

AMMENDED DEGREE SYLLABUS OF IIND BHMS, JULY 2015

PATHOLOGY

Introduction:

a) Pathology & microbiology shall be taught in relation to the concept of miasms as evolved by Samuel Hahnemann & further developed by J T Kent, H.A. Robert, J.H. Allen & other stalwarts, with due reference to Koch's postulate, correlation with immunity, susceptibility & thereby emphasizing homoeopathic concept of evolution of disease & cure;

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

(1) Pathology in relation with Homoeopathy Materia Medica

(2) Correlation of miasms & pathology

(3) Characteristic expressions of each miasm

(4) Classification of symptoms & diseases according to pathology

(5) Pathological findings of diseases; their interpretation, correlation & 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

Objectives

The students of BHMS shall demonstrate **the basics of knowledge, skills and attitudes that are relevant to the principles of pathology and microbiology, so as to integrate these essentials to perform as general homeopathic practitioner.**

(A) Knowledge

At the end of course of study in Pathology and Microbiology, students will be able to:

1. Demonstrate knowledge and understanding of the scientific basis of diseases.
2. Explain cellular aspects of pathological processes
3. Develop a comprehensive knowledge of the role of susceptibility and immunity in evolution of disease
4. Correlate the knowledge of aetiology, pathogenesis, structural and functional expression of disease in relation to homeopathic concept of morbidity.

5. Recall the methods of disinfection and sterilization relevant to prevention and control of community acquired infections and hospital infections
6. Recommend appropriate laboratory investigations for the diagnosis of common clinical conditions

(B)Skills

At the end of course of study in Pathology and Microbiology, students will be able to:

1. Use the correct method of collecting and handling of clinical samples from patients for use in the laboratory.
2. Perform the basic clinico-pathologic procedures as per NABL guidelines
3. Interpret pathological, microbiological investigations for prophylactic and therapeutic purposes

General Pathology: All General pathology topics to be studied with respect to Definition, Aetiology, Types, Pathogenesis, fate and correlation to Systemic pathology

Cell injury: 7hours

- a. Definition,Causes,Types
- b. Pathogenesis of ischaemic and hypoxic injury
- c. Effects of radiation: Mechanism of cell injury by ionizing radiation
- d. Pathogenesis of Ischaemia-Reperfusion injury
- e. Cellular adaptation: Atrophy, Hyperplasia, Hypertrophy, Metaplasia,Dysplasia
- f. Necrosis: Definition, Types, Aetiology, Morphology
- g. Apoptosis in physiologic and pathologic processes
- h. Gangrene: Definition, types , Aetiology, Morphologic features
- i. Degeneration:
 - a. Hydropic change: Definition, aetiology, pathogenesis, morphology
 - b. Hyaline change: Intracellular and extracellular hyaline examples
 - c. Mucoïd change: Epithelial and connective tissue mucin examples
 - d. Fatty change in liver:Aetiology, Pathogenesis, Morphologic features
- j. Pathologic calcification: Dystrophic calcification, Metastatic calcification

Inflammation : 6hours

- a. Definition, Causes, Signs, Types
- b. Acute inflammation: Vascular events ,Cellular events
- c. Chemical mediators of inflammation: List of chemical mediators, Source, Functions of mediators
- d. Inflammatory cells: Functions

- e. Factors determining variation in inflammatory response
- f. Morphologic types of acute inflammation with examples
- g. Outcome of acute inflammation
- h. Systemic effects of acute inflammation
- i. Pyrexia: Definition, Pathogenesis
- j. Chronic inflammation: Definition, Causes, General features, Types
- k. Giant cells: Types, Examples
- l. Granuloma: Definition, Pathogenesis, description
- m. Regeneration: Cell cycle and different types of cells

Wound Healing and Repair:

3hours

- a. Definition
- b. Factors influencing wound healing
- c. Wound healing: Healing by First intention and Second intention
- d. Complications of wound healing
- e. Healing of Fracture, Nervous tissue, Muscle, Mucosal surface, Solid epithelial organ

Hemodynamic disorder:

7hours

1. Thrombosis: Definition, Pathogenesis, Morphologic features of thrombi,

Origin of thrombi-Cardiac, Arterial, Venous with examples, Differences between Arterial and Venous thrombi, Phlebothrombosis, Thrombophlebitis, Fate of thrombus.

2. Embolism: Definition, Types

Sources of arterial thromboembolism, Sources of venous thromboembolism

Pulmonary thromboembolism: Definition, Aetiology, consequences

Fat embolism, Air embolism, Decompression sickness, Amniotic fluid embolism, Atheroembolism, Tumour embolism

3. Oedema: Definition, Types of oedema

Pathogenesis of oedema with examples of oedema by each mechanism

Differences between transudate and exudates

Renal oedema, Cardiac oedema, Pulmonary oedema, Cerebral oedema

Differences between Nephrotic oedema and Nephritic oedema

Cardiac oedema, Pulmonary oedema, Cerebral oedema

4. Ischaemia: Definition, Effects, Aetiology,

Factors determining severity of ischaemic injury

5. Haemorrhage: Definition, Aetiology, Effect of haemorrhage

6. Shock: Definition, Classification and Aetiology, General pathogenesis of shock

Stages of shock: Pathogenesis, effects Clinical features of shock Complications of shock

Morphologic features of shock in organs

7. Hyperaemia: Active hyperaemia: Definition, Examples

Passive hyperaemia: Local venous congestion, Systemic venous congestion

Morphology of CVC of organs: Liver, Lungs, Spleen, Kidney Infarction: Definition, Aetiology,

Types Pathogenesis of process of infarction

Gross and microscopic appearance of infarcts in different organs

Disorders of metabolism: 3hours

- i. Disorders of bilirubin metabolism
- ii. Disorders of calcium metabolism
- iii. Disorder of purine metabolism
- iv. Disorders of carbohydrate metabolism
- v. Disorders of lipid metabolism

Amyloidosis : 2hours

Definition, Classification, Pathogenesis of amyloidosis

Disorders of pigmentation: 2hours

List of endogenous pigments and exogenous pigments, Disorders of melanin pigmentation ,
Inhaled pigments, Ingested pigments, Injected pigments Haemosiderosis, Porphyrins

Neoplasia: 5hours

Definition, Basic components of neoplasia, Classification of tumours

Characteristics of tumours

Differences between Benign and malignant tumours

Spread of tumours: Local invasion

Metastasis: List routes of metastasis

Grading of cancer & Staging of cancer

Carcinogenesis: Basic concept of molecular pathogenesis of cancer

Carcinogens; physical, chemical, viral

Infection: **2hours**

Definition, Sources, Aetiology, Routes of transmission, Common hospital acquired infections

Immunity: **7hours**

Cells of immune system

Development of immune system

T cells and Cell mediated immunity

B cells and Humoral immunity ;The complement system

Antigen: Definition, Types, Antigenic determinant: Factors determining antigenicity

Antibody: Definition, Functions

Immunoglobulin: Definition, Classes, Functions

Antigen-antibody reactions

Characteristics of Ag-Ab reaction

Precipitation reactions; Agglutination reactions

Hypersensitivity: Definition, Types, Mechanism of types of Hypersensitivity Reaction

Immunodeficiency diseases: Definition, Types Primary immunodeficiency, Secondary immunodeficiency

