UNIVERSITY MEDICAL
& DENTAL COLLEGE

Study Guide Pediatrics

Final Year MBBS

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02
Section

Final Year MBBS

Clerkship

Framework

BLOCK A (16 weeks)		BLOCK B (16 weeks)	
Classroom teaching (16 weeks)	Medicine Clinical Rotation (6 weeks)	Classroom teaching (16 weeks)	Surgery Clinical Rotation (6 weeks)
	End Clinical Rotation Exam (Medicine)		**End Clinical Rotation Exam (Surgery)**
	Subspecialties Rotations **(Any three of sub-specialties: Neurology, Endocrinology, Rheumatology, Geriatrics, Paediatric Cardiology)* (4 weeks)		Subspecialties Rotations **(Any three of the sub-specialties: Urology, Neurosurgery, Thoracic Surgery, Paediatric Surgery, Plastic Surgery, Vascular Surgery)* (4 weeks)
	End Clinical Rotation Exam (Subspecialties Rotations)		**End Clinical Rotation Exam (Subspecialities Rotations)**
	Paediatrics Clinical Rotation (6 weeks)		Gynecology & Obstetrics Clinical Rotation (6 weeks)
	End Clinical Rotation Exam (Paediatrics)		**End Clinical Rotation Exam (Gynecology & Obstetrics)**
	Block A Exam Theory		**Block B Exam Theory**

**Reference: PM&DC guidelines for undergraduate Medical Education (MBBS 2024 page 19-20)*

Note:

- Under the final year MBBS clerkship model, each student is required to undertake at least three full-day rotations per week (from 8:00 AM to 8:00 PM) in the relevant clinical department.
- It is mandatory for every student to bring a complete, duly signed, and stamped clinical logbook, with end-rotation clinical examination results properly attached, to the annual examination of the relevant specialty.
- The Internal block theory and clinical examinations will be conducted in accordance with the format specified in the Annual Examination Table of Specifications (TOS).

BLOCK A

MEDICINE & ALLIED

Subject	Weeks
GENERAL MEDICINE • Infectious diseases • Liver and pancreatic diseases • Hematologic diseases • Water, electrolyte, acid base balance • Psychiatry • Emergency Medicine • Dermatology • Cardiology • Pulmonology • Nephrology • Gastroenterology • Oncology • Neurology • Endocrinology • Rheumatology	10 Weeks
PEADIATRICS	06 Weeks

BLOCK B

SURGERY & ALLIED

Subject	Weeks
GENERAL SURGERY • Metabolic response to injury • Wound healing • Surgical infections • Pre and post-operative investigations & assessment • Post-operative care • Vascular surgery • Acid base balance • Laparoscopic and robotic surgery principles • Head, face, and neck • Breast surgery • Thoracic surgery • Abdominal surgery • Surgical ethics • Anesthesia • Orthopedics and trauma • Urology • Paediatric surgery • Plastic surgery	10 Weeks
GYNAECOLOGY & OBSTETRICS	06 Weeks


03
Section

Curriculum 2k23
Final Year MBBS Clerkship

PAEDIATRICS CLERKSHIP

Learning Outcomes:

By the end of the pediatric clerkship, a student will be able to:

- Identify common pediatric illnesses and formulate the differential diagnoses.
- Obtain a comprehensive history from children and their caregivers.
- Perform a focused and systematic physical examination in infants, children, and adolescents.
- Develop and outline evidence-based management plans for common pediatric conditions.
- Communicate effectively and empathetically with patients and their families.

Demonstrate professionalism, ethical conduct, and effective teamwork in pediatric healthcare

FUNDAMENTALS OF PEDIATRICS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-001	Growth	• List key anthropometric measurements used to assess growth. • Interpret growth charts and percentiles. • Identify red flags of abnormal growth. • Discuss common factors influencing growth. • Discuss Tanner staging of female and male puberty
Pe-002	Development	• Describe major developmental milestones in gross motor, fine motor, vision, hearing and speech, and social behavior from neonate, 3, 6, 9, 12, 18 months, and 2-5 years. • Identify delays or abnormalities in development. • Describe key factors affecting development. • Discuss counseling points for caregivers on activities that promote age-appropriate cognitive, motor, language, and social development.
Pe-003	Immunization	• Differentiate between active and passive immunity. • Explain the concept of herd immunity and its importance in preventing disease outbreaks. • Enlist vaccines available for children other than EPI schedule. • Describe the major types of vaccines live attenuated, killed/inactivated, toxoid, and conjugated and give common examples of each. • Describe the EPI schedule, including vaccines given at birth and at each age-specific visit. • Explain the purpose, target diseases, and key components of the EPI. • Identify indications, contraindications, Adverse effect

		and precautions for EPI vaccines. • Demonstrate correct storage, handling, and administration of EPI vaccines. • Explain counselling points of caregivers on the importance of completing the EPI schedule, vaccine safety, and management of minor post-vaccination reactions.
NUTRITION AND NUTRITIONAL DISORDERS		
Pe-004	Breastfeeding and weaning	• Describe the benefits of breastfeeding mother. • Identify indications, contraindications, and techniques for effective breastfeeding. • Discuss factors causing lactation failure • Explain appropriate timing, methods, and types of complementary feeding (weaning). • List age-appropriate weaning foods and feeding practices. • Discuss nutritional requirements during weaning and growth monitoring. • Outline counseling points for caregivers on breastfeeding, weaning, and hygiene. • Explain potential complications of improper breastfeeding or weaning and strategies for prevention
Pe-005	Integrated management of Childhood and Neonatal Illness (IMNCI)	• Define IMNCI • Discuss importance and key components of IMNCI • Discuss IMNCI protocol under 2 months age regarding very severe disease, Jaundice, Diarrhea, HIV infection, Feeding problems and Low birth weight • Discuss IMNCI protocol in 2 months age to five-year age regarding Pneumonia, Diarrhea, Fever, Ear problems, acute malnutrition, anemia and HIV infection

Pe-006	Obesity	• Define and classify obesity. • Identify clinical features and complication. • Enlist the investigations. • Calculate BMI and describe its role. • Outline management plan (Dietary, pharmacological, prevention).
Pe-007	Rickets	• Define and classify rickets. • Describe the etiology and pathogenesis of rickets. • List key clinical features and skeletal deformities. • Identify relevant laboratory and radiological investigations. • Formulate a differential diagnosis for bone deformities and growth disturbances. • Outline management principles, including vitamin D and calcium supplementation and dietary. • Explain potential complications, prognosis, and preventive strategies.
Pe-008	Marasmus/Severe wasting	• Define marasmus and distinguish it from other forms of malnutrition. • Identify key clinical features such as severe wasting and muscle loss. • Select appropriate anthropometric and laboratory investigations. • Outline management strategies, including nutritional rehabilitation and supportive care. • Explain potential complications, prognosis, and follow-up care.
Pe-009	Kwashiorkor/Edematous malnutrition	• Define kwashiorkor and distinguish it from marasmus. • Identify key clinical features such as edema, hepatomegaly, and skin changes. • Select relevant laboratory investigations. • Outline management strategies, including therapeutic

