

OBJECTIVES IN PATHOLOGY

BASED ON

MEDICAL COUNCIL OF INDIA

**COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL
GRADUATE**

2018

(National Medical Commission Website)



DEPARTMENT OF PATHOLOGY

**NORTH EASTERN INDIRA GANDHI REGIONAL INSTITUTE OF HEALTH AND MEDICAL SCIENCESHILLONG,
MEGHALAYA, INDIA**

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PLEASE NOTE: We added competency and objectives on topics which were not mentioned in the UG competency document but are extremely relevant:

- carcinoma oesophagus(PA 24.1)
- common salivary gland tumors(PA 24.1)
- acute appendicitis(PA 24.2 & 24.3)
- acute & chronic cholecystitis(PA 25.7)
- cholelithiasis (PA 25.7)
- carcinoma gallbladder(PA25.7)
- hepatocellular carcinoma(PA25.4)
- acute and chronic pancreatitis (PA 25.7)
- thyroid malignancies(PA32.10). **These added competencies are bold in italic in the objectives document.**

There are 3 certifiable skills in Pathology – PA16.6,PA25.6 and PA 35.3 (bold in italic in the objective document)

Advantages of Objective bank:

- **Both teachers/facilitators and students know exactly what should be taught/learned**
- **Can link objectives to teaching and assessment**
- **Can serve as a question bank**
- **Documentation for NMC**

Note: The number of objectives which can be covered in a 45 minute class will depend on the impact of the topic similar to blueprinting.