Autoimmunity; Transplantation

Blood group antigens & Blood transfusion reactions

Hyperlipidaemia and lipidosis: **1hour**

Major classes of lipoproteins and their role Major classes of lipoproteins and their role Major classes of lipoproteins and their role

SYSTEMIC PATHOLOGY: All Systemic topics should be Studied With Respect To Definition, Types, Aetiopathogenesis, Pathological Findings, Clinical Features, Laboratory Diagnosis & Complications

Mal-nutrition and deficiency diseases: **2hours**

Protein-Energy Malnutrition: Definition

Conditions resulting from vitamin deficiencies

Contrasting features of Kwashiorkar and Marasmus

Diseases of cardiovascular system: 10 hours

Heart failure

Ischaemic heart disease

Rheumatic fever

Valvular Heart Disease

Bacterial endocarditis

Pericarditis: Definition, Classification

Cardiomyopathy

Diseases of blood vessels and lymphatics: 3hours

Atherosclerosis

Varicosities

Thrombophlebitis

Lymphangitis &Lymphoedema

Aneurysms

Diseases of kidney and lower urinary tract: 13 hours

Acute renal failure

Chronic renal failure

Glomerular diseases

Acute nephritic syndrome and Nephrotic syndrome

Acute pyelonephritis

Renal vascular diseases: Hypertension

Nephrolithiasis

Chronic pyelonephritis

Acute tubular necrosis

Hypertension

Diseases of male reproductive system and prostate: 2hours

Definitions of Orchitis, Epididymitis, Balanoposthitis

Prostatitis: Definition, Types

Diseases of the female genitalia and breast: 2hours

Bartholin's adenitis, Vaginitis, Cervicitis, Salpingitis, Pelvic Inflammatory Disease

Acute mastitis and Breast abscess-pathogenesis

Endometritis and Myometritis: Types and Causes

Fibroadenoma: Morphology

Diseases of Eye, ENT and Neck 2hours

Definition of Stye, Chalazion, Endophthalmitis, Conjunctivitis

Ear: Otitis media-Definition, Types

Definitions of Acute rhinitis, Allergic rhinitis, Sinusitis, Tonsillitis, Quinsy.

Diseases of the respiratory system: 12hours

Pneumonia:

COPD: Bronchitis, Emphysema, Bronchial asthma, Bronchiectasis

Pleuritis or pleurisy

Acute respiratory distress syndrome.

Restrictive Lung Disease: Pneumoconiosis

Hydrothorax, Haemothorax, Chylothorax, Pneumothorax

Lung abscess

Tuberculosis

Diseases of oral cavity and salivary glands 1hours

Stomatitis ; Glossitis; Sialadenitis

Diseases of G.I system: 7hours

Acute gastritis:, Chronic gastritis

Duodenal ulcer and gastric ulcer; Differences between duodenal ulcer and gastric ulcer in terms of pathologic changes, clinical features

Enterocolitis: Mal absorption Syndrome.

Appendicitis

Intestinal obstruction: Intussusception, Volvulus

Inflammatory Bowel disease: Distinguishing features of Crohn's disease and Ulcerative Colitis in terms of pathologic changes

Ca Colon

Peritonitis

Diseases of liver, gall bladder and biliary ducts:

5hours

Hepatitis: Acute , chronic

Jaundice

Alcoholic liver disease: Outline of ethanol metabolism

Cholecystitis

Portal venous obstruction

Cirrhosis of Liver

Diseases of pancreas [including diabetes mellitus]

3hours

Acute and chronic pancreatitis

Diabetes mellitus,

Complications of diabetes mellitus

Diseases of haemopoetic system, bone marrow and blood

13hours

Anaemia: Iron deficiency anaemia, Sideroblastic anaemia, Megaloblastic anaemia, Pernicious anaemia, Haemolytic anaemia, Aplastic anaemia, G6Pd deficiency

Haemoglobinopathies: Sick cell anaemia, Thalassaemia

Leucocytosis, Leucopenia, Leukaemias

Lymphomas (Hodgkin's and Non Hodgkin's Lymphoma)

Infectious Mononucleosis

Bleeding Disorders: Thrombocytopenia. ITP, DIC, TTP

Laboratory evaluation of Anaemias, leukaemias, Thrombocytopenia

Diseases of glands

2hours

Goiter : Hyperthyroidism, Hypothyroidism

Thyroiditis

Diseases of the skin, soft tissue and nervous system

2hours

Dermatoses

Meningitis

Bacterial and viral encephalitis

Leprosy **1hours**

Clinical Pathology: **10 hours**

Microbiology **25 hours**

General Topics

Introduction: Differentiating features of eukaryotes and prokaryotes

History and scope of medical microbiology

Normal bacterial flora: Anatomical location and role of normal bacterial flora

Pathogenicity of micro-organisms **As per the bacteria listed in bacteriology component in the same syllabus**

Diagnostic microbiology: Differential staining-Procedures, Principles, Culture Media

Bacteriology

1. Bacterial structure, growth and metabolism: Definition, classification, Structure

Bacterial spores: Definition, Shape and position of spores

Growth requirements of bacteria

Bacterial growth: Generation time, Bacterial count

Differences between gram positive and gram negative cell wall

- 2. Bacterial genetics and bacteriophage:** Definition of genes, codon, plasmids, Conjugation
- 3. Identification and cultivation of bacteria:** Culture media: Definition, Types, examples
- 4. Gram positive aerobic and facultative anaerobic cocci:** Streptococcus pyogenes: Staphylococcus aureus: Pneumococcus
- 5. Gram positive anaerobic cocci:** Peptostreptococci
- 6. Gram negative aerobic cocci :**Neisseria meningitides, Neisseria gonorrhoea and Moraxella ,Kingella
- 7. Gram positive aerobic bacilli:** Corynebacterium , Mycobacterium tuberculosis Mycobacterium leprae: Shigella ,Salmonella, Escherichia coli
- 8. Gram positive anaerobic bacilli:** Clostridium Lactobacillus
- 9. Gram negative anaerobic bacilli:** Bacteroides fragilis, Fusobacterium
- 10. Others like:** Vibrio cholera, Yersinia pestis, Treponema pallidum:, Leptospira interrogans

Mycoplasma pneumonia, Rickettsiae prowazekii, Chlamydiae ,Pasteurella

Fungi and Parasites

A)Fungi: 3hours

Fungi: Classification: True pathogens & opportunistic Pathogen

B) Parasites 20 hours

a) Protozoa: Entamoeba histolytica, Giardia intestinalis:, Cryptosporidium parvum,Trichomonas vaginalis,Toxoplasma gondii, Trypanosoma species, plasmodium, Leishmania donovani.

b) Helminths:

Cestodes: Taenia saginata and Taenia solium, Echinococcus granulosus

Trematodes (flukes): Schistosoma haematobium Schistosoma mansoni, Paragonimus westermani:

Nematodes: Ancylostoma duodenale, Ascaris lumbricoides, Enterobius vermicularis, Wuchereria Bancroft, Trichuris trichiura, Dracunculus Medenensis

c) Virology: 10 hours

1. Introduction
2. General properties of viruses
3. Classification of DNA and RNA viruses
4. Morphology and replication of viruses
- 5. 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