		feeding, micronutrient supplementation, and monitoring. • Explain potential complications, prognosis, and follow-up care
Clinical Skills		
Code	**Topic**	**Clinical Methods/Skills**
Pe-010	History taking	• Take a detailed pediatric history covering following points: • presenting illness (time of onset, site, duration, frequency, severity, progression, relieving and exacerbating factors, and any diurnal or seasonal variation). • general symptoms (weight loss, appetite changes, fever, and activity level). • systemic review covering cardiovascular, respiratory, gastrointestinal, central nervous system, genitourinary, hematological, dermatological, and locomotor symptoms. • relevant past medical history, including previous illnesses, hospitalizations, surgeries, allergies, and transfusions. • complete birth history, including antenatal, natal, and postnatal events. • feeding history, including breastfeeding, weaning, and current dietary practices. • vaccination status according to the national EPI schedule. • developmental history across major domains (gross motor, fine motor, language, social). • schooling history, including performance, attendance, and behavioral concerns. • family and social history, including chronic illnesses,

		consanguinity, living environment, and caregiver details. • drug history (current medications, supplements, and any previous reactions).
Pe-011	Physical examination	**Perform** • general physical examination in children, assessing appearance, consciousness, hydration, nutrition, vitals, and growth parameters (weight, height/length, head and mid-arm circumference), SMR, BCG Scar mark • systematic head-to-toe examination, including: • Head, eyes, ears, nose, throat (HEENT) • Cardiovascular system (inspection, palpation, auscultation) • Respiratory system (inspection, palpation, percussion, auscultation) • Abdomen (inspection, palpation, percussion, auscultation) • Central nervous system (higher mental function, motor and sensory system, cerebellum, cranial nerves, • Musculoskeletal system • Skin (rashes, lesions, hydration, capillary refill) • Interpret growth measurements using age-appropriate growth charts. • Identify abnormal findings and red flags requiring urgent evaluation. • Perform the examination in a child-friendly, developmentally appropriate, and safe manner while maintaining infection control.
NEUROLOGIC DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-012	Pyogenic meningitis	• Describe the etiology of pyogenic meningitis in different

		pediatric age groups. • Explain the pathogenesis, including routes of infection and inflammatory changes in the meninges. • Identify key clinical features in infants, children, and adolescents, including age-specific red flags and differential diagnosis. • Outline the essential investigations, including CSF analysis, indications and contraindications of lumbar puncture, blood tests, cultures, and neuroimaging indications. • Discuss the management, including antibiotic therapy, supportive care, and monitoring along with prevention strategies. • List the potential complications. • Describe factors influencing prognosis in pediatric meningitis.
Pe-013	Tuberculous meningitis	• Describe the pathogenesis of tuberculous meningitis. • Identify key clinical features and early warning signs, and outline the three clinical stages of disease progression. • Discuss the diagnostic approach, including characteristic findings and criteria supporting the diagnosis. • List essential investigations with interpretation. • Outline the management plan. • List major complications • Describe prognostic factors.
Pe-014	Encephalitis	• Describe the etiology of encephalitis • Explain the pathogenesis with neurological consequences. • Diagnose based on signs and symptoms and interpretation of lab investigations.

		• Discuss the management • List major complications and prognosis.
Pe-015	Cerebral malaria	• Describe the etiology and pathogenesis of cerebral malaria. • Diagnose based on key clinical features. • Outline the important diagnostic tests. • Identify the diagnostic criteria for cerebral malaria diagnosis. • Outline the management plan. • Identify major complications and factors affecting prognosis. • Explain preventive strategies.
Pe-016	Febrile seizures	• Define and classify febrile seizures. • Describe the diagnostic criteria and exclusion conditions for febrile seizures. • Explain the etiology and common triggers in children. • Identify key signs and symptoms. • Outline the necessary investigations, including when evaluation is required. • Discuss the treatment approach, including immediate seizure control and supportive care. • Explain risk factors for recurrence, long-term outlook, and overall prognosis for affected children.
Pe-017	Epilepsy	• List the etiology and major risk factors associated with epilepsy in children. • Classify seizures. • Differentiate between generalized seizures, grand mal (tonic-clonic), petit mal (absence), myoclonic, and partial (focal) seizures using a clear tabulated comparison. • Outline the clinical features and diagnostic approach for seizure.

		• Discuss the management of epilepsy, including acute seizure control, long-term therapy, and monitoring. • List the commonly used antiepileptic drugs, their indications, and side-effects.
Pe-018	Status epilepticus	• Classify the types of status epilepticus. • List the etiology and common precipitating factors in children. • Discuss the pathophysiology, including mechanisms leading to prolonged seizures and neuronal injury. • Outline the emergency management, including airway-breathing-circulation stabilization and stepwise pharmacologic treatment. • Describe post-ictal management. • List factors influencing the prognosis of pediatric status epilepticus.
Pe-019	Cerebral palsy	• Define cerebral palsy • Describe the etiology and pathogenesis of cerebral palsy, including prenatal, perinatal, and postnatal causes. • Classify the types of cerebral palsy and patterns of motor involvement. • Identify key signs and symptoms. • Formulate a differential diagnosis, distinguishing cerebral palsy from progressive neuromuscular disorders, metabolic or genetic conditions. • Outline the management plan. • Explain the prevention strategies. • Describe factors affecting prognosis.
Pe-020	Hydrocephalus	• Describe the etiology and pathogenesis of hydrocephalus. • Classify the types of hydrocephalus. • Identify the clinical features.

		• Formulate a differential diagnosis. • Outline the diagnostic evaluation. • Explain the management, including medical therapy, surgical interventions, and follow-up. • Recognize potential complications and factors affecting long-term prognosis.
Pe-021	Brain abscess	• Describe the etiology and pathogenesis of brain abscess, including routes of infection. • Diagnose based on the clinical features and diagnostic evaluation. • Formulate a differential diagnosis. • Discuss the management, including antibiotic therapy, surgical drainage, and supportive care. • List potential complications and factors influencing prognosis.
Pe-022	Microcephaly	• Describe the etiology, and pathogenesis of microcephaly. • Identify clinical features. • Formulate a differential diagnosis. • Outline the diagnostic evaluation. • Discuss the management plan and factors affecting prognosis.
Pe-023	Coma in children	• Identify the common causes of coma in children. • Discuss the points of clinical evaluation. • List the laboratory and radiological investigations to determine the underlying cause. • Outline the management, including stabilization, treatment of underlying cause, and supportive care. • Describe the factors affecting prognosis.
Pe-024	Cerebellar ataxia	• Describe the etiology and pathogenesis of ataxia in children, distinguishing between cerebellar and non-cerebellar causes.

		• Identify the clinical features of cerebellar ataxia. • Formulate a differential diagnosis. • Outline the diagnostic evaluation and outline the management plan. • Describe factors affecting prognosis.
Clinical Skills		
Code	**Topic**	**Clinical Methods/Skills**
Pe-025	History Taking	• **Take** a routine pediatric history focusing on CNS- specific points such as fits/seizures, syncope, dizziness, headaches, visual problems, numbness, unpleasant sensations, weakness, frequent falls, and incontinence.
Pe-026	CNS clinical examination	• Examine and assess shape of skull, head circumference. • speech and higher mental functions in children. • all cranial nerves, identifying abnormalities. • motor system, including bulk tone, power, reflexes, and involuntary movements. • sensory system, including pain, temperature, touch, vibration, and proprioception. • cerebellar function, including coordination, gait, and balance. • signs of meningeal irritation, including neck stiffness, Kernig and Brudzinski signs. • Identify and grade coma. • Interpret the reports of baseline labs, CSF analysis, cranial CT, and MRI. • Counsel patients/attendants with empathy and respect. • Maintain confidentiality and privacy of the patients • Observe/assist in managing the outdoor, indoor, and emergency cases of neurologic disorders and document in logbook.