PATHOLOGY COMPETENCIES WITH OBJECTIVES								
(SGD- small group discussions, K-Knowledge, S-skill,A-attitude,C-communication,K-knows,KH-knows how,SH-shows how,P-performs,Y-yes,N-no)								
DOAP – Demonstrate,Observe,Assist, Perform (TLM - Practical demonstrations) OSPE- Objective Structured Practical Examination (Assessment)								
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
TOPIC: INTRODUCTION TO PATHOLOGY								
PA1.1	Describe the role of a pathologist in diagnosis and management of disease	K	K	Y	Lecture, SGD	Written/viva voce		
PA1.2	Enumerate common definitions and terms used in Pathology	K	K	Y	Lecture, SGD	Written/viva voce		
PA1.3	Describe the history and evolution of Pathology	K	K	N	Lecture, SGD	Written/viva voce		
TOPIC: CELL INJURY AND ADAPTATION								
PA 2.1	Demonstrate knowledge of the causes, mechanisms, types and effects of cell injury and their clinical significance	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery Integrate concept - not necessarily teachers. <i>Plan session with teachers from both phases.</i> Make a decision on how much of the information needs to be brought down to this phase to make it relevant. Consider how a competency can ascend over phases: for eg. - Can be at a KH (know how) in phase II but becomes SH in phase III. For vertical integration with clinical subjects, use of a case to link the concept	
PA2.1.1	Define cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.1.2	Enumerate the causes of cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.1.3	Elaborate on the mechanisms of cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.1.4	Enlist the types of cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.1.5	Outline the effects of cell injury and its clinical significance	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.2	Describe the etiology of cell injury. Distinguish between reversible-irreversible injury: mechanism; morphology of cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA2.2.1	Describe the etiology of cell injury	K	KH	Y	Lecture, SGD	Written/viva voce	SGDs – set induction with clinical pictures of various types of cell injury.	
PA2.2.2	Differentiate between reversible and irreversible injury	K	KH	Y	Lecture, SGD	Written/vivavoce		
PA 2.2.3	Describe the mechanism of reversible cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.2.4	Describe the mechanism of irreversible cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.2.5	Describe the gross findings in reversible and irreversible cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.2.6	Describe the light microscopic findings in reversible and irreversible cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.2.7	Describe the ultramicroscopic findings in reversible and irreversible cell injury	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3	Intracellular accumulations of fats, proteins, carbohydrates, pigments	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.1	Enumerate the various types of intracellular accumulations	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.2	Describe with examples the intracellular accumulation of proteins	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.3	Describe with examples the intracellular accumulation of carbohydrates	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.4	Describe with examples the intracellular accumulation of fat	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.5	Enlist the pigments that accumulate in cells	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.6	Classify pigments into endogenous and exogenous pigments with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.3.7	Describe the mechanisms and clinical importance of pigment accumulation	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA2.4	Describe and discuss Cell death- types, mechanisms, necrosis, apoptosis (basic as contrasted with necrosis), autolysis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.4.1	Define cell death	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.4.2	Enlist the types of cell death	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.4.3	Describe the mechanism of cell death in both types.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.4.4	Differentiate between necrosis, apoptosis and autolysis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.4.5	Enumerate the different types of necrosis with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.4.6	Differentiate microscopically between the various types of necrosis.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.5	Describe and discuss pathologic calcifications, gangrene	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.5.1	Enlist the different types of calcification with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.5.2	Describe the mechanism of dystrophic and metastatic calcification.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.5.3	Define gangrene	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.5.4	Explain the mechanism of development of gangrene with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.6	Describe and discuss cellular adaptations: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.6.1	Define the term cellular adaptation	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA2.6.2	Enlist the types of cellular adaptation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.3	Define atrophy with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.4	Define hypertrophy with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.5	Define hyperplasia with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.6	Define metaplasia with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.7	Define dysplasia with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.6.8	Discuss the mechanism of each type of cellular adaptation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.7	Describe and discuss the mechanism of cellular aging and apoptosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.7.1	Define aging	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.7.2	Enumerate the factors that affect ageing	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.7.3	Enumerate the various theories of aging	K	KH	Y	Lecture, SGD	Written/viva voce		
PA2.7.4	Explain the replicative senescence theory and wear and tear theories of ageing	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.7.5	Describe the clinico-pathological and biochemical changes seen in ageing	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.7.6	Discuss the mechanisms of apoptosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 2.8	Identify and describe various forms of cell injuries, their manifestations and consequences in gross and microscopic specimens	S	SH	Y	DOAP session	OSPE		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 2.8.1.1	Describe the gross finding of the specimen (Fatty liver-reversible cell injury)	S	SH	Y	DOAP session	OSPE (Objective Structured Practical Examination)		
PA 2.8.1.2	Identify the organ and describe the type of cell injury seen in the slide provided	S	SH	Y	DOAP session	OSPE		
PA 2.8.1.3	Name the special stain used for identification of fat	S	SH	Y	DOAP session	OSPE		
PA 2.8.2.1	Describe the gross finding of the specimen (Cardiac hypertrophy-cellular adaptation)	S	SH	Y	DOAP session	OSPE		
PA 2.8.2.2	Identify the organ and describe the type of cell injury seen in the slide provided	S	SH	Y	DOAP session	OSPE		
PA 2.8.3.1	Describe the gross appearance of the specimen (tuberculous lymph node-irreversible)	S	SH	Y	DOAP session	OSPE		
PA 2.8.3.2	Identify the organ and describe the type of cell injury seen in the slide provided	S	SH	Y	DOAP session	OSPE		
TOPIC: AMYLOIDOSIS								
PA3.1	Describe the pathogenesis and pathology of amyloidosis	K	KH	Y	Lecture, SGD	Written/ viva voce		
PA 3.1.1	Define Amyloid	K	KH	Y	Lecture, SGD	Written/ viva voce		
PA 3.1.2	Describe the pathogenesis of amyloidosis	K	KH	Y	Lecture, SGD	Written/ viva voce		
PA 3.1.3	Describe the gross appearance of amyloid deposition in organs	K	KH	Y	Lecture, SGD	Written/ viva voce		
PA3.2	Identify and describe amyloidosis in a pathology specimen	S	SH	N	DOAP session	OSPE		
PA 3.2.1	Identify the organ and describe the gross findings of the given picture	S	SH	N	DOAP session	OSPE		
PA 3.2.2	Write the microscopic findings of the given picture	S	SH	N	DOAP session	OSPE		
PA 3.2.3	Name the stain used in the given picture	S	SH	N	DOAP session	OSPE		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 3.2.4	Identify the technique used for confirmation in given picture	S	SH	N	DOAP session	OSPE		
PA 3.2.5	Describe the appearance of amyloid in the given picture	S	SH	N	DOAP session	OSPE		
TOPIC: INFLAMMATION								
PA 4.1:	Define and describe the general features of acute and chronic inflammation including stimuli, vascular and cellular events	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.1	Define inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.2	Describe the vascular events in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.3	Describe the cellular events in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.4	Distinguish between acute and chronic inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.5	Enumerate the stimuli causing acute inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.6	Describe the clinical signs of inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.7	Distinguish between transudate and exudate	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.8	Explain process of chemotaxis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.9	Explain process of phagocytosis and intracellular destruction of microbes	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.10	Describe the morphological patterns of acute inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.1.11	Describe the outcomes of acute inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2:	Enumerate and describe the mediators of acute inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.1	Describe the general features of chemical mediators	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 4.2.2	Classify the sources of chemical mediators	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.3	Tabulate the various chemical mediators with their effects	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.4	Explain the effects of the complement system in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.5	Describe the roles of arachidonic acid metabolites/eicosanoids in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.6	Describe the role of cytokines in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.2.7	Describe the role of chemokines in inflammation	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 4.3:	Define and describe chronic inflammation including causes, types non-specific and granulomatous; and enumerate examples of each	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 4.3.1	Define chronic inflammation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 4.3.2	Enumerate the causes of chronic inflammation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 4.3.3	Describe the formation of a granuloma with its mediators	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 4.3.4	Enlist the causes of granulomatous inflammation with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 4.4:	Identify and describe acute and chronic inflammation in gross and microscopic specimens	S	SH	Y	DOAP session	OSPE		
PA 4.4.1	Identify the organ and describe the gross findings (Acute Appendicitis)	S	SH	Y	DOAP session	OSPE		
PA 4.4.2.	Describe your microscopic findings.	S	SH	Y	DOAP session	OSPE		
PA 4.4.3.	Identify the organ and describe the gross findings (Chronic Cholecystitis)	S	SH	Y	DOAP session	OSPE		
PA 4.4.4.	Describe your microscopic findings	S	SH	Y	DOAP session	OSPE		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
TOPIC: HEALING AND REPAIR								
PA5.1	Define and describe the process of repair and regeneration including wound healing and its types	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA5.1.1	Define repair and regeneration	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 5.1.2	Discuss the steps of cutaneous wound healing	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 5.1.3	Enumerate the factors which can retard wound healing	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 5.1.4	Define healing by primary and secondary intention	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 5.1.5	Tabulate the differences between primary and secondary healing	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 5.1.6	Describe steps in healing of a fracture	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
TOPIC: HEMODYNAMICS								
