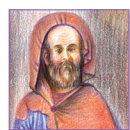


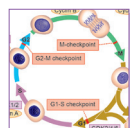
Contents

SECTION I GENERAL PATHOLOGY



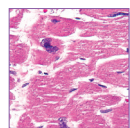
Chapter 1: Introduction to Pathology 1

- ❖ **Common Terms and Definitions** 1
- ❖ **History and Evolution of Pathology** 2 Prehistoric Times to Medieval Period 2; Human Anatomy and Era of Gross Pathology 3; Era of Technology Development and Cellular Pathology 4; Development of Newer Diagnostic Techniques in Pathology 5
- ❖ **Subdivisions of Pathology** 6 Morphological Branches 7; Non-morphological Branches 7



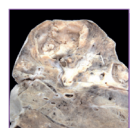
Chapter 2: Molecular Cell Biology in Health and in Ageing 8

- ❖ **Human Genome** 8
- ❖ **Biomembranes—Molecular Organisation and Functions** 12 Plasma Membrane 12; Other Membranes 12; Functions of Plasma Membrane 13
- ❖ **Biology of Cell Organelles** 13 Cytoskeleton: The Cell Scaffolding 14; Mitochondria: The Energy Centre 15; Endoplasmic Reticulum, Ribosomes and Golgi Apparatus: The Biosynthesis Machinery 16; Lysosomes, Peroxisomes and Proteasomes: Waste Disposal and Recycling Machinery 17
- ❖ **Extracellular Matrix** 18 Definition and Types 18
- ❖ **Cellular Communications** 21 Intercellular Junctions 21; Molecular Interactions 21
- ❖ **Cell Cycle and its Regulators** 24 Overview of Cell Cycle 24; Checkpoints in Cell Cycle 25; Intrinsic Controls: Checkpoint Regulators 25; Extrinsic Controls: Growth Factors and Receptors 26
- ❖ **Stem Cells and Regenerative Medicine** 27
- ❖ **Biology of Ageing** 28 Cellular Basis of Ageing 29; Organ Changes in Ageing 30



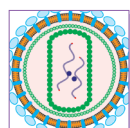
Chapter 3: Cellular Adaptations and Cell Injury 31

- ❖ **Response to Cell Injury and Causes** 31 Etiology of Cell Injury 31
- ❖ **Cellular Adaptations** 32 Atrophy 33; Hypertrophy 34; Hyperplasia 34; Metaplasia 35; Dysplasia 36
- ❖ **Pathogenesis of Cell Injury** 37 Pathogenesis of Ischaemic-Hypoxic Injury 38; Ischaemic-Reperfusion and Free Radical-Mediated Cell Injury 41; Stress Proteins in Cell Injury 42; Pathogenesis of Chemical Injury 42; Pathogenesis of Physical Injury 43
- ❖ **Morphology of Cell Injury** 43 Morphology of Reversible Cell Injury 43; Morphology of Irreversible Cell Injury (Cell Death) 45; Gangrene 49; Pathologic Calcification 51
- ❖ **Programmed Cell Death** 53 Apoptosis 53; Variants of Programmed Cell Death 56; Autophagy 57
- ❖ **Intracellular Accumulations** 58 Excessive Intracellular Accumulation of Normal Constituents 58; Pigments 60



Chapter 4: Inflammation and Repair 66

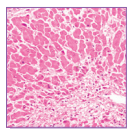
- ❖ **Definitions and General Features** 66
- ❖ **Acute Inflammatory Response** 67 Vascular Events 67; Cellular Events 70
- ❖ **Chemical Mediators of Inflammation** 73 Cell-derived Mediators 73; Plasma-derived Mediators (Plasma Proteases) 77
- ❖ **Inflammatory Cells** 79
- ❖ **Other Features of Acute Inflammation and its Outcome** 82 Factors Determining Variation in Response 83; Morphologic Patterns of Acute Inflammation 83; Systemic Effects of Acute Inflammation 84; Outcome of Acute Inflammation 85
- ❖ **Chronic Inflammation—Types and General Features** 85 General Features and Types of Chronic Inflammation 86
- ❖ **Common Examples of Granulomatous Inflammation** 88 Tuberculosis 89; Leprosy 98; Syphilis 101; Actinomycosis 103; Sarcoidosis (Boeck Sarcoid) 105
- ❖ **Tissue Repair—General Aspects** 107 Regeneration and Repair 107; Factors Influencing Tissue Repair 109
- ❖ **Selected Examples of Tissue Repair** 110 Healing of Skin Wounds 110; Healing in Specialised Tissues 112