NEUROMUSCULAR DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-027	Duchenne muscular dystrophy	• Describe the pathogenesis of Duchenne muscular dystrophy. • Identify important signs and symptoms. • Outline diagnostic tests and their interpretation. • Discuss management strategies.
Pe-028	Myasthenia gravis	• Describe the pathophysiology of myasthenia gravis. • Identify key signs and symptoms. • Outline the diagnostic approach and the management plan. • Explain factors affecting prognosis and long-term outcomes in pediatric patients.
Pe-029	Floppy infants	• Describe the causes of hypotonia in infants, differentiating paralytic and non-paralytic types. • Identify key signs and symptoms. • Outline the diagnostic evaluation.
Pe-030	Guillain - Barré Syndrome	• Describe the etiology and pathophysiology of GBS. • Describe the clinical features and its stages. • List and differentiate the major variants of GBS • Formulate a differential diagnosis according to Acute Flaccid Pararlysis. • Outline diagnostic evaluation. • Discuss management and factors affecting prognosis.
Clinical Skills		
Code	**Topic**	**Clinical Methods/Skills**
Pe-031	Neuromuscular examination	• **Perform** a systematic neuromuscular examination in children, assessing muscle tone, strength, bulk, and reflexes.

		• **Identify** abnormal motor patterns, including hypotonia, hypertonia, weakness, fasciculations, and contractures. • **Identify** specific clinical signs, such as Gower sign in Duchenne muscular dystrophy or fatigability in myasthenia gravis. • **Assess** functional abilities, including gait, posture, fine motor skills, and coordination. • **Document** findings accurately to guide diagnosis, monitoring, and management of neuromuscular disorders. • **Counsel** patients/attendants with empathy and respect. • **Maintain** confidentiality and privacy of the patients • **Observe/assist** in managing the outdoor, indoor, and emergency cases of neuromuscular disorders and document in logbook.

CARDIOVASCULAR DISORDERS

Theory

Code	Topics	Specific Learning Objectives
Pe-032	Cyanotic heart disease	Classify cyanotic congenital heart diseases based on anatomical features. **Tetralogy of Fallot (TOF)** • Describe the components and pathophysiology. • Identify clinical features and outline the diagnostic evaluation. • Discuss management, including surgical repair, medical stabilization, and management of hypoxemic (tet) spells. • List potential complications and describe the natural course and prognosis. **Transposition of Great Arteries (TGA)** • Explain the pathophysiology, including parallel

		circulation and dependence on shunts. • Describe signs and symptoms. • Outline the diagnostic evaluation and management plan. • Describe factors affecting prognosis and long-term outcomes.
Pe-033	Acyanotic congenital heart disease	**Ventricular Septal Defect (VSD)** • Describe the pathophysiology and hemodynamic consequences based on the size of the defect. • Identify clinical features according to defect size. • Outline the diagnostic evaluation. • List surgical indications. **Patent Ductus Arteriosus (PDA)** • Describe the pathophysiology and its impact on circulation. • Identify clinical features. • Outline diagnostic evaluation and management plan. • List potential complications and describe the prognosis. **Atrial Septal Defect (ASD)** • Classify types of ASD. • Explain pathophysiology and associated hemodynamic changes. • Identify clinical features and relevant diagnostic evaluation. • Discuss management, including indications for surgical or device closure and long-term outcomes.
Pe-034	Congestive cardiac failure (CCF)	• Diagnose CCF based on the clinical signs and symptoms in children. • Formulate the differential diagnosis of CCF. • List common causes of CCF in the pediatric age group. • Outline the diagnostic approach and necessary investigations for suspected CCF.

		• Plan medical and supportive management of CCF in children. • Identify the complications and indicators of poor prognosis in pediatric CCF. • Explain the preventive strategies and long-term follow-up care for children with CCF.
Pe-035	Rheumatic fever (RF)	• Identify the clinical features and major manifestations of rheumatic fever in children. • Explain the pathophysiology and immunological basis of rheumatic fever. • Apply the modified Jones criteria for the diagnosis of rheumatic fever. • Identify common complications of RF. • Outline the management plan, including secondary prophylaxis. • Discuss preventive strategies to reduce the incidence of RF in pediatric populations.
Pe-036	Infective endocarditis (IE)	• Diagnose infective endocarditis in children based on the clinical features and common presentations. • Explain the pathophysiology and risk factors predisposing to infective endocarditis. • Apply Modified Duke Criteria to identify suspected cases. • Outline the investigations for diagnosis, including blood cultures and echocardiography. • Plan the medical and surgical management of patient diagnosed with IE. • Discuss potential complications and strategies for prevention in at-risk pediatric patients.
Pe-037	Myocarditis	• Identify clinical features of myocarditis in children. • List its common causes. • Interpret relevant investigations for myocarditis.

		• Formulate a management plan. • Describe the complications and long-term follow-up considerations.
Pe-038	Supraventricular Tachycardia	• Identify clinical features and presentations of pediatric supraventricular tachycardia. • List the causes and explain its pathophysiology. • Outline diagnostic approach, including investigations, ECG interpretation, and recent advances. • Describe pacemaker use and formulate management plan.
Clinical Skills		
Code	**Topic**	**Clinical Methods/Skills**
Pe-039	CVS clinical examination	**Perform** a cardiovascular examination in children, including: • Inspection: cyanosis, clubbing, chest wall deformities, visible pulsations, precordial bulge, and signs of heart failure. • Palpation: apex beat location and character, thrills, heaves, peripheral pulses, pulse volume, and symmetry. • Percussion: cardiac size and borders when applicable. • Auscultation: heart sounds (S1, S2), additional sounds (S3, S4), murmurs (systolic, diastolic, continuous), rubs, and clicks. • Vital signs assessment: heart rate, blood pressure, respiratory rate, and pulse pressure. **Demonstrate** correct technique for recording a pediatric ECG, including electrode placement, skin preparation, and appropriate lead selection for different age groups. **Identify** normal pediatric ECG patterns and **interpret** common ECG abnormalities.

RESPIRATORY DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-040	Pneumonia	• Classify pneumonia based on anatomical involvement and etiology. • Classify according to IMNCI • Describe the etiology of bacterial pneumonia in different age groups. • Identify the clinical features • Outline investigations and management plan. • Identify and describe the management of complications. • Explain the prognosis and factors affecting recovery in pediatric bacterial pneumonia.
Pe-041	Asthma	• Identify common triggers and risk factors. • Explain the pathophysiology. • Describe key clinical features. • Outline the diagnostic approach. • List important differential diagnoses. • List complications • Outline the steps of the management of an acute asthma attack. • Outline the management of status asthmaticus as a medical emergency. • Discuss long-term management of chronic asthma. • Explain the prognosis and factors associated with good or poor outcomes. • Describe key preventive strategies.
Pe-042	Croup	• Identify the common etiological agents of croup. • Explain the pathophysiology. • Diagnose based on key clinical features. • Select appropriate investigations.

		• List differential diagnosis. • Outline management plan. • List possible complications. • Identify warning signs, recurrence, and indications for urgent medical attention.
Pe-043	Acute epiglottitis	• Explain the epidemiology and pathogenesis of acute epiglottitis. • List common causative organisms. • Identify clinical features suggestive of bacterial croup. • List investigations with interpretations. • Differentiate bacterial croup from other causes of upper airway obstruction. • Develop a management plan for bacterial croup. • Identify indications for airway intervention and intensive monitoring. • Describe potential complications of bacterial croup.
Pe-044	Acute pharyngitis and tonsillitis	• Identify common etiological agents of acute pharyngitis and tonsillitis. • Describe the clinical features that help differentiate viral from bacterial causes. • Select appropriate investigations when indicated. • Formulate a management plan for viral and bacterial pharyngitis/tonsillitis. • List complications associated with untreated streptococcal infection.
Pe-045	Bronchiolitis	• Describe the common etiological agents and predisposing risk factors for bronchiolitis in infants and young children. • Explain the pathophysiological changes. • Identify key clinical features, including respiratory distress signs and indicators of severe disease. • List investigations to confirm diagnosis.

