

THIRD PROFESSIONAL (Part-II) MBBS

Syllabus

1. *GENERAL SURGERY

Theory paper in general surgery in final MBBS should be in two paper i.e. paper A & paper B.

Each paper should be in two papers i.e.

PAPER A-Part I & Part II

PAPER B- Part I & part II

Paper A- part I: should comprise of General principles of surgery

Paper A- part II: should comprise of Orthopedics

Paper B- part I: should comprise of all systems of General Surgery

Paper B- part II: should comprise of General Surgery oesophagus, stomach and duodenum, Liver, spleen, gallbladder space, small and large intestines intestinal obstruction, appendix, rectum, urinary system, kidney and ureter, urinary bladder, and seminal vesicles, urethra and penis, testis and scrotum.

Paper B- Part II: should comprise of following systems of General Surgery Developmental abnormalities of face, palate, lips, maxillofacial injuries, the mouth, the cheek, the tongue, teeth and gums jaws, nose, ear, salivary glands, neck, thyroid gland parathyroid and adrenal glands, breast, thorax, heart and pericardium, radio diagnosis, radiotherapy, anesthesia family welfare and recent advances in surgery.

Note: The above distribution is in a broad line, however questions from any part can overlap in any paper & any part of the paper.

WOUND HEALING

Healing by first intention healing by second intention, the biological process of healing, factors influencing wound healing; scars- Hypertrophic scars, Keloid, incisions, types of wound and their closure

RESUSCITATION AND SUPPORT

Fluid electrolyte balance: surface hemorrhage and control; shock; blood- transfusion, pre- and postoperative management

Nutrition in Injured patient; acute and chronic pain relief.

INFECTION

Type of wound infection: prevention of infection; Antibiotic

Prophylaxis; tetanus gas gangrene; mycobacterial diseases of surgical

Importance; AIDS- Surgical aspect

TUMOURS, CYSTS, ULCERS, SINUSES

General principles of tumours, benign tumors, malignant tumours

Carcinoma, sarcoma: cysts.

SKIN AND SOFT TISSUES

Skin infections, sebaceous cyst, skin tumours – BCC, SCC, Melanoma

Dermatofibrosarcoma: premalignant condition of skin,

Skin grafting – skin, grafts, types and techniques, skin flaps.

Pressure sores Principles of management and Surgical Alternatives.

ARTERIAL DISORDERS

Acute arterial obstruction- diagnosis and initial management ; types of gangrene; diagnosis of chronic arterial insufficiency.

Investigations in case of arterial obstruction, Amputations

VENOUS DISORDERS

Varicose veins: diagnosis and management; deep venous thrombosis: diagnosis, prevention & principles of therapy.

LYMPHATICS AND LYMPHNODES

Lymphangitis: lymphedema – aetiology: surgical manifestations of filariasis, acute lymphadenitis; chronic lymphadenitis ; lymphoedema management

BURNS

Pathophysiology ; assessment of depth and surface, resuscitation, skin cover, Prevention of contracture.

Therapy of burns including treatment of complications.

TRAUMA

First Aid management of severely injured patient head injury & Glasgow Coma scale

Tendon & Nerve injuries – Diagnosis & Management techniques of repair

Diagnosis and Management of Hand injuries special reference to finger tip injury-

Missile injuries – Mechanism and Management, gun round, blast injuries,

Mechanism and management.

ANAESTHESIA

Enumerate different types of Anaesthetic agents , mode of

Administration, contra- indications side effects, Types of Anaesthesia

MISCELLANEOUS

Varieties of suture materials available and their clinical implication

Microsurgery: introduction and its role

Introduction to Aesthetic Surgery.

SCALP, SKULL AND BRAIN

Wounds of scalp and management – recognition, diagnosis and monitoring of patients with head injury including unconsciousness because of acute cerebral compression.

DEVELOPMENTAL, ABNORMALITIES OF FACE, PALATE, LIPS, MAXILLOFACIAL INJURIES

Cleft lip & Palate, Cleft lip

Embryology of facial defects and principles of management.

THE MOUTH, THE CHEEK, THE TONGUE

Salivary retention cyst, tumours of the oral cavity, cheek and tongue

Including prevention, staging, principles of therapy, ulcers of tongue.

TEETH AND GUMS, JAWS, NOSE, EAR

Epulis- cysts and tumours of the jaw

SALIVARY GLANDS

Acute parotitis; neoplasms – diagnosis and principles of management of Salivary glands.

NECK

Branchial cyst; cystic hygroma, cervical lymphadenitis; secondaries neck;

Tuberculosis of lymphnodes.

THYROID GLAND

Thyroid- surgical anatomy, physiology- types of goiter, diagnosis of goiter
And principles of management ; thyrotoxicosis-types.
Symptomatology; differential diagnosis , thyroglossal cysts; Neoplasm:
Classification, diagnosis, principles of treatment.

PARATHYROID AND ADRENAL GLANDS

Diagnosis of hyperparathyroidism; diagnosis of adrenal
Hyperfunction/hypofunction

BREAST

Surgical anatomy, nipple discharge, acute infections, mammary dysplasia,
Fibroadenoma, cancer breast- diagnosis, staging, principles of
Management, Breast reconstruction

THORAX

Recognition and treatment of pneumothorax, haemothorax, pulmonary
Embolism-prevention/recognition and treatment.

HEART AND PERICARDIUM

Scope of cardiac surgery

OESOPHAGUS

Causes of dysphagia- investigations and approach to acute-chronic
Abdominal pain. Clinical features and management of carcinoma
Oesophagus, Cardiac Achlasia

STOMACH AND DUODENUM

Anatomy, Physiology, congenital hypertrophic pyloric stenosis and management; peptic ulcer
aetiopathology, Duodenal Ulcer, Gastric ulcer clinical features, diagnosis management; cancer
stomach, diagnosis and principles of treatment, upper gastrointestinal hemorrhage, UGI endoscopy

LIVER

Amoebic liver abscess- diagnosis and management; hydatid cyst diagnosis management; diagnosis
of portal hypertension; principles of emergency
Management of portal hypertension; obstructive jaundice, neoplasms of
Liver. Surgical anatomy and physiology; Liver Transplant – Introduction.

SPLEEN

Surgical causes of splenomegaly : investigation for splenomegaly splenic
Injury
Principles of splenectomy for haematological causes.

GALLBLADDER AND BILE DUCTS

Cholelithiasis- clinical features, diagnosis, cholecystitis- clinical features,
Diagnosis, Anatomy, Physiology, Investigation, complication of cholelithiasis
CBD stones.
Management of cholelithiasis and cholecystitis, Neoplasm of biliary tract,
Laparoscopic Cholecystectomy.

PANCREAS

Acute & chronic pancreatitis-diagnosis & complications.
Investigations – management.
Pancreatic Neoplasms

PERITONEUM, OMENTUM, MESENTERY AND RETROPERITONEAL SPACE

Peritonitis-recognition & principles of management , mesenteric cysts .
Surgery for peritonitis. Diagnostic Laparoscopy.

SMALL AND LARGE INTESTINES

Intestinal amoebiasis, tuberculosis of intestines, carcinoma colon –diagnosis
And principles of treatment ; lower gastrointestinal haemorrhage .
Ulcerative colitis , Crohn's disease.

INTESTINAL OBSTRUCTION

Diagnosis , classification , features and principles of management, paralytic
Ileus and mechanical obstruction; T.B. Intestinal & peritoneal.

APPENDIX

Diagnosis , management of acute appendicitis including appendicular lump, Carcinoid tumours

RECTUM

Carcinoma of rectum , diagnosis and clinical features
Surgical anatomy . management of carcinoma rectum, prolapse of rectum
Procto- sigmoidoscopy .

ANAL CANAL

Examination of anal canal, Anal fissure, fistula in ano , abscess and haemorrhoids
Clinical features and management; surgical anatomy
Congenital anomaly –imperforate anus

HERNIAS

Inguinal hernias-diagnosis, complications, principles of management;
Umbilical hernia-diagnosis & management . Femoral hernia-diagnosis
Management , epigastric hernia, omphalitis ; fistulae ; burst abdomen and
Ventral hernia.

URINARY SYSTEM

Investigations of the urinary tract

KIDNEY AND URETER

Recognition of renal mass
Renal calculus ureteric calculus, hydronephrosis , pyonephrosis and
Perinephric abscess; renal tuberculosis; diagnosis and management of renal tumours
Renal transplant –introduction

URINARY BLADDER

Acute retention of urine- diagnosis and principles of management
Causes of haematuria , urinary bladder neoplasms
Investigation and management of haematuria
Diagnostic cystoscopy

PROSTATE AND SEMINAL VESICLES

B.P.H –diagnosis , carcinoma prostate
BPH management including Trans urethral resection of prostate

URETHRA AND PENIS

Phimosis, paraphimosis, carcinoma penis-diagnosis, stricture urethra
Hypospadiasis, Priapism, fracture penis, peyroniesdisenca

TESTIS AND SCROTUM

Embryology of testicular descent; diagnosis principles of treatment of testicular maldescent, torsion
testis, epididymo-orchitis; diagnosis of testicular lump

Hydrocele

Varicocele; neoplasms of testis.

