

## Teaching Schedule Pathology Department– Annexure VI

<b>LECTURES TO BE COVERED IN FIRST BLOCK</b>		
1.	PA 1	PA1.2 Enumerate common definitions and terms used in Pathology PA1.3 Describe the history and evolution of Pathology
2.	PA 2	PA2.1 Demonstrate knowledge of the causes, mechanisms, types and effects of cell injury and their clinical significance
3.	PA 2	PA2.2 Describe the aetiology of cell injury. Distinguish between reversible-irreversible injury: mechanisms; morphology of cell injury
4.	PA 2	PA2.3 Intracellular accumulation of fats, proteins, carbohydrates, pigments
5.	PA 2	PA2.4 Describe and discuss Cell death- Apoptosis and autolysis
6.	PA 2	PA2.7 Describe and discuss the mechanisms of cellular aging and apoptosis
7.	PA 2	Formative assessment – Cell Injury
8.	PA 3	PA 3 Amyloidosis- Describe the pathogenesis and pathology of amyloidosis
9.	PA 4	PA4.1 Define and describe the general features of acute and chronic inflammation including stimuli, vascular events
10.	PA 4	PA4.1 Define and describe the general features of acute and chronic Inflammation including stimuli, and cellular events
11.	PA 4	PA4.2 Enumerate and describe the mediators of acute inflammation
12.	PA 4	PA4.3 Define and describe chronic inflammation including causes, types enumerate types, non-specific and granulomatous and examples of each
13.	PA 4	Formative assessment – Inflammation
14.	PA 5	PA5.1 Define and describe the process of repair and regeneration including wound healing and its types
15.	PA 3 and 5	Formative assessment – Healing Repair and amyloidosis
16.	PA 6	PA6.1 Define and describe edema, its types, pathogenesis and clinical correlations
17.	PA 6	PA6.3 Define and describe shock, its pathogenesis and its stages
18.	PA 6	PA6.4 Describe the etiopathogenesis and consequences of thrombosis
19.	PA 6	PA6.5 Define and describe embolism and its causes and common types
20.	PA 6	Formative assessment – Hemodynamic disorders
21.	PA 7	PA7.1 Define and classify neoplasia, biologic, behaviour and spread

## Teaching Schedule Pathology Department– Annexure VI

22.	PA 7	PA7.1 Define and classify neoplasia, biologic, behaviour and spread
23.	PA 7	PA7.2 Describe the molecular basis of cancer
24.	PA 7	PA7.2 Describe the molecular basis of cancer
25.	PA 7	PA7.3 Enumerate carcinogens and describe the process of carcinogenesis
26.	PA 7	PA7.3 Enumerate carcinogens and describe the process of carcinogenesis
27.	PA 7	PA7.4 Describe the effects of tumour on the host including paraneoplastic syndrome
28.	PA 7	PA 7.5 Describe immunology and the immune response to cancer
29.	PA 7	Formative assessment - Neoplasia
30.	PA 8	Basic diagnostic cytology
31.	PA 9	PA 9.1 and 9.2 Immunopathology And Aids- principles and mechanisms in immunity and hypersensitivity reactions
32.	PA 9	PA9.3 HLA system and the immune principles. Describe the involved in transplant and mechanism of transplant rejection
33.	PA 9	PA9.4 Define autoimmunity. Enumerate autoimmune disorders
34.	PA 9	PA9.5 Define and describe the pathogenesis of Systemic Lupus Erythematosus
35.	PA 9	PA9.6 Define and describe the pathogenesis and pathology of HIV and AIDS
36.	PA 9	9.7 Define and describe the pathogenesis of other common autoimmune diseases
37.	PA 9	Formative assessment - Immunity
38.	PA 10	PA10.1 10.2 10.3 Define and describe the pathogenesis and pathology of malaria, cysticercosis and leprosy
39.	PA 13	PA13.3 Define and classify anaemia
40.	PA 13	PA13.4 Enumerate and describe the investigation of anaemia
41.	PA 14	PA14.1 Describe iron metabolism PA14.2 Describe the aetiology, investigations and differential diagnosis of Microcytic Hypochromic anaemia
42.	PA 15	PA15.1 Describe the metabolism of Vitamin B12 and the aetiology and pathogenesis of B12 deficiency PA15.2 Describe laboratory investigations of macrocytic anaemia PA15.4 Enumerate the differences and describe the distinguishing features of megaloblastic and non-megaloblastic macrocytic anaemia