		• Formulate management plans, including criteria for hospitalization. • Identify complications.
Pe-046	Pleural Effusion	• Classify pleural effusions according to type and underlying pathology. • Differentiate between the types of pleural effusion. • Identify common causes of pleural effusion in children. • Explain the impact of pleural effusion on lung function and respiratory physiology. • Discuss the role and interpretation of radiological imaging in the diagnosis of pleural effusion. • Plan the management, including medical and procedural interventions.
Pe-047	Cystic fibrosis	• Describe the genetic basis, inheritance pattern, and pathophysiology of cystic fibrosis. • Describe common clinical manifestations. • Describe diagnostic criteria. • Outline principles of multidisciplinary management. • List differential diagnosis. • List complications. • Describe long-term care needs, prognosis, and preventive strategies.
Pe-048	Pneumothorax	• Classify pneumothorax. • List two important causes of spontaneous pneumothorax. • Explain the pathophysiology. • Identify key clinical features. • Interpret chest X-ray findings. • Outline definitive management. • List potential complications and indicators for referral or ICU care.

Clinical Skills		
Code	**Topic**	**Clinical Methods/Skills**
Pe-049	Clinical examination of respiratory system	**Perform** clinical examination of respiratory system including • **Observe** and narrate child's general appearance, respiratory rate, pattern, and use of accessory muscles and signs of respiratory distress (nasal flaring, chest indrawing, grunting, cyanosis). • **Inspect** chest for symmetry, shape, scars, deformities, or tracheal deviation. • **Palpate** chest for tracheal position, chest expansion bilaterally, tactile vocal fremitus. • **Percuss** the chest to identify normal, dull, or hyper-resonant areas. • **Auscultate** all lung fields for breath sounds, added sounds, and asymmetry. • **Monitor** oxygen saturation using pulse oximetry. • **Assess** upper airway for nasal blockage, throat congestion, stridor, or oral abnormalities, and extrapulmonary signs (clubbing, edema, cyanosis, lymphadenopathy). • **Interpret** chest X-rays including steeple sign (croup), thumb sign (epiglottitis), silhouette sign (loss of normal cardiac or diaphragm border due to adjacent consolidation), honeycombing (cystic air spaces in interstitial lung disease), ground-glass opacity (ARDS or viral pneumonia), air-fluid level (lung abscess), hyperinflation (asthma, bronchiolitis), pneumothorax signs, tram-track appearance (bronchiectasis), cystic lesions (cystic fibrosis). • **Document** the indoor, outdoor, and emergency cases in the clinical log book.

ENDOCRINE SYSTEM		
Theory		
Code	**Topic**	**Specific Learning Objectives**
Pe-050	Congenital Hypothyroidism / Cretinism	• List common etiological factors. • Describe clinical features and early signs of severe congenital hypothyroidism. • Interpret diagnostic tests, including serum TSH, T4, and confirmatory thyroid imaging. • Formulate treatment plan with follow-up strategies to monitor growth, neurodevelopment, and thyroid function. • Describe prognosis with early versus delayed treatment. • Explain the principles of newborn screening programs for early detection.
Pe-051	Juvenile / Acquired Hypothyroidism	• Identify common etiological factors. • Diagnose based on clinical features and interpretation of laboratory investigations. • Outline a management plan and discuss long-term prognosis and potential complications if untreated.
Pe-052	Hyperthyroidism	• Identify common etiological factors of hyperthyroidism in children. • Diagnose based on key signs and symptoms and interpretation of diagnostic investigations. • Formulate management plan. • Explain prognosis and follow-up strategies for pediatric hyperthyroidism.
Pe-053	Diabetes Mellitus	• Identify the etiological factors and classify types of diabetes mellitus in pediatric age group. • Explain the pathophysiology of insulin deficiency and/or resistance.

		• Diagnose based on key clinical features and interpretation of appropriate diagnostic tests. • Develop a management plan, including insulin replacement strategies, diet planning, and individualized monitoring schedules. • Describe insulin regimens, sliding scale protocols, and adjustments based on glucose monitoring. • Outline follow-up care plan, including growth monitoring, glycemic control, and patient/caregiver education. • List acute and chronic complications. • Explain prognosis and long-term outcomes with optimal management.
Pe-054	Diabetic Ketoacidosis (DKA)	• Identify common precipitating factors for DKA in children. • Describe clinical features of DKA. • Interpret relevant laboratory investigations. • Formulate treatment plan. • List complications.
Pe-055	Short stature	• Classify short stature based on causes. • Describe the signs and symptoms. • Interpret appropriate investigations. • Formulate a management and follow-up plan.
Pe-056	Cushing's disease/ Cushing Syndrome	• Identify the common etiological factors leading to Cushing's disease in children. • Explain the pathophysiology of cortisol excess and its systemic effects. • Describe characteristic clinical features. • Interpret relevant investigations. • Formulate a management plan depending on etiology. • List complications. • Plan follow-up strategies for growth, pubertal

		development, and recurrence monitoring.
Pe-057	Congenital Adrenal Hyperplasia (CAH)	• Identify key clinical signs and symptoms of CAH. • Interpret investigations to confirm diagnosis. • Explain principles and indications of prenatal diagnosis for CAH. • Formulate a management plan. • Describe prognosis based on subtype, severity, and timeliness of treatment.

Clinical Skills

Code	Topic	Clinical Methods/Skills
Pe-058	Clinical examination of endocrine system	• **Measure and record** anthropometric parameters: height, weight, BMI, head circumference (neonates/infants). • **Plot growth parameters** on age- and sex-specific growth charts. • **Perform** general inspection for endocrine-related features: skin, hair, fat distribution, and posture. • **Palpate** thyroid gland for size, nodules, or tenderness. • **Assess** vital signs relevant to endocrine health: blood pressure, pulse. • **Document** normal findings in clinical logbooks.
Pe-059	Diabetes Mellitus	• **Measure and interpret** capillary blood glucose levels. • **Observe/assist** in administrating and adjusting insulin doses as per sliding scale. • **Demonstrate** proper technique for insulin injection and blood glucose monitoring. • **Monito**r for hypoglycemia and hyperglycemia, and **interpre**t trends. • **Counsel** patient/caregiver on diet, insulin

		administration, and management.
Pe-060	Hypothyroidism	• **Examine** for the clinical signs of hypothyroidism: macroglossia, dry skin, hypotonia, growth retardation. • **Palpate** thyroid gland.
Pe-061	Cushing's Disease	• **Assess** for cushingoid features: moon face, buffalo hump, truncal obesity, striae. • **Measure** blood pressure and growth parameters. • **Document** subtle signs such as skin thinning, bruising, and muscle weakness.
GASTROINTESTINAL & LIVER DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-062	Acute Diarrhea	• Define acute diarrhea. • Enumerate the common causes and etiologies of acute diarrhea in children. • State common pathogens • Classify severity of dehydration based on clinical assessment and guidelines. • Describe the preventive strategies and outline the management plan of acute diarrhea.
Pe-063	Chronic Diarrhea	• Define chronic diarrhea. • Enumerate the common causes and etiologies of chronic diarrhea in children. • List common pathogens. • Classify dehydration based on clinical assessment and guidelines. • State management plan to treat chronic diarrhea.
Pe-064	Celiac disease	• Identify common etiological and predisposing factors, including genetic and environmental triggers. • Diagnose based on characteristic clinical features

