**Syllabus for Descriptive Subject Aptitude Test (SAT) (Paper-II) for recruitment to the post of Homeopathy Medical Officer, Class-I (Gazetted) in the Ayush Vibhag, Himachal Pradesh. The descriptive SAT paper shall have two parts i.e. Part-I and Part-II and cover the following topics of Bachelor of Homeopathic Medicine and Surgery level. The SAT shall be of 03 hours duration having 120 Marks.**

## SAT PAPER: PART - 1

## ANATOMY

A.

(a) A complete course of human anatomy with general working knowledge of different anatomical parts of the body.

The curriculum includes the following, namely: -

1. General Anatomy:

   1.1. Modern concepts of cell and its components; cell division, types with their significance.

   1.2. Tissues.

   1.3. Genetics.

2. Developmental anatomy (Embryology):

   2.1. Spermatogenesis

   2.2. Oogenesis

   2.3. Formation of germ layers

   2.4. Development of embryogenic disk

   2.5. Placenta

   2.6. Development of abdominal organs

   2.7. Development of cardio vascular system

   2.8. Development of nervous system

   2.9. Development of respiratory system

   2.10. Development of body cavities

   2.11. Development of urogenital system

3. Regional anatomy under the following regions:-

   3.1. Head, Neck and Face, Brain

   3.2. Thorax

   3.3. Abdomen

3.4. Upper and Lower Extremities
3.5. Special Senses

Each of the above areas will cover:

(a) osteology
(b) syndesmology (joints)
(c) mycology
(d) angiology
(e) neurology
(f) splanchnolgy (viscera and organs)
(g) surface anatomy
(h) applied anatomy
(i) radiographic anatomy

4. Histology (Microanatomy).

## PHYSIOLOGY AND BIO-CHEMISTRY

I. General physiology:

1. Introduction to cellular physiology
2. Cell Junctions
3. Transport through cell membrane and resting membrane potential
4. Body fluids compartments
5. Homeostasis

II. Body fluids:

1. Blood
2. Plasma Proteins
3. Red Blood Cells
4. Erythropoiesis
5. Haemoglobin and Iron Metabolism
6. Erythrocyte Sedimentation Rate
7. Packed Cell Volume and Blood Indices
8. Anaemia
9. Haemolysis and Fragility of Red Blood Cells
10. White Blood Cell
11. Immunity
12. Platelets

13. Haemostasis
14. Coagulation of Blood
15. Blood groups
16. Blood Transfusion
17. Blood volume
18. Reticulo-endothelial System and Tissue Macrophage
19. Lymphatic System and Lymph
20. Tissue Fluid and Oedema

III. Cardio-vascular system:

1. Introduction to cardiovascular system
2. Properties of cardiac muscle
3. Cardiac cycle
4. General principles of circulation
5. Heart sounds
6. Regulation of cardiovascular system
7. Normal and abnormal Electrocardiogram (ECG)
8. Cardiac output
9. Heart rate
10. Arterial blood pressure
11. Radial Pulse
12. Regional circulation- Cerebral, Splanchnic, Capillary, Cutaneous & skeletal muscle circulation.
13. Cardiovascular adjustments during exercise

IV. Respiratory system and environmental physiology:

1. Physiological anatomy of respiratory tract
2. Mechanism of respiration: Ventilation, diffusion of gases
3. Transport of respiratory gases
4. Regulation of respiration
5. Pulmonary function tests
6. High altitude and space physiology
7. Deep sea physiology
8. Artificial respiration
9. Effects of exercise on respiration

V. Digestive system:

1. Introduction to digestive system
2. Composition and functions of digestive juices
3. Physiological anatomy of Stomach, Pancreas, Liver and Gall bladder, Small intestine, Large intestine
4. Movements of gastrointestinal tract
5. Gastrointestinal hormones
6. Digestion and absorption of carbohydrates, proteins and lipids

VI. Renal physiology and skin:

1. Physiological anatomy of kidneys and urinary tract
2. Renal circulation
3. Urine formation: Renal clearance, glomerular filtration, tubular reabsorption, selective secretion, concentration of urine, acidification of urine
4. Renal functions tests
5. Micturition
6. Skin
7. Sweat
8. Body temperature and its regulation

VII. Endocrinology:

1. Introduction of endocrinology
2. Hormones and hypothalamo-hypophyseal axis
3. Pituitary gland
4. Thyroid gland
5. Parathyroid
6. Endocrine functions of pancreas
7. Adrenal cortex
8. Adrenal medulla
9. Endocrine functions of other organs

VIII. Reproductive system:

1. Male reproductive system-testis and its hormones; seminal vesicles, prostate gland, semen.
2. Introduction to female reproductive system
3. Menstrual cycle
4. Ovulation

5. Menopause
6. Infertility
7. Pregnancy and parturition
8. Placenta
9. Pregnancy tests
10. Mammary glands and lactation
11. Fertility
12. Foetal circulation

IX. Central nervous system:

1. Introduction to nervous system
2. Neuron
3. Neuroglia
4. Receptors
5. Synapse
6. Neurotransmitters
7. Reflex
8. Spinal cord
9. Somato-sensory system and somato-motor system
10. Physiology of pain
11. Brainstem, Vestibular apparatus
12. Cerebral cortex
13. Thalamus
14. Hypothalamus
15. Internal capsule
16. Basal ganglia
17. Limbic system
18. Cerebellum – Posture and equilibrium
19. Reticular formation
20. Proprioceptors
21. Higher intellectual function
22. Electroencephalogram (EEG)
23. Physiology of sleep
24. Cerebro-spinal fluid (CSF)
25. Autonomic Nervous System (ANS)

