

6. AGADA TANTRA EVUM VIDHIVAIIDYAKA

Theory-400 marks (100 each)

Practical and viva- voce -100 marks

PAPER -I

100 MARKS

AGADA TANTRA (AYURVEDIC AND CONTEMPORARY TOXICOLOGY)

PART-A

1. Agadatantra its sequential development during vedakala ,samhitakala, samgrahakala, adhunikakala.
2. Definition of visha, properties of visha and its comparison with madya and oja ,vishasamprapti, vishaprabhava, vishavega, vegantara and vishakarmukata (toxicodynamic and toxicokinetic study).
3. Descriptive and comparative study of upavisha in **union** with contemporary toxicology.
4. Examination of poisons as per contemporary and ayurvedic methods.
5. Detailed study of the following:

visha and upavisha – arka ,snuhi, langali, karaveera, gunja, ahiphena ,dhattura ,bhallataka, vatsanabha, kupeelu, jayapala, bhanga, tobacco, partheniumhistoferous, chitraka, eranda, digitalis, cerebra odollumete.

acid and alkalies- sulphuric acid, hydrochloric acid, nitric acid , hydrocyanic acid , oxalic acid, carbolic acid, formic acid and alkaliesete.

Asphyxiants – carbon monoxide , carbon dioxide, hydrogen sulphideete.

antihistamines, cocaine hallucinogens- LSD sedatives and hypnotics – Barbiturates petroleum- kerosene poisoningorgano phosphorus compounds – aluminium phosphate, zinc phosphide ete.

a. non metallic poisons- phosphorous , iodine ete

b.metallic poisoning- arsenic, mercury, lead, copper,zinc,tin, radiation metalsete.**Introduction to radioactive substances.**

6. Study of jangamavisha and their sources (animal poisoning and zoonotic diseases).
descriptive study of snakes according to ancient and contemporary Knowledge. Causes of snake bite and its types, composition snake venom and its pharmacological actions. Sign and symptoms of envenomation and its prognostic signs. Clinical features of vrischika (scorpion), luta(spider) , grihagodhika (lizard), mushaka(rats), alarka(dogs), makshika and mashaka (mosquitoes) and their pathological manifestations including their role in the manifestation of communicable diseases.

7. Shankaavisha and its management. vishasankat.

PART –B

1. **Garvisha** and Dushivisha , their varieties ,signs,**prodromal** symptoms ,**symptoms prognosis** ,**complications** and management with contemporary relevance. Detailed study of Allergies including allergic manifestations in the eyes, nose, lungs and skin.
2. Detailed study of madyavisha and **introduction to** substances acting on the nervous system ; substance abuse (Diagnosis , management and de-addiction).
3. Detailed study of the contemporary knowledge about vishajanyajanapandodhavansaniyaroga (community health problems due to poison- environmental pollution, water pollution, soil pollution, air pollution, industrial pollution etc. their features and management according to ancient and recent concepts.
4. Concept of virudhaaahara ,aaharavisha and satmyasatmyata in contemporary and ayurvedic views.
5. conceptual study –Drug interactions and incompatibility, pharmacovigilance.

PAPER-II

100marks

VISHA CHIKITSA VIGYAN (MANAGEMENT OF POISONING)

PART-A

1. Fundamental Principles for treatment of poisoning
2. General and specific treatment of different types of Sthavaravisha **enumerated in paper 1.**
3. General and specific treatment of different types of Jangamavisha(animalpoisons; insect poisons; snake bites; and other zoonotic diseases) **enumerated in paper 1.**
4. Emergency medical management of poisoning including preparation; administration and complications of antivenoms/ antisera.
5. Chaturvimsatiupakrama (24 management procedures).
6. Management of Garavisha and Dushivisha treatment of Allergies including allergic Manifestations in the eyes ; nose; lungs; and skin.

PART B

1. Diagnosis and Management of Drug Induced Toxicity.
2. Management of the toxic manifestations caused by the contact poisons(paduka; vasthra; abharana; mukhalepavishabadhaetc).

3.Management of food poisoning.

4.~~Death due to poisoning;~~ **Duty of physician in poisoning; in cases of suspected poisoning.**

Post mortem findings in poisoning.

5. **Introduction to** Extra_corporealtechniques(dialysis etc) for removal of poisons.

PAPER-III

100 Marks

VYAVAHARA AYURVEDA EVAM VIDHI VAIDYAKA

PART-A

1.Definition of Vyavahara Ayurveda; its evolution in ancient and contemporary periods.

2.Personal identity and its medico legal aspects.