6. RNA virus:

- a. Orthomyxo virus: Entero virus, Rhino virus, hepato virus
- b. Paramyxovirus: Rubeola, Mumps virus, Influenza virus
- c. Rhabdo virus
- d. Rubella virus
- e. Corona virus
- f. Yellow fever Virus
- g. Retro virus
- h. Dengue virus, Chikungunya virus
- i. **Miscellaneous virus:** Arena virus, Rota virus, Bacteriophages

Clinical microbiology: 2hours

- i. Clinically important micro-organisms
- ii. Immunoprophylaxis: Vaccines, Examples for Bacterial & Viral vaccines
- iii. Antibiotic sensitivity test (ABST)

Diagnostic procedures in microbiology: 1hours

- i. Examination of blood and stool
- ii. Immunological examination
- iii. Culture methods
- iv. Animal inoculation

Infection and Disease: 4hours

- 1. Pathogenicity, mechanism and control, sources
- 2. Disinfection and Sterilisation:
 - a. Definition of terms,
 - b. List of agents of sterilization,
 - c. Flaming, Pasteurization,
 - d. Uses of UV radiation and Ionizing radiation in sterilization
 - e. Characteristics of disinfectant

- f. Uses of phenol derivatives, Methyl alcohol, Iodine, Chlorine, Formaldehyde, Glutaraldehyde, Ethylene oxide
 - g. Hot air oven
 - h. Autoclave
 - i. Types of filters, Uses of filtration
3. Microbial pathogenicity
 4. Antimicrobial Chemotherapy

Practicals

Competencies at the end of practicals in pathology and microbiology:

- Use and handle microscope for methodical focusing
- Recognise importance of chemical laboratory hazards and safety measures in laboratory practice
- Perform laboratory procedures accurately with logical interpretation of results
- Interpret the laboratory results in relation to the signs and symptoms
- Indicate the probable morbidity status in the context of laboratory report

Objectives:

At the end of the course in pathology, the student will be able to:

- Collect and store specimens for various pathological tests
- Perform with accuracy and reliability basic haematological estimations
- Perform complete urine examination
- Interpret abnormal laboratory values of common diseases
- **Practicals : 80 hours(including Tutorials and Seminar)**
 1. Use of microscope
 2. Clinical pathology:
 - i. Estimation of Haemoglobin
 - ii. Blood grouping, ESR
 - iii. TC-RBC,WBC
 - iv. Differential count
 - v. Bleeding time & Clotting time
 3. Urine examination: Physical, Chemical, Microscopic properties,Quantity of albumin, sugar ,blood.

4. Examination of Faeces: Physical, chemical(occultblood) and Microscopic for ova and protozoa,
5. Methods of Sterilisation, Preparation of Media, Staining(Gram & Acid fast), motility preparation.
6. Widal test Demonstration
7. Exposure to latest Equipments:autoanalyser,Glucometer etc
8. Histopathology:
 - (a)Demonstration of common slides from each system: study includes Identification &Description
 - (b)Demonstration of gross pathological specimens: study includes Identification &Description
 - (c)Practical or clinical demonstration of histopathological techniques:fixation & embedding
 - (d) Sectioning, staining by common dyes and stains, Frozen section and its importance
 - (e)Electron microscopy & Phase contrast microscopy
9. Instruments: study includes Identification, Description & Uses.

Incubator ,Hot air oven, Autoclave, Petridish, pH comparator, NIH swab, Fine biopsy needles, ESR tubes and stand, Haemometers, Haemocytometers, Water bath, Urinometer, Albuminometer,Medias etc

Practical including vivo voce or oral

2.1.Marks 100

2.2.Distribution of marks

1.	Haematology		Marks
a.	Haemoglobin estimation	Any one	5marks
b.	WBC count		
c.	RBC count		
d.	Differential count		
e.	Blood group/BT/CT		
2.	Examination of urine		
	Physical properties Chemical properties: i. Albumin ii. Blood	Any one	5marks

	iii. Glucose iv. Bile pigments v. Bile salts		
3.	Microbiology and Parasitology		
	i. Gram staining ii. Acid fast staining	Any one	5marks
4.	Spotting		
	i. Incubator ,Hot air oven, Autoclave, Petridish, , NIH swab, Fine biopsy needles, ESR tubes and stand, Haemometers, Haemocytometers, Urinometer, Albuminometer ii. Medias iii. Pathological specimens	Any Four	20 marks
5.	Histopathological slides	Any two	10 marks
6.	Journal or Practical record		5marks
7.	Viva voce (oral) Including 5 marks for interpretation of routine pathological reports		50 marks

FORENSIC MEDICINE AND TOXICOLLOGY

INSTRUCTIONS

- a) Medico legal examination in the statutory duty of every registered medical practitioner, whether he is in private practice or engaged in Government sector and in the present scenario of growing consumerism in the medical practice, the teaching of Forensic Medicine and Toxicology to the students is highly essential.
- b) This learning shall enable the students to be well informed about medico legal responsibility in the medical practice and he shall also be able to make observations and infer conclusions by logical deductions to set enquire on the right track in criminal matters and connected medico legal problems.
- c) The students shall also require knowledge of laws in relation to medical practice, medical negligence and codes of medical ethics and they shall also be capable of identification, diagnosis and treatment of the common poisonings in their acute and chronic state and also dealing with their medico legal aspects.

- d) For such purposes, students shall be taken to visit district courts and hospitals to observe court proceedings and post-mortem as per Annexure 'B'.

GENERAL OBJECTIVES

At the end of this course in the Forensic medicine & Toxicology students will be able to

- Describe the medico legal framework in our country so as to relate the duties and responsibilities of homeopathic practitioner in this context.
- Demonstrate basic knowledge of relevant sections of penal code.
- Demonstrate awareness of inquest, legal and court procedures applicable to medico-legal and medical practice.
- Identify the medico-legal cases, carryout medical examination in such cases and prepare medico-legal report as per the legal provisions.
- Demonstrate awareness of code of ethics, duties & rights of medical practitioner, duties towards patients, society, punishment on violation of code of ethics, various forms of medical negligence, duties towards his / her professional colleagues.
- Diagnose the cases of acute & chronic poisoning and carry out medico legal duties

FORENSIC MEDICINE

SYLLABUS DISTRIBUTION

THEORY-80 HRS

NOTE- The topic wise distribution of minimum number of hours for lecture, demonstration, tutorial/ practical in the subject shall be followed.