FAMILY WELFARE

Vasectomy; non-scalpel vasectomy

SYLLABUS OF ORTHOPAEDICS

FRACTURES

Definition, classification, principles of diagnosis and treatment, complication, special features of fractures in children.

JOINT INJURIES

Salient features of normal joint anatomy, pathology of dislocation

And subluxation, ligament strain.

HEALING OF FRACTURES

Mechanism and types of healing, Causes of delayed union and nonunion And principles of their management.

MANAGEMENT OF THE CRITICALLY INJURED (POLYTRAUMA) PATIENT SPINE

Type of spine injuries and their presentation, diagnosis and care in the

Emergency area, care of paraplegic and quadriplegic

Pathoanatomy and methods definitive treatment.

SHOULDER

CLASSIFICATION OF INJURIES AROUND THE SHOULDER GIRDLE, Diagnosis and management simple fractures like fracture clavicle, greater trochanter, lesser tuberosity and surgical neck of humerus, diagnosis and management of dislocation shoulder, acromio-clavicular dislocation, fracture scapula, Indications of surgery for various fractures around shoulder girdle, treatment of recurrent dislocation of shoulder, rotator cuff injuries.

ARM

Mode of injury, diagnosis, complication and methods of treatment of fracture humerus.

ELBOW

Classification of various injuries around elbow. Principles of management of various injuries like supracondylar fracture, fracture lateral condyle humerus, medial epicondyle, dislocation elbow, fracture olecranon, fracture neck & head of radius.

Indications and methods of operative treatment of above fractures.

FOREARM

Classification of various injuries of forearm, principles of management of Monteggia fracture dislocation, fracture radius and ulna, galeazzi fracture, colle's fracture.

Indications and methods of operative treatment of above fracture, treatment of complications of above fractures.

WRIST & HAND

Classification & principles of management of distal radial fracture, scaphoid fracture.

Treatment of non-union of fracture scaphoid and methods of operative treatment of above fractures, treatment of complications of above fractures.

Principles of management of short tubular bones of hand

PELVIS, HIP & THIGH

Classification, principles of management & Complications of fractures, pelvis & dislocation of hip, fracture neck femur, trochanteric fracture, internal derangement of knee

INJURIES AROUND KNEE

Classification & principle of management & complication of fracture patella, fracture of the tibial condyle.

Internal derangement of knee

LEG

Classification, principles of management & complication of fracture of tibia & Fibula including compound fractures.

Operative treatment of above fractures.

FOOT & ANKLE

Classification, principles of management & complication of fracture of ankle, talus & calcaneum

Operative treatment of above fracture, principle of management of fracture of short tubular bones of foot Lisfranc's injury.

NERVE INJURIES

Classification & principles of management of nerve injuries, including brachial

Plexus, radial, median & ulnar nerve.

Principles of management of Sciatic nerve injury.

AMPUTATIONS

Indications & principles of amputations, below knee, above knee, below elbow & above elbow amputation, Syme's amputation.

METABOLIC BONE DISEASE

Aetiopathogenesis & principles of management of rickets, osteomalacia & Osteoporosis.

INFECTIONS

Aetiopathogenesis & principles of management of pyogenic and tubercular infections of bone & joints, tuberculosis of hip, spine, knee.

Tuberculosis of wrist and ankle.

CONGENITAL ANOMALIES AND DEVELOPMENTAL DISORDERS

Aetiopathogenesis & principles of management of clubfoot and congenital dislocation of hip.

Operative treatment of above disorders, Briefly about osteogenesis imperfecta, osteopetrosis.

TUMOURS

Classifications of benign and malignant tumours, principles of management of osteochondroma, Ewing's tumour, Giant cell tumour and Osteogenic sarcoma.

Presentation and principles of management of multiple myeloma and metastasis.

Syllabus of Anaesthesia

There should be 20 theory lectures after the students pass second prof examination.

These lectures should cover the following aspects:-

Introduction and history of Anaesthesia. Pre-operative assessment and preparation of patient for anaesthesia, pre medication aims and drugs used and their pharmacology.

Techniques of general anaesthesia, inhalational Anaesthetic agents, intra venous anaesthetic agents and their pharmacology. Understanding Boyle's machine and breathing circuits,

Neuromuscular blocking agents, Depolarizing and Non Depolarizing muscle relaxants and their pharmacology.

Complications of general anaesthesia and their management, management of cardiac arrest. Management of airway and Cardio pulmonary resuscitation.

Spinal anaesthesia indication, techniques, advantages, disadvantages and management of complications of spinal anaesthesia.

Epidural anaesthesia and caudal anaesthesia

Local anaesthetic agent pharmacology, uses and toxicity of local anaesthetic agents Technique of local anaesthesia, indications, advantages, and regional blocks like brachial plexus, ankle block and block for hernia repair etc.

Care of unconscious patients and parental nutritional therapy.

Method of oxygen administration and use of various oxygen masks.

Syllabus for MBBS students in Radiodiagnosis Deptt.

- 1) The normal chest Radiograph – Technique, Interpretation including diseases of chest wall, diaphragm & pleura.
- 2) Imaging of pulmonary infections, COPD'S, Neoplasms of Ling, Mediastinal masses, and chest trauma.
- 3) Radiographic appearance of chest in different pediatric diseases like sequestration, ARDS, transient tachypnoea of new born, congenital lobar emphysema.
- 4) Imaging of normal & abnormal conditions of cardiovascular system including congenital and Acquired Heart diseases & pericardial effusion.

Urigenital Tract:-

- 1) Normal Radiographic appearance of urogenital tract on various imaging modalities like plain radiography, IVP, USG, CT & MRI.
- 2) Imaging of different diseases affecting kidneys like Renal Calculi, Renal infections, Cystic diseases of Kidneys & renal neoplasms.

Gynae & Obstetrics:-

Ultrasound of female pelvis including Antenatal Utrasound.

Physics:-

Radiation Protection & its application in day to day Activities.

Radiotherapy:-

Introductory lessons in radiotherapy including its role in CA breast, cervix & lymph nodal masses.

BONES & JOINTS:-

- 1) Benign & malignant bone tumors- Role of Radiology.
- 2) Imaging of bone infections like tuberculosis, pyogenic infections & syphilis.
- 3) Imaging features of various Arthritis like RA, Osteoarthritis, Ankylosing spondylosis, reiter's disesse, Psoritic arthritis.

CNS:-

- 1) Interpretation of normal & abnormal skull radiographs.
- 2) Normal Anatomy of brain on CT/MRI.
- 3) Infarcts, infections & tumors of brain on CT/MRI.
- 4) Normal anatomy of spine. Imaging of different diseases affecting spine like tumours, infections and trauma

GIT:-

- 1) Imaging of various disease conditions affecting Hepatobiliary system like cirrhosis, hepatitis, amebic & pyogenic infection, calculus disease, primary and metastatic disease.
- 2) Teachique of Ba Swallow, Ba meal, Ba meal fellow through examination.

- 3) Benign & malignant tumours of oesophagus, stomach and duodenum and small gut.
Inflammatory conditions.
Acid peptic disease, esophageal hernias.
- 4) Ba Enema- Technique, indications contraindications of single and double contrast Ba- Enema examination. Its role in various neoplastic & non- neoplastic conditions of colon.
- 5) Acute/ subacute intestinal obstruction.
- 6) Pneumoperitoneum

Reference Books

Name of Book	Author
1. Text Book of Surgery	by Bailey Love
2. Clinical Surgery	by S. Das
3. Text Book of Surgery	by Sri Ram Bhatt
4. Operative Surgery	by S. Das
5. Short Case in Surgery	by S. Das
6. Text Book of Surgery	by Schwartz

2. *SUBJECT: MEDICINE

(Time Schedule for Theory Lectures : 4th to 9th Semester)

Paperwise Distribution of Syllabus

Paper A Part-I
Questions relating to:

Cardiovascular System, Endocrines & Diabetes Mellitus, Nervous System, Hematological Disorders and Oncology

Paper A Part-II
Questions relating to:

Gastro-intestinal tract, Pancreas, Liver and Biliary diseases, Kidney & Genito-urinary system, General Medicine including Medical Ethics, Genetics, Geriatric Medicine and Environmental factors.