Chapter 5: Immunopathology, AIDS and Amyloidosis 115

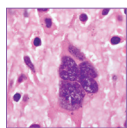
- ❖ **Normal Immune System** 115 Types of Immunity 116; Organs and Cells of Immune System 117; Cytokines as Immune Modulators 120
- ❖ **Major Histocompatibility Complex and Transplantation** 121 Organ Transplant Pathology 122

- ❖ **Immunodeficiency Diseases 124** Primary Immunodeficiency Diseases 124; Acquired Immunodeficiency Syndrome (AIDS) 126
- ❖ **Hypersensitivity Reactions (Immunologic Tissue Injury) 133** Type I: Anaphylactic (Atopic) Hypersensitivity 134; Type II: Antibody-mediated (Cytotoxic) Hypersensitivity 134; Type III: Immune Complex-mediated Hypersensitivity 136; Type IV: Delayed (Cell-mediated) Hypersensitivity 137
- ❖ **Autoimmune Diseases 137** Immune Tolerance 137; Pathogenesis of Autoimmunity 138; Types and Examples of Autoimmune Diseases 139
- ❖ **Amyloidosis 144** Physical and Chemical Characteristics 145; Classification of Amyloidosis 146; Pathogenesis of Amyloidosis 148; Staining Characteristics of Amyloid 150; Pathology of Amyloidosis in Organs 150; Diagnosis and Prognosis of Amyloidosis 153



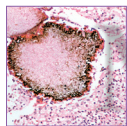
Chapter 6: Homeostasis, Derangements of Body Water and Haemodynamic Disorders 155

- ❖ **Homeostasis 155** Gibbs-Donnan Equilibrium 156; Acid-Base Balance 156; Pressure Gradients and Fluid Exchanges 156
- ❖ **Derangements of Body Water 157** Oedema and Effusions 157; Dehydration 163; Overhydration 164
- ❖ **Haemodynamic Disorders 164** Disturbances in the Volume of Circulating Blood 164; Obstructive Circulatory Disturbances 173



Chapter 7: Neoplasia 187

- ❖ **Nomenclature and Classification 187**
- ❖ **Characteristics of Tumours 188** Rate of Growth 189; Cancer Phenotype and Stem Cells 190; Clinical and Gross Features 190; Microscopic Features 190; Spread of Tumours 195
- ❖ **Epidemiology of Cancer 199** Cancer Incidence 199; Predisposing Factors 199; Acquired Predisposing Conditions 201; Predisposing Hormones 201
- ❖ **Molecular Basis of Cancer 202** Theories of Carcinogenesis 202; Fundamentals of Molecular Carcinogenesis 203; Molecular Hallmarks of Cancer 203
- ❖ **Etiology and Pathogenesis: Carcinogens and Carcinogenesis 214** Chemical Carcinogenesis 214; Physical Carcinogenesis 217; Biological Carcinogenesis 219
- ❖ **Clinical Aspects of Neoplasia 226** Clinical Effects of Tumour on Host 226; Grading, Staging, and Prognostic Factors 228; Pathologic Diagnosis of Tumours 229; Precision Oncology and Liquid Biopsy 233



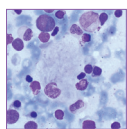
Chapter 8: Infections and Infestations 235