SR. NO	TOPIC	HRS
1	Introduction of forensic medicine a) Definition of FM b) History of FM in India c) Medical ethics and etiquettes d) Duties of registered medical practitioner in medico legal cases CCH act, Clinical establishment ACT, Workmen compensation ACT, Consumer Protection ACT	6
2	Legal procedures a) Inquests, courts in India and Legal procedures b) Medical evidences in courts, dying declaration, dying deposition, including medical certificates and medico legal reports.	4
3	Personal identification a) Determination of age and sex in living and dead, race and religion b) Dactylography, DNA fingerprinting, footprint, c) Medico legal Importance of bones, scars and teeth, tattoo	5

	marks, handwriting, anthropometry, d) Examination of biological stains and hair Prohibition of Child Marriage ACT	
4	Death and its medico legal importance a)Types, Medico legal Importance, b) Signs of death c) Asphyxia- types and MLA d) Death from starvation , heat and cold	10
5	Injuries – and its MLA Mechanical. Thermal, Electrical and lightening, transportation and traffic, regional, firearm and their medico legal aspect. Personal Injuries ACT, Person with disabilities ACT	8
6	Forensic psychiatry a) Definitions-delusion, illusion, hallucination, impulse, mania, classification of insanity b) Development if insanity, , admission to mental asylum Mental health ACT	4
7	PM exam. a) Purpose, procedure, legal findings, Difference between pathological and medico legal autopsies b) External and internal examination of adult, fetus and skeletal remains, Exhumation Transplantation of Human Organ ACT	3
8	Impotency , sterility, Sterilization, Artificial Insemination	3
9	Virginity, defloration, pregnancy, delivery	4
10	Abortion. Infanticide a) Abortion- methods, complications, accidents following criminal abortion, MTP and Prenatal Diagnostic technique ACT b) Infant death, legal definition, battered baby syndrome, COT death, legitimacy.	4
11	Sexual offences- natural, unnatural and sexual perversions	4
		55

TOXICOLOGY-THEORY

SR. NO	TOPIC	HRS
1	General toxicology- Drug and cosmetic ACT. Drug Control Act, Drug and Magic Remedies ACT	3
2	Corrosives	2
3	Irritant- vegetable, animal,	4
4	Irritant-Inorganic poison	2
5	Mechanical poisons	2
6	Asphyxiants	2
7	Neurotic	7
8	Cardiac	3
		25

PRACTICAL/TUTORIAL/SEMINAR/DEMONSTRATION-40 HRS

PRACTICAL/ DEMONSTRATION - 25

SR.NO	TOPIC	HRS
1	Examination of Injured and Weapon	3
2	Certificate writing	4
3	Exam. Of stains, slides	1
4	Estimation of age- bones, teeth n others n fingerprints	4
5	Model/ specimen	2
6	Instruments	1
7	Charts, diagrams, photographs, X-rays	3
8	Exam of Mentally ill,	2
9	Poison demo	4
10	Exam of alcoholic	1
11	COURT VISIT	
12	PM VISIT	

TUTORIALS/ SEMINAR- -15- BASED ON TOPICS IN THE SYLLABUS

- Discussion on ACTS in syllabus
- Newspapers and magazine record and discussion- events and explanation of their of medico legal importance
- Chart making and other relevant activities.

EXAMINATION

1. Theory

- 1.1 Number of papers-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. Medico legal aspect of 4 specimens 40
 - 2.2.2. Journal or practical records 10
 - 2.2.3. Viva voce(oral) 50

Total 100

FORENSIC MEDICINE AND TOXICOLOGY

QUESTIONAIR FOR PRACTICAL/ORAL EXAMINATION

FORENSIC MEDICINE

- Write injury report./ Weapon identification and injuries caused.
- Firearm injury-weapons n related questions
- Certificate- Death/ sickness/fitness/ birth/ rape/ intoxication/ PM report
- Determination of age from bones, teeth etc.
- Fingerprints/ Anthropometry and other methods
- Calculation of time since death from signs of death
- MLA of teeth, bones, blood, nail, hair.
- Examination of hair, blood stain.

TOXICOLOGY

POISONS

- Neurotic
- Irritant
- Animal
- Pharmacological
- Cardiac
- Corrosive
- ANTIDOTES

Can be asked with respect to Sources/ Fatal dose and Fatal period/ Action/ Signs and symptoms/ Treatment/ PM appearance/ Diagnosis/ Medico legal aspect.

HOMOEOPATHIC MATERIA MEDICA

SECOND YEAR H.M.M. SYLLABUS SCHEMA

The II BHMS syllabus should emphasize on clinical & comparative application of HMM with the base of I BHMS syllabus of basic HMM.

OBJECTIVES -

1. To understand the specificity of construction of H.M.M. and to compare it with other systems of medicine.
2. To understand the nature of H.M.M. through the action of drug on the individual.
3. To study the construction of H.M.M. with reference to arrangement of symptoms of the drug.
4. To study the essential and complete action of the drug through understanding of the process of Homoeopathic drug proving.

5. To study the process of drug proving and Homoeopathic Materia Medica so as to understand the psychodynamics and evolution of symptomatology.
6. Study of individual drugs from synthetic, analytic and comparative point of view which would enable student for accurate homoeopathic prescription.
7. Teaching of Materia Medica with perspective of day to day clinical management of the patient. From this point of view, the syllabus should be planned in such a way so as to cover the most commonly used drugs in the initial teaching schedule which enables the student to proceed with his clinical work.
8. Every drug should be taught so as to elicit its complete evolution right from its sphere of action to the remedy relationship.
9. To study the rarely used remedies with emphasis on their most salient features and symptoms.
10. Tutorials should be designed to accommodate few students in a group so as to provide accurate clinical training with its application to H.M.M. in management of the sick.
11. Teachings should be made to recall M.M. so that indication for drugs in a clinical condition can be easily elicited from the provings of the drug concerned.
12. While teaching Materia Medica emphasis should be given to apply the resources of the vast Materia Medica in any sickness and not limit the student to memorize a few drugs for a particular disease.
13. Materia Medica should be taught in such a way that the Hahnemannian approach in clinical application of Homoeopathic Materia Medica is easily understood.
14. Application of MM- should be demonstrated from case records – indoor & outdoor.
15. Lectures on Comparative & Therapeutics Materia Medica as well as tutorials – should be integrated with lectures on clinical medicine.
16. Herbarium sheets & other specimens for demonstration to the students.
17. Audio- visual material for teaching & training purposes should be provided.
18. It is essential that at the end of this course each student should gain basic & sufficient knowledge of “How to study Homoeopathic Materia Medica” and to achieve this objective, basic & general topics of Materia Medica should be taught in details during this curriculum, general topics should be taught.
19. The medicines should be taught under the following headings, namely:-
 - a) Common name, family, habitat, part used, preparation, constituents (of source material)
 - b) Proving data
 - c) Sphere of action

- d) Symptomatology of the medicine emphasizing the characteristic symptoms (mental, physical generals & particulars including sensations, modalities and concomitants) and constitution.
- e) Comparative study of medicine.
- f) Therapeutic application (applied Materia Medica).

SYLLABUS

Theory (160 hours) –

A) In addition to syllabus of I BHMS Course, following should be taught,

- (i) Science & Philosophy Of Homoeopathic Materia Medica.
- (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 & 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 Biochemic Medicines. (tissue remedies).

