

## PAPER-III

100 Marks

### PRAYOGAVIGYAN (PHARMACOTHERAPEUTICS/ CLINICAL PHARMACOLOGY)

Part-A:

75 Marks

1. BhaishajyaprayogaSiddhant [Principles of drug administration]-BhaishajyaMarga (routes of drug administration), Vividhakalpana(dosage forms), Principles of Yoga Vijnan (compounding), Matra (dosage), Anupana(Vehicle), AushadhaSevanakal,(schedules of drug administration), Sevankalavadhi (duration of drug administration), Pathyapathya (Do's & Don'ts), Complete Prescription writing ( SamagraVyavasthapatraka).
2. Amayikaprayoga( therapeutic uses) of important plants described in Brihatrayee, chakradatta, Yoga ratnakar, and Bhavaprakash.
3. Samyoga- viruddhaSiddhanta and its importance with examples.

Part-B:

25 Marks

1. Knowledge of Pharmaco-vigilance in Ayurveda & modern medicine.
2. Adverse drugreactions & drug interaction of medicinal plants.
3. Knowledge of clinical pharmacology and clinical drug research as per GCP guidelines.
4. Knowledge of Pharmacogenomics.

## PAPER- IV

100 Marks

### NIGHANTU & YOGA VIGYANA ( MATERIA MEDICA & FORMULATIONS)

Part-A:

75 Marks

1. Etymology of Nighantu, their relevance, utility and silent features.
2. Details of the following Nighantus with regards to auther's name, period,and content- Paryayaratnamala, DhanvantariNighantu, Hridayadipakanighantu, Ashtanganighantu, Rajanighantu, Siddhamantranighantu, Bhavaprakashanighantu, Madanpalanighantu, Rajavallabhanighantu, MadhavaDravyaguna, kaiyadevanighantu, shodhalanighantu, shaligramnighantu, NighantuRatnakar, Nighantuadarsha,andPriyaNighantu.
3. Detailed study of EkalaAushadhakalpana( manufacturing of dosage forms of single drugs ) mentioned in Sharangadharasamhita and Ayurvedic Formulary of india (AFI).
4. Dashemani and Agryasangraha of Charak and Vagbhat should be included.

Part-B

25 Marks

1. General awareness on aharayogi( Nutraceuticals), soundaryaprasadana ( cosmoceutical), food additives, excipients etc.
2. Knowledge of Plant extracts, colouring and flavouring agents and preservatives.
3. Knowledge of pharmacopoeias of different countries- API, BHP.

4. Knowledge of important scientific publications of various Departments & ministries of Govt. of India – like department of AYUSH, CCRAS, RAV, ICMR, CSIR etc.

## **Syllabus of the Practical training of part two M.D.(Ayu) – Dravyaguna**

### **1. Study Tours:**

Field identification of medicinal plants through at least five local Dravyaguna study tours. Within the state and one study tour out of state and preparation of minimum 50 herbarium sheets along with prayojyanga ( raw drug). Field visit should also include demonstration of cultivation practices of important medicinal plants.

### **2. Evaluation of Crude Drugs:**

Macro and micro-scopic methods of examining three drugs of each of different useful parts of plants, including their powders.

### **3. Phytochemical evaluation of raw material:**

Qualitative and Quantitative analysis like foreign matter, extractive ( water and alcohol), ash value, acid insoluble ash and TLC separation of various parts of minimum two plants of Ayurvedic Pharmacopoeia of India.

### **4. Pharmacology:**

- Rasa nirdharana by Taste Threshold method of minimum one drug for each of rasas.
- Observation of animal experimentation models ( both in vitro and in vivo ) for any five pharmacological activities cited in paper II.

### **5. Practical Training-**

#### **a) Posting for minimum one month in each of the following units-**

- Quality control laboratory of nearest pharmacy/institution for crude drug identification, adulterants and substitutes & understanding standardization techniques.
- Experimental Pharmacology Laboratory for developing skill in animal experimentation.

