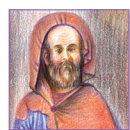


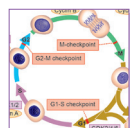
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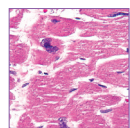
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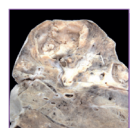
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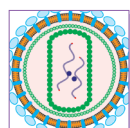
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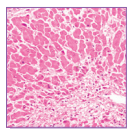
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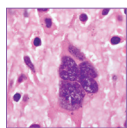
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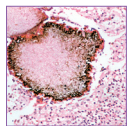
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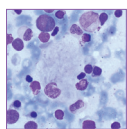
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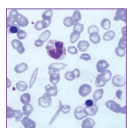
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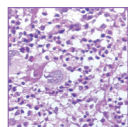
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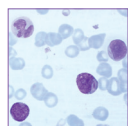
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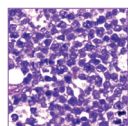
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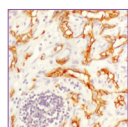
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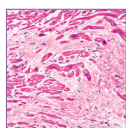
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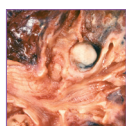
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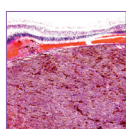
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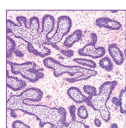
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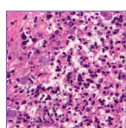
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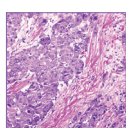
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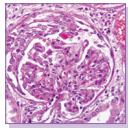


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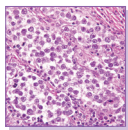
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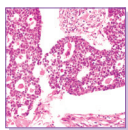
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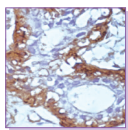
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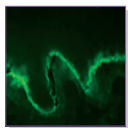
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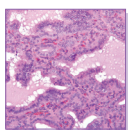
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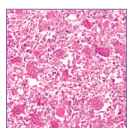
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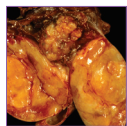
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- ❖ **Pituitary Gland 807** Hyperpituitarism 807; Hypopituitarism 808; Pituitary Tumours 809
- ❖ **Adrenal Gland 810** Adrenocortical Hyperfunction (Hyperadrenalism) 811; Adrenocortical Insufficiency (Hypoadrenalism) 812; Tumours of Adrenal Glands 813
- ❖ **Thyroid Gland 816** Hypothyroidism 816; Hyperthyroidism (Thyrotoxicosis) 817; Graves Disease (Diffuse Toxic Goitre) 817; Thyroiditis 818; Goitre and Thyroid Nodular Disease 820; Thyroid Tumours 823
- ❖ **Parathyroid Glands 831** Hyperparathyroidism 831; Hypoparathyroidism 832; Parathyroid Tumours 832
- ❖ **Endocrine Pancreas 833** Diabetes Mellitus 833; Pancreatic Neuroendocrine Tumours (Islet Cell Tumours) 842
- ❖ **Miscellaneous Endocrine Tumours 843**



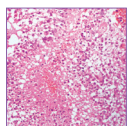
Chapter 29: The Musculoskeletal System 845

- ❖ **Bones and Cartilage 845** Infection, Necrosis, Fracture Healing 847; Disorders of Bone Growth and Development 849; Metabolic and Endocrine Bone Diseases 850; Paget Disease of Bone (Osteitis Deformans) 853; Bone and Cartilage Tumours 853
- ❖ **Joints 866** Degenerative Joint Disease (Osteoarthritis) 866; Inflammatory Joint Diseases 867
- ❖ **Skeletal Muscles 872** Myopathic Diseases (Myopathies) 873; Neuromuscular Diseases 874; Inflammatory Myopathies 875



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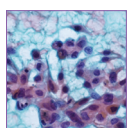
- ❖ **General Features and Classification 877**
- ❖ **Adipocytic Tumours 880**
- ❖ **Fibroblastic and Myofibroblastic Tumours 882**
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- ❖ **Skeletal Muscle Tumours 885**
- ❖ **Tumours of Uncertain Differentiation 887**
- ❖ **Undifferentiated/Unclassified Sarcomas 889**