		and interpretation of diagnostic tests. • Formulate a management plan. • Explain long-term prognosis, potential complications, and strategies for follow-up care.
Pe-065	Inflammatory bowel disease Crohn's disease and ulcerative colitis)	• Identify the types of IBD in children and their etiological factors. • Describe key clinical features of Crohn's disease and ulcerative colitis. • List and interpret appropriate investigations. • Formulate a management plan. • Explain long-term prognosis, monitoring strategies, and potential complications.
Pe-066	Approach to vomiting in children	• List common etiologies of vomiting in children. • Identify associated red-flag features requiring urgent attention. • Select and interpret relevant investigations, including basic labs, imaging, and targeted tests based on suspected etiology. • Formulate a systematic differential diagnosis for pediatric vomiting. • Develop a management plan. • Explain strategies for monitoring response to treatment, preventing complications, and follow-up care.
Pe-067	Approach to the child with Hepatosplenomegaly	• List common causes of hepatomegaly, splenomegaly and hepatosplenomegaly according to age group (neonates, infancy, early childhood). • Recognize key clinical features associated with hepatomegaly, splenomegaly and hepatosplenomegaly. • Enlist and interpret appropriate investigations. • Formulate a differential diagnosis for hepatomegaly /

		Visceromegaly based on age, clinical features, and investigation findings. • Develop a management and follow-up plan depending on underlying etiology and indication to refer to specialized care.
Pe-068	Acute hepatitis	• Identify common etiological factors of acute hepatitis in children. • Describe the key clinical features and interpretation of appropriate laboratory investigations. • Formulate a systematic differential diagnosis for pediatric acute hepatitis. • Develop management plan, including indications for hospitalization or referral. • Explain prognosis, potential complications, and strategies for follow-up and preventive measures, including vaccination and hygiene.
Pe-069	Hepatic encephalopathy in children	• Identify common etiological factors leading to hepatic encephalopathy in children. • Recognize key clinical features. • Select and interpret relevant laboratory and imaging investigations. • Formulate a differential diagnosis for altered mental status in pediatric patients. • Develop management plan.
Pe-070	Pediatric Constipation	• Identify common etiological factors. • Describe key clinical features. • Select and interpret appropriate investigations. • Formulate a systematic differential diagnosis for chronic or severe constipation. • Develop a management plan, including dietary modifications, behavioral strategies, laxatives or stool softeners, and treatment of underlying conditions.

		• Explain prognosis, prevention strategies, and follow-up monitoring for recurrent or chronic constipation
Pe-071	Wilson Disease	• Describe the etiology and genetic basis of Wilson disease. • List the typical hepatic, neurological, and psychiatric manifestations. • List key diagnostic investigations with interpretation for Wilson disease. • Outline the principles of management, including medical and surgical options. • Explain prognosis and long-term follow-up considerations
Clinical Skills		
Code	**System**	**Clinical Methods/Skills**

Pe-072	Clinical examination of GIT system	• **Inspect** abdomen for shape, distension, scars, visible peristalsis, and skin changes.
		• **Palpate** the abdomen to assess liver and spleen size, tenderness, masses, and organomegaly.
		• **Percuss** to determine liver span, spleen size, and presence of fluid.
		• **Auscultate** bowel sounds to assess frequency, character, and presence of abnormal sounds (hyperactive, absent, bruits).
		• **Examine** the perianal area for fissures, hemorrhoids, or signs of malformations.
		• **Assess** for signs of malnutrition and micronutrient deficiencies (skin, hair, nails).
		• **Interpret** key laboratory values in context of pediatric GIT disorders:
		  ○ Liver function (AST, ALT, ALP, bilirubin, albumin, PT/INR)
		  ○ Pancreatic enzymes (amylase, lipase)
		  ○ Nutritional markers (CBC, iron studies,

		vitamins) ○ Inflammatory markers (CRP, ESR) ○ Disease-specific tests (anti-TTG, ceruloplasmin, viral serology, fecal calprotectin) • **Document and interpret** findings in clinical logbooks.
HEMATOLOGIC DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-073	Anemia	• Define anemia and classify it based on red blood cell morphology and etiology. • Identify common clinical features of anemia in children. • Outline the investigations.
Pe-074	Congenital Hypoplastic Anemia	• Define congenital hypoplastic anemia including Diamond-Blackfan anemia. • Explain the pathophysiology leading to reduced red cell production. • Identify characteristic clinical features. • Outline diagnostic evaluation, including bone marrow examination and genetic testing. • Discuss management strategies.
Pe-075	Microcytic Anemias	**Iron Deficiency Anemia** • Describe the etiology. • Explain the pathophysiology of iron deficiency leading to microcytosis. • Diagnose iron deficiency anemia based on clinical features. • Outline diagnostic tests. • Formulate management plan. **Beta-Thalassemia**

		• Define beta-thalassemia and differentiate between major and minor forms. • Explain pathophysiology, including defective hemoglobin synthesis and ineffective erythropoiesis. • Identify clinical features. • Outline diagnostic tests and plan the management strategies. **Hereditary Spherocytosis** • Define hereditary spherocytosis and its genetic basis. • Explain pathophysiology leading to spherocytes and hemolysis. • Recognize clinical features. • Outline diagnostic tests and describe management. **Sickle Cell Anemia** • Define sickle cell anemia and its genetic inheritance pattern. • Explain pathophysiology, including sickling of red cells and vaso-occlusion. • Identify clinical features • Outline investigations and discuss management.
Pe-076	Megaloblastic Anemia	• Define megaloblastic anemia and differentiate between vitamin B12 and folate deficiency. • Explain pathophysiology of impaired DNA synthesis leading to macrocytosis. • Identify clinical features. • Outline diagnostic evaluation and formulate management.
Pe-077	Aplastic Anemia	• Define aplastic anemia and its classification. • Identify clinical features. • Outline diagnostic tests. • Discuss management strategies.

Pe-078	Enzymatic Defects (Red Cell Enzyme Deficiencies)	• Define common enzymopathies causing hemolytic anemia. • Explain pathophysiology of hemolysis due to enzymatic defects. • Identify clinical features. • Outline diagnostic tests. • Discuss the management plan.
Pe-079	Hemophilia A & B	• Define Hemophilia A and B and describe their inheritance (X-linked recessive). • Identify the clinical features. • Outline diagnostic tests. • Formulate management strategies. • Discuss genetic counseling and preventive measures.
Pe-080	Vitamin K Deficiency	• Define vitamin K deficiency and its role in coagulation. • Identify the clinical features in neonates. • Outline diagnostic evaluation. • Formulate management, including vitamin K supplementation and treatment of bleeding.
Pe-081	Approach to a child with Pancytopenia	• Enlist the Causes and recall the pathophysiology of pancytopenia. • Explain the etiological viruses and their role. • Discuss the associated systemic disorders. • Formulate management and identify complications of pancytopenia. • State the role of prophylactic vaccinations.
Pe-082	Leukemia and lymphoma	• Describe pathogenesis of malignancy, and tabulate its types. • Enlist risk factors and pathophysiology. • State complications. • Describe signs and symptoms.