Paper B Part-I
Questions relating to:

Skin/STD/Leprosy, Psychiatry, Respiratory Medicine, Electrotherapy, Water, electrolyte and acid-base imbalance, Nutritional and metabolic disorders, Critical care and Emergency Medicine

Paper B Part-II
Questions relating to:

Infections and Infectious Diseases including clinical pharmacology, Disorders of the immune system, HIV/AIDS, connective tissue and joints, Immune response and Infections, Poisonings, Pain management and palliative care

Note: Each part of the Theory Papers (Part-I and Part-II of Paper-A and Part-I and Part-II of Paper-B) should have 3 questions – usually one long question and remaining two questions should have 2 or 3 short notes each.

SUBJECT: MEDICINE

Scheme and Time Schedule for Clinical/Practical Training

Students will be trained for Clinical/Practical Skills from 3rd to 9th Semester as under:

1. History taking, Physical examination, Laboratory diagnosis, Differential diagnosis and Management of various medical diseases: Emergency, Curative and Preventive management.
2. Identification and use of common medical equipments in medical wards.
3. Interpretation of ECG, X-Ray, EEG and other common investigations.
4. Seminars on various subjects, Tutorials and Clinical Meetings
5. Various Therapeutic Procedures, nursing care and Diet Charts.

MEDICINE

OBJECTIVES

The goal of the undergraduate training in general medicine is to provide such knowledge, skills and behavioral attribute that may enable the graduating physician to function effectively as a Primary Care Physician in a community setting. At the end of training, each student must be able to:

1. Understand the various manifestations of infectious and non-infectious diseases.
2. Understand the basic principle of history taking and clinical examinations.

3. Elicit a detailed history, perform a thorough physical examination including mental status examination and examination of an unconscious patient.
4. Correlate the clinical symptoms and physical signs to make a provisional anatomical, physiological, etiopathological diagnosis along with the functional disability and suggest relevant investigation.
5. Interpret reasonably the relevant investigations.
6. Professionally present and discuss the principles involved in the management of the patient, initiate first line management and outline short-term and long term management.
7. Manage acute medical emergencies like acute myocardial infarction, acute pulmonary oedema, acute anaphylactic and hypovolumic shock, status asthmaticus, tension pneumothorax, status epilepticus, hyperpyrexia, haemoptysis, gastro-intestinal bleeding, diabetic coma, electric shock, drowning, snake bites, common poisoning etc.
8. Acquire the skills to perform minor procedure under supervision like – IV cannulation, insertion of nasogastric tube, urinary bladder catheterisation, use of peak flow meter, doing an ECG etc.

DETAILED SYLLABUS

1 General Medicine including Medical Ethics, Genetics, Geriatric Medicine and Environmental factors.

- Principles of medical ethics
- Clinical diagnostic reasoning
- Principles of prevention of disease
- Clinical genetics - common types, clinical presentation, molecular mechanisms, immunological factors, investigation and prevention of genetic diseases and genetic counseling
- Environmental and Nutritional Factors in disease: Global warming, Poverty and Affluence, High Heatstroke and hypothermia; Drowning and near drowning; Electrical injuries; Radiation injury; Heavy metal poisoning
- Principles of Geriatric Medicine: Normal ageing, Clinical assessment of frail elderly, Decisions about investigations and rehabilitation, Major manifestations of disease in elderly, Care of terminally ill/dying patient

2 Nutritional and metabolic disorders

- Nutritional assessment & needs; Nutritional & metabolic disorders; Protein energy malnutrition; Obesity; Vitamin and mineral deficiency & excess; diet therapy including parenteral nutrition therapy, Lipoproteins and Porphyrins

3 Water, electrolyte and acid-base imbalance

- Water and electrolyte physiology; Acid-base disorders; Fluid and electrolyte disturbances;

Critical care and Emergency Medicine

- Physiology of the critically ill patient; Major manifestations of critical illness
- Circulatory failure: shock; Respiratory failure; Renal failure; Coma; Sepsis; Disseminated intravascular coagulation, General principles of critical care management, Scoring systems in critical care, Outcome and costs of intensive care

5 Poisonings, Pain management and palliative care

- General approach to the poisoned patient, Poisoning by specific pharmaceutical agents, Drugs of misuse, Chemicals and pesticides, Snake bite and Envenomation, Other bites and stings - scorpion, spider
- General principles of pain, Assessment and treatment of pain, Palliative care

6 Immune response and Infections

- Basic considerations, Patterns of infection, Laboratory diagnosis of infections, Principles of immunization and vaccine use,
 - Clinical syndromes: The febrile patient; Fever and rash; Fever of unknown origin; Infective endocarditis; Intra-abdominal infections and abscesses; Acute infectious diarrhoeal diseases and food poisoning
 - Sexually transmitted diseases - overview & clinical approach
 - Infections of skin, muscle & soft tissues; Osteomyelitis; Hospital acquired infections
 - Infections in immuno-compromised hosts
- 7 Infections and Infectious Diseases including clinical pharmacology**
Epidemiology, clinical features, laboratory diagnosis, treatment and prevention of:
- Protozoal infections: Amobiasis, Malaria, Leishmaniasis, Toxoplasmosis, Giardiasis, Trichomoniasis, Trypanosomiasis
 - Bacterial infections: Streptococcal infections, Pneumococcal infections, Staphylococcal infections, Meningococcal infections, Gonococcal infections, Legionella infections, Pertussis and Diphtheria, Tetanus, Botulism, Gas gangrene, other clostridial infections, Cholera, Salmonellosis - Typhoid and paratyphoid fevers, Shigellosis and bacillary dysentery, Brucellosis, Plague, Donovanosis (Granuloma inguinale), Helicobacter Pylori, Infections due to pseudomonas & other gram - negative bacteria, Anaerobic infections
 - Mycobacterial diseases: Tuberculosis, Leprosy
 - Viral infections: Common exanthemata- Measles, Mumps, Rubella, Varicella; Common viral respiratory infections; Human immunodeficiency virus (HIV); Viral gastroenteritis; Dengue fever; Rabies
 - Rickettsia, Mycoplasma & Chlamydial diseases
 - Fungal infections: Candidiasis, Aspergillosis, Histoplasmosis, Cryptococcosis, Mucormycosis, Pneumocystis carinii
 - Helminthic infections: Nematodes-Tissue, Intestinal; Cestodes-Tissue, Intestinal

System-Based diseases

Cardiovascular system

- Clinical examination of the cardiovascular system, Functional anatomy, physiology and investigations,
- Major manifestations of cardiovascular disease:
- Chest pain, Breathlessness, Palpitation
- Acute circulatory failure (cardiogenic shock)
- Heart failure
- Hypertension
- Presyncope and syncope
- Cardiac arrest and sudden cardiac death
- Abnormal heart sounds and murmurs
- Disorders of heart rate, rhythm and conduction, Atrial fibrillation
- Congestive cardiac failure
- Rheumatic fever, Valvular heart disease
- Ischaemic heart disease
- Congenital heart disease in the adult
- Cor pulmonale

- Hypertension
- Peripheral vascular disease
- Atherosclerosis
- Pericardial disease
- Myocarditis and cardiomyopathy

Kidney and genitourinary system

- Clinical examination of the kidney and genitourinary system, Functional anatomy, physiology and investigations

Major manifestations of renal and urinary tract disease:

- Dysuria, pyuria, urethral symptoms
- Disorders of urine volume
- Haematuria, Proteinuria, Oedema
- Obstruction of the urinary tract
- Incontinence
- Acute and chronic renal failure
- Infections of the kidney and urinary tract
- Congenital abnormalities of the kidneys and urinary system
- Glomerulonephritides
- Tubulo-interstitial diseases
- Renal involvement in systemic disorders
- Drugs and the kidney
- Renal vascular diseases
- Urinary tract calculi and nephrocalcinosis
- Tumors of the kidney and genitourinary tract
- Renal replacement therapy

Gastrointestinal tract

- Clinical examination of the abdomen, Functional anatomy, physiology and investigations particularly role of imaging, endoscopy and tests of function

Major manifestations of gastrointestinal disease:

- Abdominal pain (acute and chronic), Dysphagia, Dyspepsia, Vomiting, Constipation, Diarrhoea, Abdominal lump, Weight loss
- Gastrointestinal bleeding - upper and lower
- Approach to the patient with gastrointestinal disease
- Diseases of the mouth and salivary glands - oral ulcers, candidiasis, parotitis
- Diseases of the oesophagus - GERD, other motility disorders, oesophagitis, carcinoma oesophagus
- Diseases of the stomach and duodenum - gastritis, peptic ulcer disease, tumors of stomach
- Diseases of the small intestine
- Acute gastroenteritis & food poisoning
- Intestinal tuberculosis
- Inflammatory bowel disease
- Malabsorption syndrome
- Tumors of small intestine
- Acute, sub-acute and chronic intestinal obstruction
- Disorders of the colon and rectum: Bacillary dysentery, Amoebic colitis, Ulcerative colitis
- Tumors of the colon & rectum