PA.6.1	Define and describe edema, its types, pathogenesis and clinical correlations.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.1.	Define edema	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.2.	Write briefly on the types of edema	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.3.	Classify edema based on pathophysiologic categories	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.4.	Tabulate the differences between exudate and transudate	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.5.	Enumerate the factors affecting fluid balance across capillary bed	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.6.	Outline a flow chart to illustrate pathogenesis of edema	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 6.1.7.	Write on the normal regulatory mechanisms responsible for maintaining sodium and water balance	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 6.1.8.	Correlate the various types of edema with clinical examples	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA6.2.	Define and describe hyperemia, congestion, hemorrhage	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.1.	Differentiate between hyperemia and congestion with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.2	Differentiate between acute congestion and chronic passive congestion	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.3.	Describe the pathogenesis of chronic passive congestion in lung, liver, spleen	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.4.	Enumerate gross and microscopic features of Chronic Venous Congestion (CVC) of lung, liver and spleen	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.5.	Define hemorrhage. Mention the types with clinical examples.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.2.6.	Define petechial, purpura, and ecchymosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA.6.3.	Define and describe shock, its pathogenesis and its stages	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.1	. Define shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.2.	Enumerate the major types of shock with clinical examples	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.3	. Outline with a flow chart the pathogenesis of hypovolemic shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.4.	Outline with a flow chart the pathogenesis of hypovolemic shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.5.	Write a brief note on the immunological abnormalities underlying septic shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.6	. Write a brief note on the abnormalities of coagulation and fibrinolysis underlying septic shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.7.	Expand on how accelerated apoptosis play a role in septic shock	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 6.3.8.	Describe the clinical features of shock and evolution of shock through its clinico-pathological stages	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 6.3.9.	Describe the morphological changes in shock in the major organs affected like brain, heart, lung, kidney, adrenals, GIT and liver	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA. 6.4.	Define and describe normal hemostasis and the etio-pathogenesis and consequences of thrombosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.1.	Define normal hemostasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.2.	Enumerate the various components involved in maintaining normal hemostasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.3.	Name the natural inhibitors of coagulation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.4.	Describe the normal fibrinolytic system in the body	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.5	Define Virchow's triad	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.6.	Enumerate conditions predisposing to hypercoagulability	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.7.	Differentiate between arterial and venous thrombi	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.8.	Differentiate between ante mortem and post mortem clot	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.4.9.	Comment on fate of a thrombus	K	KH	Y	Lecture, SGD	Written/viva voce		
PA6.5.	Define and describe embolism and its causes and common types.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.1.	Define emboli	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.2	Classify emboli based on physical states, site of origin, direction of flow, infection or bland.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.3	Describe the etio-pathogenesis of pulmonary embolism and its clinical consequences	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 6.5.4.	Describe the etio-pathogenesis of systematic thromboembolism and its clinical consequences	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.5.	Comment on etiology and clinical consequences of fat embolism	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.6.	Comment on etiology and clinical consequences of amniotic fluid embolism	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.5.7.	Comment on etiology and clinical consequences of air embolism	K	KH	Y	Lecture, SGD	Written/viva voce		
PA.6.6.	Define and describe ischemia/ infarction its types, etiology, morphological changes and clinical effects	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.6.1.	Define infarction	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.6.2.	Classify infarcts based on colour and presence or absence of infection	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.6.3.	Describe the etio-pathogenesis of various types of infarction	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.6.4.	Differentiate between red/ hemorrhagic and pale/ ischemic infarcts with clinical examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 6.6.5.	Write on the gross and microscopic changes in organs like kidney,liver,lung,heart,spleen	K	KH	Y	Lecture, SGD	Written/viva voce		
PA.6.7.	Identify and describe the gross and microscopic features of infarction in a pathologic specimen	S	SH	Y	DOAP session	OSPE		
PA 6.7.1.	Describe the gross appearance of the specimen (Myocardial Infarction)	S	SH	Y	DOAP session	OSPE		
PA 6.7.2.	Describe the microscopic changes seen in the slide provided (MI)	S	SH	Y	DOAP session	OSPE		
TOPIC: NEOPLASIA								
PA 7.1	Define and classify neoplasia. Describe the characteristics of neoplasia including gross, microscopy, biologic, behaviour and spread. Differentiate between benign from malignant neoplasm	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 7.1.1.	Define Neoplasia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.1.2	Classify tumors depending on their characteristics	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.1.3.	Differentiate between benign and malignant neoplasms including gross, microscopy, biologic, behaviour and spread	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.1. 4.	Define the terms, differentiation, anaplasia, invasion, metastasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.1. 5	Discuss the pathways of metastasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.1.6	Discuss the epidemiology of cancer based on global, national, regional and local incidence	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.2	Describe the molecular basis of cancer	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.2.1.	Describe the cellular and molecular hallmarks of cancer and the role of genetic and epigenetic alterations	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.2.2.	Define the terms protooncogene, oncogene and oncoprotein and their different mechanism in various cancers	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.2.3.	Define genomic instability	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.2.4.	Outline the molecular basis of multistep carcinogenesis with an example	K	KH	Y	Lecture, SGD	Written/viva voce		
PA7.3	Enumerate carcinogens and describe the process of carcinogenesis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA7.3.1	Enumerate carcinogens	K	KH	Y	Lecture, SGD	Written/viva voce		
PA7.3.2	Describe the pathogenesis of chemical carcinogenesis with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA7.3.3.	Describe the pathogenesis of radiation carcinogenesis with examples	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA7.3.4.	Describe the pathogenesis of microbial carcinogenesis with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4	Describe the effects of tumor on the host including Paraneoplastic syndrome	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.1.	Describe the clinical effects/features of neoplasia and its effects on the human body	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.2.	Define and enumerate the paraneoplastic syndromes with their underlying cancers and the mechanisms	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.3.	Describe staging and grading of cancers	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.4	List the various investigations available for the diagnosis of cancer	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.5.	Define tumor markers with examples	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.6.	Differentiate excisional from incisional/trucut biopsy with clinical example	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.7.	Describe immunohistochemistry, molecular, cytogenetic, flow cytometry, liquid biopsy methods used in cancer diagnosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 7.4.8.	Enumerate different modalities in other departments for cancer diagnosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA7.5	Describe immunology and the immune response to cancer	K	KH	N	Lecture, SGD	Written/viva voce		Microbiology
PA7.5.1.	Define tumor immunity	K	KH	N	Lecture, SGD	Written/viva voce		Microbiology
PA7.5.2.	Describe how cancers evade host defence systems	K	KH	N	Lecture, SGD	Written/viva voce		Microbiology
PA7.5.3.	Describe immune surveillance and immunoediting	K	KH	N	Lecture, SGD	Written/viva voce		Microbiology
PA7.5.4.	Define targeted therapy/immunotherapy	K	KH	N	Lecture, SGD	Written/viva voce		Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
TOPIC: BASIC DIAGNOSTIC CYTOLOGY								
PA 8.1	Describe the diagnostic role of cytology and its application in clinical care	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 8.1.1.	Enumerate the various applications of diagnostic cytology	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 8.1.2.	Describe the role of FNAC in different clinical scenarios	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 8.2	Describe the basis of exfoliative cytology including the technique & stains used	K	KH	Y	Lecture, SGD	Written/viva voce/ Skill assessment	General Surgery	
PA 8.2.1	Define exfoliative cytology with examples	K	KH	Y	Lecture, SGD	Written/viva voce/ Skill assessment	General Surgery	
PA 8.2.2	Enumerate the stains which are used in these tests	K	KH	Y	Lecture, SGD	Written/viva voce/ Skill assessment	General Surgery	
PA 8.3.	Observe a diagnostic cytology and its staining and interpret the specimen	S	SH	Y	DOAP session	OSPE		
PA 8.3.1	Enumerate the types of specimens studied in the cytology section	S	SH	Y	DOAP session	OSPE		
PA 8.3.2	Name 2 common stains used in cytology	S	SH	Y	DOAP session	OSPE		
PA 8.3.3	Observe how to make a cytology smear from oral mucosa	S	SH	Y	DOAP session	OSPE		
PA 8.3.4	Perform the staining of a given smear	S	SH	Y	DOAP session	OSPE		
PA 8.3.5	Interpret the cytology smear given	S	SH	Y	DOAP session	OSPE		
TOPIC: IMMUNOPATHOLOGY AND AIDS								
PA9.1.	Describe the principles and mechanisms involved in immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.1.	Define immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.2.	Classify immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.3.	Enumerate the components of innate immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 9.1.4.	Enumerate the components of adaptive immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.5	. Categorize adaptive immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.6.	Describe the role of humoral immunity with a flow diagram	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.7	. Describe the role of cellular immunity with a flow diagram	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.8.	Describe the sequential phases of adaptive immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.9.	List the cells of the immune system	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.10.	Enlist the principal classes of lymphocytes and their functions in adaptive immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.11.	Describe the different antigen presenting cells and their role in immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.1.12.	Describe the role of cytokines in immunity	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	Microbiology
PA 9.2.	Describe the mechanism of hypersensitivity reactions	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.2.1	Define hypersensitivity reaction	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.2.2.	Classify hypersensitivity reactions with examples	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.2.3	. Describe the mechanism of type I hypersensitivity reaction	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.2.4	. Describe the mechanism of type II hypersensitivity reaction	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.2.5.	Describe the mechanism of type III hypersensitivity reaction	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 9.2.6.	Describe the mechanism of type IV hypersensitivity reaction	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
						Written/viva voce		