		• Describe relevant investigations. • Formulate management plan.
Pe-083	Idiopathic thrombocytopenic purpura (ITP)	Classify ITP according to duration (acute, persistent, chronic). • Describe the pathophysiology. • List key clinical features and presenting symptoms. • Identify relevant laboratory investigations. • Formulate a differential diagnosis for thrombocytopenia. • Outline management strategies. • Explain prognosis and follow-up considerations.
Clinical Skills		
Code	**System**	**Clinical Methods/Skill**
Pe-084	Clinical examination for blood disorders	• **Perform** general physical examination, focusing on pallor, jaundice, petechiae, purpura, and lymphadenopathy. • **Examine** for hepatosplenomegaly and signs of bleeding (mucosal, skin). • **Observe/assist** in collection of blood samples for CBC, peripheral smear, and other relevant investigations. • **Interpret** report of peripheral blood smears and other hematology tests. • **Monitor** vital signs and clinical status for acute complications like anemia, infection, or bleeding. • **Interpret** lab results of Complete Blood Count, red cell indices, white cell differential, platelet count, peripheral blood smear, reticulocyte count, iron studies, vitamin B12, folate levels, hemoglobin electrophoresis, PT, aPTT, INR, fibrinogen level, D- dimer, bone marrow aspiration, bone marrow biopsy, blood grouping, crossmatch, and antibody

		screening. • **Counsel** caregivers regarding warning signs, medication administration, and follow-up monitoring. • **Verify** patient identity, blood product, and compatibility before transfusion. • **Observe or assist** in pediatric blood transfusion procedures. • **Monitor** the patient during transfusion for any adverse reactions.

RENAL DISORDERS

Theory

Code	Topics	Specific Learning Objectives
Pe-085	Nephrotic syndrome	• Classify nephrotic syndrome into primary and secondary types. • Describe the pathogenesis and underlying pathology. • List key clinical features and presenting signs and symptoms. • Identify common complications. • Select relevant laboratory and imaging investigations. • Outline principles of management, including pharmacologic and supportive care.
Pe-086	Acute renal failure	• Define acute renal failure and classify its types (prerenal, intrinsic, postrenal). • Describe the pathophysiology and underlying causes in children. • List key clinical features and presenting symptoms. • Identify common complications. • Enlist relevant laboratory and imaging investigations. • Outline principles of management. • Explain prognosis and follow-up considerations.

Pe-087	Chronic renal failure	• Define chronic renal failure with its stages. • Describe the pathophysiology and common causes in children. • List key clinical features and presenting symptoms. • Identify common complications. • List relevant laboratory and imaging investigations. • Outline principles of management. • Explain prognosis, long-term outcomes, and follow-up monitoring.
Pe-088	Urinary tract infection	• Describe common etiological agents of UTI in different age groups. • List key clinical features and presenting symptoms. • Identify risk factors and predisposing conditions. • List appropriate laboratory and imaging investigations. • Formulate a differential diagnosis for pediatric urinary symptoms. • Outline principles of management, including antimicrobial therapy and supportive care. • Explain potential complications, prognosis, and strategies for prevention and follow-up
Pe-089	Approach to a child with Hematuria	• List the common causes of hematuria in children. • Identify key clinical features and presenting symptoms. • Select appropriate laboratory and imaging investigations. • Outline principles of management.

Pe-090	Acute post-streptococcal glomerulonephritis	• Describe the etiology and pathogenesis of APSGN. • List key clinical features and presenting symptoms. • Identify relevant laboratory and imaging investigations. • Formulate a differential diagnosis for glomerulonephritis. • Outline principles of management, including supportive care and pharmacologic therapy. • Explain potential complications, prognosis, and follow-up considerations

Clinical Skills

Code	System	Clinical Methods/Skills
Pe-091	Clinical examination of renal system	• **Perform** general physical examination, including assessment of edema, blood pressure, growth parameters, and hydration status. • **Examine** the abdomen and flanks for renal enlargement or tenderness. • **Measure and interpret** vital signs, fluid balance, and weight changes. • **Demonstrate** proper technique for urine dipstick testing and bedside urinalysis. • **Interpret** lab investigations (renal function tests, serum creatinine, BUN, electrolytes, serum albumin, total protein, urinalysis). • **Assist or observe** procedures such as catheterization, dialysis access, or renal biopsy. • **Educate/counsel** caregivers on monitoring urine output, adherence to treatment, and follow-up requirements.

NEONATOLOGY		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-092	Neonatal Sepsis	• Define neonatal sepsis • Enumerate different etiologies of neonatal sepsis • Identify common pathogens & prenatal risk factors • Discuss the complication of neonatal sepsis • Formulate Management
Pe-093	Neonatal jaundice	• Define and classify jaundice • List different etiologies of neonatal jaundice • Discuss the common interaction between different blood groups • Tabulate the complication of neonatal jaundice • Plan management.
Pe-094	Newborn examination and essential care	• Identify common signs on newborn examination • Essential newborn care including Vit K administration, cord care, vaccination, breast feeding, kangaroo care.
Pe-095	Common neonatal problems	• Define Hypoglycemia, enumerate risk factors and formulate management. • Identify common skin rashes and formulate management • Define prematurity and complications • Birth asphyxia, RDS, IDM, hypocalcemia, Low birth weight, SGA, LGA, and IUGR. • Describe TORCHS infection and effects on newborn.
Pe-096	Newborn resuscitation	• Recall transition period at birth • Define essential care and golden minute • Enumerate the steps in newborn resuscitation • Identify theoretical basis for the steps in resuscitation • Enumerate post-resuscitation care

Clinical Skills		
Code	**System**	**Clinical Methods/Skills**

Pe-097	Clinical examination of neonate	• **Perform** general inspection: posture, color, activity, and distress signs.
		• **Assess anthropometry & vital signs:** heart rate, respiratory rate, temperature, and oxygen saturation.
		• **Examine** head, eyes, ears, nose, mouth, and neck for congenital anomalies.
		• **Assess** skin: jaundice, cyanosis, pallor, birthmarks, lanugo, mottling, and petechiae.
		• **Examine** chest and cardiovascular system, including heart sounds and peripheral pulses.
		• **Palpate** liver, spleen, kidneys, and hernias.
		• **Examine** genitalia and anus for abnormalities.
		• **Assess** musculoskeletal system: limb deformities, joint contractures, hip dysplasia, and clavicle fractures.
		• **Perform** neurological assessment, including primitive and postural reflexes:
		  ○ Grasp reflex (palmar and plantar)
		  ○ Moro reflex
		  ○ Rooting reflex
		  ○ Stepping/Walking reflex
		  ○ Galant reflex
		  ○ Tonic neck reflex
		  ○ Glabellar reflex
		  ○ Landau reflex
		  ○ Parachute reflex
		• **Examine** for spontaneous movements, muscle tone, and alertness.

