SYLLABUS FOR B.H.M.S. (DEGREE) COURSE

As per the Homoeopathy (DEGREE Course) BHMS regulation, 1983, (as amended up to 2019)

ANATOMY

A. Theory:

(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 uro-genital system

3. Regional anatomy:

This will be taught 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);

B. Practical –

1. Dissection of the whole human body, demonstration of dissected parts.
2. Identification of histological slides related to tissues and organs.
3. Students shall maintain practical or clinical journals and dissection cards.

C. Examination:

1. Theory:

The written papers in anatomy shall be in two papers, namely: -

1.1. Paper-I

a. General Anatomy,

b. Head, face and neck, Central nervous System, upper extremities and Embryology.

1.2. Paper-II

a. Thorax, abdomen, pelvis, lower extremities and Histology (micro-anatomy).

2. The Practical including viva voce or oral examination includes the following: -

2.1. Marks: 200

2.2.	Distribution of marks-	**Marks**
2.2.1.	Knowledge of dissected parts-	20
2.2.2.	Viscera	20
2.2.3.	Bones	20
2.2.4.	Surface Anatomy	10
2.2.5.	Spotting (including Radiology and Histology)	20
2.2.6.	Maintenance of Practical record or journal and dissection card 10	
2.2.7.	Viva Voce (Oral)	100
Total		**200**

PHYSIOLOGY

Instructions:

I. (a) The purpose of a course in physiology is to teach the functions, processes and inter-relationship of the different organs and systems of the normal disturbance in disease and to equip the student with normal standards of reference for use while diagnosing and treating deviations from the normal;

(b) To a Homoeopath the human organism is an integrated whole of body life and mind and though life includes all the chemico-physical processes it transcends them;

(c) There can be no symptoms of disease without vital force animating the human organism and it is primarily the vital force which is deranged in disease;

(d) Physiology shall be taught from the stand point of describing physical processes underlying them in health;

(e) Applied aspect of every system including the organs is to be stressed upon while teaching the subject.

II. (a) There should be close co-operation between the various departments while teaching the different systems;

(b) There should be joint courses between the two departments of anatomy and physiology so that there is maximum co-ordination in the teaching of these subjects;

(c) Seminars should be arranged periodically and lecturers of anatomy, physiology and bio-chemistry should bring home the point to the students that the integrated approach is more meaningful.

A. Theory:

The curriculum includes the following, namely: -

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

B. Practical:

I. Haematology:
1. Study of the Compound Microscope
2. Introduction to haematology

3. Collection of Blood samples
4. Estimation of Haemoglobin Concentration
5. Determination of Haematocrit
6. Haemocytometry
7. Total RBC count
8. Determination of RBC indices
9. Total Leucocytes Count (TLC)
10. Preparation and examination of Blood Smear
11. Differential Leucocyte Count (DLC)
12. Absolute Eosinophil Count
13. Determination of Erythrocyte Sedimentation Rate
14. Determination of Blood Groups
15. Osmotic fragility of Red cells
16. Determination of Bleeding Time and Coagulation Time
17. Platelet Count
18. Reticulocyte Count

II. Human experiments:

1. General Examination
2. Respiratory System- Clinical examination, Spirometry, Stethography
3. Gastrointestinal System- Clinical examination
4. Cardiovascular System- Blood pressure recording, Radial pulse, ECG, Clinical examination
5. Nerve and Musle Physiology-Mosso's Ergography, Handgrip Dynamometer
6. Nervous System- Clinical examination
7. Special Senses- Clinical examination
8. Reproductive System- Diagnosis of pregnancy

BIO- CHEMISTRY

A. THEORY:

1. Carbohydrates: (Chemistry, Metabolism, Glycolysis, TCA, HMP, Glycogen synthesis and degradation, Blood glucose regulation)
2. Lipids: (Chemistry, Metabolism, Intestinal uptake, Fat transport, Utilisation 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)
7.	Organ function tests

B. Practical:

1. Demonstration of uses of instruments or equipment
2. Qualitative analysis of carbohydrates, proteins and lipids
3. Normal characteristics of urine
4. Abnormal constituents of urine
5. Quantitative estimation of glucose, total proteins, uric acid in blood
6. Liver function tests
7. Kidney function tests
8. Lipid profile
9. Interpretation and discussion of results of biochemical tests.

C. Examination:

1. Theory:

(1) No. of Papers- 02

(2) Marks: Paper I- 100

(3) Paper II- 100

1.1 Contents:

1.1.1. Paper-I:

General Physiology, Biophysics, Body fluids, Cardiovascular system, Reticuloendothelial system, Respiratory system, Excretory system, Regulation of body temperature, Skin, Nerve Muscle physiology

1.1.2. Paper-II:

Endocrine system, Central Nervous System, Digestive system and metabolism, Reproductive system, Sense organs, Biochemistry, Nutrition.

2. Practical Including viva voce or oral:

2.1 Marks; 200

2.2.	Distribution of marks;	Marks
	2.2.1. Experiments	50
	2.2.2. Spotting	30
	2.2.3. Maintenance of Practical record/Journal	20
	2.24. Viva Voce (Oral)	100
	Total	**200**

HOMOEOPATHIC PHARMACY

Instructions:

Instruction in Homoeopathic Pharmacy shall be so planned as to present, -

(1) importance of homoeopathic pharmacy in relation to study of homoeopathic materia medica, organon of medicine and national economy as well as growth of homoeopathic pharmacy and research;

(2) originally and speciality of homoeopathic pharmacy and its relation to pharmacy of other recognised systems of medicine;

(3) the areas of teaching shall encompass the entire subject but stress shall be laid on the fundamental topics that form the basis of homoeopathy.