**b) Regular clinical training in the Teaching hospital for submission of record of Ekala AushadhiPrayoga( single drug trial/clinic-pharmacological studies.) &Adverse drug reaction (ADR).**

### **6. Dissertation**

A Dissertation, as per the approval of Departmental Research Committee/Competent Committee for the purpose, be prepared under the guidance of approved supervisor in



*(From Academic Year 2012-13 & onwards)*

**Syllabus for MD/MS (Ayurved) Preliminary Examination**

**6. AGAD TANTRA AVUM VIDHI VIDYAKA**  
**(Toxicology & Forensic Medicine)**

**PAPER-II**

**THEORY- 100 marks**

**PART-A**

**50 marks**

- 01 Introduction to Agadatantra, its sequential development, traditional and contemporary toxicology.
- 02 Examination of poisons as per contemporary and Ayurvedic methods.
- 03 Ancient and contemporary classification of Visha.
- 04 Knowledge about Sthavara visha, Jangama visha and Kritrima visha, their clinical and pathological manifestations and management.
- 05 Garavisha and Dushi visha, signs, symptoms and management with contemporary relevance.
- 06 Vishajanya Janapadodhvamsaniya Roga (community health problems due to poisons) - environmental pollution, water pollution, soil pollution, air pollution etc, their features and management according to ancient and contemporary concepts.
- 07 Concept of Viruddhahara with contemporary views.
- 08 Definition of Vyavahara Ayurveda.
- 09 Fundamentals of Vyavahara Ayurveda. Courts of law in India and legal procedures.
- 10 Chaturvinshati upakrama (24 management procedures).

**PART-B**

**50 marks**

- 01 Introduction to Forensic medicine.
- 02 Techniques of pathology, pharmacology, pharmacognosy and microbiology used in toxicology.
- 03 Death and its medico-legal aspects (Medical Thanatology), Medico-legal autopsy, Legal procedures in clinical forensic medicine.

- 04 Forensic Science Laboratory:- Structure and functions
- 05 Introduction to Medical Jurisprudence.
- 06 Laws related to medical profession. Ancient practice of medical jurisprudence in india.
- 07 Ancient and contemporary fundamentals of medical ethics.
- 08 Madya visha (Alcoholism).
- 09 Diagnosis and Management of food poisoning.
- 10 General and Emergency medical management of poisoning including preparation, administration and complications of antidotes, antivenoms, antisera.
- 11 Management of the toxic manifestations caused by the contact poisons (paduka, vastra, abhushana, mukhalepa- vishabadha etc).
- 12 Diagnosis and management of dermatological manifestations of Visha.
- 13 Death due to poisoning, duty of physician in poisoning and cases of suspected poisoning.
- 14 Post mortem findings in poisoning.

### PRACTICAL

100 marks

#### Contents:

- 01 Clinical Postings
- 02 Case records – 20 cases (Postmortem/poisoning/dermatological/medico legal cases)

#### Distribution of marks (Practical)

- |    |   |            |
|----|---|------------|
| 01 | Case records (20 Cases  | -20 Marks  |
| 02 | Bedside clinical case taking  | - 20 Marks |
| 03 | Long Case/injuries/X-rays   | -20 Marks  |
| 04 | Short Case / Weapon reports / bones   | -10 Marks  |
| 05 | Identification of specimens, models and equipments of jurisprudence importance. | -15 Marks  |
| 06 | Spotting related to Visha, Upavisha and other poisonous drugs                   | -15 Marks  |
| 07 | Viva-voce   | -20 marks  |

#### Format of Question Paper

##### PART -A

Q. No.	Nature of Questions	Division of Marks	Total Marks
1	L.A.Q.	15x2	30 Marks
2	S.A.Q. Attempt any 4 out of 5	5x4	20 Marks
		<b>Total</b>	<b>50 Marks</b>

##### PART-B

Q. No.	Nature of Questions	Division of Marks	Total Marks
1	L.A.Q.	15x2	30 Marks
2	S.A.Q. Attempt any 4 out of 5	5x4	20 Marks
		<b>Total</b>	<b>50 Marks</b>