- Irritable bowel disease
- Abdominal tuberculosis-Peritoneal, Nodal, Gastrointestinal
- Ischaemic gut injury
- Anorectal disorders
- Diseases of the peritoneal cavity
- Acute and chronic peritonitis
- Ascites
- Peritoneal carcinomatosis

Diseases of the pancreas, Liver and Biliary tract

- Clinical examination of the abdomen for liver, Pancreas and biliary disease, Functional anatomy, physiology and investigations of hepatobiliary disease

Major manifestations of liver disease:

- Asymptomatic' abnormal liver function tests, Jaundice
- Acute (fulminant) hepatic failure
- Portal hypertension and ascites
- Hepatic (portosystemic) encephalopathy
- Hepatorenal failure
- Liver abscess - amoebic & pyogenic
- Viral hepatitis - acute and chronic
- Alcoholic liver disease
- Cirrhosis of liver and chronic liver disease
- Drugs, toxins and liver
- Fatty liver and non alcoholic steatohepatitis
- Infiltrative diseases of liver
- Wilson's disease
- Hemochromatosis
- Tumors of the liver
- Acute and chronic pancreatitis; Tumors of pancreas
- Gallbladder and biliary tract diseases
- Functional anatomy
- Acute and chronic 'cholecystitis'
- Cholelithiasis
- Tumors of gall bladder and bile ducts

Endocrinology and Diabetes mellitus

Diabetes mellitus

- Clinical examination of the patient with diabetes
- Epidemiology, Physiology, pathophysiology and investigations, Aetiology and pathogenesis

Major manifestations of disease:

- Hyperglycaemia
- Acute metabolic complications: Diabetic ketoacidosis, Hyperglycemic non-ketotic coma, Hypoglycemia
- End organ damage
- Management of diabetes
- Long-term complications (micro and macrovascular)
- Long-term supervision

- Special problems in management
- Prospects in diabetes mellitus

Thyroid gland

- Clinical examination of thyroid disease, Functional anatomy, physiology and investigations

Major manifestations of thyroid disease

- Hyperthyroidism
- Hypothyroidism
- Thyroid enlargement
- Abnormal thyroid function test results

The reproductive system

Major manifestations of reproductive disease

- Male hypogonadism
- Gynaecomastia
- Impotence
- Short stature and delayed puberty
- Cryptorchidism
- Hirsutism
- Secondary amenorrhoea
- Infertility

The parathyroid glands

Major manifestations of diseases of the parathyroid glands

- Hypercalcemia
- Hypocalcemia

The adrenal glands

Major manifestations of adrenal disease

- The 'Cushingoid' patient
- Adrenal insufficiency
- Pheochromocytoma

The endocrine pancreas and gastrointestinal tract

Major manifestations of disease of the endocrine pancreas

- Spontaneous hypoglycemia
- Disorders affecting multiple endocrine system

The hypothalamus and the pituitary gland

Major manifestations of hypothalamic and pituitary disease

- Hypopituitarism
- Visual field defects
- Galactorrhea

Hematological disorders and Oncology

- Clinical examination in blood disorders, Functional anatomy, physiology and investigations
- Major manifestations of hematological diseases
- Anaemia
- Polycythemia
- Leucopenia
- Leucocytosis
- Thrombocytopenia

- Thrombocytosis
- Pancytopenia
- Lymphadenopathy
- Splenomegaly
- Bleeding
- Abnormal coagulation screen
- Infections
- Myeloproliferative disorders
- Haematological malignancies
- Bleeding disorders
- Disorders of coagulation and venous thrombosis
- Blood products and transfusion
- Bone marrow transplantation
- Consideration of Malignant diseases for
- Adenocarcinomas, Metastasis, Radiotherapy, Chemotherapy, Novel therapies

Disorders of the immune system, HIV/AIDS, connective tissue and joints

- Introduction to the immune system and autoimmunity
- Primary immune deficiency diseases
- HIV, AIDS and related disorders
- Major manifestations of musculoskeletal disease
- Joint pains
- Bone pain
- Muscle pain and weakness
- Regional periarticular pain
- Back and neck pain
- Approach to articular and musculoskeletal disorders
- Inflammatory joint disease
- Infectious arthritis
- Inflammatory muscle disease
- Osteoarthritis
- Systemic connective tissue diseases - SLE, RA, PSS
- Vasculitides
- Ankylosing spondylitis, reactive arthritis and undifferentiated spondyloarthropathy
- Sarcoidosis
- Amyloidosis
- Musculoskeletal manifestations of disease in other systems
- Fibromyalgia
- Diseases of bone

Neurological diseases

- Clinical examination of nervous system, Functional anatomy, physiology and investigations
- Major manifestations of nervous system disease
- Headache and facial pain
 - Raised intracranial tension
 - Faintness, dizziness, syncope & vertigo
 - Sleep disorders
 - Disorders of movement

- Ataxia
- Sensory disturbances (numbness, tingling and sensory loss)
- Acute confusional states
- Coma and brain death
- Aphasias and other focal cerebral disorders
- Speech, swallowing and brain-stem disturbance
- Visual disturbances
- Sphincter disturbances
- Migraine and cluster headaches
- Seizures and epilepsy
- Cerebrovascular disease
- Dementias
- Acute and chronic meningitis
- Viral encephalitis
- Diseases of cranial nerves
- Intracranial tumours
- Diseases of spinal cord
- Multiple sclerosis and other demyelinating diseases
- Parkinson's disease and other extrapyramidal disorders
- Cerebellar disorders
- Motor neuron disease
- Peripheral neuropathy
- Neurological manifestations of system diseases
- Nutritional and metabolic diseases of the nervous system
- Myasthenia gravis and other diseases of neuromuscular junction
- Diseases of muscle

TEACHING AND LEARNING METHODOLOGY

Department stresses on teaching of basic fundamentals of internal medicine through various methods especially bed side teaching employing following tools:

1. Didactic lectures: discussion of a particular topic at length in one hour lecture- 4th to 9th semester
2. Seminars: conducted by a combined team of clinician, pathologist and microbiologist discussing a particular topic for two hours
3. Clinical training: The clinical training of undergraduate medical students occurs in five phases- 3rd to 9th semesters.
4. During medical posting undergraduates will also be asked to attend specialised services /departments like cardiology, neurology.
5. Medical students are supposed to complete the logbook and signed by faculty after every clinical case discussion. Their logbook will be evaluated at the time of examination.

TEXT-BOOKS RECOMMENDED

1. Davidsion's Principles and Practice of Medicine, Current Edition
2. Kumar & Clark' Clinical Medicine – A textbook for medical students and doctors, Current Edition
3. Harrison's Principles of Internal Medicine, McGraw Hill publications (Reference book)
4. Oxford Textbook of Medicine (Reference book)
5. Hutchison's Clinical Methods, Current Edition
6. Macleod's Clinical Examination, Current Edition
7. API textbook of Medicine Current Edition

DERMATOLOGY / STD / LEPROSY

OBJECTIVES

Knowledge

At the end of the training a candidate should be able to-

1. Diagnose and manage common skin diseases, sexually transmitted diseases and leprosy.
2. Diagnose and manage common medical emergencies related to skin diseases, leprosy and sexually transmitted diseases.
3. Familiarize them with the common laboratory diagnostic skills which help in the confirmation of diagnosis.
4. Train them for preventive measures at individual and community levels against communicable skin diseases including sexually transmitted diseases and leprosy.
5. Develop a compassionate attitude towards the patients and their attendants.

Skills

1. History taking in dermatology, sexually transmitted diseases and leprosy.
2. Clinical examination and description of cutaneous findings in a systematic way in dermatology, sexually transmitted diseases and leprosy.
3. Broad idea and approach to manage common skin diseases, sexually transmitted diseases and leprosy.
4. Systematic examination in relation to dermatologic diseases.
5. Day-to-day common laboratory tests and their interpretation which help in the diagnosis.

DETAILED SYLLABUS:

Theory Lectures (30 hrs.) and Clinical Postings (6 weeks) will be held between 4th to 8th semesters

Major manifestations of skin disease

- Various types of rash, Pruritis, Erythroderma, Urticaria, Photosensitivity, Blisters, Leg ulcers
Alopecia, Acne
- Disorders of the nails
- Infective dermatoses: Pyoderma, tuberculosis and leishmaniasis.
- Infective dermatoses: Viral and fungal infections
- Infestations: Scabies and pediculosis
- Melanin synthesis: Disorders of pigmentation - Vitiligo, Chloasma / Melasma.
- Allergic disorders: Atopic dermatitis and contact dermatitis
- Drug eruptions, urticaria, erythema multiforme, Steven's johnson syndrome and toxic epidermal necrolysis
- Vesiculo-bullous diseases: Pemphigus, Pemphigoid, Dermatitis herpetiformis .
- Epidermoposis, Psoriasis, Lichen planus and Pityriasis rosea
- Pathogenesis, Classification and clinical features of leprosy, Reactions in leprosy.
- Syphilis
- Gonococcal and Non-gonococcal infections
- Chancroid, LGV, Donovanosis, Herpes progeneritalis .
- Syndromic approach to the diagnosis and management of sexually transmitted diseases
- Skin manifestations of systemic diseases
- Sexually transmitted diseases and leprosy for Etiology, Clinical features, Diagnosis and Treatment
- HIV infection, Cutaneous manifestations of HIV infection and their management.
- Hereditary disorders: Ichthyosis, Albimism, Epidermolysis bullosa, Melanocytic naevi, Freckles and other naevi.