A. Theory:

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).

B. Practical: Experiments

1. Estimation of size of globules.
2. Medication of globules and preparation of doses with sugar of milk and distilled water.
3. Purity test of sugar of milk, distilled water and ethyl alcohol.

4. Determination of specific gravity of distilled water and ethyl alcohol.
5. Preparation of dispensing alcohol and dilute alcohol from strong alcohol.
6. Trituration of one drug each in decimal and centesimal scale.
7. Succession in decimal scale from Mother Tincture to 6X potency.
8. Succession in centesimal scale from Mother Tincture to 3C potency.
9. Conversion of Trituration to liquid potency: Decimal scale 6X to 8X potency.
10. Conversion of Trituration to liquid potency: Centesimal scale 3C to 4C potency.
11. Preparation of 0/1 potency (LM scale) of 1 Drug.
12. Preparation of external applications – lotion, glycerol, liniment, ointment.
13. Laboratory methods – sublimation, distillation, decantation, filtration, crystallization.
14. Writing of prescription.
15. Dispensing of medicines.
16. Process of taking minims.
17. Identification of drugs (listed in Appendix B)-
    (i) Macroscopic and Microscopic characteristic of drug substances- minimum 05 drugs);
    (ii) Microscopic study of trituration of two drugs (up to 3X potency)
18. Estimation of moisture content using water bath.
19. Preparation of mother tincture – maceration and percolation.
20. Collection of 30 drugs for herbarium.
21. Visit to homoeopathic pharmacopoeia laboratory and visit to a large scale manufacturing unit of homoeopathic medicine (GMP compliant). (Students shall keep detailed visit reports as per Proforma at Annexure- 'B').

C. Demonstration

1. General instructions for practical or clinical in pharmacy.
2. Identification and use of homoeopathic pharmaceutical instruments and appliances and their cleaning.
3. Estimation of moisture content using water bath.
4. Preparation of mother tincture – maceration and percolation.

APPENDIX – A

List of drugs included in the syllabus of pharmacy for study of pharmacological action:-

1. Aconitum napellus
2. Adonis vernalis
3. Allium cepa
4. Argentum nitricum
5. Arsenicum album

6. Atropa Belladonna
7. Cactus grandiflorus
8. Cantharis vesicatoria
9. Cannabis indica
10. Cannabis sativa
11. Cinchona officinalis
12. Coffea cruda
13. Crataegus oxyacantha
14. Crotalus horridus
15. Gelsemium sempervirens
16. Glonoinum
17. Hydrastis Canadensis
18. Hyoscyamus niger
19. Kali bichromicum
20. Lachesis
21. Lithium carbonicum
22. Mercurius corrosivus
23. Naja tripudians
24. Nitricum acidum
25. Nux vomica
26. Passiflora incarnate
27. Stannum metallicum
28. Stramonium
29. Symphytum officinale
30. Tabacum

APPENDIX – B

List of drugs for identification

1. Vegetable Kingdom
    1. Aegle folia
    2. Anacardium orientale
    3. Andrographis paniculata
    4. Calendula officianlis
    5. Cassia sophera
    6. Cinchona officinalis
    7. Cocculus indicus
    8. Coffea cruda
    9. Colocynthis
    10. Crocus sativa

11. Croton tiglium
12. Cynodon dactylon
13. Ficus religiosa
14. Holarrhena antidysenterica
15. Hydrocotyle asiatica
16. Justicia adhatoda
17. Lobelia inflata
18. Nux vomica
19. Ocimum sanctum
20. Opium
21. Rauwolfia serpentina
22. Rheum
23. Saraca indica
24. Senna
25. Stramonium
26. Vinca minor

II. Chemicals or Minerals

1. Acetium acidum
2. Alumina
3. Argentum metallicum
4. Argentum nitricum
5. Arsenicum album
6. Calcarea carbonica
7. Carbo vegetabilis
8. Graphites
9. Magnesium phosphoric
10. Natrum muriaticum
11. Sulphur

III. Animal kingdom

1. Apis mellifica
2. Blatta orientalis
3. Formica rufa
4. Sepia
5. Tarentula cubensis

Note:

1. Each student shall maintain practical or clinical record or journal and herbarium

file separately.

2. College authority shall facilitate the students in maintaining record as per Appendix-C.

E. Examination:

1. Theory

1.1 Number of paper – 01

1.2 Marks: 100

2. Practical including viva voce or oral

2.1. Marks: 100

2.2. Distribution of marks;

	Marks
2.2.1. Experiments	15
2.2.2. Spotting	20
2.2.3. Maintenance of practical record or journal	10
2.2.4. Maintenance of herbarium record	05
2.2.4. Viva voce (oral)	50
Total	**100**

Educational tour – To provide basic knowledge of practical aspects of Pharmacy by exposure of students to pharmaceutical labs and Homoeopathic pharmacopoeia laboratory, is mandatory.

ORGANON OF MEDICINE WITH HOMOEOPATHIC PHILOSOPHY

A. Theory:

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 Chapter 3 and 16).

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. Aphorisms 1 to 28 of Organon of medicine

5. Homoeopathic Prophylaxis

B. Examination: There shall be no examination in the subject in First B.H.M.S.

HOMOEOPATHIC MATERIA MEDICA

A. Theory:

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

(a) Basic Materia Medica -

1. Basic concept of Materia Medica
2. Basic construction of various Materia Medica
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.

Note: There shall be no examination in First B.H.M.S.