Chapter 31: The Nervous System 891

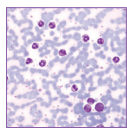
- ❖ **Central Nervous System 891** Developmental Anomalies and Hydrocephalus 893; Infections of CNS 895; Cerebrovascular Diseases 900; Traumatic Brain Haemorrhage 903; Demyelinating, Neurodegenerative, Metabolic and Nutritional Diseases 905; Tumours of the CNS 908
- ❖ **Peripheral Nervous System 917** Pathologic Reactions to Injury 917; Peripheral Neuropathy 918; Nerve Sheath Tumours 919

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- ❖ **Exfoliative Cytology 924** Gynaecologic Exfoliative Cytology 924; Non-gynaecologic Exfoliative Cytology 928; Techniques in Exfoliative Cytology 930
- ❖ **Interventional Cytology 933** Fine Needle Aspiration Cytology 933; Imprint Cytology 936; Crush Smear Cytology 937; Biopsy Sediment Cytology 937



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- ❖ **Weights and Measurements of Normal Organs 938**
- ❖ **Laboratory Values of Clinical Significance 939**

COMPETENCIES AS PER CURRICULUM ISSUED BY THE NATIONAL MEDICAL COMMISSION FOR INDIAN MEDICAL GRADUATE*

SECTION I GENERAL PATHOLOGY

Competencies	Core (Must know)	Non-core (Desirable to know)	Assessment Methods
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Chapter 1: Introduction to Pathology

Describe the role of a pathologist in diagnosis and management of disease (PA1.1)	Written/Viva voce
Enumerate common definitions and terms used in pathology (PA1.2)	Written/Viva voce
Describe the history and evolution of pathology (PA1.3)	Written/Viva voce

Chapter 2: Molecular Cell Biology in Health and in Ageing

Describe and discuss the mechanisms of cellular ageing (PA2.7)	Written/Viva voce
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Chapter 3: Cellular Adaptations and Cell Injury

Demonstrate knowledge of the causes, mechanisms, types and effects of cell injury and their clinical significance (PA2.1)	Written/Viva voce
Describe the etiology of cell injury. Distinguish between reversible-irreversible injury: mechanisms; morphology of cell injury (PA2.2)	Written/Viva voce
Intracellular accumulation of fats, proteins, carbohydrates, pigments (PA2.3)	Written/Viva voce
Describe and discuss cell death—types, mechanisms, necrosis, apoptosis: basic as contrasted with necrosis, autolysis (PA2.4)	Written/Viva voce
Describe and discuss pathologic calcifications, gangrene (PA2.5)	Written/Viva voce
Describe and discuss cellular adaptations: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia (PA2.6)	Written/Viva voce
Identify and describe various forms of cell injuries, their manifestations and consequences in gross and microscopic specimens (PA2.8)	Practical/Skill
Describe and discuss the mechanisms of apoptosis (PA2.7)	Written/Viva voce

Chapter 4: Inflammation and Repair

Define and describe the general features of acute and chronic inflammation including stimuli, vascular and cellular events (PA4.1)	Written/Viva voce
Enumerate and describe the mediators of acute inflammation (PA4.2)	Written/Viva voce
Define and describe chronic inflammation including causes, types, non-specific and granulomatous; and enumerate examples of each (PA4.3)	Written/Viva voce
Define and describe the etiology, types, pathogenesis, stages, morphology, microscopic appearance and complications of tuberculosis (PA26.4)	Written/Viva voce
Describe the pathogenesis and pathology of tuberculous lymphadenitis (PA19.2)	Written/Viva voce
Define and describe the pathogenesis and pathology of leprosy (PA10.3)	Written/Viva voce
Define and describe the process of repair and regeneration including wound healing (PA5.1)	Written/Viva voce
Identify and describe the features of tuberculous lymphadenitis in a gross and microscopic specimen (PA19.3)	Practical/Skill
Identify and describe acute and chronic inflammation in gross and microscopic specimens (PA4.4)	Practical/Skill
Describe the etiology, pathophysiology, pathologic features and complications of syphilis on the cardiovascular system (PA27.10)	Written/Viva voce