B) Homoeopathic Medicines to be taught in II BHMS as per Appendix- I given below

1. Aconitum Napellus	2. Aethusa Cynapium
3. Allium Cepa	4. Aloe Socotrina
5. Antimonium Crudum	6. Antimonium Tartaricum
7. Apis Mellifica	8. Argentum Nitricum
9. Arnica Montana	10. Arsenicum Album
11. Arum Triphyllum	12. Baptisia Tinctoria
13. Bellis Perrenis	14. Bryonia Alba
15. Calcarea Carbonica	16. Calcarea Fluorica
17. Calcarea Phosphoric	18. Calcarea Sulphurica
19. Calendula Officinalis	20. Chamomilla
21. Cina	22. Cinchona Officinalis
23. Colchicum Autumnale	24. Colocynthis
25. Drosera	26. Dulcamara

27.Euphrasia	28.Ferrum Phosphoricum
29.Gelsemium	30.Hepar Sulph
31.Hypericum Perforatum	32.Ipecacuanha
33.Kali Muriaticum	34.Kali Phosphoricum
35.Kali Sulphuricum	36.Ledum Palustre
37.Lycopodium Clavatum	38.Magnesium Phosphoricum
39.Natrum Muriaticum	40.Natrum Phosphoricum
41.Natrum Sulphuricum	42.Nux Vomica
43.Pulsatilla	44.Rhus Toxicodendron
45.Ruta Graveolens	46.Silicea
47.Spongia Tosta	48.Sulphur
49.Symphytum Officinale	50. Thuja Occidentalis

PLANNER -TERM – I (AUGUST – DECEMBER)

REVISION OF I BHMS SYLLABUS (6)

- a) Basic Materia Medicas and their constructions (1)
- b) Definition and classification of Homoeopathic Materia Medica (1)
- c) Basic concept and construction of Materia Medica (3)
- d) Sources of homoeopathic Materia Medica (1)

II BHMS syllabus

1. Science & Philosophy of HMM (5)
2. Different ways to study HMM (3)
3. Scope & Limitation of HMM (2)

As mentioned in the instruction the below mentioned remedies which are indicated for day-to-day ailments can be taken in 1st term laying emphasis on the study of complete drug picture / study of characteristic symptoms / comparative study / therapeutic application.

Sr.No	Name of Drug	Topic to be covered	No.of lectures
1.	Aconite	Drug Picture	(3)

2.	Arnica	Drug Picture	(3)
3.	Calendula	Injury	(1)
4.	Ruta	Injury	(2)
5.	Symphytum	Injury	(1)
6.	Hypericum	Nerves, Injury	(1)
7.	Rhus Tox	Drug Picture, Rheumatism	(3)
8.	Bellis Per	Injury	(2)
9.	Bryonia Alba	Drug Picture	(3)
10.	Cina	Drug Picture	(3)
11.	Aethusa	Baby, CNS	(2)
12.	Chamomilla	Drug Picture	(3)
13.	Calc. Carb	Drug Picture	(3)
14.	Allium Cepa	Rhinitis	(1)
15.	Euphrasia	Eye	(1)
16.	Aloe	GIT	(2)
17.	Antim Crud	Drug Picture	(3)
18.	Antim Tart	Drug Picture	(3)
19.	China	Drug Picture	(3)
20.	Colchicum	Drug Picture	(3)
21.	Colocynth	Drug Picture	(3)
22.	Gelsemium	Drug Picture, Fever	(3)
23.	Ipecac	GIT	(1)
24.	Ledum	Injury, Rheumatism	(1)
25.	Nux Vomica	Drug Picture	(3)
		TOTAL	83

Comparison of the above drugs with their therapeutic utility of mentioned drugs-(11)

TERM –II (JANUARY – MAY)

1. Concordance or Remedy relationships (4)
2. Theory of Biochemic system of medicine, its history & concepts (3)
 - Detail study of 12 Biochemic tissue salts which includes their tissue affinity, physicochemical reaction & Biochemic indications.

3. As mentioned in the instruction the below mentioned remedies which are indicated for day-to-day ailments can be taken in 2nd term laying emphasis on the study of complete drug picture / study of characteristic symptoms / comparative study / therapeutic application.

Sr. No	Name of the Drug	Topics to be Covered	No. of Lectures
1.	Argentums Nitricum	Drug Picture	(3)
2.	Calc. Fluor	Biochemic & Hom. Indications	(1)
3.	Calc. Phos	Biochemic & Hom. Indications	(1)
4.	Calc. Sulph	Biochemic & Hom. Indications	(1)
5.	Ferrum Phos	Biochemic & Hom. Indications	(1)
6.	Kali Mur	Biochemic & Hom. Indications	(1)
7.	Kali Phos	Biochemic & Hom. Indications	(1)
8.	Kali Sulph	Biochemic & Hom. Indications	(1)
9.	Mag Phos	Biochemic & Hom. Indications	(1)
10.	Natrum Mur	Drug Picture	(3)
11.	Natrum Phos	Biochemic & Hom. Indications	(1)
12.	Natrum Sulph	Biochemic & Hom. Indications	(1)
13.	Silicea	Drug Picture	(3)
14.	Ars. Alb	Drug Picture	(3)
15.	Arum Triphyllum	R.S.	(1)
16.	Baptisia	Fever	(2)
17.	Drosera	R.S.	(2)
18.	Dulcamara	R.S.	(2)
19.	Hepar Sulph	Skin, R.S.	(2)
20.	Lyco	Drug Picture	(3)
21.	Puls	Drug Picture	(3)
22.	Spongia	R.S.	(2)
23.	Sulphur	Drug Picture	(3)
24.	Thuja	Drug Picture	(3)
25.	Revision of Biochemic Salts		(4)
		TOTAL	56

Comparison of the above drugs with their therapeutic utility of above mentioned drugs (14)

PRACTICAL OR CLINICAL / TUTORIAL / SEMINAR (60 HOURS)

For above sessions, students can be divided in small batches & rotational schedule can be prepared. In these sessions, emphasis should be given on clinical training for the students incorporating knowledge of HMM & its application in bedside.

This will cover-

- (i) Case taking of acute and chronic patients.
- (ii) Case processing including totality of symptoms, selection of medicine, potency and repetition schedule.

Each student shall maintain practical record or journal with record of total 5 cases of which 3 are acute and 2 are chronic cases.

In case processing for HMM students of II year, Emphasis should be given on an accurate totality and arriving at group of remedies after going through the process of analysis and evaluation. Discussion on comparative HMM should be done to arrive at final prescription.

Tutorials & Seminars will be conducted in rotation so as to assess the classroom learning achieved by the students in theory classes.

THEORY EXAMINATION:

Theory

- i. Number of papers -01
- ii. Marks : 100
- iii. Distribution of marks :
 - a. Topics of I BHMS 50 marks
 - b. Topics of II BHMS 50 marks

Proposed paper pattern:

SECTION A/B----- TOTAL MARKS 100

DURATION: 3 HOURS

ORGANON OF MEDICINE WITH HOMOEOPATHIC PHILOSOPHY

Instructions :

- 1 Homoeopathy should be taught as a complete system of medicine with logical rationality of its holistic , individualistic and dynamic approach to life , health, disease , remedy and cure

- 2 Focus of education and training should be to build up conceptual base of Homoeopathic Philosophy for its use in Medical Practice
- 3 Organon of Medicine with Homoeopathic Philosophy should illustrate the principles of Homoeopathic Practice to enable the physician to achieve logical and rational cures of diseases.
- 4 It is imperative to have clear grasp of inductive and deductive logic and its application and understanding of the fundamentals of Homoeopathy
- 5 Homoeopathic approach in therapeutics is holistic. It demands comprehension of the patient as a person, disposition, state of his mind and body, along with the study of disease process and its causes.
- 6 Since Homoeopathy lays great emphasis on knowing the mind , preliminary and basic knowledge of the Psychology becomes imperative for a Homoeopathic physician.
- 7 The department of Organon of Medicine shall co-ordinate with other departments where students are sent for the pre-clinical and clinical training to facilitate intergration with related clinical subjects .