- Dermatological Emergencies.
- Clinical examination of skin diseases

Clinical Postings

Three postings of 2 week each in 4th, 6th and 8th semester .

Demonstration

The cases with diseases like acne vulgaris, scabies, pyoderma, pediculosis, fungal infection of skin, alopecias, sexually transmitted diseases, auto immune diseases, bullous disorders, papulosquamous disease etc. are demonstrated and discussed during the posting period.

TEXT BOOKS RECOMMENDED

1. Treatment of skin diseases – J.S. Pasricha
2. Illustrated Text Book of Dermatology - J.S. Pasricha
3. Text Book of Dermatology and Venereology – Neena Khanna
4. Atlas of Dermatology – L.K. Bhutani
5. Atlas of Sexually Transmitted Disease - L.K. Bhutani

✓ PSYCHIATRY

OBJECTIVES

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

1. Understand human behaviour and its application in patient care.
2. Understand the concept of motivation, its impact on human behaviour and illness related behaviour.
3. Understand different types of emotions and their impact on health of the individual.
4. Define learning, comprehend different types of learning and conditioning. State methods of effective learning and demonstrate application of learning in treatment.
5. Understand different cognitive processes, comprehend memory process, describe short term memory and differentiate with long term memory., list causes of forgetting, and illustrate methods of improving memory.
6. Comprehend concept of thinking and its application to health care.
7. Understand nature of intelligence, explain growth of intelligence, compare role of heredity and environment in intellectual development and method of assessment of intelligence.
8. Define personality, list determinants of personality, understand different theories of personality and learn methods of personality assessment.

DETAILED SYLLABUS

Behavioural Sciences

1. Introduction: General introduction to Behavioural Psychology
2. What is behavioural psychology, components, individual differences and applications of behavioural sciences in patient care and medical education.
3. Motivation: Definition of motivation, theories, types –physiological and social motives, Maslow's hierarchy of motives, clinical application
4. Emotion and its application to health; Theories of emotions, type and impact on health.
5. Learning and conditioning: Components of learning, classical conditioning, operant conditioning, cognitive, social, biological and observational learning; methods of effective learning, behaviour and cognitive therapy.
6. Cognitive process and memory: Sensation, perception, illusion, memory process, short term and long term memory, causes of forgetting and methods to improve memory.
7. Thinking and problem solving: Definition of thinking, components of thinking-imagery recollection, language, steps in problem solving, abnormalities in thinking, decision making.
8. Intelligence: General concepts and techniques for assessment, Theory of intelligence, growth of intelligence, stability of intelligence, determinants of intelligence, assessment of intelligence, extremes of intelligence.
9. Personality (Principles of Personality development) and objective testing of Personality: Definition of personality, trait, factors influencing personality development, theories of personality and personality assessment.

Medical Psychiatry

- Classification of psychiatric disorders
- Aetiological factors and Major manifestations of psychiatric illness
- The clinical interview and mental state examination
- Disturbed and aggressive behavior; Delusions and hallucinations
- Deliberate self-harm and suicidal ideation

- Alcohol misuse and withdrawal; Misuse of drugs other than alcohol
- Medically unexplained physical symptoms and functional somatic syndromes
- Psychiatric and psychological aspects of chronic and progressive disease
- Clinical syndromes : Organic brain syndromes
- Bipolar disorders ; Depressive disorders ; Schizophrenia
- Treatments used in psychiatry
- Psychological treatments; Physical treatments
- Neurotic, stress-related and somatoform disorders, Anxiety
- Obsessive compulsive disorders; Dissociative disorders; Sleep disorders
- Psychological testing
- Legal aspects of psychiatry

TEACHING AND LEARNING METHODOLOGY

Didactic Lectures (20) and discussions with patients during clinical posting (2 weeks) in 5th semester

TEXT-BOOK RECOMMENDED

1. Niraj Ahuja's Text-book on Psychiatry
2. Oxford Psychiatry
3. CTP- Kaplan & Sadoch/Synopsis

RESPIRATORY MEDICINE

Objectives:

The goal of the undergraduate training in respiratory medicine is to provide such knowledge, skills and behavioral attribute that may enable the graduating physician to function effectively as a Primary Care Physician in a community setting. At the end of training, each student must be able to:

1. Understand the various manifestations of respiratory diseases.
2. Understand the basic principle of history taking and clinical examinations.
3. Elicit a detailed history, perform a thorough physical examination including mental status examination and examination of an unconscious patient.
4. Correlate the clinical symptoms and physical signs to make a provisional anatomical, physiological, etiopathological diagnosis along with the functional disability and suggest relevant investigation.
5. Interpret reasonably the relevant investigations.
6. Professionally present and discuss the principles involved in the management of the patient, initiate first line management and outline short-term and long term management.
7. Manage acute emergencies like status asthmaticus, tension pneumothorax, haemoptysis, organophosphate poisoning etc.
8. Acquire the skills to perform minor procedure under supervision like – IV cannulation, insertion of an intercostal tube, urinary bladder catheterisation, use of peak flow meter, reading an X-ray chest and ECG etc.

DETAILED SYLLABUS:

- Clinical examination of the respiratory system, Functional anatomy, physiology and investigations
Major manifestations of lung disease:
- Cough, Dyspnoea, Chest pain, Haemoptysis
- The solitary radiographic pulmonary lesion, Solitary Pulmonary Nodule
- Respiratory failure
- Upper and lower respiratory infections
- Bronchial asthma and Allergies
- Chronic obstructive pulmonary disease, Bronchial asthma
- Pulmonary tuberculosis; RNTCP, DOTS and other programmes
- Drugs for ATT; pharmacokinetics and prescription policies
- Suppurative lung diseases: Bronchiectasis, Lung abscess
- Plural effusion and empyema
- Interstitial and infiltrative lung diseases
- Occupational lung diseases
- Tumors of the bronchus and lung
- Pulmonary vascular diseases: Pulmonary hypertension, Pulmonary thromboembolism
- Acute respiratory distress syndrome
- Obstructive sleep apnoea
- Diseases of the mediastinum, diaphragm and chest wall

TEACHING AND LEARNING METHODOLOGY

Didactic Lectures (20) and discussions with patients during clinical posting (2 weeks) in 4th semester

TEXT-BOOK RECOMMENDED

1. Davidson's Principles and Practice of Medicine, ELBS-Livingstone publications
2. Kumar & Clark' Clinical Medicine – A textbook for medical students and doctors, ELBS publications
3. Harrison's Principles of Internal Medicine, McGraw Hill publications (Reference book)
4. Oxford Textbook of Medicine Vol I & II, ELBS publication (Reference book)
5. Hutchison's Clinical Methods, ELBS publications

3. *Subject: OBS & GYN Distribution of syllabus

Paper - A (Obstetrics)

Theory:

Part-I

Syllabus/Topic

Fundamentals of reproduction, The placenta & membranes, Fetal physiology and circulation, Physiological changes during pregnancy, Endocrinology in relation to reproduction, Diagnosis of pregnancy, Fetal skull & maternal pelvis, Antenatal care, preconceptional counseling & care, Antenatal assessment of fetal well-being, Normal Labour, Normal puerperium, Vomiting in pregnancy, Haemorrhage in pregnancy, Multiple pregnancy hydramnios & abnormalities of placenta & cord, Hypertensive disorders in pregnancy, APH, Medical & surgical illnesses complicating pregnancy, Gynecological disorders in pregnancy.

Part-II

Preterm labour, PROM, postmaturity, IUD of fetus, Rh negative mother, Elderly primi gavida, grand multipara, BOH, Contracted pelvis, Abnormal uterine action, Malposition, malpresentation, cord prolapse, Prolonged labour, obstructed labour, injuries to birth canal, Abnormalities of puerperium, Diseases of fetus & neonatology, induction of labour, Operative obstetrics, Safe motherhood, epidemiology of OBS, Intrapartum fetal monitoring, shock in OBS, Recent advances and National Programmes.