X. Special senses:

1. Eye: Photochemistry of vision, Visual pathway, Pupillary reflexes, Colour vision, Errors of refraction
2. Ear: Auditory pathway, Mechanism of hearing, Auditory defects
3. Sensation of taste: Taste receptors, Taste pathways
4. Sensation of smell: Olfactory receptors, olfactory, pathways
5. Sensation of touch

XI. Nerve muscle physiology:

1. Physiological properties of nerve fibres
2. Nerve fibre- types, classification, function, Degeneration and regeneration of peripheral nerves
3. Neuro-Muscular junction
4. Physiology of Skeletal muscle
5. Physiology of Cardiac muscle
6. Physiology of Smooth muscle
7. EMG and disorders of skeletal muscles

XII. Bio-physical sciences:

1. Filtration
2. Ultra-filtration
3. Osmosis
4. Diffusion
5. Adsorption
6. Hydrotropy
7. Colloid
8. Donnan Equilibrium
9. Tracer elements
10. Dialysis
11. Absorption
12. Assimilation
13. Surface tension

## BIO-CHEMISTRY

1. Carbohydrates: (Chemistry, Metabolism, Glycolysis, TCA, HMP, Glycogen synthesis and degradation, Blood glucose regulation)

| |
|---|
| 2. Lipids: (Chemistry, Metabolism, Intestinal uptake, Fat transport, Utilization of stored fat, Activation of fatty acids, Beta oxidation and synthesis of fatty acids) |
| 3. Proteins: (Chemistry, Metabolism, Digestion of protein, Transamination, Deamination Fate of Ammonia, Urea cycle, End products of each amino acid and their entry into TCA cycle |
| 4. Enzymes: (Definition, Classification, Biological Importance, Diagnostic use, Inhibition) |
| 5. Vitamins: (Daily requirements, Dietary source, Disorders and physiological role) |
| 6. Minerals (Daily requirement, Dietary Sources, Disorders and physiological role) |

## GYNAECOLOGY AND OBSTETRICS

1. Gynecology
   - (a) A review of the applied anatomy of female reproductive systems-development and malformations.
   - (b) A review of the applied physiology of female systems-puberty, menstruation and menopause.
   - (c) Gynecological examination and diagnosis.
   - (d) Development anomalies
   - (e) Uterine displacements.
   - (f) Sex and intersexuality.
   - (g) Infections and ulcerations of the female genital organs.
   - (h) Injuries of the genital tract.
   - (i) Disorders of menstruation.
   - (j) Menorrhagia and dysfunctional uterine bleeding.
   - (k) Disorders of female genital tract.
   - (l) Diseases of breasts
   - (m) Sexually transmitted diseases
   - (n) Endometriosis and adenomyosis.
   - (o) Infertility and sterility
   - (p) Non-malignant growths.
   - (q) Malignancy
   - (r) Chemotherapy caused complications
   - (s) General Management and therapeutics of the above listed topics in gynaecology.
   - (t)

2. Obstetrics

(a) Fundamentals of reproduction.

(b) Development of the intrauterine pregnancy-placenta and foetus.

(c) Diagnosis or pregnancy-investigations and examination.

(d) Antenatal care.

(e) Vomiting in pregnancy.

(f) Preterm labour and post maturity.

(g) Normal labour and puerperium

(h) Induction of labour

(i) Postnatal and puerperal care.

(j) Care of the new born.

(k) Management and therapeutics of the above listed topics in obstetrics.

(l) High risk labour; mal-positions and mal-presentations; twins, prolapse of cord and limbs, abnormalities in the action of the uterus; and abnormal conditions of soft part contracted pelvis; obstructed labour, complications of 3rd stage of labour, injuries of birth canal, foetal anomalies.

(m) Abnormal pregnancies-abortions, molar pregnancy, diseases of placenta and membranes, toxemia of pregnancy, antepartum haemorrhages, multiple pregnancy, protracted gestation, ectopic pregnancy, intrauterine growth retardation, pregnancy in Rh negative woman, intrauterine fetal death, still birth.

(n) Common disorders and systemic diseases associated with pregnancy.

(o) Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994.

(p) Common obstetrical operations-medical termination of pregnancy, criminal abortion, caesarean section, episiotomy.

(q) Emergency obstetric care.

(r) Population dynamics and control of conception.

(s) Infant care – neonatal hygiene, breast feeding, artificial feeding, management of premature child, asphyxia, birth injuries, common disorders of newborn.

(t) Reproductive and child health care (a) safe motherhood and child survival (b) Risk approach – MCH care (c) Maternal mortality and morbidity (d) Perinatal mortality and morbidity (e) Diseases of foetus and new born.

(u) Medico-legal aspects in obstetrics.

(v) Homoeopathic Management and Therapeutics of the above listed clinical conditions in Obstetrics.

## COMMUNITY MEDICINE

1. Man and Medicine

2. Concept of health and disease in conventional medicine and homoeopathy

3. Nutrition and health

(a) Food and nutrition

(b) Food in relation to health and disease

(c) Balanced diet

(d) Nutritional deficiencies, and Nutritional survey

(e) Food Processing

(f) Pasteurisation of milk

(g) Adulteration of food

(h) Food Poisoning

4. Environment and health

(a) air, light and sunshine radiation.

(b) effect of climate

(c) comfort zone

(d) personal hygiene

(e) physical exercise

(f) sanitation of fair and festivals

(g) disinfection and sterilization

(h) atmospheric pollution and purification of air

(i) air borne diseases

5. Water

(a) distribution of water, uses; impurities and purification

(b) standards of drinking water

(c) water borne diseases

(d) excreta disposal

(e) disposal of deceased.

(f) disposal of refuse.

(g) medical entomology- insecticides, disinfection, Insects in relation to disease, Insect control.

