 3,CO4	Enlist and discuss the ingredients of vishaghna mahakashaya (Charaka Samhita) and ekasara gana (Sushruta Samhita).	CAP	MK	KH	L&PP T,BS, CBL, FC	T- EW,P- VIVA	F&S	II	
Topic 9 Sthavara visha – Poisons of Plant origin (Lecture :4 hours, Non lecture: 2 hours)									
CO2,CO4,CO 6	Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of vatsanabha.	CAP	MK	KH	L&PP T	T- EW,P- VIVA,P-ID	F&S	II	
CO2,CO4	Mention therapeutic dose and enlist two important formulations of vatsanabha.	CK	NK	K	L	T-EMI,P-VIV A,P-EXAM	F&S	II	
CO2,CO4,CO 6	Describe the active principles, mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of karaveera.	CAP	MK	K	L&PP T	T- EW,P- VIVA,P-ID	F&S	II	
CO2,CO4	Mention therapeutic dose and enlist two important formulations of karaveera.	CK	NK	K	L	T- EW,T- ME Qs,P-VIVA,P- EXAM	F&S	II	
CO2,CO6	Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of digitalis.	CAP	NK	K	L&PP T	T- EW,P- VIVA	F&S	II	
CO2,CO6	Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and medicolegal aspects of tobacco.	CK	MK	K	L&PP T	T- EW,P-ID	F&S	II	
CO2,CO6	Describe mode of action, fatal dose, fatal period, signs and symptoms, management, post-mortem appearance and	CK	DK	K	L&PP T	T- EW	F&S	II	

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

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

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

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

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

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

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

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

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

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

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

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

List of Practicals (Term and Hours)

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

Table 4: Learning objectives (Practical)

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

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

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

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

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

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

		visha chikitsa practices, regional medico-legal issues etc.								
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Table 4a: List of Practical

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

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

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

Activity

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

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

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

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

Hours indicated are included in calculations of Table 3 and 4

Table 5- Teaching learning method

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

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

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

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

6 A-Number of Papers and Marks Distribution

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

6 B - Scheme of Assessment (formative and Summative)

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

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

** University Examination shall be on entire syllabus

6 C - Calculation Method for Internal assessment Marks

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

6 D - Evaluation Methods for Periodical Assessment

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

Evaluation Methods in MSE

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

6 E Question Paper Pattern

II PROFESSIONAL BAMS EXAMINATIONS

AyUG-AT

PAPER-1

Time: 3 Hours Maximum Marks: 100

INSTRUCTIONS: All questions compulsory

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

6 F Distribution of theory examination

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

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

Paper No:1		
Question No	Type of Question	Question Paper Format
Q1	Multiple choice Questions 20 Questions 1 mark each All compulsory Must know part - 15 MCQ Desirable to know - 3 MCQ Nice to know part - 2 MCQ	1. Concepts of Agada Tantra (Clinical Toxicology) 2. Visha Chikitsa (Management of Poisoning) 3. Vishakta aahara pariksha and Viruddha ahara 4. Garavisha and Dooshivisha 5. Visha Upadrava and diseases caused due to exposure to Visha/poisons 6. Asphyxial deaths 7. Dermatological manifestations of visha/poisons. 8. Therapeutic utility of Agada yoga 9. Kritrima visha / Sthavara Visha – Poisons of Metallic origin 10. Jangama Visha 11. Substances of abuse 12. Agada Tantra perspectives on cancer 13. Vaidya sadvritta : Duties and Responsibilities of medical practitioner / Forensic medicine (Vyavahara Ayurveda) and Medical jurisprudence (Vidhi vaidyaka): 14. Legal Procedures / Injury 15. Pregnancy, delivery and abortion / Thanatology 16. Environmental Toxicology / Personal identity 17. Forensic psychiatry. / Forensic science laboratory 18. Laws, Acts, Rules and Regulations 19. Sthavara visha – Poisons of Plant origin 20. Sexual offences
Q2	Short answer Questions Eight Questions 5 Marks Each All compulsory Must know - 7 SAQ Desirable to know - 1 SAQ No questions on Nice to know	1. Vishakta aahara pariksha and Viruddha ahara / Visha Upadrava and diseases caused due to exposure to Visha/poisons / Garavisha and Dooshivisha 2. Visha Chikitsa (Management of Poisoning) / Therapeutic utility of Agada yoga / Dermatological manifestations of visha/poisons. 3. Kritrima visha / Sthavara visha – Poisons of Plant origin / Environmental Toxicology / Sthavara Visha – Poisons of Metallic origin 4. Jangama Visha / Concepts of Agada Tantra (Clinical Toxicology) / Vaidya sadvritta : Duties and Responsibilities of medical

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

6 H Distribution of Practical Exam

S.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	60

	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 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)	
2	Practical Records	10
3	Medical and Medico-legal Certificate Writing Students will be provided with a case-scenario based on which they are asked to write a medical certificate for a specific purpose. Evaluation guidelines should be based on the essential criteria in the format of a valid medical certificate.	10
4	Short Case Case scenarios with pictures to diagnose a specific case of poisoning and specific questions asked regarding its clinical examination, investigations, treatment, prognosis etc.	10
5	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 (Set SA)	10
8	IA	30
Total Marks		200

References Books/ Resources

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

Abbreviations

Assessment

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

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

Domain

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

T L method

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

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