PA 9.3.	Describe the HLA system and the principles involved in transplant and mechanism of transplant rejection	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.1.	Define Major Histocompatibility Complex (MHC)/ Human leukocyte Antigen (HLA) system	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.2.	Categorize HLA/MHC complex system	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.3.	Differentiate between Class I and Class II MHC complex	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.4.	Describe the structures of HLA molecules	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.5.	Enlist the various HLA alleles and their disease association	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.6	. Categorize the types of transplant	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.7.	Define transplant rejection	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.8	. Enlist the various mechanisms of graft rejection	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.9.	Depict the mechanism of cellular (T-cell mediated) rejection with a flow diagram	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.9.	Depict the mechanism of humoral (Antibody-cell mediated) rejection with a flow diagram	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.10.	Classify the rejection reactions	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.11.	Describe the gross and microscopic features of hyperacute rejection in kidney transplant	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.12	. Describe the gross and microscopic features of acute rejection in kidney transplant	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 9.3.13.	Describe the gross and microscopic features of chronic rejection in kidney transplant	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.14.	Define Graft versus host Disease (GVHD)	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.3.15.	Classify GVHD with clinical manifestations in each type	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 9.4.	Define autoimmunity. Enumerate autoimmune disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.4.1.	Define autoimmunity	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.4.2.	Describe the pathogenesis of autoimmunity	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.4.3.	Enumerate autoimmune disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.4.4.	Discuss the role of immunologic tolerance in autoimmunity	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5	Define and describe the pathogenesis of systemic Lupus Erythematosus (SLE)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5.1.	Define SLE	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5.2.	Enlist the clinical features of SLE	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5.3.	Describe the pathogenesis of SLE	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5.4.	Enumerate the antinuclear antibodies found in SLE along with the most sensitive and specific ones	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.5.5.	Describe the microscopic changes in SLE in various organs emphasizing on skin, Kidney and heart	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.6.	Define and describe the pathogenesis and pathology of HIV and AIDS (and primary immunodeficiencies)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.1.	Classify immunodeficiency diseases	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 9.6.2.	Enumerate the primary (inherited) immunodeficiency diseases with their genetic defects	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.3	Enlist the secondary (acquired) causes of immunodeficiencies	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6. 4.	Define Acquired Immunodeficiency Syndrome (AIDS)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.5.	Enumerate the routes of transmission of Human Immunodeficiency Virus (HIV)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.6.	Discuss the epidemiology of AIDS/ HIV infection	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.7.	Describe the structure of HIV with a schematic diagram	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.8.	Describe the pathogenesis of HIV infection and AIDS	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.9	. Enlist the phases of HIV infection sequentially along with their clinical manifestations	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.6.10.	Enumerate the AIDS defining opportunistic infections and neoplasms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 9.7.	Define and describe the pathogenesis of other common autoimmune diseases	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.7.1.	Define rheumatoid arthritis, Sjogren disease, Systemic sclerosis and inflammatory myopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.7.2.	Describe the pathogenesis of rheumatoid arthritis, Sjogren disease, Systemic sclerosis, Inflammatory myopathies.	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 9.7.3.	Enlist the clinical features of rheumatoid arthritis, Sjogren disease, systemic sclerosis	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: INFECTIONS AND INFESTATIONS								
PA10.1	Define and describe the pathogenesis and pathology of malaria	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 10.1.1.	Define malaria	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.1.2.	Describe the pathogenesis of malaria	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.1.3.	Discuss the pathology of malaria seen in various organs including blood	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA10.2	Define and describe the pathogenesis and pathology of cysticercosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.2.1.	Define cysticercosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.2.2	Describe the pathogenesis of cysticercosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.2.3.	Discuss the pathology of cysticercosis seen in organs affected	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA10.3	Define and describe the pathogenesis and pathology of leprosy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.3.1.	Define Leprosy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.3.2	Classify Leprosy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.3.3.	Describe the pathogenesis of Leprosy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.3.4.	Discuss the pathology of leprosy in the skin	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.4	Define and describe the pathogenesis and pathology of common bacterial, viral, protozoal and helminthic diseases							
PA 10.4.1	Enumerate common bacterial, viral, protozoal and helminthic infections	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 10.4.2	Enumerate the causative organisms for Tuberculosis, Leprosy, Syphilis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.4.3	Describe the pathogenesis and pathology of Tuberculosis, Leprosy, Syphilis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.4.4	Describe the pathogenesis and pathology of Dengue, Measles, Cytomegalovirus, Epstein Barr virus	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.4.5	Describe the pathogenesis and pathology of Malaria, Filarial, Leishmaniasis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 10.4.6	Describe the pathogenesis and pathology of Tapeworm, Roundworm	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
TOPIC: GENETIC AND PAEDIATRIC DISEASES								
PA11.1	Describe the pathogenesis and features of common cytogenetic abnormalities and mutations in childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.1	Define genetics	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.2	Illustrate structure of DNA	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.3	Illustrate structure of Chromosomes	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.4	Classify the human genetic disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.5	Enumerate the single gene disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.6	Describe the pathogenesis of single gene disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.1.7	Enumerate the Chromosomal disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA 11.1.8	Describe the pathogenesis of Chromosomal disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA 11.1.9	Explain Multifactorial genetic disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA11.2	Describe the pathogenesis and pathology of tumor and tumour-like conditions in infancy and childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.1	Enumerate the benign tumours in infancy and childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.2	Enumerate the malignant tumours in infancy and childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.3	Name the tumour –like conditions in infancy and childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.4	Differentiate between heterotopia and hamartoma	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.5	Describe the pathogenesis of neuroblastic tumours and Wilms tumour	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.6	Describe the gross features of Wilms tumour	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.7	Describe the microscopic features of Wilms tumour	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.8	Describe the gross features of Neuroblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA 11.2.9	Describe the microscopic features of Neuroblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.2.10	Enlist the different small round cell tumors in childhood and infancy	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
						Written/viva voce		
PA11.3	Describe the pathogenesis of common storage disorders in infancy and childhood	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11. 3.1	Explain the biochemical and molecular basis of single gene (Mendelian) disorders	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.3.2	Enumerate the disorders associated with defects in structural proteins with examples	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
PA11.3.3	Enumerate the disorders associated with defects in Receptor proteins	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA11.3.4	Describe the disorders associated with Enzyme defects	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics	
TOPIC: ENVIRONMENTAL AND NUTRITIONAL DISEASES								
PA12.1	Enumerate and describe the pathogenesis of disorders caused by air pollution, tobacco and alcohol	K	KH	Y	Lecture, SGD	Written/viva voce		Community Medicine
PA 12.1.1.	Enumerate the disorders due to environmental pollution	K	KH	Y	Lecture, SGD	Written/viva voce		Community Medicine
PA 12.1.2.	Describe the pathogenesis of disorders caused by air pollution	K	KH	Y	Lecture, SGD	Written/viva voce		Community Medicine
PA 12.1.3	Describe the pathogenesis of disorders caused by tobacco smoking	K	KH	Y	Lecture, SGD	Written/viva voce		Community Medicine
PA 12.1.4.	Describe the pathogenesis of disorders caused by alcohol consumption	K	KH	Y	Lecture, SGD	Written/viva voce		Community Medicine
PA12.2	Describe the pathogenesis of disorders caused by protein calorie malnutrition and starvation	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, Pediatrics	
PA 12.2.1.	Enumerate the various nutritional diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, Pediatrics	
PA 12.2.2.	Enumerate the disorders under protein energy malnutrition (PEM)	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, Pediatrics	
PA12.2.3.	Describe the pathogenesis of disorders under PEM	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, Pediatrics	
PA12.2.4.	Describe the pathogenesis and clinical consequences of starvation	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, Pediatrics	
PA12.3	Describe the pathogenesis of obesity and its consequences	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 12.3.1.	Describe the pathogenesis of obesity	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA12.3.2.	Outline the clinical consequences of obesity	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: INTRODUCTION TO HAEMATOLOGY								
PA13.1	Describe hematopoiesis and extramedullary hematopoiesis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA13.1.1	Describe the differentiation and development of normal hematopoietic cells	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.1.2	List some common diseases of hematopoietic stem cells	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.1.3	Define extramedullary hematopoiesis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.1.4	Enumerate the sites of extramedullary hematopoiesis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.1.5	Discuss about the causes of extramedullary hematopoiesis in children and adults	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.2	Describe the role of anticoagulants in hematology	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.2.1	Enumerate the various anticoagulants used in hematology (color coding) PA13.2.2 Discuss their purpose, mechanism of action and limitations	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.3	Define and classify anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA.13.3.1	Define anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA.13.3.2	Discuss red cell indices stating their role in classification of anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.3.3	Classify anemia according to underlying mechanism/etiology	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.3.4	Classify anemia according to RBC morphology	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.4	Enumerate and describe the investigations of anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA13.4.1	Enumerate the various investigations performed for diagnosis of anemia (including complete blood count, peripheral blood smear, iron profile, HPLC etc.)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA.13.4.2	Discuss their relevance and clinical significance	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 13.5	Perform, identify and describe the peripheral blood picture in anemia	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 13.5.1	Prepare a peripheral blood smear from the given blood sample	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 13.5.2	Stain the given smear with Leishman stain.	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 13.5.3	Identify the cells in the smear and describe the morphology of the red blood cells	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 13.5.4	Interpret the peripheral blood smear							