3.Death and its medico legal aspects(Medical Thanatology)

4.Asphyxial deaths and its medico legal importance.

5.Death due to starvation,heat and cold,lightening and electricity.

6.Suspended Animation.

7.Medico legal autopsy.

a) post mortem findings in poisoning.

8.Injuries due to explosions,chemical and nuclear warfare.

9.Medico legal aspects of injuries and wounds.

10. Impotence and sterility Itsmedicolegal aspects. Regulations of Artificial Imsemination.

Medicolegal aspects of surrogate motherhood.

11. Sexual offences and perversions.

12.Medico legal aspects of virginity ,pregnancy, delivery, abortion, infanticide and legitimacy with related acts.

PART B

1.Indian Penal Code, Criminal procedures code and study of related acts like Indian Evidence Acts, Pre Natal Diagnostic Test Act, Nursing Home Act, Human Organ Transplantation Act, Drugs and Cosmetic Act 1940,Narcotic drugs and Psychitropic substances Act 1985,Pharmacy Act 1948,Drugs and Magical Remedies (Objectionable Advertisements) Act 1954, Medical and Toilet Preparations Act 1955 and Anatomy Act etc. Any related act enacted by the government from time to time.

2.**Introduction to**Courts and Legal procedures.

3.Forensic Science Laboratory.

4. Medico legal aspects of mental illness.
5. Duties and privileges of physician.
6. Structure of Central Council of Indian Medicine, its jurisdiction and functions. Code and Conducts as per the CCIM, Rules and Regulation there under.
7. Respective State Council of Indian Medicine, its structure, power, voluntary duties.
8. Doctor patient relationship.
9. Rights and privileges of patients, Euthanasia.
10. Professional secrecy and privileged communication.
11. Professional negligence and malpractice.
12. Indemnity Insurance scheme.
13. Consumer Protection Act related to medical practice.
14. Ethics as in classics.

Types of physicians and methods of identification, Pranabhisara and Rogabhisara Physicians, qualities of physician, responsibilities of Physicians, Chaturvidhavaidyavriti, duties of physicians towards patients, Vaidyasadvrittam, ApujyaVaidya who is accepting fees, relationship with females.

PAPER IV

100marks

AUSHADHA YOGA VIGYAN

PART-A

1. Pharmacodynamics of different formulations used in Agadatantra.
2. Study of pharmacology and usage of antidotes as per the Ayurvedic and contemporary science.
3. Fundamentals of pharmaceuticals according to Ayurveda and contemporary point of view.
4. **Introduction to forensic Science Laboratory. Chemical, analytical, laboratory examination of poisons and suspicious substance.**

PART-B

1. Introduction of different instruments/equipments used in the examination of poisons.

Microscopes viz compound, binocular, trinocular, research advanced

pH meters

Photoelectric colorimeter

TLC

HPTLC

HPLCS

DNA profile

GC

GC-MS

AAS s

UV Spectrophotometer

Electrophoresis

2.Introduction to Clinical toxicology.

3.Introduction to Experimental toxicology

4.Introduction to Toxicogenomics

5.**Introduction to** of the traditional and folklore vishachikistasampradaya.

Content of Practical/ Demonstration

1.Identification of specimens models and equipments of toxicology and jurisprudence importance.

2.Practical training in postmortem examination(~~10 cases~~)

Medico-legal cases (~~20 cases~~)—**30 marks**

3.Chemical Identification of various acids, alkalis, alcohols, Hydrochloric acid, Nitric acid, Sulphuric acid, Ascorbic acid, Sodium Hydroxide and Potassium Hydroxide.

4.**Introduction to** Detection of minerals Copper, Mercury, Lead, Arsenic and their compounds.

5.**Introduction to** Physical and Chemical analysis **any two** of Dattura, Karaveera, vatsanabha, Jayapala, Arka and Bhallataka with Microscopy, powder microscopy, TLC, solvent extraction, detection of Phenol, tannins etc.(10 studies)

6.Detection of human blood, hair, semen and other biological secretions of Forensic importance

7.As per MSR, at least one paper to be published/accepted in a peer reviewed journal.

8.Clinical postings

a.Regular clinical postings in the Agadatantra OPD/ IPD. **4 weeks**

b.Modern medical hospitals - 2 weeks

(For emergency management of poisoning).