6. Occupational health

7. Preventive medicine in pediatrics and geriatrics

8. Epidemiology

(a) Principles and methods of epidemiology

(b) Epidemiology of communicable diseases:

- General principles of prevention and control of communicable diseases;

(c) Communicable diseases: their description, mode of spread and method of prevention.

(d) Protozoan and helminthic infections- Life cycle of protozoa and

helminthes, their prevention.

(e) Epidemiology of non-communicable diseases: general principles of prevention and control of non-communicable diseases

(f) Screening of diseases

9. Bio-statistics

(a) Need of biostatistics in medicine

(b) Elementary statistical methods

(c) Sample size calculation

(d) Sampling methods

(e) Test of significance

(f) Presentation of data

(g) Vital statistics

10. Demography and Family Planning; Population control; contraceptive practices; National Family Planning Programme.

11. Health education and health communication

12. Health care of community.

13. International Health

14. Mental Health

15. Maternal and Child Health

16. School Health Services

17. National Health Programs of India including Rashtriya Bal Chikitsa Karyakram.

18. Hospital waste management

19. Disaster management

## SURGERY

A.

(a) General Surgery:-

1. Introduction to surgery and basic surgical principles.

2. Fluid, electrolytes and acid-base balance.

3. Haemorrhage, haemostasis and blood transfusion.

4. Boil, abscess, carbuncle, cellulitis and erysipelas.

5. Acute and chronic infections, tumors, cysts, ulcers, sinus and fistula.

6. Injuries of various types; preliminary management of head injury

7. Wounds, tissue repair, scars and wound infections.

8. Special infections (Tuberculosis, Syphilis, Acquired Immuno

Defeciency Syndrome, Actinomycosis, Leprosy).

9. Burn
10. Shock
11. Nutrition
12. Pre-operative and post-operative care.
13. General management, surgical management and homoeopathic therapeutics of the above topics will be covered.

(b) Systemic Surgery:-

1. Diseases of blood vessels, lymphatics and peripheral nerves
2. Diseases of glands
3. Diseases of extremities
4. Diseases of thorax and abdomen
5. Diseases of alimentary tract
6. Diseases of liver, spleen, gall bladder and bile duct.
7. Diseases of abdominal wall, umbilicus, hernias.
8. Diseases of heart and pericardium
9. Diseases of urogenital system.
10. Diseases of the bones, cranium, vertebral column, fractures and dislocations.
11. Diseases of the joints.
12. Diseases of the muscles, tendons and fascia.

B. Ear

(a) Applied anatomy and applied physiology of ear

(b) Examination of ear

(c) Diseases of external, middle and inner ear

C. Nose

(a) Applied anatomy and physiology of nose and paranasal sinuses.

(b) Examination of nose and paranasal sinuses

(c) Diseases of nose and paranasal sinuses

D. Throat

(a) Applied Anatomy and applied Physiology of pharynx, larynx, tracheobronchial tree, oesophagus

(b) Examination of pharynx, larynx, tracheobronchial tree, oesophagus

(c) Diseases of Throat (external and internal)

(d) Diseases of oesophagus.

E. Ophthalmology

(a) Applied Anatomy, Physiology of eye

(b) Examination of eye.

(c) Diseases of eyelids, eyelashes and lacrimal drainage system.

(d) Diseases of Eyes including injury related problems.

F. Dentistry

(a) Applied anatomy, physiology of teeth and gums;

(b) Milestones related to teething.

(c) Examination of Oral cavity.

(d) Diseases of gums

(e) Diseases of teeth

(f) Problems of dentition

## PRACTICE OF MEDICINE

1. Applied anatomy and applied physiology of the respective system as state below.
2. Respiratory diseases.
3. Diseases of digestive system and peritoneum.
4. Diseases concerning liver, gall-bladder and pancreas.
5. Genetic Factors (co-relating diseases with the concept of chronic miasms).
6. Immunological factors of diseases with concept of susceptibility (including HIV, Hepatitis-B)
7. Disorders due to chemical and physical agents and to climatic and environmental factors.
8. Knowledge of clinical examination of respective systems.
9. Water and electrolyte balance – disorders of.
10. Nutritional and metabolic diseases
11. Diseases of haemopoietic system.
12. Endocrinal diseases.
13. Infectious diseases.
14. Diseases of cardiovascular system.
15. Diseases of urogenital Tract.
16. Diseases of CNS and peripheral nervous system.
17. Psychiatric disorders.
18. Diseases of locomotor system (connective tissue, bones and joints disorders)

19. Diseases of skin and sexually transmitted diseases.

20. Tropical diseases.

21. Paediatric disorders.

22. Geriatric disorders.

23. Applied anatomy and applied physiology of different organ and systems relatingto specific diseases.

## PART – 2

## ORGANON OF MEDICINE WITH HOMOEOPATHIC PHILOSOPHY

I. Introductory lectures

1.1. Evolution of medical practice of the ancients (Prehistoric Medicine, Greek Medicine, Chinese medicine, Hindu medicine and Renaissance) and tracing the empirical, rationalistic and vitalistic thoughts.

1.2. Short history of Hahnemann's life, his contributions, and discovery of Homoeopathy, situation leading to discovery of Homoeopathy.

1.3. Brief life history and contributions of early pioneers of homoeopathy like C.V. Boenninghausen, J.T. Kent, C. Hering, Rajendra Lal Dutta, M.L. Sircar.

1.4. History and Development of Homoeopathy in India, U.S.A. and European countries

1.5. Fundamental Principles of Homoeopathy.

1.6. Basic concept of:
- 1.6.1. Health: Hahnemann's concept and modern concept.
- 1.6.2. Disease: Hahnemann's concept and modern concept.
- 1.6.3. Cure.

1.7. Different editions and constructions of Hahnemann's Organon of Medicine.

2. Logic

To understand Organon of medicine and homoeopathic philosophy, it is essential to be acquainted with the basics of LOGIC to grasp inductive and deductive reasonings.