TOPIC: MICROCYTIC ANEMIA								
PA14.1	Describe iron metabolism	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.1.1	Illustrate the process of iron absorption	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.1.2	List the factors influencing iron absorption	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.1.3	Explain the role of hepcidin in regulation of iron absorption	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.1.4	List the causes of iron deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.1.5	Describe the stages in development of iron deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry	
PA 14.2	Describe the etiology, investigations and differential diagnosis of microcytic hypochromic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 14.2.1	List the causes of microcytic hypochromic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 14.2.2	Discuss laboratory investigations of microcytic hypochromic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 14.2.3	Tabulate the differential diagnoses of microcytic hypochromic anemia based on lab parameters	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 14.3	Identify and describe the peripheral smear in microcytic anemia	S	SH	Y	DOAP session	OSPE	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 14.3.1	Describe the features of microcytic anemia in a peripheral blood smear	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 14.3.2	Enumerate the differential diagnosis of microcytic anemia	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 14.3.3	Tabulate the laboratory findings and list the differences between the microcytic anemias	S	SH	Y	DOAP session	OSPE	General Medicine	
TOPIC: MACROCYTIC ANEMIA								
PA15.1	Describe the metabolism of Vitamin B12 and the etiology and pathogenesis of B12 deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA15.1.1	Illustrate the process of Vitamin B12 absorption	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA15.1.2	Explain the underlying mechanisms and pathogenesis of Vitamin B12 deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA15.2	Describe laboratory investigations of macrocytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA15.2.1	List the CBC & PBS findings in macrocytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA15.2.2	Describe the findings on bone marrow	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA15.2.3	Explain the principles of Schilling test and FIGLU test	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 15.3	Identify and describe the peripheral blood picture of macrocytic Anemia	S	SH	Y	DOAP session	OSPE		
PA 15.3.1	Describe the features of macrocytic anemia in a peripheral blood smear	S	SH	Y	DOAP session	OSPE		
PA 15.3.2	Enumerate the differential diagnosis of macrocytic anemia	S	SH	Y	DOAP session	OSPE		
PA15.4	Enumerate the differences and describe the etiology and distinguishing features of megaloblastic and nonmegaloblastic macrocytic anemia	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA15.4.1	Describe the etiology of nonmegaloblastic macrocytic anemia	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA15.4.2	Discuss the distinguishing features of megaloblastic and nonmegaloblastic macrocytic anemia	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: HEMOLYTIC ANEMIA								
PA 16.1	Define and classify hemolytic anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.1.1	Define hemolytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.1.2	Classify hemolytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.2	Describe the pathogenesis and clinical features and hematological indices of hemolytic anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.2.1	Describe the pathogenesis and clinical features of hemolytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.2.2	Describe the hematological indices in hemolytic anemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.3	Describe the pathogenesis, features, hematological indices and peripheral blood picture of sickle cell anemia and thalassemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.3.1	Describe the pathogenesis and clinical features of sickle cell anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.3.2	Describe the pathogenesis and clinical features of thalassemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 16.3.3	Differentiate between the haematological indices and peripheral blood pictures of sickle cell anemia and thalassemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.3.4	Discuss the laboratory diagnosis of sickle cell anemia and thalassemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4	Describe the etiology, pathogenesis, hematological indices and peripheral blood picture of acquired hemolytic anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4.1	List the etiologies of acquired hemolytic anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4.2	Describe the pathogenesis of autoimmune hemolytic anemia and PNH	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4.3	Explain the haematological indices in AIHA and PNH.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4.4	Describe the peripheral blood picture in AIHA and PNH.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.4.5	Enumerate the diagnostic tests done in AIHA and PNH.	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 16.5	Describe the peripheral blood picture in different hemolytic anemias.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 16.5.1	Describe the peripheral blood picture in hereditary spherocytosis.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 16.5.2	Describe the peripheral blood picture in G6PD deficiency.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 16.5.3	Describe the peripheral blood picture in microangiopathic hemolytic anemia.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 16.5.4	Describe the peripheral blood picture in immunohemolyticanemias.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 16.5.5	Describe the peripheral blood picture in malaria.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 16.6	<i>Prepare a peripheral blood smear and identify hemolyticanemia from it (CERTIFIABLE SKILL)</i>	S	P	Y	DOAP session	OSPE		
PA 16.6.1	-Describe the features of hemolytic anaemia in peripheral blood smear	S	P	Y	DOAP session	OSPE		
PA 16.7	Describe the correct technique to perform a cross match	S	SH	Y	DOAP session	OSPE	Transfusion Medicine	
PA 16.7.1	Define cross-matching	K	K	Y	Lecture, SGD	Written/Viva		
PA 16.7.2	Describe different types of cross-match	K	K	Y	Lecture, SGD	Written/Viva		
PA 16.7.3	Illustrate the steps of AHG Cross-match	S	SH	Y	Lecture, SGD	OSPE		
TOPIC: APLASTIC ANEMIA								
PA17.1	Enumerate the etiology, pathogenesis and findings in aplastic anemia	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
PA17.1.1	Explain the causes and pathogenesis of aplastic anemia	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
PA17.1.2	Discuss the clinical and peripheral blood smear findings of aplastic anemia	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
PA17.2	Enumerate the indications and describe the findings in bone marrow aspiration and biopsy	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
PA17.2.1	List the indications of bone marrow aspiration and biopsy	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
PA17.2.2	Describe the findings in bone marrow aspiration and biopsy	K	K	N	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: LEUKOCYTE DISORDERS								
PA 18.1	Enumerate and describe the causes of leucocytosis, leucopenia ,lymphocytosis and leukemoid reactions	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.1	Classify the causes of leucocytosis based on reactive, infective and neoplastic causes	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.2	Enumerate the causes of leucopenia	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA18.1.3	List the causes of lymphocytosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 18.1.4	List the causes of Neutrophilia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 18.1.5	List the causes of Neutropenia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.6	List the causes of Basophilia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.7	List the causes of Monocytosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.8	List the causes of Eosinophilia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.9	Enumerate the causes of Leukaemoid reaction	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.1.10	Describe the blood picture seen in leukemoid reaction	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2	Describe the etiology, genetics, pathogenesis classification, features, hematologic features of acute and chronic leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.1	Classify Acute Leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.2	Describe the etiopathogenesis of Acute Myeloid Leukemia (AML) & Acute Lymphoblastic Leukemia (ALL)	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.3	Describe the haematological features seen in AML & ALL	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.4	Enumerate the common prognostic genetic alterations seen in AML & ALL	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.5	Differentiate AML from ALL based on clinical features, blast morphology and cytogenetic anomalies	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.6	Classify Myeloproliferative Neoplasms	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.7	Describe the etiopathogenesis of Chronic Myeloid Leukemia (CML)	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA18.2.8	Describe the haematological features seen in Chronic Myeloid Leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.9	Discuss the role of common genetic alteration seen in Chronic Myeloid Leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.10	Differentiate Chronic Myeloid Leukemia from Leukaemoid reaction	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.11	Describe the haematological features seen in Polycythemia Vera	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.12	Describe the haematological features seen in Essential thrombocytosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.13	Describe the haematological features seen in Myelofibrosis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.14	Classify Chronic lymphoproliferative disorders	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.15	Describe the etiopathogenesis of Chronic Lymphoid Leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA18.2.16	Describe the haematological features seen in Chronic Lymphoid Leukemia	K	KH	Y	Lecture, SGD	Written/viva voce		
TOPIC: LYMPHNODE AND SPLEEN								
PA 19.1:	Enumerate the causes and describe the differentiating features of lymphadenopathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.1.1:	Enumerate the causes of lymphadenopathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.1.2:	Describe the differentiating features of lymphadenopathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.2:	Describe the pathogenesis and pathology of tuberculous Lymphadenitis.	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.2.1:	Describe the pathogenesis of tuberculous Lymphadenitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.2.2:	Describe the pathology (Gross & Micros) of tuberculous Lymphadenitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 19.3:	Identify and describe the features of tuberculous lymphadenitis in a gross and microscopic specimen S	S	SH	Y	DOAP session	OSPE		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 19.3.1:	Identify the specimen provided	S	SH	Y	DOAP session	OSPE		
PA 19.3.2:	Describe the gross features of the specimen provided	S	SH	Y	DOAP session	OSPE		
PA 19.3.3:	Describe the microscopic features on the slide provided	S	SH	Y	DOAP session	OSPE		
PA 19.4:	Describe and discuss the pathogenesis, pathology and the differentiating features of Hodgkin's and non-Hodgkin's Lymphoma.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 19.4.1	Discuss the pathogenesis of Hodgkins and Non Hodgkins Lymphoma	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 19.4.2	Differentiate between clinical features of Hodgkin's and non-Hodgkin's Lymphoma	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 19.4.3	Classify Non Hodgkins lymphoma	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 19.4.4	Classify Hodgkins lymphoma	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 19.5:	Identify and describe the features of Hodgkin's lymphoma in a gross and microscopic specimen	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 19.5.1	Identify the specimen provided	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 19.5.2:	Describe the gross features of the specimen provided	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 19.5.3:	Describe the microscopic features on the slide provided	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 19.6:	Enumerate and differentiate the causes of splenomegaly	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 19.6.1	Enumerate the causes of splenomegaly	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery,	