Paper - B (Gynecology)

Part-I

Anatomy of female pelvic organs, Blood vessels, lymphatic drainage & innervation of pelvic organs, Development of genital organs, Congenital malformations of female genital organs, Puberty and menopause, Neuroendocrinology in relation to reproduction, Menstruation, Imaging techniques & endoscopy in GYN, Pelvic infections & STD's, Dysmenorrhoea & other disorders of menstruation, Displacement of uterus, Infertility

Part-II

Oncology in GYN (benign & malignant), Endometriosis & adenomyosis, Urinary problems in gynaecology, Genital fistulae, Genital tract injuries, Intersex, Amenorrhoea, Contraception, Hormones in GYN, Gynaecology problems from birth to adolescence, Operative GYN, family welfare, Demography, Basic sciences and allied subjects, infectious diseases, immunology, Recent advances and National Programmes.

DETAILED SYLLABUS OBSTETRICS SYLLABUS

1. Obstetric history taking & examination
2. Modern Maternity Care & Child birth including Antenatal care for normal & high risk pregnancies including obstetric history, examination, relevant investigations, aims, management & achievement of these aims
3. Maternal & Perinatal Mortality: National & Global trends, causes, prevention & audit of maternal & perinatal morbidity & mortality
4. Conception, Implantation & Embryology

5. Physiological changes in Pregnancy in all systems of body
6. Normal Fetal development & growth
7. Antenatal imaging & assessment of Fetal well being: Diagnostic Ultrasound in pregnancy, Doppler usg & its applications, MRI in obstetrics, assessment of fetal well being, Bio-Physical scoring, Fetal Cardio-tocography
8. Labour: Anatomy of female pelvis & fetus, Stages of labour, Admission, Assessment & Management. Fetal assessment in labour. Management of normal Labour, abnormal labour, poor progress in first stage, delay in second stage. Management of poor progress in 1st stage, delay in the second stage. Management of poor progress in labour. Fetal distress, Malpresentation, Multiple gestation, Induction of Labour, Pain relief in Labour including Spinal & Epidural Block, Labour ward audit. Definitions & Terms used in Pregnancy & Labour, Physiology of Labour.
9. Malpresentation: Breech, Face, Brow, Transverse lie & Unstable lie. Diagnosis, Antenatal assessment & management, Indications for LSCS, technique & decision for Vaginal delivery, Risk factors for mother & fetus, External Cephalic Version
10. Puerperium: Physiological changes, puerperal disorders & puerperal pyrexia, Breasts & mechanism of normal Lactation, Breast disorders, Lactation suppression, contraception in puerperium, pelvic floor exercises, perinatal death & counseling for grief reaction, Post-natal examination
11. Disorders Of Placentation: The Placenta, anatomy & physiology; Normal
 - a) PIH, Pre-eclampsia: etiology, patho-physiology, screening tests &
 - b) Eclampsia: diagnosis, patho-physiology, complications & management
 - c) IUGR: Def., incidence, etiology, patho-physiology, investigations, management &
 - d) Abruptio Placentae: Def., incidence, etiology, clinical presentation, diagnosis, effect on mother & fetus
12. Prenatal Diagnosis: Prenatal screening & Diagnostic tests, Chromosomal abnormality, Structural abnormalities, Genetic disorders, Relevance of Chorionic Villus sampling, Amniocentesis Screening for Down's Syndrome
13. Multiple Gestation: Types, incidence & epidemiology, prognosis, complications acc. to Chorionicity, clinical features, ante-natal care, complications & their management, Labour & Delivery. Embryo- reduction in high order multiple gestation
14. Antenatal Obstetric Complications:
 - a) Minor problems of pregnancy: Backache, Symphysis pubis dysfunction, Constipation, Hyperemesis Gravidarum, Heartburn, Varicose veins, Carpel tunnel syndrome &
 - b) Fibroid in Pregnancy
 - c) Retroverted gravid Uterus
 - d) Congenital Uterine anomalies
 - e) Ovarian cyst in Pregnancy
 - f) Cervical Cancer
15. Antepartum Haemorrhage: Def., causes, diagnosis & management. Details of placenta praevia & accidental haemorrhage: etiology, high risk factors, epidemiology, investigations & management

16. Substance abuse in Pregnancy: Alcohol, Smoking in pregnancy & Fetal Alcohol Syndrome
17. Post-term Pregnancy: Def., diagnosis, management & Risks to Mother & Fetus
18. Rhesus Isoimmunisation: Causes, diagnosis, prevention & management
19. Infection in Pregnancy & Peri-natal Infections: Diagnosis, consequences & management. Syphilis, Toxoplasmosis, Bacterial Vaginosis, Trichomonal Vaginosis, Group B Streptococcus, E. Coli, Urea- plasma Urealyticum, Varicella, Lysteria monocytogeneus, Rubella, Cytomegalovirus, Herpes, Hepatitis, Human Papilloma virus, Human Arbovirus, Vaginal Candidiasis, Genital warts, Tropical genital ulcer disease, Human T-cell Leukaemia virus I, HIV including natural history, virology & principles of treatment, vertical transmission, prophylaxis & prevention & diagnosis
20. Medical Diseases complicating pregnancy: Diagnosis, etiology, investigations, management, prevention & effects on Mother & Fetus
 - a) Heart Diseases
 - b) Endocrine Disorders
 - c) Hypertensive Disorders
 - d) Respiratory Disorders
 - e) Haematological Disorders
 - f) Neurological Disorders
 - g) Autoimmune Disorders
 - h) Gastro-intestinal Diseases
 - i) Skin Diseases
21. Second Trimester Miscarriage: Def., incidence, epidemiology, etiology, clinical features, history & examination, treatment, management, prevention including surgical techniques of Cervical encircilage & termination of pregnancy
22. Pre-term Labour: Def., incidence, epidemiology, etiology, clinical features, treatment, prevention & management of labour
23. Operative-Interventions in Obstetrics: Indication of procedure, complications:-
 - Perineal care, Episiotomy, Caesarean section, Twin delivery Surgical management of obstetric hemorrhage & Ruptured uterus:-
 - Massive obstetric Hemorrhage
 - Injuries to cervix: Caesarean, Destructive operations (Craniotomy & Decapitation), Internal Cephalic Version, Symphysiotomy
 - Placental Complications: Diagnosis, causes, clinical features & management. Retained Placenta, Placenta accreta, Uterine inversion
 - Pre-term Labour: Def., incidence, epidemiology, etiology, clinical features, treatment & management
24. Obstetric Operations: Indication, Anaesthesia, Steps of procedure, Complications & post-op care
 - a) Episiotomy
 - b) Complete Perineal Tear(1st, 2nd & 3rd degree)
 - c) Obstetric Forceps including classification, description of instruments, failed forceps, trial

- d) Ventouse including types, difficulties in Ventouse
 - e) Vaginal Breech delivery: Pre-requisites, technique & complications
 - f) Caesarean section: Pre-op & Post-op preparations
 - g) Twin Delivery
 - h) Internal Podalic Version
 - i) Retained Placenta: Management including manual removal of placenta
25. Third stage Complications: Retained placenta, Morbidly adherent placenta
 PPH: Def., etiology, patho-physiology, causes, complications & management thereof
 Uterine Inversion: Incidence, etiology, pre-disposing factors, diagnosis & management, surgical management of obstetric hemorrhage & ruptured uterus
- a) Vulval & Para-vaginal Haematomas
 - b) Sub-peritoneal & Broad Ligament Haematomas
 - c) Management of massive obstetric hemorrhage including uterine tamponade & uterine devascularisation procedures
 Rupture Uterus: Risk factors, causes, diagnosis, clinical features & Injuries to Cervix: diagnosis & management. Caesarean, Hysterectomy & Symphysiotomy
26. Obstetric Emergencies: Def., diagnosis, management, patho-physiology
- a) Severe pre-eclampsia & eclampsia
 - b) Hemorrhage: APH & PPH
 - c) Venous Thrombo-embolism: Risk factors, prevention & management
 - d) Amniotic Fluid Embolism: Def., incidence, etiology, symptoms, investigations &
 - e) Post-partum Collapse: Def., etiology, sign & symptoms
 - f) Uterine Inversion
 - g) Acute Fetal compromise & Uterine Rupture
 - h) Umbilical cord Accidents: Def., etiology, diagnosis, investigations, management &
 - i) Shoulder Dystocia: Def., risk factors, signs & symptoms, management
27. Psychiatric Disorders in Pregnancy & Puerperium
- a) Importance of psychiatry in obstetrics
 - b) Mental Illnesses in pregnancy: Incidence, diagnosis, management & prognosis including post-natal depression, Puerperial Psychosis, Mania, Depressive Illness, Chronic Schizophrenia
28. Recent Advances & National Programmes
29. Medico-legal issues in Obstetrics
- a) Specially pertaining to MTP, Tubal Ligation, Operative Procedures, Birth Trauma & Hypoxia, Importance of Informed Consent, Note-keeping
 - b) Ethics in Obstetrics
 - c) National & International Programmes as related to Maternal & Child Health, Reproductive Health