## Teaching Schedule Pathology Department– Annexure VI

43.	PA 16	PA16.1 Define and classify haemolytic anaemia PA16.2 Describe the pathogenesis and clinical features and hematologic indices of haemolytic anaemia PA16.5 Describe the peripheral blood picture in different haemolytic anaemias
44.	PA 16	PA16.3 Describe the pathogenesis, features, hematologic indices and peripheral blood picture of sickle cell anaemia and Thalassemia
45.	PA 16	PA16.4 a. Describe the aetiology pathogenesis, hematologic indices and peripheral blood picture of Acquired haemolytic anaemia PA16.4 b : Case based discussions- 1.Sickle cell anaemia 2. Thalassemia 3. Hereditary spherocytosis 4. Autoimmune haemolytic anaemia
46.	PA 17	PA 17.1 Enumerate the aetiology, pathogenesis and findings in Aplastic anaemia PA17.2 Enumerate the indications and describe the findings in bone marrow aspiration and biopsy

### LECTURES TO BE COVERED IN SECOND BLOCK

1.	PA 11	PA11.1 Describe the pathogenesis and features of common cytogenetic abnormalities and mutations in childhood with laboratory diagnosis of Genetic disorder
2.	PA 11	PA11.2 Describe the pathogenesis and pathology of tumor and tumour like conditions in infancy and childhood (Nephroblastoma, Retinoblastoma, Neuroblastoma)
3.	PA 11	PA11.3 Describe the pathogenesis of common storage disorders in infancy and childhood
4.	PA 11	PA 11 Formative assessment - Genetics
5.	PA 12	PA12.2 Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation
6.	PA 12	PA12.3 Describe the pathogenesis of obesity and its consequences
7.	PA 18	PA 18.2 Describe the aetiology, genetics, pathogenesis classification, features, hematologic features of acute leukemias
8.	PA 18	PA 18.2 Describe the aetiology, genetics, pathogenesis classification, features, hematologic features of chronic leukemias
9.	PA	PA 13, 14 15 16 17 18- formative assessment – Anaemia and leucocyte disorders

## Teaching Schedule Pathology Department– Annexure VI

10	PA 19	PA 19.1 Enumerate the causes and describe the differentiating features of lymphadenopathy PA 19.6 Enumerate and differentiate the causes of Splenomegaly PA 19.2 Describe the pathogenesis and pathology of tuberculous lymphadenitis
11	PA 19	PA19.4 Describe and discuss the pathogenesis, pathology and the differentiating features of Hodgkin's and non-Hodgkin's lymphoma
12	PA 20	Pa 20.1 Plasma cell disorders
13	PA 21	PA21.1 Describe normal haemostasis and aetiology, pathogenesis and pathology haemophilias
14	PA 21	PA21.2 Classify and describe the aetiology, pathogenesis and pathology of vascular and platelet disorders including ITP
15	PA 21	PA21.4 Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of DIC PA21.5 Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of Vitamin K def.
16	PA 21	PA 21.3 Differentiate platelet from clotting disorders based on the clinical and hematologic features. Differentiate platelet from clotting disorders based on the clinical and hematologic features.
17	PA 22	PA22.4 Enumerate blood components and describe their clinical uses PA22.5 Enumerate and describe infections transmitted by blood transfusion
18	PA 22	PA22.6 Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction PA22.7 Enumerate the indications and describe the principles and procedure of autologous transfusion
19	PA 24	PA24.1 Describe the etiology, pathogenesis, pathology and clinical features of oral cancers include salivary gland tumors
20	PA 24	PA24.2 Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of peptic ulcer disease
21	PA 24	PA 24.4 Describe and aetiology and pathogenesis and pathologic features of carcinoma of the stomach
22	PA 24	PA24.6 Describe and etiology and pathogenesis and pathologic and distinguishing features of Inflammatory bowel disease
23	PA 24	PA24.7 Describe the etiology, pathogenesis, pathology and distinguishing features of carcinoma of the colon

## Teaching Schedule Pathology Department– Annexure VI

24	PA 24	PA – 24 formative assessment - GIT
25	PA 24	PA25.1- Describe bilirubin metabolism, enumerate the aetiology and pathogenesis of jaundice, distinguish between direct and indirect hyperbilirubinemia
26	PA 25	PA25.2 Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences  PA25.3 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
27	PA 25	PA25.4 Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis  PA 25.5 Describe the etiology, pathogenesis and complications of portal hypertension
28	PA	PA 25.6 Interpret liver function and viral hepatitis serology panel. Distinguish obstructive from non-obstructive jaundice based on clinical features and liver function tests
29	PA 25	PA 25 Formative assessment – Hepatobiliary system
30	PA 26	PA26.1 Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia  PA26.2 Describe the etiology, gross and microscopic appearance and complications of lung abscess
31	PA 26	PA26.3 Define and describe the etiology, types, pathogenesis, stages, morphology and complications and evaluation of Chronic Bronchitis and Emphysema
32	PA 26	PA26.4 Define and describe the etiology, types, pathogenesis, stages, morphology microscopic appearance and complications of tuberculosis – include other organs with Tuberculosis
33	PA 26	PA26.5 Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease
34	PA 26	PA26.6 Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, stages, morphology, microscopic appearance, metastases and complications of tumors of the lung and pleura  PA26.7 Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma
35	PA 26	PA 26 – Formative assessment – Respiratory system