* For readers from India

Competencies**Core (Must know)****Non-core (Desirable to know)****Assessment Methods****Chapter 5: Immunopathology, AIDS and Amyloidosis**

Describe the pathogenesis and pathology of amyloidosis (PA3.1)	Written/Viva voce
Describe the principles and mechanisms involved in immunity (PA9.1)	Written/Viva voce
Describe the mechanism of hypersensitivity reactions (PA9.2)	Written/Viva voce
Describe the HLA system and the immune principles involved in transplant and mechanism of transplant rejection (PA9.3)	Written/Viva voce
Define autoimmunity. Enumerate autoimmune disorders (PA9.4)	Written/Viva voce
Define and describe the pathogenesis of systemic lupus erythematosus (PA9.5)	Written/Viva voce
Define and describe the pathogenesis and pathology of HIV and AIDS (PA9.6)	Written/Viva voce
Define and describe the pathogenesis of other common autoimmune diseases (PA9.7)	Written/Viva voce
Identify and describe amyloidosis in a pathology specimen (PA3.2)	Practical/Skill

Chapter 6: Homeostasis, Derangements of Body Water and Haemodynamic Disorders

Define and describe oedema, its types, pathogenesis and clinical correlations (PA6.1)	Written/Viva voce
Define and describe hyperaemia, congestion, haemorrhage (PA6.2)	Written/Viva voce
Define and describe shock, its pathogenesis and its stages (PA6.3)	Written/Viva voce
Define and describe normal haemostasis, and the etiopathogenesis and consequences of thrombosis (PA6.4)	Written/Viva voce
Define and describe embolism, its causes and common types (PA6.5)	Written/Viva voce
Define and describe ischaemia/infarction, its types, etiology, morphologic changes and clinical effects (PA6.6)	Written/Viva voce
Identify and describe the gross and microscopic features of infarction in a pathologic specimen (PA6.7)	Practical/Skill

Chapter 7: Neoplasia

Define and classify neoplasia. Describe the characteristics of neoplasia including gross, microscopy, biologic behaviour and spread. Differentiate between benign and malignant neoplasms (PA7.1)	Written/Viva voce
Describe the molecular basis of cancer (PA7.2)	Written/Viva voce
Enumerate carcinogens and describe the process of carcinogenesis (PA7.3)	Written/Viva voce
Describe the effects of tumour on the host including paraneoplastic syndrome (PA7.4)	Written/Viva voce
Describe immunology and the immune response to cancer (PA7.5)	Written/Viva voce
Identify, distinguish and describe common tumours of the skin (PA34.4)	Practical/Skill

Chapter 8: Infections and Infestations

Define and describe the pathogenesis and pathology of malaria (PA10.1)	Written/Viva voce
Define and describe the pathogenesis and pathology of cysticercosis (PA10.2)	Written/Viva voce
Define and describe the pathogenesis and pathology of common bacterial, viral, protozoal and helminthic diseases (PA10.4)	Written/Viva voce

Chapter 9: Environmental and Nutritional Diseases

Enumerate and describe the pathogenesis of disorders caused by air pollution, tobacco and alcohol (PA12.1)	Written/Viva voce
Describe the pathogenesis of disorders caused by protein-calorie malnutrition and starvation (PA12.2)	Written/Viva voce
Describe the pathogenesis of obesity and its consequences (PA12.3)	Written/Viva voce

Chapter 10: Genetic and Paediatric Diseases

Describe the pathogenesis and features of common cytogenetic abnormalities and mutations in childhood (PA11.1)	Written/Viva voce
Describe the pathogenesis and pathology of tumours and tumour-like conditions in infancy and childhood (PA11.2)	Written/Viva voce
Describe the pathogenesis of common storage disorders in infancy and childhood (PA11.3)	Written/Viva voce

SECTION II HAEMATOLYMPHOID SYSTEM AND BLOOD TRANSFUSION

Competencies	Core (Must know)	Non-core (Desirable to know)	Assessment Methods
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Chapter 11: Haematopoiesis and Red Blood Cell Disorders