PA 19.6.2	Differentiate the various causes of splenomegaly based on etiology	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 19.7	Identify and describe the gross specimen of an enlarged spleen	S	SH	Y	DOAP session	OSPE		
PA 19.7.1	Identify the specimen provided	S	SH	Y	DOAP session	OSPE		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 19.7.2:	Describe the gross features of the specimen provided	S	SH	Y	DOAP session	OSPE		
PA 19.7.3:	Describe the microscopic features on the slide provided	S	SH	Y	DOAP session	OSPE		
TOPIC: PLASMA CELL DISORDERS								
PA 20.1	Describe the features of plasma cell myeloma	K	KH	Y	Lecture	Written/Viva voce		
PA 20.1.1	Classify plasma cell dyscrasias	K	KH	Y	Lecture	Written/Viva voce		
PA 20.1.2	Describe the pathogenesis of multiple myeloma	K	KH	Y	Lecture	Written/Viva voce		
PA 20.1.3	Enumerate the clinical features of multiple myeloma	K	KH	Y	Lecture	Written/Viva voce		
PA 20.1.4	Discuss the diagnostic criteria of multiple myeloma	K	KH	Y	Lecture	Written/Viva voce		
PA 20.1.5	Interpret the laboratory investigations in a suspected case of multiple myeloma	S	SH	Y	DOAP session	OSPE		
TOPIC: HEMORRHAGIC DISORDERS								
PA21.1	Describe normal hemostasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.1.1	Define hemostasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.1.2	Enumerate the major steps of mechanism of hemostasis	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.1.3	Name the coagulation factors involved in extrinsic pathway of coagulation cascade	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.1.4	Name the coagulation factors involved in intrinsic pathway of coagulation cascade	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.1.5	Name the coagulation factors involved in the final step of coagulation cascade i.e., fibrin clot formation	K	KH	Y	Lecture, SGD	Written/viva voce		
PA21.2	Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and haemophilias	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA21.2.1	Classify bleeding disorders	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.2	Enlist examples of vascular disorders	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.3	Enlist examples of platelet disorders	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.4	Describe the etiopathogenesis of ITP	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.5	Describe the etiopathogenesis of hemophilias	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.6	Outline the laboratory findings in a case of ITP	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.2.7	Outline the laboratory findings in a case of hemophilia	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA21.3	Differentiate platelet from clotting disorders based on the clinical and hematologic features	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 21.3.1	Enumerate the causes of platelet disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 21.3.2	Enumerate the causes of clotting disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 21.3.3	Identify the platelet disorders based on clinical features	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 21.3.4	Identify the clotting disorders based on clinical features	S	SH	Y	DOAP session	OSPE	General Medicine	
PA 21.3.5	Enumerate the laboratory findings to differentiate platelet disorders from clotting disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.4	Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of disseminated intravascular coagulation	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.4.1	Define disseminated intravascular coagulation	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA21.4.2	Enlist the clinical features of disseminated intravascular coagulation	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.4.3	Outline the laboratory diagnosis of disseminated intravascular coagulation	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.4.4	Describe the findings of the laboratory investigations done in disseminated intravascular coagulation	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.5	Define and describe Vitamin K deficiency, its laboratory findings and diagnosis of Vitamin K deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.5.1	Describe the clinical features of Vitamin K deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA21.5.2	Outline the laboratory diagnosis of Vitamin K deficiency	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: BLOOD BANKING AND TRANSFUSION								
PA22.1	-Classify and describe blood group systems (ABO and RH)	K	KH	Y	Lecture, SGD	Written/viva voce	Transfusion Medicine	
PA 22.1.1	Enumerate blood group antigens are known so far	K	K	y	Lecture	Written/viva		
PA 22.1.2	List some of the clinically important blood groups systems	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.1.3	Describe in detail the ABO, and RH blood group system	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.1.4	Discuss the clinical significance of the ABO, and RH blood group system	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.2	Enumerate the indications, describe the principles, enumerate and demonstrate the steps of compatibility testing	S	SH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynecology	
PA 22.2.1	Enumerate the indications of compatibility testing	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 22.2.2	Describe the principles of compatibility testing	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics &Gynecology	
PA 22.2.3	List the different methods of compatibility testing	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics &Gynecology	
PA 22.2.4	Enumerate the steps of compatibility testing	K	K	Y	Lecture, SGD	Written/viva voce	Obstetrics &Gynecology	
PA 22.2.5	Demonstrate the steps of compatibility testing	S	SH	Y	DOAP	OSPE	Obstetrics &Gynecology	
PA 22.3	<i>Error: There is no competency by this number in the MCI UG manual</i>							
PA22.4-	Enumerate blood components and describe their clinical uses.	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 22.4.1	List the blood components which are prepared in the blood bank	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 22.4.2	Describe in detail with examples the clinical uses of each	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA22.5	Enumerate and describe infections transmitted by blood Transfusion	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 22.5.1	List out the transmissible transfusion infections (TTI)	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA 22.5.2	Describe infections transmitted by blood transfusion	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 22.5.3	Discuss on the importance of screening for TTI	K	KH	Y	Lecture, SGD	Written/viva voce		Microbiology
PA22.6	Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 22.6.1	Define a transfusion reaction	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 22.6.2	Classify transfusion reactions	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 22.6.3	Discuss in detail the steps (clinical evaluation & laboratory investigation) on how to investigate a transfusion reaction	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 22.7	Enumerate the indications and describe the principles and procedure of autologous transfusion	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.7.1	Define autologous blood transfusion.	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.7.2	List the indications for autologous transfusion	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 22.7.3	Describe the principle, types, advantages and procedure of autologous transfusion	K	KH	Y	Lecture, SGD	Written/viva voce		
TOPIC: CLINICAL PATHOLOGY								
PA 23.1	Describe abnormal urinary findings in disease states and identify and describe common urinary abnormalities in a clinical specimens	S	SH	Y	DOAP session	Skill assessment		
PA 23.1.1	Enumerate various collection methods for urine examination	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.1.2	List the names of preservatives used for urine collection	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 23.1.3	Discuss the physical composition of normal urine	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.1.4	Describe abnormal urinary findings in term of volume, colour, odour, PH and specific gravity	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.1.5	Discuss the chemical examination of urine in brief	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.1.6	Enumerate the causes of increase protein, glucose and ketone bodies in urine	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.1.7	Perform various chemical test in urine to identify common urinary abnormalities	S	SH	Y	DOAP session	OSPE		
PA 23.1.8	Interpret the test results and urinary charts to diagnose a disease	S	SH	Y	DOAP session	OSPE		
PA 23.1.9	Describe the microscopic examinations of urine	S	SH	Y	DOAP session	OSPE		
PA 23.1.10	Discuss and identify various urinary abnormalities seen in microscopic examination.	S	SH	Y	DOAP session	OSPE		
PA23.2	Describe abnormal findings in body fluids in various disease state	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.2.	1 Enumerate body fluids in diseased states	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.2.2	Tabulate the cellular findings of various inflammatory disorders seen in body fluids	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.2.3	Describe the cytologic findings of body fluids in malignant conditions	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 23.3	Describe and interpret the abnormalities in a panel containing semen analysis, thyroid function test, renal function test, liver function test.	S	SH	Y	DOAP session	OSPE		
23.3.1	Name the vacutainer for collecting blood for the above tests	S	SH	Y	DOAP session	OSPE		
23.3.2	Describe the normal findings in semen analysis	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
23.3.3	Interpret the given chart of semen analysis results	S	SH	Y	DOAP session	OSPE		
23.3.4	Describe the normal findings in thyroid function test	K	KH	Y	Lecture, SGD	Written/viva voce		
23.3.5	Interpret the given chart of thyroid function test results	S	SH	Y	DOAP session	OSPE		
23.3.6	Describe the normal findings in renal function test	K	KH	Y	Lecture, SGD	Written/viva voce		
23.3.7	Interpret the given chart of renal function test results	S	SH	Y	DOAP session	OSPE		
23.3.8	Describe the normal findings in liver function test	K	KH	Y	Lecture, SGD	Written/viva voce		
23.3.9	Interpret the given chart of liver function test results	S	SH	Y	DOAP session	OSPE		
PA 24.1 :	Describe the etiology, pathogenesis and clinical features of oral cancers(Including esophagus and salivary glands)	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA24.1.1 :	Describe the etiopathogenesis of oral cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.2:	Describe the clinical features of oral cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.3	Describe the gross and microscopic features of oral cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.4 :	Describe the etiopathogenesis of oesophageal cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.5:	Describe the clinical features of esophageal cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.6 :	Describe the gross and microscopic features of esophageal cancers	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	
PA 24.1.7 :	Describe the pathology of common salivary gland tumours (Pleomorphic adenoma, Warthinstumor, Mucoepidermoidcarcinoma,Adenoid cystic carcinoma)	K	KH	Y	Lecture, SGD	Written/viva voce	Dentistry	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 24.2 :	Describe the etiology, pathogenesis , microbiology, clinical and microscopic features of peptic ulcer disease (including appendix)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 24.2.1 :	Describe the etiopathogenesis of Peptic ulcer disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine(Case Based Discussion with brain storming and small group seminar presentations)	
PA 24.2.2 :	Describe the role of H pylori in peptic ulcer disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 24.2.3:	Describe the clinical features and complications of peptic ulcer disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 24.2.4:	Describe the gross and microscopic features of peptic ulcer	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 24.2.5:	Describe the etiopathogenesis and clinical features of acute appendicitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 24.3	Describe and identify the microscopic features of peptic ulcer disease (including appendix)Practicals (SH)	S	SH	Y	DOAP	OSPE	General Medicine	
PA 24.3.1:	Identify the gross and microscopic features of peptic ulcer in the given specimens and slides	S	SH	Y	DOAP	OSPE	General Medicine	