Preliminary lectures on inductive and deductive logic (with reference to philosophy book of Stuart Close).

3. Psychology
- 3.1. Basics of Psychology.
- 3.2. Study of behavior and intelligence.
- 3.3. Basic concepts of Sensations.
- 3.4. Emotion, Motivation, Personality, Anxiety, Conflict, Frustration, Depression, Fear, Psychosomatic Manifestations
- 3.5. Dreams.

4. Homoeopathic Prophylaxis

5. Symptomatology:

Details regarding Symptomatology are to be comprehended by referring to the

relevant aphorisms of Organon of medicine and chapters of the books on homoeopathic philosophy.

1. Causations:

   Thorough comprehension of the evolution of disease, taking into account pre-disposing, fundamental, exciting and maintaining causes

2. Case taking:

   The purpose of homoeopathic case taking is not merely collection of the disease symptoms from the patient, but comprehending the patient as a whole with the correct appreciation of the factors responsible for the genesis and maintenance of illness. Hahnemann's concept and method of case taking, as stated in his Organon of Medicine is to be stressed upon.

3. Case processing: This includes,

   (i) Analysis of Symptoms,

   (ii) Evaluation of Symptoms,

   (iii) Miasmatic diagnosis,

   (iv) Totality of symptoms

4. Hahnemann's Organon of Medicine (Aphorisms 1-294) including footnotes ($5^{th}$ & $6^{th}$ Editions translated by R.E. Dudgeon and W. Boericke)

5. Concepts in Homoeopathic Philosophy:

   Philosophy books of Stuart Close, J.T. Kent and H.A. Roberts, Richard Hughes and C. Dunham

6. Chronic Diseases:

   6.1. Hahnemann's Theory of Chronic Diseases.

   6.2. J.H. Allen's The Chronic Miasms – Psora and Pseudo-psora; Sycosis.

## HOMOEOPATHIC PHARMACY

I. General concepts and orientation:

   1. History of pharmacy with emphasis on emergence of Homoeopathic Pharmacy.
   2. Official Homoeopathic Pharmacopoeia (Germany, Britain, U.S.A., India).
   3. Important terminologies like scientific names, common names, synonyms.
   4. Definitions in homoeopathic pharmacy.
   5. Components of Pharmacy.
   6. Weights and measurements.

7. Nomenclature of Homoeopathic drugs with their anomalies

II. Raw Material: drugs and vehicles

1. Source of drugs (taxonomic classification, with reference to utility).
2. Collection of drug substances.
3. Vehicles.
4. Homoeopathic Pharmaceutical Instruments and appliances.

III. Homoeopathic Pharmaceutics:

1. Mother tincture and its preparation – old and new methods.
2. Various scales in homoeopathic pharmacy.
3. Drugs dynamisation or potentisation
4. External applications (focus on scope of Homoeopathic lotion, glycerol, liniment and ointment).
5. Doctrine of signature.
6. Posology (focus on basic principles; related aphorisms of organon of medicine).
7. Prescription (including abbreviations).
8. Concept of placebo.
9. Pharmaconomy – routes of homoeopathic drug administration.
10. Dispensing of medicines.
11. Basics of adverse drug reactions and pharmaco-vigilance.

IV. Pharmacodynamics:

1. Homoeopathic Pharmacodynamics
2. Drug Proving (related aphorisms 105 – 145 of organon of medicine) and merits and demerits of Drug Proving on Humans and Animals.
3. Pharmacological study of drugs listed in Appendix-A

V. Quality Control:

1. Standardisation of homoeopathic medicines, raw materials and finished products.
2. Good manufacturing practices; industrial pharmacy.
3. Homoeopathic pharmacopoeia laboratory – functions and activities, relating to quality control of drugs.

VI. Legislations pertaining to pharmacy:

1. The Drugs and Cosmetics Act, 1940 (23 to 1940) {in relation

to Homoeopathy};

2. Drugs and Cosmetics Rules, 1945 {in relation to Homoeopathy};
3. Poisons Act, 1919 (12 of 1919);
4. The Narcotic Drugs and Psychotropic Substances Act, 1985 (61 of 1985);
5. Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954 (21 of 1954);
6. Medicinal and Toilet Preparations (Excise Duties) Act, 1955 (16 of 1955).

## HOMOEOPATHIC MATERIA MEDICA

A. General topics of Materia Medica:- (including introductory lectures)

(a) Basic Materia Medica -

1. Basic concept of Materia Medica
2. Basic construction of various Materia Medicas
3. Definition of Materia Medica

(b) Homoeopathic Materia Medica

1. Definition of Homoeopathic Materia Medica
2. Basic concept and construction of Homoeopathic Materia Medica.
3. Classification of Homoeopathic Materia Medica.
4. Sources of Homoeopathic Materia Medica.
5. Scope and Limitations of Homoeopathic Materia Medica.

(i) Science and philosophy of homoeopathic Materia media.
(ii) Different ways of studying homoeopathic Materia medica (e.g. psycho- clinical, pathological, physiological, synthetic, comparative, analytical, remedy relationships, group study, portrait study etc.)
(iii) Scope and limitations of homoeopathic materia medica.
(iv) Concordance or remedy relationships.
(v) Comparative homoeopathic materia medica, namely:-
Comparative study of symptoms, drug pictures, drug relationships.
(vi) Theory of biochemic system of medicine, its history, concepts and principles according to Dr. Wilhelm Heinrich Schuessler, Study of 12 bio-chemic medicines. (tissue remedies).

B. General Topics of Homoeopathic Materia Medica.

(a) Concept of nosodes – definition of nosodes, types of nosodes, general indication of Nosodes.