Dr. Deshmula

**9. PRASUTI TANTRA- STREE ROGA**Theory- 400 Marks (100 Each)  
Practical and Viva-Voce - 100 Marks

100 Marks

/ 3 hrs

ER - I

**GARBHAGARBHINI VIGYANA** : code 33231

1. Applied Anatomy of female Genito urinary system, Pelvis and Pelvic floor. Pelvic assesment and foetal skull. 3
2. Physiology, Neuro endocrinology and Pathology of puberty and Neuroendocrine control of menstrual cycle.. Artava, Rituchakra, Streebija, Pumbija. 3
3. Garbha sambhava samaagri, Garbhadharana, Pre-conceptional counseling and care, Pumsavana, Garbhasya shad dhatvatmakata, Garbhavakranti, Matrijadi bhava, Garbha vriddhi, role of Panchamahabhuta in the formation and development of foetus. Garbhasya avayavotpatti, Fundamentals of reproduction - gamatogenesis, Fertilization, Implantation and early development of human embryo. 3
4. Aparā, Garbhodaka Jarayu, Nabhinadi. Placenta, amniotic fluid, membranes and umbilical cord -their formation, structure, Functions and abnormalities. Garbha-poshana, Garbha shareerkriya vaishishtyam, Garbha lingotpatti, Garbha varnotpatti, Garbhasya masanumasika vriddhi. Foetal physiology, circulation, Foetal growth and development 3
5. Bija - Bijabhaga - Bijabhagavayava janya garbhanga vikrithi. Genetics, Birth defects and other teratologic abnormalities 3
6. Garbhini nidana, sapekshanidana, Garbhakalina matrigata parivartana, lakshana, Dauhrida. Diagnosis and differential diagnosis of pregnancy, anatomical and physiological changes during pregnancy, Endocrinology related to pregnancy, Immunology of pregnancy. 5
7. Garbhiniparicharya, Masanumasika Pathya Apathya evum Garbha upaghatakara bhava. Ante Natal care, examination investigations and management. 3
8. Garbhasankhya nirnay, Bahu apatyata, Multiple pregnancy. 5
9. Garbhavyapada - causes, clinical features, complications, management and treatment of Garbhasrava and Garbhapata , Upavishtaka, Nagodara / Upashushka, Lina garbha, Goodagarbha, Jarayu Dosha, Antarmrita garbha , Garbha shosha, Garbha kshaya, Bhutahrta garbha, Raktagulma. Abortions, I.U.G.R, Intrauterine Foetal death, Ectopic pregnancy, gestational trophoblastic diseases. 5
10. Garbhini vyapada - nidana panchaka and chikitsa of garbhini vyapad. Early recognition, differential diagnosis and prompt management of pregnancy complications, Emesis and Hyperemesis gravidarium, Anaemia, Pregnancy Induced Hypertension, Pre-eclampsia, Eclampsia, Antepartum hemorrhage, Rh- incompatibility. Management of pregnancies complicated by medical, surgical or Gynecological disorders in consultation with the concerned specialties by team approach. 6
  - a. Pyrexia, Heart disease, Diabetes mellitus, Liver disorders, Respiratory diseases, Renal diseases, Epilepsy, Hypertensive disorders.
  - b. Fibroids, Ovarian tumors, Genital prolapse.

Infections in pregnancy: Toxoplasmosis, Viral infections ,Tuberculosis, UTI, Rubella, CMV, Hepatitis-B, Herpes, Syphilis and other Sexually Transmitted Infections including HIV etc., Prevention of mother to child transmission of HIV infection (PMTCT).
11. Jataharini related to garbhini avastha 1
12. Evaluation of Foetal and Maternal health in complicated pregnancies by making use of diagnostic modalities. 3
13. Prenatal diagnosis of fetal abnormalities and appropriate care. PNDT Act and its Implications. 3
14. Panchakarma and Yoga in Prasuti tantra
 

Vishesh adhyayana of -

Ashtanga Hriday Sharira	-	Adhyaya 1 <sup>st</sup> (Garbhavkranti)	3
Sushruta Samhita Sharira	-	Adhyaya 3 <sup>rd</sup> (Garbhavkranti)	
Charak Samhita Sharira	-	Adhyaya 8 <sup>th</sup> (Jatisutriya)	