Objectives :

During the II B.H.M.S. , the student shall be able to know:

1. Comprehend the person in wider dimensions to appreciate the factor responsible for the genesis and maintenance of illness.
2. Take a case and build up portrait of the disease by :
 - a. Evolutionary study of patient comprising of well-defined characteristics.
 - b. Studying the individual in relation to his family, social and work environment .
 - c. Processing of the case - interview to grasp the principles of management of the patients .
3. Classify symptoms and evaluate them, infer the characteristics to arrive at the totality of symptoms

TEACHING PLAN :

Note: The topic-wise distribution of minimum number of hours for lectures; clinics, tutorials, seminars is as follows :

A : Theory : 160 hrs

<u>SR NO</u>	<u>TOPIC</u>	<u>HRS</u>

1	<u>Organon of Medicine</u> : Aph 29-104	75
2	<u>Homoeopathic Philosophy</u> As follows: 2.1: Chapters on philosophy by J.T . Kent Chapters on philosophy by Stuart Close Chapters on philosophy by H.A.Roberts 2.2: Symptomatology 2.3: Causation 2.4: Case Taking 2.5: Case Processing	75 35 15 15 2 2 2 4

B : Practical or Clinical : 60 hrs

<u>TOPIC</u>	<u>HRS</u>
<i>Clinics</i> : Case Taking	30
<i>Tutorials</i> : Case Processing	2 hr /case x 10 = 20 1 hr : Case-Taking discussion 1 hr : Case Processing
<i>Seminar</i> : I BHMS Revision	10

OBJECTIVES -

- **60 hrs Practical** are Clinical or Tutorial or Seminar as per syllabus .
- **Clinical** hands on training for Case taking of minimum of 10 acute cases can be adequately achieved had from 30 OPD/IPD hrs exposure of students to patients .
- Following would be **Tutorials** on Case Processing of the OPD/IPD taken cases as mentioned in table above
- 10 **Seminar** hrs ,allotted for I yr portion, would help consolidate concepts on Homoeopathic Philosophy .

II B.H.M.S. ORGANON JOURNAL

Note: Case records of **10 acute cases** to be prepared . Thus Organon and Philosophy Journal would have Case Records of Acute Cases including Acute Case Taking , Acute Case Processing as follows:

ACUTE CASE PROFORMA

Preliminary Data : (including case registration ; date of Case-taking)

2.4 : C/C : (Hahnemannian Case Taking Format)

In addition: (optional re-record)

Location	Sensation	Modality	Concomittant

2.5 : Analysis of Symptom : (according to Boenninghausen's , Kent's Philosophy)

Complete/Incomplete; Characteristic/Common; Physical/Mental;

If Physical : General/Particular

Or If Mental : Emotional/Intellect/Sub-conscious

Personal History:

App:

Thirst:

Urine:

Stool :

Perspiration:

Sleep:

Dreams:

Thermal State:

Pa/h: (illness related to C/C)

Fa/h: (illness related to C/C)

2.5: Evaluation of Symptoms : (according to Boenninghausen's , Kent's Philosophy)

- 1) Ailments from
- 2) Characteristic Modality/ies
- 3) Characteristic Concomittant/s
- 4) Characteristic Sensation/s, pathology
- 5) Characteristic Location

Clinical Diagnosis:

Hahnemannian Disease Classification :

2.5: Miasmatic Diagnosis:

Recurring or Non-recurring Acute Miasm

2.5: Totality of symptoms :

(Based on : Evaluation of Symptoms)

SURGERY SYLLABUS-IIND BHMS

INTRODUCTION

Homoeopathy as a science need clear application on part of physician to decide about the best course of actions require to restore the sick, to health. Knowledge about surgical disorders is required to be grasped so that homoeopathic physician is able to:

- 1.Diagnose common surgical conditions
- 2.Institute homoeopathic medical treatment wherever possible
3. Organize pre and post-operative homoeopathic medicine care as total and partial responsibility but with the consent of a surgeon.

The conceptual clarity and data base needed for above is possible by an effective co-ordination of the care of the patient. It will also facilitate the physician in individualizing the patient necessary for homeopathic treatment and management, for the above conceptual clarity and to achieve the

aforesaid objectives and effective co-ordination between the treating surgeons and homeopathic physician is required keeping in view the holistic care of the patient

It will also facilitate the physician individualizing the patient, necessary for homeopathic treatment and management

The study shall start in second BHMS and complete in Third BHMS. Examinations shall be conducted in Third BHMS.

GENERAL OBJECTIVES

AT THE END OF COMPLETING THE COURSE OF SURGERY,THE STUDENT WILL BE ABLE TO-

1. Describe the structural and functional basis, principles of diagnosis and management of common surgical problems in adults and children
2. Diagnose and manage common surgical conditions
3. Examinations under following conditions should be known by students like injuries, wounds, hemorrhages, burns & scalds, tumors, ulceration, diseases of skin, diseases of blood vessels, shock etc
4. Elicit detail history in systemic surgery and formulate the diagnostic hypothesis, student should be able to diagnose common disorders of systemic surgery
5. Diagnose and distinguish between traumatic, infective and neoplastic diseases of bone. Acquire knowledge about the nutritional disorders of bones and joints , preventive aspect of orthopedic conditions like polio, congenital deformities etc.
6. Perform techniques for primary care of fractures [eg-techniques of immobilization]
7. Diagnose and manage common surgical conditions of eye, ocular involvement in systemic disorders and various nutritional disorders affecting and causing eye disorders.
8. Diagnose and manage common disease conditions of ear, nose and throat
9. Perform various examinations and minor procedures related to ENT disorders.
10. Organize pre and post-operative surgical procedures at primary care level
11. Identify the phase of disease requiring conservative and surgical referral

12. Identify and plan various pathological, radio logical and auxiliary measures in common surgical disorders.

13. Understanding role of homoeopathy as conservative or complimentary therapy in management of pseudo-surgical and true-surgical cases.

14. Understanding role of homoeopathy in preventive aspect of surgical care,

15. Thorough understanding of miasmatic background of surgical disorders.

16. Counsel and guide patients and relatives regarding need, implications and problem of surgery in individual patients

ANNUAL OBJECTIVES

At the end of second BHMS student should be able to

1. Interact with patient and his/her attendants to record the surgical case.
2. Conduct necessary clinical examination to arrive at a general surgical diagnosis
3. Identify general surgical conditions which can be managed with homoeopathy for curative/ palliative outcomes
4. Identify general surgical conditions which have to be referred for surgical interventions.