- ❖ **General Aspects 235**
- ❖ **Bacterial Diseases 237** Plague 237; Anthrax 238; Whooping Cough (Pertussis) 239; Donovanosis 240; Lymphogranuloma Venereum 240; Cat-Scratch Disease 240; Staphylococcal Infections 240; Streptococcal Infections 241; Clostridial Diseases 241; Lyme Disease 242
- ❖ **Fungal Diseases 243** Mycetoma 243; Candidiasis 243; Cutaneous Superficial Mycoses 244
- ❖ **Viral Diseases 244** Viral Haemorrhagic Fevers 244; Influenza Virus Infections 246; Coronavirus Respiratory Infections 246; Varicella Zoster Virus Infection 247; Herpes Simplex Virus Infection 248; Rabies 248; Polio 248
- ❖ **Parasitic Diseases 248** Amoebiasis 248; Malaria 249; Babesiosis 250; Filariasis 251; Cysticercosis 251
- ❖ **TORCH Complex 251**
- ❖ **Microbial Bioterrorism, Emerging and Re-emerging Infectious Diseases 252**



Chapter 9: Environmental and Nutritional Diseases 254

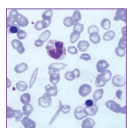
- ❖ **Environmental Diseases 254** Environmental Pollution 254; Chemical and Drug Injury 257; Injury by Physical Agents 260
- ❖ **Nutritional Diseases 260** Nutritional Requirement 260; Obesity 261; Starvation 262; Protein-Energy Malnutrition 262; Metals and Trace Elements 263; Disorders of Vitamins 263; Diet and Cancer 271



Chapter 10: Genetic and Paediatric Diseases 273

- ❖ **Genetic Diseases 273** Developmental Defects 273; Cytogenetic (Karyotypic) Abnormalities 274; Mendelian Disorders 277
- ❖ **Paediatric Diseases 281** Non-neoplastic Conditions of Infancy and Childhood 281; Tumours of Infancy and Childhood 282

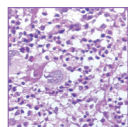
SECTION II HAEMATOLYMPHOID SYSTEM AND BLOOD TRANSFUSION



Chapter 11: Haematopoiesis and Red Blood Cell Disorders 285

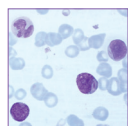
- ❖ **Bone Marrow and Haematopoiesis 285** Haematopoietic Organs 286; Haematopoietic Stem Cells 286; Bone Marrow Examination 287
- ❖ **Erythropoiesis 288** Erythropoietin 289; Erythroid Series 289; The Red Cell 290; Nutritional Requirements for Erythropoiesis 290

- ❖ **Anaemia—General Aspects 292** Pathophysiology 292; General Clinical Features 292; General Scheme of Investigations of Anaemia 293; Classification of Anaemias 295
- ❖ **Hypochromic Anaemias 295** Iron Deficiency Anaemia 295; Sideroblastic Anaemia 300; Anaemia of Chronic Disease 301
- ❖ **Megaloblastic Anaemias 303** Megaloblastic Anaemia due to Nutritional Vitamin B₁₂ and Folate Deficiency 303; Pernicious Anaemia 308
- ❖ **Haemolytic Anaemias and Anaemia due to Blood Loss 309** Definition and Classification 309; General Aspects 309; Acquired Haemolytic Anaemias 311; Hereditary Haemolytic Anaemias 314; Anaemia due to Blood Loss 323
- ❖ **Aplastic Anaemia and Other Primary Bone Marrow Disorders 324** Aplastic Anaemia 324; Myelophthisic Anaemia 325; Pure Red Cell Aplasia 326



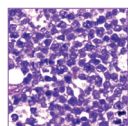
Chapter 12: Haemostasis and its Disorders 327

- ❖ **Normal Haemostatic System 327** Thrombopoiesis 327; Mechanism of Haemostasis 328; Tests for Haemostatic Function 328
- ❖ **Bleeding Disorders 331** Vascular Bleeding Disorders 331; Bleeding due to Platelet Disorders 332; Bleeding due to Coagulation Disorders 335; Disseminated Intravascular Coagulation (DIC) 337