## STREE ROGA VIGYANA - code : 33 2 33

- Disorders of menstruation and Female reproductive system.
- Congenital malformations of female genital tract
  - Artava dushti, Artava vridhi, Artava kshaya, Asrigdara, Anartava, and Kashtartava.
  - Genital infections including sexually transmitted infections. 8
  - Abnormal vaginal discharges.
  - Arsha, Yonikanda, Granthi, Arbuda.
  - Abnormal uterine bleeding, Endometriosis, fibroid uterus, Adenomyosis, Polycystic ovarian syndrome and neoplasia of female genital organs.
  - Endocrinological disorders affecting female reproductive system.
  - Somaroga.
2. Detailed study of Yoni Vyapada mentioned by different Acharyas with their commentaries and all possible correlations with modern gynecological diseases. 5
3. **Bandhyatva**
- Hetu, Bheda, Pariksha, and Chikitsa.
  - Detailed study of causative factors, Investigations with recent advances in management of infertility, Adoption law. 5
4. **Stanaroga**  
Detailed study of Stanashotha, Stanakiiaka and stanavidradhi, stana granthi, stanarbuda. 5  
**Fibroadenoma, Fibroadenosis breast, Aberation in the normal development and Involution of breast (ANDI)**  
Examination of breast, diagnosis and differential diagnosis of breast lump.
5. **Measures of contraception**
- Ayurvedic view of Garbha nirodha and Garbhapatkara yogas. 5
  - Temporary Contraception
  - National Health programme to improve maternal and Child health, Social Obstetrics and Vital Statistics (maternal and perinatal and morbidity).
6. **Sthanik chikitsa** 3  
Detailed study of Pichu, Varti, Dhupan, Dhavana, Parisheka, lepa, Kalkadharana, Uttarabasti, Agnikarma and Kshara Karma.
7. **Rajo Nirvritti** - Climacteric and menopause. 3  
- Geriatric health care
8. Study of modern diagnostic techniques and Investigations. 3
9. Drugs used in obstetric practice, indications/contra indications, doses and side effects. 3
10. ( Modern and Ayurvedic)
11. Panchakarma & Yoga in streeroga 2
12. Recent studies and advancement in the field of Stree Roga. 2  
3
13. **Vishesha Adhyayana of -** 3  
Charaka Samhita Chikitsa Sthana - 30<sup>th</sup> Adhyaya - Yonivyapad Chikitsa  
Sushruta Samhita Uttara Tantra - 38<sup>th</sup> Adhyaya - Yonivyapad Pratishedha  
Kashyapa Samhita Kalpa Sthana - Shatapushpa Shatavari, Lashuna kalpa Adhyaya

50

PAPER - IV

**PRASUTI TANTRA-STREE ROGA-SHALYA KARMA**

100 Marks  
3 hrs

Code: 33234

D General principles of Gynecological and Obstetrical Surgeries. suturing, suture materials, sterilization, autoclaving etc, Analgesia and Anaesthesia in Obstetrical and Gynaecological operative procedures. 5

Operative Obstetrics

Decision making, techniques, diagnosis and management of surgical complications.

Dilatation and evacuation, Hysterotomy, Provision of safe abortion services -selection of cases, techniques and management of complications, septic abortion, criminal abortion, MTP 20

Act.

Cervical encirclage.

Instrumental delivery (Forceps, vacuum extraction), Episiotomy, perineal tear repair, Caesarean Section, Manual removal of Placenta, Caesarean Hysterectomy.

Operative gynecology

H Selection of cases, technique and management of complications of minor and major gynecological procedures. 25-

Dilatation and Curretage, Cervical cauterization.

Polypectomy, Myomectomy, Cystectomy, Oophorectomy. Marsupialisation, punch biopsy, endometrial biopsy,

Surgical sterilization procedures.

Hysterectomy.

Surgical procedures for genital prolapse.

Surgical management of benign genital neoplasm.