Describe haematopoiesis and extramedullary haematopoiesis (PA13.1)	Written/Viva voce
Describe the role of anticoagulants in haematology (PA13.2)	Written/Viva voce
Define and classify anaemias (PA13.3)	Written/Viva voce
Enumerate and describe the investigation of anaemia (PA13.4)	Written/Viva voce
Describe iron metabolism (PA14.1)	Written/Viva voce
Describe the etiology, investigations and differential diagnosis of microcytic hypochromic anaemia ((PA14.2)	Written/Viva voce
Describe the metabolism of vitamin B ₁₂ , and the etiology and pathogenesis of B ₁₂ deficiency (PA15.1)	Written/Viva voce
Describe laboratory investigations of macrocytic anaemia (PA15.2)	Written/Viva voce
Identify and describe the peripheral blood picture of macrocytic anaemia (PA15.3)	Practical/Skill
Define and classify haemolytic anaemias (PA16.1)	Written/Viva voce
Describe the pathogenesis and clinical features and haematologic indices of haemolytic anaemia (PA16.2)	Written/Viva voce
Describe the pathogenesis, features, haematologic indices and peripheral blood picture of sickle cell anaemia and thalassaemia (PA16.3)	Written/Viva voce
Describe the etiology, pathogenesis, haematologic indices and peripheral blood picture of acquired haemolytic anaemia (PA16.4)	Written/Viva voce
Describe the peripheral blood picture in different haemolytic anaemias (PA16.5)	Written/Viva voce
Perform, identify and describe the peripheral blood picture in anaemias (PA13.5)	Practical/Skill
Identify and describe the peripheral smear in microcytic anaemia (PA14.3)	Practical/Skill
Prepare a peripheral blood smear and identify haemolytic anaemia from it (PA16.6)	Practical/Skill
Enumerate the indications and describe the findings in bone marrow aspiration and biopsy (PA17.2)	Written/Viva voce
Enumerate the differences; describe the etiology and distinguishing features of megaloblastic and non-megaloblastic macrocytic anaemia (PA15.4)	Written/Viva voce
Enumerate the etiology, pathogenesis and findings in aplastic anaemia (PA17.1)	Written/Viva voce

Chapter 12: Haemostasis and its Disorders

Describe normal haemostasis (PA21.1)	Written/Viva voce
Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and haemophilias (PA21.2)	Written/Viva voce
Differentiate platelet from clotting disorders based on the clinical and haematologic features (PA21.3)	Written/Viva voce
Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of disseminated intravascular coagulation (PA21.4)	Written/Viva voce
Define and describe laboratory findings and diagnosis of vitamin K deficiency (PA21.5)	Written/Viva voce

Chapter 13: White Blood Cell Proliferations and Myeloid Neoplasms

Enumerate and describe the causes of leucocytosis, leucopenia, lymphocytosis and leukaemoid reactions (PA18.1)	Written/Viva voce
Describe the etiology, genetics, pathogenesis, classification, clinical and haematologic features of acute and chronic myeloid leukaemia (PA18.2)	Written/Viva voce

Chapter 14: Disorders of Lymphoid Cells of Blood and Tissues

Describe the etiology, genetics, pathogenesis, classification, clinical and haematologic features of acute and chronic lymphoid leukaemia (PA18.2)	Written/Viva voce
Enumerate the causes and describe the differentiating features of lymphadenopathy (PA19.1)	Written/Viva voce
Describe and discuss the pathogenesis, pathology and the differentiating features of Hodgkin and non-Hodgkin lymphoma (PA19.4)	Written/Viva voce

Competencies**Core (Must know)****Non-core (Desirable to know)****Assessment Methods**

Enumerate and differentiate the causes of splenomegaly (PA19.6)	Written/Viva voce
Identify and describe the features of Hodgkin lymphoma in a gross and microscopic specimen (PA19.5)	Practical/Skill
Identify and describe the gross specimen of an enlarged spleen (PA19.7)	Practical/Skill
Describe the features of plasma cell myeloma (PA20.1)	Practical/Skill