CONTENT DISTRIBUTION:

THEORY -80 HOURS

NOTE- The topic wise distribution of minimum number of hours for lecture , demonstration, clinical classes and seminar in the subject shall be followed

SR NO	TOPIC	HOURS
1.	Introduction to surgery and basis surgical principles	2 hrs
2.	Fluid and electrolyte acid base balance Physiology of body fluids , normal exchange of fluid and electrolyte, Electrolyte imbalance, Acidosis, Alkalosis and methods of fluid and electrolyte replacement including Blood Transfusion parenteral fluid therapy. Homeopathic management in electrolyte imbalance.	8 hrs
3.	Inflammation , infections-Acute and Chronic, Specific and Non-Specific.etc. Homoeopathic approach in acute and chronic	2hrs

	infections.	
4.	Haemorrhages - general and homoeopathic principle of its management	4hrs
5.	Boil - aetiopathogenesis, clinical presentation, general and homoeopathic principle of its management	2hrs
6.	Abscess- aetiopathogenesis clinical presentation incision and drainage of abscess, general and homoeopathic principle of its management	2 hrs
7.	Carbuncle -aetiopathogenesis clinical presentation, general and homoeopathic principle of its management	2 hrs.
8.	Cellulitis-aetiopathogenesis clinical presentation, general and homoeopathic principle of its management	2hrs
9.	Erysipelas-aetiopathogenesis clinical presentation, general and homoeopathic principle of its management	2hrs
10.	Tumors- types, clinical presentation of benign and malignant tumors, TNM classification and staging of malignant tumors special investigations and its homoeopathic approach in treating benign and malignant tumors as curative or palliative..	8hrs
11.	Ulcers- types, clinico-pathological presentation, general management and understanding scope of homoeopathy in healing , non-healing and spreading types of ulcers.	3hrs
12.	Sinus and fistula-aetiopathogenesis, types and general and homoeopathic management	2 hrs
13.	Head injury- mechanism and types of fractures classification of fractures, types of brain injury, intracranial haemorrhages, general and systemic examination in head injury cases, preliminary management of head injury cases , understanding level of consciousness , special investigations in head injury , general principles of management in case of head injury	8hrs
14.	Wounds, tissue repair, scars and wound infection Types, pathological presentation, inflammation, epithelialisation, granulation tissue formation, regeneration, repair, wound contraction etc. Healing with primary and secondary intentions Homoeopathic approach in wound cases.	4 hrs.
15.	Syphilis Tuberculosis, Leprosy, AIDS- clinical staging ,clinical and subclinical diagnosis, general principles of management and homoeopathic approach in treatment of special infections as curative or palliative,	10 hrs.
16.	Burns- types, pathology, clinical assessment of patients, understanding complications of disease, general principles of conservative and surgical management in burns cases, role of skin grafting in burns cases, and defining scope of homoeopathy in management of burns .	4 hrs
17.	Shock- types of shock and general and homoeopathic principles of its management	5 hrs
18	Understanding role of Nutritional deficiencies in surgical disorders, understanding pre-operative assessment of nutrition to prevent post-operative complications. Understanding role of homoeopathy in nutritional surgical disorders.	2 hrs.
19.	Pre-operative and post-operative care- homoeopathic approach in pre and post operative care	2 hrs
20	Common symptoms in surgical cases, and fundamentals of	1hrs

	examination of patients with surgical problems	
21	Integrated seminars on clinical aspect, HMM, and principles of organon in understanding general surgical conditions	5 hrs

IIND BHMS-CLINICAL TOPICS[60 HRS]

SR NO	TOPIC	HOURS
1.	Surgical History taking	5 hrs
2.	Special symptoms and signs	3 hrs
3.	Examination of swelling	4 hrs
4.	Examination of ulcer	2 hrs
5.	Examination of perivascular diseases and gangrene	2 hr
6.	Examination of sinus and fistula	2 hr
7.	Examination of wound	2 hr
8.	Examination of varicose veins	2 hr
9.	Examination of lymphatic system	2 hr
10.	Examination of head injury	3 hr
11.	Examination in shock	2 hr
12.	Sterilization techniques and antisepsis in surgical practice	2 hrs
13.	Use of common instrument in surgical practice.	3 hrs
14.	Dressings and plasters[bandaging]	2 hrs
15.	Basics of general surgical procedures.	2 hrs
16.	Anesthesia and its types	2 hrs
17.	Procedure of X-ray takings	2 hrs
18.	Pre-operative preparation of patients and investigation in various surgical procedures	2 hrs
19.	General measures of pre-operative and post operative management.	2 hrs
20.	Homoeopathic case analysis and evaluation in various surgical conditions.	4 hrs
21.	Miasmatic approach in common surgical conditions	2 hrs
22.	Potency selection and repetition of doses in common surgical conditions as per 6 th edition of organon of medicine	2 hrs
23.	Understanding role of auxillary mode of treatment in treating common surgical conditions	2 hrs
24.	Understanding role of homoeopathy in pre and post operative management of surgical conditions	2 hrs

25.	Homoeopathic case demonstration	2 hrs
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OBSTETRICS AND GYNAECOLOGY SYLLABUS - IIND BHMS

INTRODUCTION

The significance of this subject in homoeopathy is especially important at the time of pregnancy and also for gynaecological cases where implementation of homoeopathic medicines at these stages of life gives astonishing results particularly in nonsurgical and curable cases. A Homoeopathic physician must be trained in special clinical methods of investigation for diagnosing local conditions and individualising cases and removing mechanical obstacles, if necessary, as well as their management by using homoeopathic medicines & other auxiliary methods of treatment. Homoeopathic medicines application will be most effective for postnatal cases, post operative and palliative line of treatment for malignant cases.

(b) Pregnancy is the best time to eradicate genetic dyscrasias in women and this should be specially stressed, & students shall also be instructed in the care of new born.

(c) The fact that the mother & child form a single biological unit and that this peculiar close physiological relation-ship persists for at-least the first two years of the child's life should be particularly emphasised.

2. A course of instructions in the principles and practice of Gynaecology and Obstetrics & infant hygiene, care including the applied anatomy & physiology of pregnancy and labour will be given. After studying this subject students will be able to have good grasp over clinical diagnosis, general line of management, care of the new born and homoeopathic management of obstetrics and gynaecological cases.

3. Examination & investigations in gynaecological and obstetrical cases shall be stressed and scope of Homoeopathy in this subject shall be taught in detail.

4. The study shall start in Second BHMS & shall be completed in the Third BHMS & the examination will be held in Third BHMS.

General Objectives

After completing the course of Obstetrics and Gynaecology including homoeopathic therapeutics the students should be able to have a :

1. Thorough grasp on anatomy, physiology of female reproductive system including the pathophysiology, clinical presentation and management both general line and homoeopathic of abnormal obstetrical and gynaecological cases.

2. They will be able to elicit the basic difference between a healthy new born infant and diseases of the new born and congenital abnormalities if any.
3. Students will stress more upon care of the new born following delivery and will educate the mother regarding the importance of breast feeding and care of baby.
4. Will be able to educate infertile couple and will motivate other couples to implement family planning measures who have completed their families.
5. Students will have a baseline hold upon miasmatic approach and homoeopathic application of medicines in various gynaecological,obstetrical and neonatal cases.
6. During antenatal checkup advice the mother about highrisk pregnancy and its complication and make an appropriate referrals if required, also will have a good communication with the mother to remove her fear and false notions about pregnancy.

Annual Objectives :

After completing the course of Obstetrics and Gynaecology in II BHMS the student will be able to

1. Have baseline grasp upon the normal structure & function of female reproductive system.
2. Provide a holistic care for a healthy pregnancy, safe delivery and motherhood.
3. Describe gynaecological and obstetrical problems and explain their homoeopathic therapeutic solutions.
4. Should be able to conduct necessary gynaecological and obstetrical examinations and appropriate referrals for complicated cases.