Recent advances in Gynaecology and Obstetrics - Diagnostic and therapeutics

Shock and its management, Blood Transfusion, Fluid and electrolyte imbalance, Fluid therapy.

Record keeping, ethical and legal issues involved in Obstetrics and Gynaecology.

Medico-legal aspects - ethics, communication and counselling in Obstetrics and Gynecology

Emergency care in Obstetrics and Gynecology.

Content of Practical

50

1. Practical training to conduct

- Normal and Complicated deliveries
- Assisted/ Instrumental deliveries
- Caesarean Section
- Neonatal resuscitation

7 2. Practical knowledge of grabhini pricharya, sutika pricharya and masaanumasik garbha vridhhi. 7

H 3. Practical training to perform Obstetrical and Gynaecological Surgeries. 7

M 4. Practical training to provide Family Welfare/ Planning services, safe abortion methods along with surgical sterilization. 6

D 5. Practical knowledge and practice of all relevant equipment, Procedures, complications, Emergencies with their management. 6

7 6. Practical knowledge of Yogasanas and pranayam useful in Stree Roga and Prasuti Tantra. 6

H 7. Practical knowledge of Panchakarma and Sthanik Chikitsa used in Stree Roga and Prasuti Tantra. 6

M 8. Practical Knowledge of recent advances in Gynaecology, and obstetrics. 5

# **CENTRAL COUNCIL OF INDIAN MEDICINE**

## **POST GRADUATE FINAL YEAR**

### **13. MS (AYU) SHALYA TANTRA - GENERAL SURGERY**

#### **PAPER - I Shalya Tantra Vangmaya - Literature, Research and Development**

**100 Marks  
100 Hours**

1. Thorough study of the Sushruta Samhita including other relevant portions of Brihatrayee and Laghutrayee.
2. Knowledge and importance of Surgical Audit and Research.
3. Medico legal issues - Understanding the implications of acts of omission and commission in practice. Issues regarding Consumer Protection Act, medical profession, national health policy - Implications in a medico-legal case like accidents, assaults etc.
4. Surgical ethics including Informed consent.
5. Yoga Vidhi - Practical and Experimental training on different types of Surgical Models for Research in Surgery.
6. Clinical and diagnostic methods in Shalya Tantra - X-rays, U.S.G., Endoscopies (for diagnostic and treatment purposes), MRI, CAT scanning and other recent diagnostic tools.
7. Concept of Sandhana Karma - Plastic reconstructive and cosmetic surgery. Fundamentals of Sandhana Karma
  - i. Karma Sandhana - Auroplasty
  - ii. Nasa Sandhana - Rhinoplasty
  - iii. Ostasandhana - Cheiloplasty
  - iv. Grafts and Flaps - Techniques and applications.
  - v. Vascular anastomosis and grafts.
8. Recent development on Sushruta's surgical principles and practices.

#### **PAPER - II - SHALYA TANTRA VIGYAN**

**100 Marks  
100 Hours**

1. Vrana - Wound management
  - i. Management of Nija Vrana, Dushta Vrana and Nadi Vrana.
  - ii. Vrana Chikitsa - Shasti upakramas, Pathya-apathya.
  - iii. Wound and Ulcer.
  - iv. Dagdha Vrana - Burns, scalds, Dhumopaghata, Ushnavata, Frost bite, electric burns and their management.
  - v. Prameha Pidaka - Diabetic carbuncle, Diabetic wound and its management.
  - vi. Kotha - Gangrene and Principles of Amputation.
  - vii. Sadyo Vrana - Traumatic wounds - Nidana, Prakara, Lakshana, Upadrava and Chikitsa, Bites and stings and its management.
2. Pranasta Shalya - Diagnosis and management.
3. Vranashopha-Inflammation, Vidradhi - Abscesses and Pidika - Boils.
4. Granthi - Cyst and Arbuda - Benign and malignant Neoplasm.
5. Bhagna - Classification, Clinical features, Complications and Management.
6. Sandimoksha - Classification, Clinical features, Complications and Management.
7. Udara Roga - Aetiopathogenesis, Classification, Clinical features, Diagnosis, Complications and Management.