NEONATOLOGY

Importance of Neonatal Care Organisation & Delivery of Neonatal Care

APGAR score, Basic resuscitation of new born (Drugs, Ethical issues in resuscitation of new born, Care Term & Pre-term new born)

Prevention of Hemorrhagic Diseases in New borns: Jaundice in new borns (Etiology, diagnosis & management)

Management & Diagnosis: Ante-natal diagnosis of common malformation like Gastroschisis, Exomphalos, Spina Bifida, Hydrocephalus, Cardiac Defects, Diaphragmatic Hernia, Cleft lip & palate

Infant feeding: Breast feeding, Formula feeding, Hypoglycemia of new born, Care of ill new born

Birth Trauma, Sub-aponeurotic/ Sub-galeal Hemorrhage, Transient tachypnoea of new born, MAS, Persistent Pulmonary Hemorrhage, Group B Streptococcus Septicaemia, HIE, Respiratory Distress Syndrome & Chronic Lung Disease Care of infant of Insulin Dependent Diabetic Mother

Care of infant with IUGR Preterm Brain Injury

Necrotizing Enterocolitis

Syllabus Theory

Gynae

1. Gynecological history and Examination including abdominal and pelvic examination.
2. Embryology, Anatomy and Physiology of genital tract and related organs. Knowledge of pelvic and abdominal organs, Blood vessels and nerves in relation to genital tract specially ureter and internal iliac artery.
3. Normal and Abnormal sexual development and puberty Sp. Knowledge of sexual differentiation, genetic sex, chromosomal abnormalities/ gonadal and internal genitalia abnormalities, physiology of puberty, Delayed puberty, precocious puberty, Turner's syndrome, Intersex, vaginal atresia and obstructive outflow problems, Menorrhagia in adolescents.]
4. The normal menstrual cycle- The physiology of menstrual cycle.
5. Disorders of menstrual cycles: including abnormal uterine bleeding, Post menopausal bleeding, their etiology, causes, diagnosis and management. Role of lab investigation and imaging techniques, endometrial sampling medical and surgical treatment modalities for AUB.
6. Amenorrhea etiology including reproductive tract outflow abnormalities Ovarian, pituitary and hypothalamic and endocrine disorders. Management including history, examination, investigation and treatment of Amenorrhea, Poly-Cystic Ovarian Syndrome and hirsutism, Dysmenorrhoea and Premenstrual syndrome.
7. Infertility: Definition, epidemiology, causes of female and male infertility (including ovulatory, tubal, uterine, cervical, auto immune and misc) Tests to diagnose the same and management of the causes. Disorders of spermatogenesis, sperm transport. Treatment of female infertility including ovulation induction, superovulation and Intrauterine Insemination, ovarian hyperstimulation syndrome. Assisted reproductive Techniques:-Basic principles of IVF, DI, GIFT, ZIFT, SUZI, ICSI, TESA, TESA, MESA- Uses of GnRH agonists, antagonists and HCG and FSH, LH in infertility, complications of IVF treatment.
8. Disorders of early pregnancy, Ectopic pregnancy- Etiopathology, (Epidemiological risk factors) causes, epidemiology and risk factors, recurrent abortions clinical features, diagnosis and management of all types of abortion (Threatened, missed, incomplete, inevitable, septic and recurrent abortion).
Role of lab investigations , ultrasound and other imaging techniques.
9. Gestational Trophoblastic Diseases: Definition, epidemiology and risk factors, clinical features, investigations and management. The epidemiology, risk factors, diagnosis, investigation, management and differential diagnosis:-
 - 1) Benign diseases of uterus and cervix: cervical ectropion, nabothian follicles, endometritis, endometrial polyps, Asherman's syndrome, cervical stenosis, fibroids of uterus.
 - 2) Adenomyosis:-
Endometriosis with Sp. reference to assoc. with infertility laparoscopy.
 - 3) Benign disease of ovary:
Physiological cysts, benign germ cell tumours, benign epithelial and sex cord stromal

10. Malignant Diseases

FIGO classification , epidemiology, risk factors, causes, premalignant conditions (pathological, clinical and investigational) diagnosis management (surgical, chemotherapy and radiotherapy) and differential diagnosis.

11. Malignancies of

- a. Cervix: - with special reference to screening, Pap smear, cytology, natural history of CIN.
- b. Malignancies of body of uterus including surgical staging.
- c. Malignancies of ovary including serum markers for malignancies.
- d. Malignancies of vagina and vulva.

12. Conditions Affecting vulva

Pruritis vulvae, non neoplastic epithelial disorders (lichen sclerosis, squamous cell hyperplasia, vulval intraepithelial neoplasia (VIN), vulvegynia and vulval ulcers)

Benign Tumours of vulva

Vagina: - vaginal discharge, physiological and pathological (causes, diagnosis and management) atrophic vaginitis, vaginal intraepithelial Neoplasia (VAIN)

13. Imaging in gynaecology

1. Ultrasound: (Transabdominal and trans vaginal)
Normal pelvic appearance, pathological appearance specific to diagnosis, Menstrual disorders, pelvic pain and lower abdominal and pelvic masses.
Monitoring for infertility treatment.
Early pregnancy scanning for normal and abnormal intra and extra uterine gestation.
2. Standard radiography
CT scan) MRI) in gynecological disorders.

14. Infections in gynecology

Causes, diagnosis, investigations, management, differential diagnosis and prevention of:-
Sexually transmitted Diseases

Lower genital tract infections including vaginal candidiasis , bacterial vaginosis, trichomoniasis, Bartholian abscess, infection.

15. Upper genital tract infection

Pelvic inflammatory Diseases

Chlamydia

Gonorrhoea

Cervicitis

Endometritis

Genital ulcer diseases

Syphilis

Herpes simplex

Lymphogranuloma venereum

Chancroid

Donovanosis

Human papilloma virus

Molluscum contagiosum

HIV infections- natural history, virology, diagnosis, transmission, prevention, gynaecological manifestation of HIV

16. Urogynaecological

Urinary incontinence -causes, predisposing factors, diagnosis, management of genuine stress incontinence and detrusor instability, retention with overflow, congenital urinary incontinence (UI) , extra voiding difficulties. Urinary tract infections, investigations in urinary cases including MSU, urinary diary, pad test, uroflowmetry, cystometry, videocysto-urethrography, IVP, ultrasound.

17. Utero vaginal prolapse

Definition, prevalence, classification and grading, etiology, clinical features, diagnosis, differential diagnosis and management, normal supports of uterus.

18. Menopause

Definition, patho physiology , symptoms and long term problems, Hormone replacement therapy.

Psychological aspects of gynaecology specially in relation to puberty infertility, premenstrual syndrome, menopause, chronic pelvic pain and sexual problems, medico- legal aspects of gynaecology with special reference to consent, limitation, surgery, common causes of litigations in sterilization, abortions, assisted reproduction, contraception.

19. Common gynaecological procedures

i. Principles, equipment used and its functions and maintenance, steps of procedure, complications and indications.

- a. Hysteroscopy
- b. Laparoscopy
- c. Abdominal and vaginal hysterectomy
- d. Cystoscopy
- e. Myomectomy
- f. Manchester operation
- g. Laparotomy

20. Family welfare and contraception

Termination of pregnancy

Counseling for contraception, detailed use, indications, contraindication, pharmacological mode of action failure rate.

Hormonal contraception

Progestin only contraception

Intrauterine contraception

Barrier

Sterilization male and female

21. Abortion including MTP Act and law.

22. All National & International Programmes for prevention and control of infective and malignant diseases concerning gynaecology.

23. Statistics as related to gynaecology.

Recent advances and National Programmes.

Recommended Books (Latest editions)

Sr. No.	Name of Author	Name of the Book	Name of the Publications
1.	IAN Donald	Practical Obstetrics Problems	B.A. Publication
2.	Fernando Arias	Practical guide to high risk pregnancy & delivery	Mosbi Publication
3.	Dutta	Text book of Obstetrics	
4.	Shaw's	Text book of Gynaecology	B.L. Churchill Libingstion
5.	Dutta	Text book of Gynaecology	Central Publication
6.	Arul Kumaran	The management of labour	Orient longmen Publication
7.	Jaypee	Text book of Obstetrics	Jaypee Publication
8.	Jaypee	Text book of Gynaecology	Jaypee Publication

*MBBS FINAL PROFESSIONAL (PART-I & PART-II)

4. PAEDIATRICS SYLLABUS

Theory Paper Section-A = Neonatology, growth and development, nutrition adolescent health, fluid and electrolyte therapy, poisoning, national programmes, pediatrics emergencies, Miscellaneous and recent advances.