(b) Concepts of constitution, temperatures, diathesis-
definitions, various concepts of constitution with their peculiar characteristics,

importance of constitution, temperaments and diathesis and their utility in treatment of patients.

C. Concepts of mother tincture.

D. General topics of Homoeopathic materia medica – Sarcodes – definition and general indications.

E. List of Homoeopathic Medicines:

| | | | |
|---|---|---|---|
| 1 | Aconitum napellus | 126 | Hydrocotyle asiatica |
| 2 | Aethusa cynapium | 127 | Helonias diocia |
| 3 | Allium cepa | 128 | Ipecacuanha |
| 4 | Aloe socotrina | 129 | Ignatia amara |
| 5 | Antimonium crudum | 130 | Iodium |
| 6 | Antimonium tartaricum | 131 | Jonosia asoca |
| 7 | Apis mellifica | 132 | Justicia adhatoda |
| 8 | Argentum nitricum | 133 | Kali muriaticum |
| 9 | Arnica Montana | 134 | Kali phosphoricum |
| 10 | Arsenicum album | 135 | Kali sulphuricum |
| 11 | Arum triphyllum | 136 | Kali bichromicum |
| 12 | Acetic acid | 137 | Kali carbonicum |
| 13 | Actea spicata | 138 | Kali bromatum |
| 14 | Agaricus muscarius | 139 | Kreosotum |
| 15 | Agnus castus | 140 | Kalmia latifolia |
| 16 | Alumina | 141 | Ledum palustre |
| 17 | Ambra grisea | 142 | Lycopodium clavatum |
| 18 | Ammonium carbonicum | 143 | Lachesis muta |
| 19 | Ammonium muriaticum | 144 | Lac caninum |
| 20 | Anacardium orientale | 145 | Lac defloratum |
| 21 | Apocynum cannabinum | 146 | Lyssin |
| 22 | Arsenicum Iodatum | 147 | Lobelia inflate |
| 23 | Asafoetida | 148 | Lithium carbonicum |
| 24 | Aurum metallicum | 149 | Lillium tigrinum |
| 25 | Abies Canadensis | 150 | Magnesium phosphoricum |
| 26 | Abies nigra | 151 | Moschus |
| 27 | Anthracinum | 152 | Murex purpurea |
| 28 | Antimonium arsenticosum | 153 | Muriatic acid |
| 29 | Asterias rubens | 154 | Magnesia carbonica |
| 30 | Argentum metallicum | 155 | Magnesia muriatica |
| 31 | Abrotanum | 156 | Medorrhinum |
| 32 | Acalypha indica | 157 | Mezereum |
| 33 | Avena sativa | 158 | Mephitis putorius |
| 34 | Artemesia vulgaris | 159 | Melilotus |
| 35 | Adrenalinum | 160 | Millefolium |
| 36 | Aesculus hippocastanum | 161 | Mercurius corrosives |
| 37 | Adonis vernalis | 162 | Mercurius cyanatus |
| 38 | Abroma augusta | 163 | Mercurius dulcis |
| 39 | Baptisia tinctoria | 164 | Mercurius solubilis |
| 40 | Bellis perrenis | 165 | Mercurius sulphuricus |
| 41 | Bryonia alba | 166 | Morgan pure |
| 42 | Baryta carboica | 167 | Morgan gaertner |
| 43 | Belladonna | 168 | Malandrinum |

| | | | |
|---|---|---|---|
| 44 | Benzoic acid | 169 | Menyanthes |
| 45 | Berberis vulgaris | 170 | Natrum muriaticum |
| 46 | Bismuth | 171 | Natrum phosphoricum |
| 47 | Borax | 172 | Natrum sulphuricum |
| 48 | Bovista Lycoperdon | 173 | Nux vomica |
| 49 | Bromium | 174 | Naja tripudians |
| 50 | Bufo rana | 175 | Natrum carbonicum |
| 51 | Bacillinum | 176 | Nitric acid |
| 52 | Baryta muriatica | 177 | Nux moschata |
| 53 | Bacillus No.7 | 178 | Opium |
| 54 | Blatta orientalis | 179 | Oxalic acid |
| 55 | Calendula officinalis | 180 | Ocimum sanctum |
| 56 | Chamomilla | 181 | Onosmodium |
| 57 | Cina | 182 | Pulsatilla |
| 58 | Cinchona officinalis | 183 | Petroleum |
| 59 | Colchicum autumnale | 184 | Phosphoric acid |
| 60 | Colocynthis | 185 | Phosphorus |
| 61 | Cactus grandiflorus | 186 | Phytolacca decandra |
| 62 | Caladium seguinum | 187 | Picric acid |
| 63 | Calcarea aresnicosa | 188 | Platinum metallicum |
| 64 | Camphora | 189 | Podophyllum |
| 65 | Cannabis indica | 190 | Plumbum metallicum |
| 66 | Cannabis sativa | 191 | Psorinum |
| 67 | Cantharis vesicatoria | 192 | Pyrogenium |
| 68 | Carbo vegetabilis | 193 | Physostigma venenosum |
| 69 | Chelidonium majus | 194 | Proteus bacillus |
| 70 | Conium maculatum | 195 | Passiflora incarnate |
| 71 | Calcarea carbonica | 196 | Rhus toxicodendron |
| 72 | Calcarea fluorica | 197 | Ruta graveolens |
| 73 | Calcarea phosphoric | 198 | Raphanus sativus |
| 74 | Calcarea sulphurica | 199 | Ratanhia peruviana |
| 75 | Crotalus horridus | 200 | Radium bromatum |
| 76 | Croton tiglium | 201 | Rheum palmatum |
| 77 | Cyclamen europaeum | 202 | Rumex crispus |
| 78 | Carbo animals | 203 | Rauwolfia serpentine |
| 79 | Carbolic acid | 204 | Ranunculus bulbosus |
| 80 | Cundurango | 205 | Rhododendron chrysanthum |
| 81 | Collinsonia Canadensis | 206 | Silicea |
| 82 | Cuprum metallicum | 207 | Spongia tosta |
| 83 | Corallium rubrum | 208 | Sulphur |
| 84 | Cartaegus oxyacantha | 209 | Symphytum officinale |
| 85 | Caulophyllum | 210 | Secale cornutum |
| 86 | Cocculus indicus | 211 | Selenium |
| 87 | Crocus sativus | 212 | Sepia |
| 88 | Cicuta virosa | 213 | Staphysagria |
| 89 | Clematis erecta | 214 | Stramonium |
| 90 | Coffea cruda | 215 | Sulphuric acid |
| 91 | Causticum | 216 | Syphilinum |
| 92 | Carcinosin | 217 | Syzigium jambolanum |
| 93 | Carduus marianus | 218 | Sticta pulmonaria |
| 94 | Ceanothus | 219 | Sanicula aqua |
| 95 | Coca erythroxylon | 220 | Sabadilla officinalis |
| 96 | Cholesterinum | 221 | Sambucus nigra |