Chapter 13: White Blood Cell Proliferations and Myeloid Neoplasms 340

- ❖ **White Blood Cells—Normal and Reactive Proliferations 340** Granulopoiesis 340; Lymphopoiesis 342; Mature Leucocytes in Health and their Pathologic Variation 343; Infectious Mononucleosis 346; Leukaemoid Reactions 348
- ❖ **Haematolymphoid Neoplasms—General Aspects 349** Classification Schemes 349; Etiology of Haematolymphoid Neoplasms 350; Pathogenesis 350
- ❖ **Myeloid Neoplasms 351** Myeloproliferative Neoplasms 351; Myelodysplastic Neoplasms 356; Acute Myeloid Leukaemia 357
- ❖ **Histiocytic and Dendritic Cell Neoplasms 361** Langerhans Cell Histiocytosis (LCH) 361



Chapter 14: Disorders of Lymphoid Cells of Blood and Tissues 363

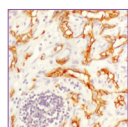
- ❖ **Normal and Reactive Lymphadenitis 363** Reactive Lymphadenitis 364
- ❖ **The Spleen and its Common Lesions 366** Splenic Enlargement 366; Splenectomy and Splenic Rupture 367; Splenic Tumours 368
- ❖ **The Thymus and its Common Diseases 368** Structural and Functional Changes 368; Thymoma 368
- ❖ **Lymphoid Neoplasms—General Aspects 369** Basis of Classification 369; Classification Schemes 369; Common to All Lymphoid Neoplasms 371
- ❖ **Precursor Lymphoid Neoplasms 373** Acute Lymphoblastic Leukaemia/Lymphoma (ALL/LBL) 373
- ❖ **Mature B-Cell Neoplasms 375**
- ❖ **Mature T-Cell and NK-Cell Neoplasms 379**
- ❖ **Hodgkin Lymphoma 380**
- ❖ **Plasma Cell Neoplasms and Other Paraproteinaemias 384** Plasma Cell Myeloma 385; Plasmacytoma 388; Waldenström Macroglobulinaemia 388; Heavy Chain Diseases 388; Monoclonal Gammopathies 388



Chapter 15: Blood Banking and Transfusion 390

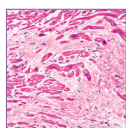
- ❖ **Blood Group Antigens and Antibodies 390; Transfusion Process 391; Compatibility Testing (Cross-matching) 391; Indications for Blood Transfusion and Components 391; Autologous Blood Transfusion 392; Transfusion Reactions 392; Haemolytic Disease of Newborn 393**

SECTION III SYSTEMIC PATHOLOGY



Chapter 16: Blood Vessels and Lymphatics 395

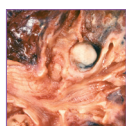
- ❖ **Normal Structure 395**
- ❖ **Arteriosclerosis 396** Senile Arteriosclerosis 396; Hypertensive Arteriolosclerosis 396; Mönckeberg Arteriosclerosis (Medial Calcific Sclerosis) 398; Atherosclerosis 398
- ❖ **Vasculitis 405** Infectious Arteritis 405; Non-infectious Arteritis 407
- ❖ **Aneurysms 410** Atherosclerotic Aneurysms 410; Syphilitic (Luetic) Aneurysms 411; Dissecting Aneurysms and Cystic Medial Necrosis 411; Fibromuscular Dysplasia 412
- ❖ **Common Non-neoplastic Diseases of Veins 413** Varicosities 413; Phlebothrombosis and Thrombophlebitis 413
- ❖ **Common Non-neoplastic Diseases of Lymphatics 414** Lymphangitis 414; Lymphoedema 414
- ❖ **Vascular and Perivascular Tumours 414** Malformations and Reactive Proliferations 415; Benign Tumours 415; Intermediate Grade Tumours 417; Malignant Tumours 419