Chapter 15: Blood Banking and Transfusion

Classify and describe blood group systems (ABO and Rh) (PA22.1)	Written/Viva voce
Describe the correct technique to perform a cross match (PA16.7)	Written/Viva voce
Enumerate the indications, describe the principles, enumerate and demonstrate the steps of compatibility testing (PA22.2)	Written/Viva voce
Enumerate blood components and describe their clinical uses (PA22.4)	Written/Viva voce
Enumerate and describe infections transmitted by blood transfusion (PA22.5)	Written/Viva voce
Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction (PA22.6)	Written/Viva voce
Enumerate the indications and describe the principles and procedure of autologous transfusion (PA22.7)	Written/Viva voce

SECTION III SYSTEMIC PATHOLOGY**Chapter 16: Blood Vessels and Lymphatics**

Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types of arteriosclerosis (PA27.1)	Written/Viva voce
Describe the etiology, dynamics, pathology, types and complications of aneurysms including aortic aneurysms (PA27.2)	Written/Viva voce

Chapter 17: The Heart

Describe the etiology, types, stages, pathophysiology, pathology and complications of heart failure (PA27.3)	Written/Viva voce
Describe the etiology, pathophysiology, pathology, gross and microscopic features, criteria and complications of rheumatic fever (PA27.4)	Written/Viva voce
Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic features, diagnostic tests and complications of ischaemic heart disease (PA27.5)	Written/Viva voce
Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of infective endocarditis (PA27.6)	Written/Viva voce
Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of pericarditis and pericardial effusion (PA27.7)	Written/Viva voce
Interpret abnormalities in cardiac function testing in acute coronary syndromes (PA27.8)	Practical/Skill
Classify and describe the etiology, types, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of cardiomyopathies (PA27.9)	Written/Viva voce
Describe the etiology, pathophysiology, pathology features and complications of syphilis on the cardiovascular system (PA27.10)	Written/Viva voce

Chapter 18: The Respiratory System

Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia (PA26.1)	Written/Viva voce
Describe the etiology, gross and microscopic appearance and complications of lung abscess (PA26.2)	Written/Viva voce
Define and describe the etiology, types, pathogenesis, stages, morphology, complications and evaluation of obstructive airway disease (OAD) and bronchiectasis (PA26.3)	Written/Viva voce
Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of occupational lung disease (PA26.5)	Written/Viva voce

Competencies	Core (Must know)	Non-core (Desirable to know)	Assessment Methods
Define and describe the etiology, types, exposure, genetics, environmental influence, pathogenesis, stages, morphology, microscopic appearance, metastases and complications of tumours of the lung and pleura (PA26.6)			Written/Viva voce
Define and describe the etiology, types, exposure, genetics, environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma (PA26.7)			Written/Viva voce

Chapter 19: The Eye, ENT and Neck

Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma (PA36.1)	Written/Viva voce
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Chapter 20: The Oral Cavity and Salivary Glands

Describe the etiology, pathogenesis, pathology and clinical features of oral cancers (PA24.1)	Written/Viva voce
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Chapter 21: The Gastrointestinal Tract

Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of peptic ulcer disease (PA24.2)	Written/Viva voce
Describe and identify the microscopic features of peptic ulcer (PA24.3)	Written/Viva voce
Describe the etiology, pathogenesis and pathologic features of carcinoma of the stomach (PA24.4)	Written/Viva voce
Describe the etiology, pathogenesis, pathologic and distinguishing features of inflammatory bowel disease (PA24.6)	Written/Viva voce
Describe the etiology, pathogenesis, pathology and distinguishing features of carcinoma of the colon (PA24.7)	Written/Viva voce
Describe the etiology, pathogenesis and pathologic features of tuberculosis of the intestine (PA24.5)	Written/Viva voce