Distribution of Contents

THEORY -80 HOURS

NOTE- The topic wise distribution of minimum number of hours for lecture , demonstration, clinical classes and seminar in the subject shall be followed

Sr no.	Topic	Hours
	GYNAECOLOGY	
1.	A review of applied anatomy of female reproductive systems - development and malformations	
a	- Detailed anatomy of - external genitalia,internal genitalia,female urethra urinary bladder,pelvic ureter,pelvic muscles and pelvic floor,pelvic fascia,cellular tissues,ligaments,applied aspect of each organ.	3 hrs

b	- Brief study of pelvic blood vessels pelvic lymphatics, pelvic nerves.	1 hr
c	Development - Detailed study of development of external genital organs, internal genital organs, gonads.	2 hrs
d	Congenital malformations - Vaginal abnormalities and maldevelopments-narrow introitus, hymen abnormalities, septum, agenesis, failure of vertical fusion, failure of lateral fusion. - Uterine anomalies-mullerian agenesis/hypoplasia-segmental, unicornuate uterus, didelphys uterus, bicornuate uterus, septate uterus, arcuate uterus, diethylstilbestrol (DES) related abnormality. - Wolffian remnant abnormalities-brief study. More stress should be given on clinical presentation, investigations to rule out congenital malformations and general line of management.	3 hrs
2.	A review of applied physiology of female reproductive system-puberty, menstruation and menopause.	
a	- Puberty-normal. Detailed study of endocrinology in puberty, its normal functioning of hypothalamo-pituitary-ovarian-endometrial axis (HPOE axis) - Common disorders-precocious puberty, delayed puberty, menstrual abnormalities (amenorrhoea, menorrhagia, dysmenorrhoea), others -infection, neoplasm, hirsutism.	2 hrs
b	- General management and homoeopathic management for precocious puberty, delayed puberty and menstrual abnormalities.	2 hrs
c	- Menstruation – a detailed study of : germ cells, primordial follicle, menstrual cycle – Ovarian cycle, endometrial cycle, ovulation, menstrual symptoms, artificial postponement.	3hrs
d	- Menopause – Endocrinology of Climacteric & Menopause – menopausal symptoms, diagnosis, management and treatment.	2hrs
e	- Homoeopathic therapeutics of menopause.	1hr
3.	Gynaecological Examination & Diagnosis : detailed study of history taking, examination, diagnostic procedures – cervical mucus cytology, colposcopy, culdocentesis, exfoliative cytology, imaging and endoscopy & laser in gynaecology and endometrial sampling.	5hrs
4	Uterine displacements-Retroversion, pelvic organ prolapsed, chronic inversion.	2 hrs
a	Theraps of genital prolapsed.	2 hrs
5	Sex and Intersex-embryological considerations, female intersex, male intersex, management	2 hrs
	OBSTETRICS	

1	Fundamentals of reproduction-Gametogenesis(oogenesis,spermatogenesis),ovulation,fertilization,implantation,deciduas,chorion and chorionic villi,development of inner cell mass.	3 hrs
2	Development of intrauterine pregnancy-placenta and foetus. The Placenta-development,structure,circulation,function,ageing.	2 hrs
a	Fetal membranes-amnion,amniotic cavity,amniotic fluid.	1 hr
b	Umbilical cord-brief study	
c	The foetus-principal events of Embryonic and fetal development,fetal physiology,fetal circulation,changes of fetal circulation at birth.	2 hrs
d	Physiological changes during pregnancy-genital organs,breast,cutaneous changes,weight gain,brief study of Haematological,cardiovascular,metabolic,systemic changes.	4 hrs
3	Diagnosis of pregnancy-investigations and examinations-first trimester,second trimester,third trimester changes,differential diagnosis of pregnancy,physiological changes during pregnancy. Examination-at each trimester,of foetus in utero(obstetrical examinations). Brief study and significance of fetal skull diameters and maternal pelvis.	5 hrs
4	Antenatal care-procedure at first visit,examination of the patient,procedures at the subsequent visits,antenatal advice,values of antenatal care,preconceptional counselling and care.	4 hrs
a	General management and homoeopathic management in antenatal case.	2 hrs
5	Vomiting in pregnancy-simple vomiting,Hyperemesis gravidarum.	1 hr
a	General line of management and homoeopathic therapeutics for hyperemesis gravidarum.	2 hrs
6	Preterm labor and postmaturity-preterm labor,prelabor rupture of the membranes (PROM),postterm pregnancy,intrauterine fetal death(IUD),general line of management.	4 hrs
7	Normal labor and puerperium-causes of onset of labor,contractile system of myometrium,true labor pains,stages of labor,events in labor(1 st stage,2 nd stage,3 rd stage),mechanism of normal labor,clinical course,management of normal labor along with immediate care of the newborn.	5 hrs
a	Normal labor theraps.	2 hrs
b	Puerperium-involution of uterus,involution of other pelvic structures,lochia,general physiological changes,lactation,management of normal puerperium,management of ailments,postnatal care.	3 hrs
c	Postnatal homoeopathic care.	2 hrs
8	Induction of labor-indications and contraindications,parameters to assess prior to induction of labor,methods of induction(medical induction,surgical induction),active management of labor(AMOL),partograph.	4 hrs
9	Care of newborn-physical features,assessment of the gestational age,immediate care,daily observation and care,infant feeding(breast feeding,artificial feeding).	4 hrs

a	childhood immunization programme, apgar score, general resuscitative measures., homoeopathic management of minor ailments (asphyxia).	1 hr
10	Management and therapeutics of above topics in obstetrics (neonatorum and ophthalmia neonatorum).	1 hr

IIND BHMS-Clinical Topics.[60 HRS]

SR NO	TOPIC	HOURS
1.	Gynaecological case taking.	
a	history in detail of the patient.	4 hrs
b	different gynaecological positions of examinations with its significance.	4 hrs
c	procedures-diagnostic.	4 hrs
d	Homoeopathic management depending upon gynaecological complaints.	4 hrs
2.	Obstetrical case taking.	
a	Last menstrual period (LMP), Expected date of delivery, previous deliveries-(a) either vaginal-induced-LRM or assisted-vacuum, ventouse or spontaneous-episiotomy done or not. (b) LSCS-why specify the reason. (c) FTND at home or institutional.	6 hrs
b	Any previous h/o abortion-cause of abortion (MTP or spontaneous).	5 hrs
c	Homoeopathic management to prevent abortion or tendency of it.	5 hrs
3.	Gynaecological examination of the patient.	
a	Inspection-external genitalia Palpation-Bartholins cyst/per abdomen palpation-hypogastric tenderness.	2 hrs
b	Per vaginal and per speculum examination-indication and contraindications in which type of patients i.e. virgins-contraindicated, unmarried-contraindicated.	2 hrs
c	Different positions of gynaecological examinations along with their significance.	2 hrs
d	Gynaecological procedures-exfoliative cytology, colposcopy/colpomyomicroscopy, culdocentesis, USG in gynaecology, endoscopy in gynaecology, laser in gynaecology.	4 hrs
e	Assisted reproductive techniques in cases of infertility; tubal patency tests, screening cytology (PAP) smear for CA diagnosis.	2 hrs
f	Vaginal discharge examination and histopathology study to arrive at diagnosis.	2 hrs
g	Homoeopathic management of gynaecological conditions.	2 hrs
4.	Obstetrical examination of the patient including antenatal, intranatal and postnatal.	
a	Routine antenatal assessment of the mother and the baby both early and late assessment.	4 hrs

b	Intranatal examination of the mother to assess the progress of labor,if any complications present taking care of the complications.If vaginal delivery not favourable referring for LSCS.	4 hrs
c	Postnatal examination to rule out any abnormalities of puerperium.	4 hrs
d	Postnatal homoeopathic care both of mother and baby.	4 hrs