| | | | |
|---|---|---|---|
| 97 | Capsicum | 222 | Squilla maritime |
| 98 | Cedron | 223 | Sabina |
| 99 | Calotropis gigantean | 224 | Sabal serrulata |
| 100 | Carica papaya | 225 | Sarsaparilla officinalis |
| 101 | Cassia sophera | 226 | Sanguinaria Canadensis |
| 102 | Chininum arsenicosum | 227 | Spigelia |
| 103 | Drosera | 228 | Sycotic bacillus |
| 104 | Dulcamara | 229 | Stannum metallicum |
| 105 | Digitalis purpurea | 230 | Thuja occidentalis |
| 106 | Dioscorea villosa | 231 | Tabacum |
| 107 | Dysentery co | 232 | Taraxacum officinale |
| 108 | Diphtherinum | 233 | Tarentula cubensis |
| 109 | Euphrasia | 234 | Terebinthina |
| 110 | Equisetum hyemale | 235 | Theridion |
| 111 | Erigeron Canadensis | 236 | Thlaspi bursa pastoris |
| 112 | Eupatorium perfoliatum | 237 | Thyroidinum |
| 113 | Ferrum phosphoricum | 238 | Trillium pendulum |
| 114 | Ferrum metallicum | 239 | Urtica urens |
| 115 | Fluoricum acidum | 240 | Ustilago maydis |
| 116 | Ficus religiosa | 241 | Veratrum album |
| 117 | Gelsemium | 242 | Vaccininum |
| 118 | Graphites | 243 | Variolinum |
| 119 | Glonoine | 244 | Vinca minor |
| 120 | Gaertner | 245 | Viburnum opulus |
| 121 | Hepar sulph | 246 | Valeriana officinalis |
| 122 | Hypericum perforatum | 247 | Veratrum viride |
| 123 | Helleborus niger | 248 | X – ray |
| 124 | Hyoscyamus niger | 249 | Zincum metallicum |
| 125 | Hydrastis Canadensis | | |

## PATHOLOGY

Instructions:

I. (a) Pathology and microbiology in relation to the concept of miasms as evolved by Samuel Hahnemann and further developed by JT Kent, H.A. Robert, J.H. Allen and other stalwarts, with due reference to Koch's postulate, correlation with immunity, susceptibility and thereby emphasizing homoeopathic concept of evolution of disease and cure;

(b) Focus will be given on the following points, namely:-

(1) Pathology in relation with Homoeopathic Materia Medica.

(2) Correlation of miasms and pathology.

(3) Characteristic expressions of each miasm.

(4) Classification of symptoms and diseases according to pathology.

(5) Pathological findings of diseases; their interpretation, correlation and usage in the management of patients under homoeopathic treatment.

(c) To summarise, all the topics in the general and systemic pathology and microbiology

should be correlated, at each juncture, with homoeopathic principles so that the importance of pathology in Homoeopathic system could be understood by the students.

A.

(a) General Pathology

1. Cell Injury and cellular adaptation
2. Inflammation and repair (Healing)
3. Immunity
4. Degeneration
5. Thrombosis and embolism
6. Oedema
7. Disorders of metabolism
8. Hyperplasia and hypertrophy
9. Anaplasia
10. Metaplasia
11. Ischaemia
12. Haemorrhage
13. Shock
14. Atrophy
15. Regeneration
16. Hyperemia
17. Infection
18. Pyrexia
19. Necrosis
20. Gangrene
21. Infarction
22. Amyloidosis
23. Hyperlipidaemia and lipidosis
24. Disorders of pigmentation
25. Neoplasia (Definition, variation in cell growth, nomenclature and taxonomy, characteristics of neoplastic cells, aetiology and pathogenesis, grading and staging, diagnostic approaches, interrelationship of tumor and host, course and management).
26. Calcification
27. Effects of radiation

28. Hospital infection

(b) Systemic pathology

In each system, the important and common diseases, keeping in view their evolution, aetio-pathogenesis, mode of presentation, progress and prognosis, namely:-

1. Mal-nutrition and deficiency diseases.
2. Diseases of Cardiovascular system
3. Diseases of blood vessels and lymphatics
4. Diseases of kidney and lower urinary tract
5. Diseases of male reproductive system and prostate
6. Diseases of the female genitalia and breast.
7. Diseases of eye, ENT and neck
8. Diseases of the respiratory system.
9. Diseases of the oral cavity and salivary glands.
10. Diseases of the G.I. system
11. Diseases of liver, gall bladder, and biliary ducts
12. Diseases of the pancreas (including diabetes mellitus)
13. Diseases of the haemopoetic system, bone marrow and blood
14. Diseases of glands-thymus, pituitary, thyroid, and parathyroid, adrenals, parotid.
15. Diseases of the skin and soft tissue.
16. Diseases of the musculo-skeletal system.
17. Diseases of the nervous system.
18. Leprosy