Chapter 17: The Heart

420

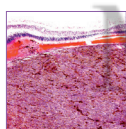
- ❖ **Normal Structure** 420
- ❖ **Heart Failure** 422 Etiology 422; Types of Heart Failure 422; Compensatory Mechanisms: Cardiac Hypertrophy and Dilatation 424
- ❖ **Congenital Heart Disease** 427 Malpositions of the Heart 427; Shunts (Cyanotic Congenital Heart Disease) 427; Obstructions (Obstructive Congenital Heart Disease) 429
- ❖ **Ischaemic Heart Disease** 430 Etiopathogenesis 430; Effects of Myocardial Ischaemia 431
- ❖ **Rheumatic Fever and Rheumatic Heart Disease** 440 Incidence 440; Etiopathogenesis 440; Pathology 441; Clinical Features, Diagnosis and Prognosis 444
- ❖ **Non-rheumatic Endocarditis** 445 Libman-Sacks Endocarditis 445; Non-bacterial Thrombotic Endocarditis 446; Infective (Bacterial) Endocarditis 446; Specific Types of Infective Endocarditis 449
- ❖ **Valvular Diseases and Deformities** 450 Mitral Stenosis 450; Mitral Insufficiency 450; Aortic Stenosis 451; Aortic Insufficiency 452; Myxomatous Degeneration of Mitral Valve (Mitral Valve Prolapse) 452
- ❖ **Other Myocardial Diseases** 452 Myocarditis 452; Cardiomyopathy 454
- ❖ **Pericardial Diseases** 457 Pericardial Accumulations 457; Pericarditis 457
- ❖ **Tumours of the Heart** 459
- ❖ **Pathology of Cardiovascular Interventions** 460



Chapter 18: The Respiratory System

461

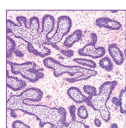
- ❖ **Normal Structure of Lungs** 461
- ❖ **Congenital Anomalies** 463
- ❖ **Respiratory Distress Syndrome** 464
- ❖ **Pulmonary Vascular Disease** 466
- ❖ **Pulmonary Infections** 467 Pneumonias 467; Lung Abscess 475
- ❖ **Obstructive Lung Diseases** 477 Chronic Bronchitis 477; Emphysema 478; Small Airways Disease 481; Bronchial Asthma 481; Bronchiectasis 482
- ❖ **Chronic Restrictive Lung Disease** 485 Pneumoconioses 486; ILDs Associated with Collagen Vascular Diseases 492; ILDs of Unknown Cause with Predominant Fibrosis 492; ILDs Associated with Immunologic Lung Diseases 493; ILDs Associated with Smoking 494
- ❖ **Tumours of Lungs** 495 Lung Cancer 495; Other Lung Tumours 501
- ❖ **Diseases of Pleura** 503 Inflammations 503; Non-inflammatory Pleural Effusions 503; Tumours of Pleura 503



Chapter 19: The Eye, ENT and Neck

505

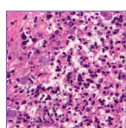
- ❖ **Eye** 505 Congenital Lesions 506; Inflammatory Conditions 506; Vascular Lesions 507; Miscellaneous Conditions 508; Tumours and Tumour-like Lesions 509
- ❖ **Ear** 512 Inflammatory and Miscellaneous Lesions 512; Tumours and Tumour-like Lesions 512
- ❖ **Nose and Paranasal Sinuses** 513 Inflammatory Conditions 513; Tumours 515
- ❖ **Pharynx** 516 Inflammatory Conditions 516; Tumours 516
- ❖ **Larynx** 517 Inflammatory Conditions 517; Tumours 517
- ❖ **Neck** 519 Cysts of Neck 519; Tumours 519



Chapter 20: The Oral Cavity and Salivary Glands

521

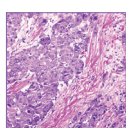
- ❖ **Oral Soft Tissues** 521 Developmental Anomalies 521; Mucocutaneous Lesions 521; Inflammatory and Pigmentary Diseases 522; Tumours and Tumour-like Lesions 522
- ❖ **Teeth and Periodontal Tissues** 527 Inflammatory Diseases 528; Cysts of the Jaw (Dental Cysts) 529; Odontogenic Tumours 530
- ❖ **Salivary Glands** 532 Inflammatory and Salivary Flow Diseases 532; Tumours of Salivary Glands 533