## Teaching Schedule Pathology Department– Annexure VI

36	PA 27	PA27.1 Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types arteriosclerosis
37	PA 27	PA 27.5 Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic features, diagnostic tests and complications of ischemic heart disease
38	PA 27	PA 27.2 Describe the etiology, dynamics, pathology types and complications of aneurysms including aortic aneurysms. PA 27.3 Heart Failure PA 27.10 Syphilis in cardiovascular system
39	PA 27	PA 27.2 Rheumatic fever PA 27.4 Infective endocarditis
40	PA 27	PA 27.7 Pericarditis and pericardial effusion PA 27.9 Cardiomyopathies
41	PA 27	PA 27 formative assessment – Cardiovascular system
42	PA 28	PA28.1 Describe the normal histology of the kidney PA28.5 Define and classify glomerular diseases. Enumerate and describe the etiology, pathogenesis, mechanisms of glomerular injury, pathology, distinguishing features and clinical manifestations of glomerulonephritis PA28.6 Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of IgA nephropathy
43	PA 28	PA 28.2 Define renal failure and distinguish the clinical syndromes and describe the etiology, pathogenesis, pathology, morphology, clinical and laboratory and urinary findings, complications of renal failure.  PA 28.3 Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings, progression and complications of acute renal failure.  PA 28.4 Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings progression and complications of chronic renal failure
44	PA 28	PA28.8 Enumerate and classify diseases affecting the tubular interstitium PA28.9 Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of acute tubular necrosis PA28.10 Describe the etiology, pathogenesis, pathology, laboratory findings, distinguishing features progression and complications of acute and chronic pyelonephritis and reflux nephropathy
45	PA 28	PA28.7 Enumerate and describe the findings in glomerular manifestations of systemic disease PA28.11 Define classify and describe the etiology, pathogenesis pathology, laboratory, urinary findings, distinguishing features progression and complications of vascular disease of the kidney

## Teaching Schedule Pathology Department– Annexure VI

		PA28.15 Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies
46	PA 28	PA 28.12 Define classify and describe the genetics, inheritance, etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney.  PA 28.13 Define classify and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features progression and complications of renal stone disease and obstructive uropathy
47	PA 28	PA28.14 Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors
48	PA 28	Formative Assessment- Urinary System

### LECTURES TO BE COVERED IN THIRD BLOCK

1.	PA 29	PA29.1 Classify testicular tumors and describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of testicular tumors PA29.2 Describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the penis
2.	PA 29	PA29.3 Describe the pathogenesis, pathology, hormonal dependency presenting and distinguishing features, urologic findings & diagnostic tests of benign prostatic hyperplasia PA29.4 Describe the pathogenesis, pathology, hormonal dependency presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the prostate PA29.5 Describe the etiology, pathogenesis, pathology and progression of prostatitis
3.	PA 30	PA30.1 Describe the epidemiology, pathogenesis, etiology, pathology, screening, diagnosis and progression of carcinoma of the cervix PA30.6 Describe the etiology and morphologic features of cervicitis
4.	PA 30	PA30.2 Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the endometrium PA30.7 Describe the etiology, hormonal dependence, features and morphology of endometriosis PA30.8 Describe the etiology and morphologic features of adenomyosis PA30.9 Describe the etiology, hormonal dependence and morphology of endometrial hyperplasia
5.	PA 30	PA30.4 Classify and describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of ovarian tumors

## Teaching Schedule Pathology Department– Annexure VI

<b>6.</b>	PA 30	PA30.5 Describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of gestational trophoblastic neoplasms
<b>7.</b>	PA 31	PA31.1 Classify and describe the types, etiology, pathogenesis, hormonal dependency of breast pathology and benign disease PA31.4 Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynecomastia
<b>8.</b>	PA 31	PA31.2 Classify and describe the epidemiology, pathogenesis, classification, morphology, prognostic factors, hormonal dependency, staging and spread of carcinoma of the breast
<b>9.</b>	PA 32	PA32.4 Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features, complications and progression of diabetes mellitus
<b>10.</b>	PA 35	PA 35.1 CSF
<b>11.</b>	PA 33	PA33.1 Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of osteomyelitis
<b>12.</b>	PA 33	PA33.2 Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of bone tumors
<b>13.</b>	PA 32	PA32.1 Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings with Thyroid neoplasms
<b>14.</b>	PA 35	PA35.2 Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications Of CNS tumors
<b>15.</b>	PA 34	PA34.1 Describe the risk factors pathogenesis, pathology and natural history of squamous cell carcinoma of the skin PA34.2 Describe the risk factors pathogenesis, pathology and natural history of basal cell carcinoma of the skin PA34.3 Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors morphology clinical features and metastases of melanoma