10.Other Postings

a. Postmortem postings - 2 weeks

b. Court postings - 1 week

Visit to

- 1.Forensic Laboratory
- 2.Anti snake venom serum manufacturing Unit(Optional)

Pattern of practical examination

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|---|-----------|
| 1.Post mortem/ Medico-legal case record and clinical record | -20 marks |
| 2.Clinical case presentation/ xray,weapons,bones | -20 marks |
| 3.Spotting related to Visha , Upavisha and other poisonous drugs. | -10 marks |
| 4.Thesis presentation | -25 marks |
| 5.Viva- voce | -15 marks |
| 6. Communication skills | -10 marks |

Total **100 marks**

Reference Books:-

- 1.Useful Portion of Charak- Sushrut-Vagbhata
- 2.Dravyaguna Viyan -AcharyaYadavji
- 3.Aushadhigunadharm Shastra -PtVisvanathDvivedi
- 4.Kriyatmat AushadaparichayaVigyan -PtVisvanathDvivedhi
- 5.Ayurvedic VyadhiVigyan -AcharyaYadavjiTrikamji.
- 6.Madhavnidan with Madhukosha commentary.
- 7.SharangadharaSamhita
- 8.Yogaratnakara
- 9.AushadigunadharmShastra -PtGangadharaShastriGune
- 10.Rasendracintamani
- 11.Rasaratnasamuchhaya
- 12.Vishavigyan -Dr.Krishna Kumar
- 13.Related matter of KautilyaArthaShastra
- 14.Harmekhlatantra
- 15.Anupanamanjari 16.Ayurvedprakash
- 17.System of clinical medicine -Savil
18. Forensic Pharmacy -B.M. Mhithai
- 19.Hand book of Forensic Medicine and Toxicology -Dr.P.V. Chadha
20. Viva Forensic Medicine and Toxicology -L.C.Gupta
- 21.Forensic Medicine and Ethics -J.P.Narena
- 22.Modis Medical Jurispudence and Toxicology
- 23.The essentials of forensic medicine and toxicology -Dr.K.S. Narayan Reddy

24. Medical laws and Ethics	- Dr. H.S.Mehta
25. M.R.K. Krishnans Handbook of Forensic Medicine.	
26. Textbook of Medical Jurisprudence and Toxicology	-Dr.C.K .Parikh
27. Atlas of Forensic Medicine	-Dr.TomioWatenbe
28. Medicolegal post mortems(Atlas)	-Dr. Parikh and Others
29. Textbook of forensic medicine and toxicology	-DrV.V.Pillay
30. Textbook of Forensic medicine and Toxicology	-Dr.Karmarkar
31. Textbook of forensic medicine and Toxicology	-Dr.Singhal
32. Textbook of Forensic medicine and Toxicology.	- Dr.KrishnanVij
33. Forensic pathology	-Dr.Bernard Knight
34. Textbook of Forensic medicine and toxicology.	-Dr.Lyons
35. Pocket picture guide to Forensic medicine.	-GowersMedicalPublication
36. Forensic Medicine	-Simpson Knight
37. Taylors Principles and practical of Medical Jurisprudence	-J and A Churchis
38. Doctor and law	-Singhal
39. Forensic medicine under Indian system of medicine(Ayurveda)	- U.N.Prasad
40. MedicineHarrisions Principal of Internal medicine	
41. Agad Tantra	-Dr.ShekharNamboodri
42. Modern Medical Toxicology	-DrV.V.Pillay
43. Critical care toxicology	-Bruent Wallace
44. Diagnosis and Management of common poisoning	-Agarwalwali
45. Colour Atlas of Forensic Medicine	-Govindaiah
46. Guidelines of poisons	-W.H.O.
47. Doctors patients relationship	- DrLavekar
48. Bhavaprakasha.	
49. VishavaidyaJyotsnika- English translation by VPSV Ayurveda college, Kottakkal.	
50. Lakshnamritham.	
51. Toxicology ,Ayurvedicperspective	-VPSC Ayurveda college, Kottakkal.
52. Text book of Agadtantra	-Edited By DrHuparikar, DrJoglekar
53. AgadtantrakiPathyapustika	-Edited By DrHuparikar, DrJoglekar
54. Vyavahar Ayurveda Vigyanam	-Dr. IndramohanJha(Sachchan)
55. Forensic Medicine	-Dr.B.Umadathan
56. Visha Chikitsa	-Dr.M.Balakrishnan Nair
57. Park Textbook of Preventive and Social Medicine	-K.Park
58. Environmental Science and Biotechnology	-Theory and Practice -A.G. Murukesan and C.Rajakumari.

59. Veterinary Toxicology

-Dr. Satish K. Gargi

60. Guide to Drinking Water Quality (3 Volumes)

-WHO Publication

61. A short Text Book of Medical Entomology

- H.S. Bhatti, R. Sehgal -R.C. Mahajan.

62. Constitution of India

Govt. publication