(c) Microbiology

(I) General Topics:

1. Introduction
2. History and scope of medical microbiology
3. Normal bacterial flora
4. Pathogenicity of micro-organisms
5. Diagnostic microbiology

(II) Immunology:

1. Development of immune system
2. The innate immune system

3. Non-specific defense of the host
4. Acquired immunity
5. Cells of immune system; T cells and Cell mediated immunity; B cells and Humoral immunity
6. The compliment system
7. Antigen; Antibody; Antigen – Antibody reactions (Anaphylactic and Atopic);
   Drug Allergies
8. Hypersensitivity
9. Immuno-deficiency
10. Auto-immunity
11. Transplantation
12. Blood group antigens
13. Clinical aspect of immune-pathology.

(III) Bacteriology:

1. Bacterial structure, growth and metabolism
2. Bacterial genetics and bacteriophage
3. Identification and cultivation of bacteria
4. Gram positive aerobic and facultative anaerobic cocci,
   eg. Streptococci, Pneumococci.
5. Gram positive anaercobic cocci, e.g. peptostreptococci
6. Gram negative aerobic cocci, eg. Neisseria, moraxella, kingella.
7. Gram positive aerobic bacilli, eg. Corynebacterium, aacillus anthrax, cereus subtitis, mycobacterium tuberculosis, M. leprae, actinomycetes; nocardia, organism of enterobacteriac group.
8. Gram positive anaerobic bacilli, eg. Genus clostridium, lactobacillus.
9. Gram negative anaerobic bacilli, eg. Bacteroides, fragilus, fusobacterium.
10. Other like- cholera vibrio, spirochaetes, leptospirae, mycoplasma, chlamydiae, rickettsiae, yersinia and pasturella.

(IV) Fungi and Parasites:

1. Fungi – (1) True pathogens (cutaneous, sub-cutaneous and systemic infective agents), (2) Opportunistic pathogens.
2. Protozoa – (1) Intestinal (Entamoeba histolytica, Giardia lambia, Cryptosporidum parvum), (2) Urogenital (Trichomonas vaginalis) (3) Blood and Tissues (Plasmodium-species, Toxoplasma gondii, Trypanosoma species, Ieishmania species).

3. Helminths –(1) Cestodes (tapeworms)- Echinococcus granulosus, Taenia solium, Taenia saginata, (2) Trematodes (Flukes): Paragonimus westermani, Schistosoma mansoni, Schistosoma haematobium (3) Nematodes- Ancylostoma duodenale, Ascaris lumbricoides, Enterobius vermicularis, Strongyloides, Stercoralis, Trichuris trichiura, Brugia malayi, Dracunculus medinensis, Loa loa, Onchocerca volvulus, Wuchereria bancroftii).

(V) Virology:

1. Introduction
2. Nature and classification of viruses
3. Morphology and replication of viruses
4. DNA viruses:
   - (i) parvo virus
   - (ii) herpes virus, varicella virus, CMV, EBV.
   - (iii) hepadna virus (hepatitis virus)
   - (iv) papova virus
   - (v) adeno virus
   - (vi) pox virus- variola virus, vaccinia virus, molluscum contagiosum etc.
5. RNA viruses:
   - (a) orthomyxo virus:
     - (i) entero virus
     - (ii) rhino virus
     - (iii) hepato virus
   - (b) paramyxo virus-rubeola virus, mumps virus, Influenza virus etc.
   - (c) phabdo virus
   - (d) rubella virus (german measles)
   - (e) corona virus
   - (f) retro virus
   - (g) yellow fever virus
   - (h) dengue, Chikungunya virus
   - (i) Miscellaneous virus:
     - (i) arena virus
     - (ii) corona virus
     - (iii) rota virus
     - (iv) bacteriophages

(VI) Clinical microbiology: (1) Clinically important micro-organisms (2)

Immuno-prophylaxis, (3) Antibiotic Sensitivity Test (ABST)

(VII) Diagnostic procedures in microbiology: (1) Examination of blood and stool (2) Immunological examinations (3) Culture methods (4) Animal inoculation.

(VIII) Infection and Disease: (1) Pathogenicity, mechanism and control (2) Disinfection and sterilization (3) Antimicrobial chemotherapy (4) Microbial pathogenicity

(d) Histopathology:

1. Histopathological features with the help of slides of common pathological conditions from each system.

1. Gross pathological specimens for each system.

2. Histopathological techniques, e.g. fixation, embedding, sectioning and staining by common dyes and stains.

3. Frozen sections and its importance.

4. Electron microscopy; phase contrast microscopy.

## FORENSIC MEDICINE AND TOXIOCOLOGY

1. Introduction

(a) Definition of forensic medicine.

(b) History of forensic medicine in India.

(c) Medical ethics and etiquette.

(d) Duties of registered medical practitioner in medico-legal cases.

2. Legal procedure

(a) Inquests, courts of India, legal procedure.

(b) Medical evidences in courts, dying declaration, dying deposition,including medical certificates, and medico-legal reports.

3. Personal identification

(a) Determination of age and sex in living and dead; race, religion.

(b) Dactylography, DNA finger printing, foot print.

(c) Medico-legal importance of bones, scars and teeth, tattoo marks, handwriting, anthropometry.

(d) Examination of biological stains and hair.

4. Death and its medico-legal importance

(a) Death and its types, their medico-legal importance

(b) Signs of death (1) immediate, (2) early, (3) late and their medico-legal

importance

(c) Asphyxial death (mechanical asphyxia and drowning).