PA 24.3.2:	Identify the gross and microscopic features of acute appendicitis in the given specimens and slides	S	SH	Y	DOAP	OSPE	General Medicine	
PA 24.4	Describe the etiology and pathogenesis and pathologic features of carcinoma of stomach	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery(CBD with brain storming and small group seminar presentations)	
PA 24.4.1	Describe the etiopathogenesis of Carcinoma of stomach	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.4.2	Describe the clinical features and mode of metastasis of Carcinoma of stomach	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.4.3	Describe the gross and microscopic features of Carcinoma of stomach	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 24.4.4	Enlist the gross differences between benign gastric ulcer and malignant gastric ulcer	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.4.5	Identify the gross and microscopic features of gastric carcinoma in the given specimens and slides	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.5	Describe the etiology, pathogenesis and pathologic features of tuberculosis of the intestine (Lectures)	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.5.1 :	Describe the etiopathogenesis of tuberculosis of intestine	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.5.2:	Describe the pathology of tuberculosis of intestine	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.5.3 :	Enumerate the gross and histological differences between tuberculosis of the intestine vs Crohns disease	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.6	Describe the etiology and pathogenesis and pathologic and distinguishing features of inflammatory bowel disease (lectures)	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.6.1 :	Describe the etiopathogenesis of inflammatory bowel disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.6.2:	Describe the pathology including the gross and microscopy of Ulcerative colitis and Crohns disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.6.3:	Discuss the clinical features and complications of Crohns disease and ulcerative colitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.6.4:	Enumerate the differences between Crohns disease and Ulcerative colitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24. 7	Describe the etiology and pathogenesis and pathologic features of carcinoma of the colon(lectures)	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.7.1	Enumerate the risk factors for developing colonic carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.7.2	Describe the etiopathogenesis with emphasis on adenoma- carcinoma sequence in Carcinoma of colon	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.7.3	Describe the clinical features of carcinoma of colon	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 24.7.4	Describe the pathology including the gross, microscopy of Carcinoma colon	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.7.5	Describe the staging and grading of the colon carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 24.7.6	Enlist the differences between the right sided colon carcinoma vs left sided colon carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
TOPIC: HEPATOBILIARY SYSTEM								
PA 25.1	Describe bilirubin metabolism, enumerate the etiology and pathogenesis of jaundice, distinguish between direct and indirect hyperbilirubinemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 25.1.1	Describe bilirubin metabolism and elimination	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA25.1.2	Enumerate the various aetiologies of jaundice	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 25.1.3.	Classify the types of jaundice	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 25.1.4	Describe the pathogenesis of jaundice	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA25.1.5	Distinguish between direct and indirect hyperbilirubinemia	K	KH	Y	Lecture, SGD	Written/viva voce	Biochemistry, General Medicine	
PA 25.2	Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequence	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 25.2.1:	Describe the pathophysiology of hepatic failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 25.2.2:	Describe the gross and microscopic findings in hepatic failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 25.2.3:	Enumerate the clinical manifestations in hepatic failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 25.2.4:	Describe the pathogenesis of the clinical manifestations	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 25.2.5:	Enumerate the complications and consequences of hepatic failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery, General Medicine	
PA 25.3	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 (Viral includes A,B,C,D,E,G)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.1	Tabulate the differences between the types of viral hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.2	Describe the etiology of viral hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.3	Describe the pathogenesis of viral hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.4	Distinguish the causes of hepatitis based on clinical features	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.5	Distinguish the causes of hepatitis based on laboratory features	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.6	Describe the gross and microscopy of viral hepatitis B and C	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 25.3.7	Discuss the possible complications and clinical consequences of viral hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.8	Describe the etiology of toxic hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.3.9	Describe the pathogenesis of toxic hepatitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA 25.4	Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis(including Hepatocellular carcinoma - HCC)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.4.1	Describe the pathophysiology of alcoholic liver disease (ALD)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.4.2	Discuss the clinical progression of ALD	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.4.3	Describe the gross and microscopic findings of ALD	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.4.4	Discuss the pathogenesis of cirrhosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.4.5	Describe the gross and microscopic findings of Cirrhosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 25.4.6	<i>Describe the etiopathogenesis and morphology of HCC</i>	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.5:	Describe the etiology, pathogenesis and complications of portal hypertension	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA 25.5.1:	Describe the etiology of portal hypertension	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA 25.5.2:	Describe the pathogenesis of portal hypertension in cirrhosis	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA 25.5.3:	Discuss the complications of portal hypertension	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, General Surgery	
PA25.6	<i>Interpret liver function and viral hepatitis serology panel. Distinguish obstructive from non-obstructive jaundice based on clinical features and liver function tests(CERTIFIABLE SKILL)</i>	S	P	Y	DOAP session	OSPE	General Medicine	
PA 25.6.1	Describe the normal findings in liver function test (Given in the chart)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 25.6.2	Interpret the given chart of liver function test results	S	P	Y	DOAP session	OSPE	General Medicine	
PA 25.6.3	Interpret the given viral hepatitis serology panel	S	P	Y	DOAP session	OSPE	General Medicine	
PA 25.6.4	Distinguish obstructive from non-obstructive jaundice based on clinical features	S	P	Y	DOAP session	OSPE	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 25.6.5	Distinguish obstructive from non-obstructive jaundice based on the given parameters of liver function test	S	P	Y	DOAP session	OSPE	General Medicine	
PA 25.7	<i>Describe the disorders of gall bladder, biliary tract and exocrine pancreas.</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.1	<i>Define the types of cholecystitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.2	<i>Describe the clinical features of acute and chronic cholecystitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.3	<i>Describe the etiopathogenesis of acute and chronic cholecystitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.4	<i>Describe the gross and microscopic changes seen in acute and chronic cholecystitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.5	<i>Define cholelithiasis and choledocholithiasis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.6	<i>Enumerate the risk factors for developing gallstones</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.7	<i>Classify and tabulate the characteristics of gallstones</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.8	<i>Describe the clinical features and clinical progression of carcinoma of gallbladder</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.9	<i>Describe the gross and microscopic changes of carcinoma gallbladder</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.10	<i>Define cholangitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.11	<i>Define cholangiocarcinoma</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.12	<i>Define the types of pancreatitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.13	<i>Describe the clinical features of acute and chronic pancreatitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
PA 25.7.14	<i>Depict in a flowchart the etiopathogenesis of acute and chronic pancreatitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 25.7.15	<i>Describe the gross and microscopic changes seen in acute and chronic pancreatitis</i>	K	KH		Lecture, SGD	Written/viva voce	General Surgery	
TOPIC: RESPIRATORY SYSTEM								
PA 26.1	Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.1	Explain the morphology of blood gas barrier and the composition of alveolar wall	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.2	Define pneumonia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.3	Classify pneumonia based on etiological agent and (mode and place) of acquisition	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.4	Differentiate types of pneumonia based on anatomical distribution	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.5	Write on the factors predisposing to pneumonia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.6	Describe the morphological stages of pneumonia	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.7	Discuss the complications or sequelae of pneumonic infection	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.8	Define primary atypical pneumonia.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.1.9	. Enumerate the causative organisms of atypical pneumonia.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.2	Describe the etiology, gross and microscopic appearance and complications of lung abscess	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
26.2.1	Describe the etiopathogenesis of lung abscess	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
26.2.2	State the gross and microscopic changes in lung abscess	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
26.2.3	Discuss the complications of lung abscess.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 26.3	Define and describe the etiology, types, pathogenesis, stages, morphology and complications and evaluation of Obstructive Airway Disease (OAD) and bronchiectasis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.1	Enumerate the various (main) types of disorders classified as COPD's	K	K	Y	Lecture	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.2	Define emphysema	K	K	Y	Lecture	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.3	Enumerate types of emphysema based on anatomical distribution	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.4	Explain the terms compensatory, bullous and interstitial emphysema	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.5	Briefly describe the pathogenesis of emphysema based on the protease – anti protease imbalance and other contributing factors	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.6	Define Chronic bronchitis	K	K	Y	Lecture	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.7	Differentiate between chronic bronchitis and emphysema	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.8	Write on the clinico – pathological definition of chronic bronchitis and its types	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.9	Describe the pathogenesis of chronic bronchitis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.10	Classify bronchial asthma based on severity, response to drugs, triggering factors and etiology.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
26.3.11	Describe the pathogenesis of bronchial asthma	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.12	State the morphological features of the airway in bronchial wall in asthma	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.13	Define bronchiectasis	K	K	Y	Lecture	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.14	Discuss the etiopathogenesis of bronchiectasis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.15	Discuss the long term complications of bronchiectasis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