Chapter 21: The Gastrointestinal Tract

538

- ❖ **Oesophagus** 538 Congenital Anomalies 538; Muscular Dysfunctions 539; Oesophageal Varices 540; Inflammatory Diseases 540; Oesophageal Tumours 541
- ❖ **Stomach** 543 Congenital Anomalies 545; Inflammatory Conditions 545; Gastric Tumours and Tumour-like Lesions 552; Haematemesis 559
- ❖ **Small Intestine** 559 Congenital Anomalies 560; Intestinal Obstruction 560; Ischaemic Bowel Disease 561; Inflammatory Bowel Disease (Crohn Disease and Ulcerative Colitis) 563; Infective and Other Enterocolitis 568; Malabsorption Syndrome 572; Small Intestinal Tumours 574
- ❖ **Appendix** 576 Appendicitis 576; Tumours of Appendix 577
- ❖ **Large Bowel** 578 Congenital and Miscellaneous Non-neoplastic Conditions 578; Colorectal Polyps and Tumours of Large Bowel 580
- ❖ **Peritoneum** 589

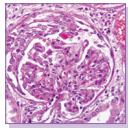


Chapter 22: The Liver, Biliary Tract and Exocrine Pancreas

591

- ❖ **Liver** 591 Liver Cell Necrosis 592; Liver Function Tests 593; Jaundice 596; Hepatic Failure 602; Circulatory Disturbances 603; Viral Hepatitis 604; Other Infections 612; Chemical and Drug Injury 615; Cirrhosis 616; Hepatic Tumours and Tumour-like Lesions 629

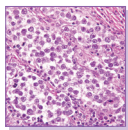
- ❖ **Biliary Tract 635** Cholelithiasis (Gallstones) 635; Cholecystitis 638; Tumours of Biliary Tract 640
- ❖ **Exocrine Pancreas 642** Developmental Anomalies 642; Pancreatitis 643; Tumour-like Lesions and Tumours of Pancreas 645



Chapter 23: The Kidney and Lower Urinary Tract

648

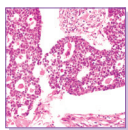
- ❖ **Normal Structure of the Kidney 649**
- ❖ **Renal Function Tests 652**
- ❖ **Renal Failure 653**
- ❖ **Congenital Malformations 656** Cystic Diseases of Kidney 656
- ❖ **Glomerular Diseases 659** Definition and Classification 659; Clinical Manifestations 660; Pathogenesis of Glomerular Injury 662; Primary Glomerular Diseases (Glomerulonephritis) 665; Secondary Glomerular Diseases 675
- ❖ **Tubular and Tubulointerstitial Diseases 679** Acute Tubular Necrosis 679; Tubulointerstitial Diseases 681
- ❖ **Obstructive Uropathy 685** Urolithiasis 685; Hydronephrosis 687
- ❖ **Renal Vascular Diseases 688** Hypertension Vascular Disease 688; Thrombotic Microangiopathy 693; Renal Cortical Necrosis 693
- ❖ **Tumours of the Kidney 694** Benign Tumours 694; Malignant Tumours 695
- ❖ **Lower Urinary Tract 699** Congenital Anomalies 699; Inflammation 700; Tumours of Lower Urinary Tract 701



Chapter 24: The Male Genital System

705

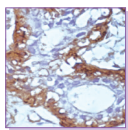
- ❖ **Testis and Epididymis 705** Developmental Disorders 705; Inflammatory Diseases 707; Miscellaneous Surgicopathologic Conditions 708; Testicular Tumours 709
- ❖ **Penis 717** Developmental and Inflammatory Disorders 717; Penile Tumours and Precursors 717
- ❖ **Prostate 720** Prostatitis 720; Nodular Hyperplasia 721; Carcinoma of Prostate 721