INFECTIOUS DISEASES		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-098	Fever of Unknown Origin (PUO)	• Define PUO and criteria for pediatric age groups. • Describe clinical features. • Interpret results to narrow differential diagnosis. • Outline management plan and indications for specialist referral.
Pe-099	Cholera	• Identify the causative organism and epidemiology. • Describe pathophysiology and mechanism of severe dehydration. • Describe key clinical features. • Interpret laboratory findings. • Outline management plan for dehydration due to cholera. • Discuss preventive measures and vaccination
Pe-100	Bacillary dysentery	• Identify the causative organism. • Diagnose based on signs and symptoms and interpretation of stool microscopy and culture results • Outline management plan. • Explain transmission and preventive strategies
Pe-101	Giardiasis	• Identify causative protozoan. • Describe signs and symptoms. • Interpret diagnostic investigations including stool examination for cysts/trophozoites • Plan the treatment with preventive measures

Pe-102	Amebiasis	• Identify causative organism. • Describe signs and symptoms. • List the investigations and interpretation to confirm diagnosis. • Interpret imaging for liver abscess • Outline treatment plan.
Pe-103	Worm Infestation	**Roundworm** • Describe clinical features due to roundworm infestation. • Diagnose based on signs and symptoms and diagnostic test. • Outline treatment plan. **Hookworm** • Describe clinical features due to hookworm infestation. • Diagnose based on signs and symptoms and diagnostic test. • Outline treatment plan. **Pinworm** • Describe clinical features due to pinworm infestation. • Diagnose based on signs and symptoms and diagnostic test. • Outline treatment plan.
Pe-104	Poliomyelitis	• Describe transmission routes of polio virus • Diagnose based on clinical features. • Describe vaccine types and immunization schedule. • Outline supportive management for acute flaccid paralysis surveillance. • List long-term complications and rehabilitation needs.
Pe-105	Diphtheria	• Identify causative organism and modes of transmission • Diagnose based on clinical features. • Outline the management plan. • Explain vaccination and preventive strategies.
Pe-106	Tetanus	• Identify causative organism and explain

		pathophysiology. • Recognize clinical features. • Describe wound care, immunization, and antitoxin therapy. • Discuss the management plan.
Pe-107	MMR	• Recognize characteristic clinical features. • Identify complications. • List the laboratory investigation to confirm diagnosis. • Describe treatment plan. • Explain immunization schedule and outbreak control
Pe-108	Pertussis	• Identify causative organism. • Identify the stages of pertussis. • List the diagnostic methods. • Plan the management including immunization schedules and prophylaxis.
Pe-109	Chickenpox	• Identify clinical features. • List complications. • List the laboratory investigations. • Describe management plan with vaccination and prevention.
Pe-110	Malaria	• Describe transmission of malaria. • Identify clinical features. • Interpret blood smears or rapid diagnostic tests • Discuss treatment plan with preventive measures.
Pe-111	Typhoid	• Identify causative organism and transmission routes. • Recognize clinical features. • Describe treatment plan. • Explain preventive strategies.
Pe-112	Tuberculosis	• Identify causative organism and routes of transmission. • Describe pulmonary and extrapulmonary features. • Interpret investigations to confirm diagnosis. • Describe anti-tubercular therapy.

		• Explain preventive measures.
Pe-113	Dengue Fever	• Recognize clinical features with warning signs. • Interpret laboratory tests. • Describe supportive management plan with preventive measures.

Clinical Skills

Code	System	Clinical Methods/Skills
Pe-114	Clinical assessment for infectious diseases	• **Perform** a focused clinical examination relevant to fever and infectious diseases. • **Assess** hydration status using clinical markers (skin turgor, pulse, capillary refill, mucous membranes). • **Measure and record** vital signs. • **Prepare and administer** oral rehydration therapy (ORS) correctly. • **Observe/assist** in set up and administer IV fluids according to pediatric protocols for dehydration or shock. • **Observe/assist** in administering medications safely (antibiotics, antiparasitic, antimalarial, antivirals). • **Follow** infection prevention and control measures. • **Identify and document** clinical warning signs. • **Provide** basic supportive care: tepid sponging, nutritional support, monitoring intake/output. • **Assist** in administering vaccines according to EPI schedule. • Interpret report of peripheral smear for malaria. • **Observe/assist** in collection of throat swab or nasal swab correctly (diphtheria, pertussis). • **Educate** caregivers on home care, hydration, hygiene, and warning signs requiring urgent care. • **Maintain** proper documentation of clinical findings, management steps, and follow-up plans.

METABOLIC DISORDERS		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-115	Galactosemia	• Define galactosemia and its genetic basis. • Identify key clinical features in newborns. • Recognize complications related to liver, CNS, and eyes. • Interpret screening tests and confirmatory investigations. • Outline dietary management and lactose/galactose restriction. • Identify emergency management needs in acute presentation • Explain long-term monitoring and follow-up requirements • Describe the importance of newborn screening and family counseling
Pe-116	Glycogen storage diseases	• Define glycogen storage diseases and classify major types • Identify key clinical features such as hypoglycemia, hepatomegaly, and muscle involvement • Recognize type-specific patterns. • Interpret basic investigations suggestive of GSD • Outline principles of dietary and medical management • Identify acute complications requiring urgent intervention • Describe long-term monitoring and follow-up needs • Explain the role of genetic counseling for affected families.

Clinical Skills		
Code	**System**	**Clinical Methods/Skills**
Pe-117	Clinical examination for metabolic disorders	• **Perform** a focused clinical examination for dysmorphic features, developmental delay, and organomegaly. • **Assess** nutritional status, growth parameters, and developmental milestones. • **Examine** the liver and spleen for enlargement using proper pediatric techniques. • **Evaluate** muscle tone, strength, and motor function in metabolic/myopathic presentations. • **Perform and document** a thorough neurologic examination in infants and children. • **Assess** hydration status and vital signs in acutely ill metabolic patients. • **Provide** caregiver instructions on feeding techniques, dietary restrictions, and monitoring needs.

BONE AND JOINT DISORDER		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-118	Septic arthritis and Osteomyelitis	• Define and discuss etiology of septic arthritis and osteomyelitis • Identify key clinical features of septic arthritis and osteomyelitis • Discuss differential diagnosis • Interpret investigations suggestive of Septic arthritis and osteomyelitis • Outline principles of management and monitoring.

		• Describe Prognosis
Pe-119	Juvenile Idiopathic Arthritis	• Define diagnostic criteria and classify JIA. • Describe etiology and trigger of the disease. • Discuss its pathophysiology. • Discuss differential diagnosis • Interpret base line and confirmatory investigations. • Outline management plan • Explain long-term monitoring and follow-up requirements • Discuss prognosis and counseling of patient and parents
Pe-120	Systemic Lupus Erythematosus	• Define diagnostic criteria of SLE. • Describe etiology and trigger of the disease. • Discuss pathophysiology. • Discuss differential diagnosis • Interpret baseline and confirmatory investigations. • Outline management plan • Explain long-term monitoring and follow-up requirements • Discuss prognosis and counseling of patient and parents
Pe-121	Henoch-Schonlein Purpura (HSP)	• Define HSP • Discuss Pathogenesis and clinical findings. • Interpret basic investigations for differential diagnosis • Outline management plan and prognosis • Identify acute complications requiring urgent intervention • Discuss prognosis of the disease.