**DOAP List**  
**FIRST BLOCK**

1		Introduction to Pathology Laboratory
	PA 2   3	Cell Injury
2		PA 2.8 Identify and describe various forms of cell their manifestations and consequences in gross and microscopic specimens – reversible injury and pathological calcification
3		PA 2.5 Describe and discuss pathological calcification and gangrene
4		PA 2.8 Identify and describe various forms of cell injuries their manifestations and consequences in gross and microscopic specimens Coagulation, Caseous, Liquefactive necrosis and apoptosis
	PA 4	
5		PA 4.4 Identify and describe acute inflammation in gross and microscopic specimens. Acute Appendicitis, Acute Meningitis
6		PA 4.4 Identify and describe acute inflammation in gross and microscopic specimens. Pneumonia
7		PA 4.4 Identify and describe chronic inflammation in gross and microscopic specimens. Tuberculosis, Rhinosporidiosis, Actinomycosis
	PA 6	
8		PA 6.2 Define and describe hyperemia, congestion, hemorrhage
9		PA 6.6 Define and describe Ischaemia / Infarction on types, etiology, morphological changes and effects
10		PA 6.7 Identify and describe the gross and microscopic features of infarction in a pathology specimen
	PA 7	
11		PA 7.1a Identify the gross and microscopic features of benign neoplasms.
12		PA 7.1b Identify the gross and microscopic features of malignant neoplasms
	PA 8	
13		PA 8.3 Observe a diagnostic cytology and its staining and interpret the specimen
	PA 13	
14		PA 13.2 Describe the role of anticoagulants in hematology
15		PA13.5 Perform, Identify and describe the peripheral blood picture in anemia
	PA 14	
16		PA 14.3 Identify and describe the peripheral smear in microcytic anemia
	PA 15	

17		PA15.3 Identify and describe the peripheral smear in macrocytic anemia
	PA 16	
18		PA 16.5 : Identify and describe the peripheral smear in various haemolytic anaemias
19		PA 16.6 Prepare a peripheral blood smear and identify hemolytic anaemia from it.
<b>SECOND BLOCK</b>		
	PA 18	
20		PA 18.2  : Demonstrate hematological findings and interpret charts and smears of leukemia
	PA 19	
21		PA 19.3 Identify and describe the features of tuberculous lymphadenitis in a gross and microscopic specimen
22		PA 19.5 Identify and describe the features of Hodgkin's lymphoma in a gross and microscopic specimen.
23		PA 19.7 Identify and describe the gross specimen of an enlarged spleen. Causes of splenomegaly
	PA 20	
24		PA 20.1 Describe the features of plasma cell myeloma
	PA 22	
25		PA 22.1 Classify and describe blood group systems (ABO and RH)  PA 22.2 Enumerate the indications, describe the principles, enumerate and demonstrate the steps of compatibility testing.
	PA 23	
26		PA 23.1 Describe abnormal urinary findings in disease states and identify and describe common urinary abnormalities in a clinical specimen
27		PA 23.3 Describe and interpret the abnormalities in a panel containing semen analysis.
28		PA 23.3 Describe and interpret the abnormalities in a panel containing renal function test.
29		PA 23.3 Describe and interpret the abnormalities in a panel containing thyroid function test.
	PA 24	
30		PA 24.3 Describe and identify the microscopic features of peptic ulcer. – include slides of Pleomorphic adenoma and specimen of Ca Stomach, Ca Colon, TB intestine, Peptic ulcer
31		PA 24.5 Describe and aetiology, pathogenesis and pathologic features of Tuberculosis of the intestine

	PA 25	
32		PA 25.6 Interpret liver function and viral hepatitis serology panel. Distinguish obstructive from non-obstructive jaundice based on clinical features and liver function tests
	PA 26	
33		PA 26 – Respiratory system
	PA 27	
34		PA 27.8 Interpret abnormalities in cardiac function testing in acute coronary syndromes
<b>THIRD BLOCK</b>		
	PA 31	
35		PA 31.3 Describe and identify the morphologic and microscopic features of carcinoma of the breast.
	PA 34	
36		PA 34.4 Identify, distinguish and describe common tumors of the skin.
	PA 35	
37		PA 35.1 Describe the etiology, types and pathogenesis, differentiating factors, CSF findings in meningitis. PA 35.3 Identify the etiology of meningitis based on given CSF parameters.