(d) Deaths from starvation, cold and heat etc.

5. Injury and its medico-legal importance

Mechanical, thermal, firearm, regional, transportation and traffic injuries; injuries from radiation, electrocution and lightening.

6. Forensic psychiatry

(a) Definition; delusion, delirium, illusion, hallucinations; impulse and mania; classification of Insanity.

(b) Development of insanity, diagnosis, admission to mental asylum.

7. Post-mortem examination (autopsy)

(a) Purpose, procedure, legal bindings; difference between pathological and medico-legal autopsies.

(b) External examination, internal examination of adult, foetus and skeletal remains.

8. Impotence and sterility

Impotence; Sterility; Sterilization; Artificial Insemination; Test Tube Baby; Surrogate mother.

9. Virginity, defloration; pregnancy and delivery.

10. Abortion and infanticide

(a) Abortion: different methods, complications, accidents following criminal abortion, MTP.

(b) Infant death, legal definition, battered baby syndrome, cot death, legitimacy.

11. Sexual Offences

Rape, incest, sodomy, sadism, masochism, tribadism, bestiality, buccal coitus and other sexual perversions.

I. Toxicology

1. General Toxiocology

(a) Forensic Toxicology and Poisons

(b) Diagonsis of poisoning in living and dead,

(c) General principles of management of poisoning,

(d) Medico –legal aspects of poisons,

(e) Antidotes and types.

2. Clinical toxicology

(a) Types of Poisons:

(i) Corrosive poisons (Mineral acids, Caustic alkalis, Organic acids, Vegetable acids)

(ii) Irritant poisons (organic poisons – Vegetable and animal; Inorganic poisons – metallic and non-metallic; Mechanical poisons)

(iii) Asphyxiant poisons (Carbon monoxide; Carbon dioxide; Hydrogen sulphide and some war gases)

(iv) Neurotic poisons (Opium, Nux vomica, Alcohol, Fuels like kerosene and petroleum products, Cannabis indica, Dhatura, Anaesthetics Sedatives and Hypnotics, Agrochemical compounds, Belladonna, Hyoscyamus, Curare, Conium)

(v) Cardiac poisons (Digitalis purpurea, Oleander, Aconite, Nicotine)

(vi) Miscellaneous poisons (Analgesics and Antipyretics, Anthihistaminics, Tranquillisers, antidepressants, Stimulants, Hallucinogens, Street drugs etc.)

II. Legislations relating to medical profession

(a) the Homoeopathy Central Council Act, 1973 (59 of 1973);

(b) the Consumer Protection Act, 1986 (68 of 1986);

(c) the Workmen's compensation Act, 1923 (8 of 1923);

(d) the Employees State Insurance Act, 1948 (34 of 1948);

(e) the Medical Termination of Pregnancy Act, 1971 (34 of 1971);

(f) the Mental Health Act, 1987 (14 of 1987);

(g) the Indian Evidence Act, 1872 (1 of 1872);

(h) the Prohibition of Child Marriage Act, 2006 (6 of 2007);

(i) the Personal Injuries Act, 1963 (37 of 1963)

(j) the Drugs and Cosmetics Act, 1940 (23 of 1940)and the rules made therein;

(k) the Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954 (21 of 1954);

(l) the Transplantation of Human Organs Act, 1994 (42 of 1994);

(m) the Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 (57 of 1994);

(n) the Homoeopathic Practitioners (Professional Conduct, Etiquette and Code of Ethics) Regulations, 1982;

(o) the Drugs Control Act, 1950 (26 of 1950);

(p) the Medicine and Toiletry Preparations (Excise Duties) Act, 1955 (16 of 1955);

(q) the Indian Penal Code (45 of 1860) and the Criminal Procedure Code (2 of 1974) {relevant provisions)

(r) the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation Act, 1995 (1 of 1996);

(s) the Clinical Establishment (Registration and Regulation) Act, 2010 ((23 of 2010).

## REPERTORY

1. Repertory: Definition; Need; Scope and Limitations.
2. Classification of Repertories
3. Study of different Repertories (Kent, Boenninghausen, Boger-Boenninghausen):
   - (a) History
   - (b) Philosophical background
   - (c) Structure
   - (d) Concept of repertorisation
   - (e) Adaptability
   - (f) Scope
   - (g) Limitation(s)
4. Gradation of Remedies by different authors.
5. Methods and techniques or repertorisation, Steps of repertorisation.
6. Terms and language of repertories (Rubrics) cross references in other repertories and materia medica.
7. Conversion of symptoms into rubrics and repertorisation using different repertories.
8. Repertory – its relation with organon of medicine and materia medica.
9. Case taking and related topics:
   - (a) case taking.
   - (b) difficulties of case taking, particularly in a chronic case.
   - (c) types of symptoms, their understanding and importance.
   - (d) importance of pathology in disease diagnosis and individualization in relation to study of repertory.
10. Case processing
    - (a) analysis and evaluation of symptoms
    - (b) miasmatic assessment
    - (c) totality of symptoms or conceptual image of the patient
    - (d) reportorial totality

(e) selection of rubrics

(f) reportorial technique and results

(g) reportorial analysis

(h) Comparative study of different repertories (like Kent's Repertory, Boennighausen's Therapeutic Pocket Book and Boger- Boenninghausen's Characteristic Repertories, A Synoptic Key to Materia Medica).

(i) Card repertories and other mechanical aided repertories- History, Types and Use.

(j) Concordance repertories (Gentry and Kenrr)

(k) Clinical Repertories (William Boericke etc.)

(l) An introduction to modern thematic repertories- (Synthetic, Synthesis and Complete Repertory and Murphy's Repertory)

(m) Regional repertories

(n) Role of computers in repertorisation and different softwares

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