Clinical Skills		
Code	**Topic**	**Clinical method /Skill**
Pe-122	Clinical examination for Joints and bone	• **Perform** a focused joint and bone clinical examination. • **Look** sign of discomfort, trauma, bruising, rash • **Feel** for warmth, swelling and rash • **Check** active and passive movements • **Check** for joint function. • **Evaluate** gait and balance. • **Perform and document** the findings and counsel the patient and parents
GENETIC DISORDER		
Theory		
Code	**Topics**	**Specific Learning Objectives**
Pe-123	Chromosomal Abnormalities	• Discuss chromosomal abnormalities in number and structure • Identify autosomal and sex chromosome abnormalities • List the Single gene defect • Discuss the characteristics of autosomal and X-linked dominant and recessive disorders • Interpret karyotyping of trisomy 21 and turner syndrome.
Pe-124	Down Syndrome	• Discuss types of defect regarding translocation, nondisjunction and mosaicism • Describe its epidemiology and clinical features • Interpret diagnostic and screening investigations • Outline management plan • Explain long-term monitoring and follow-up requirements

		• Discuss prognosis and counseling of the parents
Pe-125	Turner Syndrome	• Discuss epidemiology and type of defect • Describe its clinical features and associated diseases • Interpret diagnostic investigations • Explain long-term monitoring and follow-up requirements • Discuss prognosis and counseling of the parents
Clinical Skills		
Code	**System**	**Clinical method /Skill**
Pe-126	Clinical examination	• **Perform** examination regarding clinical features of Down and Turner syndrome. • **Look** for simian crease, cubitus valgus, lymphedema of hand and feet, epicanthic fold, brushfield spots, flat occiput short broad hands, and clinodactyly • **Check** for hypotonia, thyroid, blood pressure, murmur for aortic stenosis or coarctation of aorta • **Evaluate** gait and balance. • Document all findings
CHILD ABUSE AND PEDIATRIC TRAUMA		
Pe-127	Medico legal aspects *(integrate with Forensic Medicine)*	• Estimate the age of child for consent. • Diagnose a case of suspected child abuse and pediatric trauma presenting in the ER or OPD. • Identify the form of abuse (physical, sexual, toxic, chemical/electrical, psychological). • Enlist appropriate investigations to confirm above suspicion. • Interpret lab/radiological findings.

		• Refer the case to medical officer for medicolegal certification. • Refer the case to appropriate agency for treatment and rehabilitation.

SPECIALTY SPECIFIC INSTRUMENTS LIST

- Pediatric/infant stethoscope
- Sphygmomanometer (child/infant cuffs)
- Thermometer (digital, tympanic, rectal)
- Otoscope
- Ophthalmoscope
- Tongue depressor
- Pulse oximeter (pediatric probe)
- Infant weighing scale
- Infantometer / length measuring board
- Head circumference tape
- Newborn resuscitation bag and mask (Ambu bag)
- Neonatal stethoscope
- Suction devices (manual or bulb syringe)
- IV cannula (small gauge)
- Butterfly needles
- Pediatric catheters
- Syringes (1–5 mL)
- Nebulizer
- Laryngoscope with pediatric blades
- Endotracheal tubes (infant and child sizes)
- Suction catheters
- Oxygen masks (pediatric sizes)
- Pediatric ear speculum
- Nasal aspirator
- Eye chart for children (Snellen / LEA symbols)
- Pediatric ophthalmic tonometer
- Pediatric scalpel and scissors
- Pediatric forceps
- Needle holders
- Pediatric retractors
- Umbilical clamp

FINAL YEAR MBBS

<table>
<tr><th colspan="7">MEDICINE CLERKSHIP</th></tr>
<tr><th colspan="3">Theory</th><th colspan="3">Clinical skills</th><th>Total Marks</th></tr>
<tr><td rowspan="2">Paper 1 MCQs</td><td rowspan="2">100 Marks</td><td rowspan="4">200 Marks</td><td>OSCE</td><td>10 stations x 5 marks= 50 marks</td><td rowspan="4">200 Marks</td><td rowspan="4">400 Marks</td></tr>
<tr><td>OSVE</td><td>02 Stations x 10 marks= 20 marks</td></tr>
<tr><td rowspan="2">Paper 2 MCQs</td><td rowspan="2">100 Marks</td><td>Short case</td><td>02 Short case x 30 marks = 60 marks</td></tr>
<tr><td>Long case</td><td>01 Long case x 70 marks = 70 marks</td></tr>
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<tr><td colspan="7">Theory Examination
Paper 1 time duration will be 1hr 45mins.
Paper 2 time duration will be 1hr 45mins.
Clinical Examination
Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</td></tr>
<tr><th colspan="7">SURGERY CLERKSHIP</th></tr>
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<tr><td>OSVE</td><td>02 Stations x 10 marks= 20 marks</td></tr>
<tr><td rowspan="2">Paper 2 MCQs</td><td rowspan="2">100 Marks</td><td>Short case</td><td>02 Short case x 30 marks = 60 marks</td></tr>
<tr><td>Long case</td><td>1 Long case x 70 marks = 70 marks</td></tr>
<tr><td colspan="2">Internal assessment (10%) Theory</td><td>50 marks</td><td colspan="2">Internal assessment (10%) Practical</td><td>50 marks</td><td>100 Marks</td></tr>
<tr><td colspan="7">Total=500 Marks</td></tr>
<tr><td colspan="7">Theory Examination
Paper 1 time duration will be 1hr 45mins.
Paper 2 time duration will be 1hr 45mins.
Clinical Examination
Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</td></tr>
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<table>
<tr><th colspan="7">OBSTETRIC & GYNAECOLOGY CLERKSHIP</th></tr>
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<tr><td rowspan="2">Obstetrics MCQs</td><td rowspan="2">60 Marks</td><td rowspan="4">120 Marks</td><td>OSCE</td><td>08 stations x 5 marks= 40 marks</td><td rowspan="4">120 Marks</td><td rowspan="4">240 Marks</td></tr>
<tr><td>OSVE</td><td>02 Stations x 10 marks= 20 marks</td></tr>
<tr><td rowspan="2">Gynaecology MCQs</td><td rowspan="2">60 Marks</td><td>Short case</td><td>2 Short case x 15 marks = 30 marks</td></tr>
<tr><td>Long case</td><td>1 Long case x 30 marks = 30 marks</td></tr>
<tr><td colspan="2">Internal assessment (10%) Theory</td><td>30 marks</td><td colspan="2">Internal assessment (10%) Practical</td><td>30 marks</td><td>60 Marks</td></tr>
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<tr><td colspan="7">Theory Examination
Obstetrics paper time duration will be 1hr 5min.
Gynaecology paper time duration will be 1hr 5mins.
Clinical Examination
Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 15 minutes and long case will be 30minutes.</td></tr>
<tr><th colspan="7">PAEDIATRICS CLERKSHIP</th></tr>
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<tr><td rowspan="4">MCQs (80)</td><td rowspan="4">80 Marks</td><td>OSCE</td><td>08 stations x 5 marks= 40 marks</td><td rowspan="4">80 Marks</td><td rowspan="4">160 Marks</td></tr>
<tr><td>OSVE</td><td>02 Stations x 5 marks= 10 marks</td></tr>
<tr><td>Short case</td><td>1 Short case x 10 marks = 10 marks</td></tr>
<tr><td>Long case</td><td>1 Long case x 20 marks = 20 marks</td></tr>
<tr><td>Internal assessment (10%) Theory</td><td>20 Marks</td><td colspan="2">Internal assessment (10%) Practical</td><td>20 Marks</td><td>40 Marks</td></tr>
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Paper time duration will be 1hr 25min.
Clinical Examination
Time duration for each OSCE/OSVE station will be 06 minutes, short case will be 10 minutes and long case will be 20minutes.</td></tr>
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INTERNAL ASSESSMENT

It shall constitute 20% of the total assessment at the end of the academic year.

	Scoring Parameter	Weightage (percentage)
Theory 10 %	Attendance	75% attendance -1 % >85% attendance -2 %
	Block Exam	5 %
	Continuous assessment	3 %
Practical 10 %	Attendance	75% attendance -1 % >85% attendance -2 %
	Block Exam	5 %
	Clinical logbooks	3 %