Chapter 22: The Liver, Biliary Tract and Exocrine Pancreas

Describe bilirubin metabolism. Enumerate the etiology and pathogenesis of jaundice. Distinguish between direct and indirect hyperbilirubinaemia (PA25.1)	Written/Viva voce
Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences (PA25.2)	Written/Viva voce
Describe the etiology and pathogenesis of viral and toxic hepatitis: distinguish the causes of hepatitis based on the clinical and laboratory features. Describe the pathology, complications and consequences of hepatitis (PA25.3)	Written/Viva voce
Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis (PA25.4)	Written/Viva voce
Describe the etiology, pathogenesis and complications of portal hypertension (PA25.5)	Written/Viva voce
Describe and interpret the abnormalities in a panel containing liver function tests (PA23.3)	Practical/Skill
Interpret liver function and viral hepatitis serology panel. Distinguish obstructive from nonobstructive jaundice based on clinical features and liver function tests (PA25.6)	Practical/Skill
Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features, complications and metastases of pancreatic cancer (PA32.6)	Written/Viva voce

Chapter 23: The Kidney and Lower Urinary Tract

Describe the normal histology of the kidney (PA28.1)	Written/Viva voce
Define, classify and distinguish the clinical syndromes; describe the etiology, pathogenesis, pathology, morphology, clinical and laboratory and urinary findings, complications of renal failure (PA28.2)	Written/Viva voce
Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory and urinary findings, progression and complications of acute renal failure (PA28.3)	Written/Viva voce
Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory and urinary findings, progression and complications of chronic renal failure (PA28.4)	Written/Viva voce
Define and classify glomerular diseases. Enumerate and describe the etiology, pathogenesis, mechanisms of glomerular injury, pathology, distinguishing features and clinical manifestations of glomerulonephritis (PA28.5)	Written/Viva voce

Competencies**Core (Must know)****Non-core (Desirable to know)****Assessment Methods**

Define and describe the etiology, pathogenesis, pathology, laboratory and urinary findings, progression and complications of IgA nephropathy (PA28.6)	Written/Viva voce
Enumerate and describe the findings in glomerular manifestations of systemic disease (PA28.7)	Written/Viva voce
Enumerate and classify diseases affecting the tubular interstitium (PA28.8)	Written/Viva voce
Define and describe the etiology, pathogenesis, pathology, laboratory and urinary findings, progression and complications of acute tubular necrosis (PA28.9)	Written/Viva voce
Describe the etiology, pathogenesis, pathology, laboratory findings, distinguishing features, progression and complications of acute and chronic pyelonephritis and reflux nephropathy (PA28.10)	Written/Viva voce
Define, classify and describe the etiology, pathogenesis, pathology, laboratory and urinary findings, distinguishing features, progression and complications of vascular disease of the kidney (PA28.11)	Written/Viva voce
Define, classify and describe the genetics, inheritance, etiology, pathogenesis, pathology, laboratory and urinary findings, distinguishing features, progression and complications of cystic disease of the kidney (PA28.12)	Written/Viva voce
Define, classify and describe the etiology, pathogenesis, pathology, laboratory and urinary findings, distinguishing features, progression and complications of renal stone disease and obstructive uropathy (PA28.13)	Written/Viva voce
Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumours (PA28.14)	Written/Viva voce
Describe and interpret the abnormalities in a panel containing renal function tests (PA23.3)	Practical/Skill
Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies (PA28.15)	Written/Viva voce
Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of urothelial tumours (PA28.16)	Written/Viva voce

Chapter 24: The Male Genital System

Classify testicular tumours and describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of testicular tumours (PA29.1)	Written/Viva voce
Describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the penis (PA29.2)	Written/Viva voce
Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, urologic findings and diagnostic tests of benign prostatic hyperplasia (PA29.3)	Written/Viva voce
Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the prostate (PA29.4)	Written/Viva voce
Describe the etiology, pathogenesis, pathology and progression of prostatitis (PA29.5)	Written/Viva voce