Theory Paper Section-B = Infectious diseases, respiratory system, CVS, CNS, GIT, Urogenital system, endocrinology, rheumatology, Haemato-oncology and immunization

Note: The division in section-A and B is arbitrary and there may be minor overlap of topics while setting the question paper.

1. GROWTH AND DEVELOPMENT

- Normal growth from conception to maturity anthropometry – measurement and interpretation of weight, length/height, head circumference. Use of weighing machine & infantometer. Interpretation of Growth Charts, Road to Health card and percentile growth curves. Abnormal growth patterns, failures to thrive, short stature.
- Growth in relation to teeth, fontanel, paranasal sinuses, lymphoid tissue, brain and other organs.
- Normal development- Principles of development Important milestones in infancy and early childhood.
- Gross motor, Fine motor, Language and Personal-Social development. Normal pattern of sleep, sphincter control. Primitive reflexes.
- Causes and assessment of developmental retardation.

2. NUTRITION

- Normal requirements of protein, carbohydrates, fats, minerals and vitamins for newborns and children and their common food sources.
- Breast feeding – physiology of lactation, composition of breast milk. Colostrum, initiation and technique of feeding. Exclusive breast feeding-definition and benefits. Characteristics and advantages of breast milk as compared to animal/reconstituted milk. Hazards and demerits of pre-lacteal feed, top milk and bottle feeding.
- Infant feeding/weaning foods, method of weaning. Feeding of normal infants and young children. Diet plan for different age groups based on sound principles.
- Protein energy malnutrition- Definition, classification according to IAP, acute versus chronic malnutrition. Clinical features of marasmus & kwashiorkor. Causes and management of PEM including that of complications.
- Vitamins – Recognition of vitamin deficiencies (A, E, K, C, B-Complex). Etiopathogenesis, clinical features, biochemical and radiological findings, differential, diagnosis and management of nutritional rickets & scurvy. Hypervitaminosis A and D.

3. IMMUNIZATION

National Immunization Programme and Immunization schedule.

- Principles of Immunization, vaccine preservation and cold-chain.
- Types, contents, efficacy, storage, dose, site, route, contra-indications and adverse reactions of vaccines- BCG, DPT, OPV, Measles, MMR. Hepatitis-A&B, Chicken Pox, H. Influenza and typhoid vaccines. Rationale and methodology of Pulse Polio immunization.
- Investigation and reporting of vaccine preventable diseases. AFP (Acute Flaccid Paralysis surveillance).

4. INFECTIOUS DISEASES

- Epidemiology, basic pathology, natural, symptoms, signs, complications, investigations, differential diagnosis, management and prevention of common bacterial, viral and parasitic infections, with special reference to vaccine-preventable diseases.
- Tuberculosis, Poliomyelitis, Diphtheria, Whooping cough, Tetanus, including neonatal tetanus, Measles, Mumps, Rubella, Typhoid, Viral Hepatitis, Cholera, Chickenpox, Giardiasis, Amoebiasis, helminthiasis, Malaria, Dengue fever,
- AIDS and Swine Flu.

5. SYSTEMIC DISEASES

A. HAEMATO- ONCOLOGY

- Clinical approach to a child with anemia with lymphadenopathy and/or hepatosplenomegaly.
- Causes of anemia in childhood. Classification based on etiology and morphology.
- Epidemiology, recognition, diagnosis, management and prevention of nutritional anemia, (iron deficiency and megaloblastic).
- Epidemiology, clinical features, investigations and management of thalassemia.
- Diagnosis and management of acute lymphoblastic leukemia.

B. RESPIRATORY SYSTEM

- Clinical approach to a child with cyanosis, respiratory distress, wheezing. Significance of recession and retractions.
- Etiopathogenesis, clinical features, complications, investigations, differential diagnosis and management of acute upper respiratory infections, pneumonia with emphasis on bronchopneumonia bronchiolitis bronchitis and Acute otitis media.
- Etiopathogenesis, clinical features, diagnosis, classification and management of bronchial asthma. Treatment of acute severe asthma.
- Pulmonary tuberculosis-tuberculous infection versus tuberculous disease, difference between primary and port-primary tuberculosis. Etiopathogenesis, diagnostic criteria in children versus adults. Diagnostic aids/techniques and interpretation of Mantoux test and BCG test. Radiological patterns, Chemoprophylaxis and treatment.
- Diagnosis and management of foreign body aspiration. Differential diagnosis of stridor and wheeze.

C. GASTROINTESTINAL TRACT

- Clinical approach to a child with jaundice, vomiting, abdominal pain, bleeding, hepatosplenomegaly.
- Acute diarrhoeal disease-Etiopathogenesis, clinical differentiation of invasive and secretory diarrhea, assessment of dehydration, treatment at home and hospital. ORS
- Common causes of constipation
- Recurrent abdominal pain in children.

D. CNS

- Clinical approach to a child with coma, convulsions and mental retardation.
- Clinical diagnosis, investigations and treatment of acute pyogenic meningitis, encephalitis & TBM.
- Seizure Disorder- Causes and types of convulsions at different ages. Diagnosis, categorization & management of Epilepsy. Febrile convulsions-definition, types, management, Neurocysticercosis.
- Causes, diagnosis and management of cerebral palsy.
- Acute flaccid paralysis-Differentiation between Polio and LGBS.

E. CARDIOVASCULAR SYSTEM

- Clinical features, diagnosis, investigations, treatment and prevention of acute rheumatic fever. Common forms of rheumatic heart disease in childhood.
- Recognition of congenital acyanotic and cyanotic heart diseases. Hemodynamic basis of clinical features and management of VSD, PDA, ASD and Fallot's tetralogy.
- Recognition of congestive cardiac failure in children and treatment.
- Management of hypertension in children.

F. GENITOURINARY SYSTEM

- Etiopathogenesis, clinical features, diagnosis, complications and management of acute post streptococcal glomerulonephritis and nephrotic syndrome.
- Etiology, clinical features, diagnosis and management of urinary tract infection-acute and recurrent.
- Causes and diagnosis of obstructive uropathy in children.

G. MISCELLANEOUS

- Assessment and management of fluid, electrolyte and acid- base imbalance.
- Types of genetic disorders. Diagnosis of Down syndrome.
- Clinical approach to breath holding spells, nocturnal enuresis, temper tantrums and pica.
- Diagnosis and management of juvenile rheumatoid arthritis and Henoch Schonlein purpura.
- Practical aspects of child care handling of babies, bathing, sponging, dressing changing of napkins measurement of temperature. Care of a sick child management of nappy rash, peri anal excoriation thrush, abdominal distension. Positioning of patient, care of eyes, ears and mouth. Suction, postural drainage prevention of bedsores.
- Pediatric emergencies and poisoning in children
- Environment and child health
- Family welfare and children

H. ENDOCRINOLOGY

- Hypothyroidism, Diabetes mellitus

6. NEONATOLOGY

- Definition-live birth, neonatal periods, classification according to weight and gestation, mortality rates.
- Identification of antenatal, intra-partum and post natal risk factors.
- Neonatal resuscitation-preparation, steps, APGAR scoring.
- Causes, systemic effects and management. of birth asphyxia.
- Birth injuries-recognition, management. Differentiation of caput and cephalhematoma.
- Care of the normal newborn in the first week of life. Normal variations and clinical signs in the neonate.
- Identification of abnormal signs in early neonatal period –cyanosis, early jaundice, respiratory distress, bleeding, seizures, refusal to feed, abdominal distension, failure to pass meconium and urine.
- Identification of congenital anomalies at birth, early intervention in specific malformations-anorectal anomalies tracheo –esophageal fistula, diaphragmatic hernia, choanal atresia and meningocoele.
- Neonatal Jaundice

- Physiological jaundice, causes, clinical pattern, management. Differentiation from pathological jaundice. Approach to jaundice on first day. Causes of hyperbilirubinemia and specific diagnosis. Indications, procedure, precautions and complications of phototherapy and blood exchange transfusion.
- Neonatal septicemia- etiology, approach to early diagnosis, principles of management. Common intrauterine infections. Superficial infections.
- Low birth weight babies-causes of prematurity and small for-date baby, handicaps, clinical features and differentiation. Principles of gestational assessment. Basic management with emphasis on feeding and temperature regulation.
- Exclusive breast feeding-physiology and application. Feeding difficulties in newborn.

Books Recommended

1. **Ghai Essential Pediatrics**
By
O.P. Ghai
Piyush Gupta
V.K. Paul
2. **Care of the New Born**
By
Meherban Singh
3. **I.A.P. Text book of Pediatrics**
By
A Parthasarathy
MKC Nair
PSN Menon
4. **Hutchison's Clinical Methods**
By
Michael Swash