Chapter 25: The Female Genital Tract

726

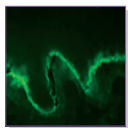
- ❖ **Vulva 726** Normal Structure 726; Miscellaneous Conditions 726; Vulval Tumours 727
- ❖ **Vagina 729** Vaginitis and Vulvovaginitis 729; Tumours and Tumour-like Conditions 730
- ❖ **Cervix 730** Cervicitis 731; Tumours and Tumour-like Lesions 731
- ❖ **Body Uterus (Myometrium and Endometrium) 736** Effects of Hormones 736; Endometritis and Myometritis 738; Adenomyosis and Endometriosis 738; Endometriosis 738; Endometrial Hyperplasias 739; Tumours of the Uterine Corpus 740
- ❖ **Fallopian Tubes 745** Inflammations 745; Ectopic Tubal Pregnancy 746; Tumours and Tumour-like Lesions 746
- ❖ **Ovaries 746** Non-neoplastic Cysts 747; Ovarian Tumours 748
- ❖ **Placenta 759** Hydatidiform Mole 760; Gestational Choriocarcinoma 762



Chapter 26: The Breast

763

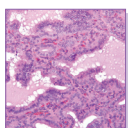
- ❖ **Normal Structure 763**
- ❖ **Inflammatory Conditions 763**
- ❖ **Benign Epithelial Proliferations 765** Fibrocystic Lesions 765
- ❖ **Benign Breast Tumours 768** Fibroadenoma 768; Phyllodes Tumour 769; Adenomas 769; Intraductal Papilloma 769
- ❖ **Carcinoma In Situ and Invasive Breast Cancer 770** Risk Factors and Etiology 770; Pathogenesis 771; Classification 771; In Situ (Non-invasive) Carcinoma 771; Invasive (Infiltrating) Breast Carcinoma 772; Paget Disease of the Nipple 776; Grading, Staging and Prognosis 776
- ❖ **Pathology of Male Breast 778**



Chapter 27: The Skin

780

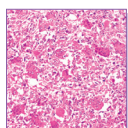
- ❖ **Normal Structure and Terminologies 780** Common Histopathologic Terms 782
- ❖ **Dermatoses 782** Genetic Dermatoses 782; Non-infectious Inflammatory Dermatoses 783; Infectious Dermatoses 784; Granulomatous Diseases 787; Connective Tissue Dermatoses 787; Non-infectious Bullous Dermatoses 788; Scaling Dermatoses 791; Metabolic Diseases of Skin 793
- ❖ **Tumours and Tumour-like Lesions 794** Tumours and Cysts of the Epidermis 794; Adnexal (Appendageal) Tumours 798; Melanocytic Tumours 800; Tumours of the Dermis (Mesenchymal Tumours) 803; Cellular Migrant Tumours (Haematolymphoid Tumours) 803



Chapter 28: The Endocrine System

805

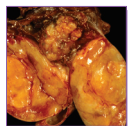
- ❖ **General Concept of Endocrines 805** Neuroendocrine System 805; Endocrine System 806
- ❖ **Pituitary Gland 807** Hyperpituitarism 807; Hypopituitarism 808; Pituitary Tumours 809
- ❖ **Adrenal Gland 810** Adrenocortical Hyperfunction (Hyperadrenalism) 811; Adrenocortical Insufficiency (Hypoadrenalism) 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

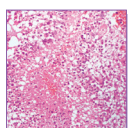
- ❖ **Bones and Cartilage 845** Infection, Necrosis, Fracture Healing 847; Disorders of Bone Growth and Development 849; Metabolic and Endocrine Bone Diseases 850; Paget Disease of Bone (Osteitis Deformans) 853; Bone and Cartilage Tumours 853
- ❖ **Joints 866** Degenerative Joint Disease (Osteoarthritis)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



Chapter 30: Soft Tissue Tumours

877

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

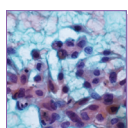


Chapter 31: The Nervous System

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

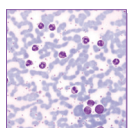
APPENDICES



Appendix I: Basic Diagnostic Cytology and Clinical Pathology

923

- ❖ **Overview 923** Role and Applications of Diagnostic Cytology 923; Branches of Diagnostic Cytology 924
- ❖ **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



Appendix II: Normal Values

938

- ❖ **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****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

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