Chapter 25: The Female Genital Tract

Describe the epidemiology, pathogenesis, etiology, pathology, screening, diagnosis and progression of carcinoma of the cervix (PA30.1)	Written/Viva voce
Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the endometrium (PA30.2)	Written/Viva voce
Describe the pathogenesis, etiology, pathology, diagnosis and progression of the leiomyoma and leiomyosarcoma (PA30.3)	Written/Viva voce
Classify and describe the etiology, pathogenesis, pathology, clinical course, spread and complications of ovarian tumours (PA30.4)	Written/Viva voce
Describe the etiology, pathogenesis, pathology, clinical course, spread and complications of gestational trophoblastic neoplasms (PA30.5)	Written/Viva voce
Describe the etiology and morphologic features of cervicitis (PA30.6)	Written/Viva voce
Describe the etiology, hormonal dependence, clinical features and morphology of endometriosis (PA30.7)	Written/Viva voce
Describe the etiology and morphologic features of adenomyosis (PA30.8)	Written/Viva voce
Describe the etiology, hormonal dependence and morphology of endometrial hyperplasia (PA30.9)	Written/Viva voce

Competencies	Core (Must know)	Non-core (Desirable to know)	Assessment Methods
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Chapter 26: The Breast

Classify and describe the types, etiology, pathogenesis, pathology and hormonal dependency of benign breast disease (PA31.1)	Written/Viva voce
Classify and describe the epidemiology, pathogenesis, classification, morphology, prognostic factors, hormonal dependency, staging and spread of carcinoma of the breast (PA31.2)	Written/Viva voce
Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynaecomastia (PA31.4)	Written/Viva voce
Describe and identify the morphologic and microscopic features of carcinoma of the breast (PA31.3)	Practical/Skill

Chapter 27: The Skin

Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin (PA34.1)	Written/Viva voce
Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin (PA34.2)	Written/Viva voce
Describe the distinguishing features between a naevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology, clinical features and metastases of melanoma (PA34.3)	Written/Viva voce
Identify, distinguish and describe common tumours of the skin (PA34.4)	Practical/Skill

Chapter 28: The Endocrine System

Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings (PA32.1)	Written/Viva voce
Describe the etiology, iodine dependency, pathogenesis, manifestations, laboratory and imaging features, and course of thyrotoxicosis (PA32.2)	Written/Viva voce
Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis/hypothyroidism (PA32.3)	Written/Viva voce
Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical and laboratory features, complications and progression of diabetes mellitus (PA32.4)	Written/Viva voce
Describe and interpret the abnormalities in a panel containing thyroid function tests (PA23.3)	Practical/Skill
Describe the etiology, genetics, pathogenesis, manifestations, laboratory and morphologic features of hyperparathyroidism (PA32.5)	Written/Viva voce
Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features, complications of adrenal insufficiency (PA32.7)	Written/Viva voce
Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features, complications of Cushing syndrome (PA32.8)	Written/Viva voce
Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms (PA32.9)	Written/Viva voce

Chapter 29: The Musculoskeletal System

Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features, and complications of osteomyelitis (PA33.1)	Written/Viva voce
Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features, complications and metastases of bone tumours (PA33.2)	Written/Viva voce
Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features, and complications of Paget disease of the bone (PA33.4)	Written/Viva voce
Classify and describe the etiology, immunology, pathogenesis, manifestations, radiologic and laboratory features, diagnostic criteria and complications of rheumatoid arthritis (PA33.5)	Written/Viva voce

Chapter 30: Soft Tissue Tumours

Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features, complications and metastases of soft tissue tumours (PA33.3)	Written/Viva voce
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Competencies**Core (Must know)****Non-core (Desirable to know)****Assessment Methods****Chapter 31: The Nervous System**

Describe the etiology, types and pathogenesis, differentiating features, and CSF findings in meningitis (PA35.1)	Written/Viva voce
Classify and describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of CNS tumours (PA35.2)	Written/Viva voce
Identify the etiology of meningitis based on given CSF parameters (PA35.3)	Practical/Skill

APPENDICES**Appendix I: Basic Diagnostic Cytology and Clinical Pathology**

Describe the diagnostic role of cytology and its application in clinical care (PA8.1)	Written/Viva voce
Describe the basis of exfoliative cytology including the technique and stains used (PA8.2)	Written/Viva voce
	Practical/Skill
Describe abnormal findings in body fluids in various disease states (PA23.2)	Written/Viva voce
Observe a diagnostic cytology and its staining and interpret the specimen (PA8.3)	Practical/Skill