26.3.16	State the gross and microscopic changes seen in bronchiectasis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	Microbiology
PA. 26.4	Define and describe the etiology, types, pathogenesis, stages, morphology microscopic appearance and complications of tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.4.1	Classify types of pulmonary tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.4.2	Depict the etiopathogenesis of tuberculosis in the form of flow chart	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.4.3	Discuss the clinical progression of primary tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.4.4	Differentiate between primary and secondary pulmonary tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.4.5	Discuss the various outcomes of secondary tuberculosis spreading outside the lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.4.6	List the various diagnostic methods used for tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA. 26.4.7	Draw a well labelled diagram on the microscopy of a typical tubercular granuloma	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 26.4.8	Discuss the complications of tuberculosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA. 26.5	Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA. 26.5.1	Define occupational lung disease	K	K	Y	Lecture	Written/viva voce	General Medicine, Community Medicine	
PA 26.5.2	Enumerate the diseases caused by mineral dust and environmental pollutants	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA. 26.5.3	Describe the pathogenesis of coal workers pneumoconiosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA 26.5.4	Describe the pathogenesis of silicosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA 26.5.5	Discuss the pathogenesis of asbestosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA 26.5.6	List the gross and microscopic changes seen in coal workers pneumoconiosis, silicosis and asbestosis of the lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 26.5.7	Discuss the complications or long term sequelae of occupational lung diseases	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA. 26.6.	Define and describe the etiology, types, exposure, genetics, environmental influence, pathogenesis, stages, morphology, microscopic appearance metastasis and complications of tumors of the lung and pleura	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.1	Classify tumors of the lungs	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.2	Discuss the multifactorial etiology of lung tumors including role of molecular genetics	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.3.	Enumerate the precursor lesions of lung cancer	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.4	Enumerate the gross and microscopic features of squamous cell carcinomas of the lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.5	Describe the histopathological spectrum of adenocarcinoma of the lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.6.	Describe the histopathological features of small cell carcinoma and large cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.7.	Discuss the clinical sequelae of bronchogenic carcinoma lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.8	List the paraneoplastic syndromes associated with bronchogenic carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.6.9	List out the primary tumors which metastasize to the lung	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 26.6.10	Name tumors arising from pleura	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA. 26.7.	Define and describe the etiology, types, exposure, genetics, environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA. 26.7.1	Define mesothelioma	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA. 26.7.2	Discuss the pathogenesis of mesothelioma including genetics and environmental factors influencing its development	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA 26.7.3.	List the gross and microscopic appearance of mesothelioma	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
PA 26.7.4	State the complications of mesothelioma	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Community Medicine	
TOPIC: CARDIOVASCULAR SYSTEM								
PA27.1	Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types of arteriosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.1.1	Classify Arteriosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.1.2	Differentiate between Arteriosclerosis & Atherosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.1.3	Describe the etiopathogenesis of different types of arteriosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.1.4	Discuss the gross and microscopic changes seen in atherosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.2	Describe the etiology, dynamics, pathology types and complications of aneurysms including aortic aneurysms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA27.2.1	Define Aneurysms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.2.2	Describe the etiopathogenesis of aneurysms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.2.3	Enumerate the different types of aortic aneurysms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.2.4	List the complications which may arise in aneurysms	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.3	Describe the etiology, types, stages, pathophysiology, pathology and complications of heart failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.3.1	Define Heart Failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.3.2	Describe the etiopathogenesis of Heart Failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.3.3	List the causes of left sided and right sided heart failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.3.4	Describe the characteristic gross and microscopic changes in left sided and right sided heart failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.3.5	List the complications of heart failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA 27.4	Describe the etiology, pathophysiology, pathology, gross and microscopic features, criteria and complications of rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.1	Define rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 27.4.2	List the etiologic factors involved in rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.3	Describe the pathogenesis of rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.4	Elaborate on the complications of rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.5	List the investigations to the approach of a diagnosis of rheumatic fever	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.6	Enumerate the revised Jones ' criteria	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.4.7	Describe the characteristic gross and microscopic changes of rheumatic heart disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.5	Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic features, diagnostic tests and complications of ischemic heart disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.1	Define Ischaemic heart disease (IHD)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.2	List its four clinical presentations	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.3	Discuss the etiopathogenesis of the different types of Ischaemic heart disease with emphasis on Myocardial Infarction	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.4	Describe the gross and microscopic features of myocardial infarction	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.5	List the different tests by which you can come to a diagnosis of IHD	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.5.6	Enumerate the complications of Ischaemic heart disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 27.6	Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of infective endocarditis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.1	Define Infective Endocarditis (IE)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.2	Describe the etiopathogenesis of IE	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.3	List the clinical features of IE along with diagnostic criteria as per the modified Duke's criteria.	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.4	List the gross and microscopic features of IE	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.5	List the complications of Infective Endocarditis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.6.6	Define Nonbacterial Thrombotic Endocarditis (NBTE)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 27.7	Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of pericarditis and pericardial effusion	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.7.1	Define pericarditis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.7.2	Enumerate its causes according to the different types	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.7.3	Define pericardial effusion	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.7.4	Enumerate its causes according to the different types	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.7.5	Describe the pathogenesis of Pericarditis & pericardial effusion	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA27.7.6	List the complications of Pericarditis & pericardial effusion	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA27.7.7	Describe the gross and microscopic features of pericarditis and pericardialeffusion	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 27.8	Interpret abnormalities in cardiac function testing in acute coronary syndromes	S	SH	Y	DOAP session	Skill assessment	Physiology, General Medicine	
PA27 .8 .1	List the investigations you would perform in this patient	S	SH	Y	DOAP session	OSPE	Physiology, General Medicine	
PA27 .8 .2	Enumerate the enzymes likely to be elevated in such a patient	S	SH	Y	DOAP session	OSPE	Physiology, General Medicine	
PA 27 .8.3	Interpret the given chart of cardiac function enzymes and give your diagnosis	S	SH	Y	DOAP session	OSPE	Physiology, General Medicine	
PA 27.9	Classify and describe the etiology, types, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of cardiomyopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA 27.9.1	DefineCardiomyopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.9.2	Classify cardiomyopathies into their different functional patterns and their causes/etiology	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.9.3	Describe the pathophysiology of cardiomyopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA27.9.4	List the gross appearance of the heart of dilated, hypertrophic & restrictive cardiomyopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA27.9.5	List the complications of cardiomyopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine, Physiology	
PA 27.10	Describe the etiology, pathophysiology, pathology features and complications of syphilis on the cardiovascular system	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.10.1	Describe the different spectrum of cardiac involvement of syphilis	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA27.10.1	Describe the characteristic features of syphilitic aneurysm which can be seen grossly and microscopically	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
TOPIC: URINARY TRACT								
PA28.1	Describe the normal histology of the kidney	K	KH	Y	Lecture, SGD	Written/viva voce		
PA28.2	Define, classify and distinguish the clinical syndromes and describe the etiology, pathogenesis, pathology, morphology, clinical and laboratory and urinary findings, complications of renal failure	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.1	Define azotemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.2	Classify types of azotemia	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.3	Define renal failure	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.4	Classify types of renal failure	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.5	Enumerate the major renal clinical syndromes	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.6	Distinguish each renal clinical syndrome based on their definitions	K	KH	Y	Lecture, SGD	Written/viva voce		
PA 28.2.7	Differentiate nephrotic from nephritic renal syndrome.	K	KH	Y	Lecture, SGD	Written/viva voce		

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA28.3	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings, progression and complications of acute renal failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.1	Define acute renal failure (ARF)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.2	Enumerate the etiological and precipitating factors leading to ARF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.3	Describe the pathogenesis of ARF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.4	Discuss the laboratory and urinary findings to diagnose ARF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.5	Discuss the clinical progression and complications of ARF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.3.6	Describe the pathology of kidney in ARF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA28.4	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings progression and complications of chronic renal failure	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.1	Define chronic renal failure (CRF)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.2	Enumerate the etiological and precipitating factors leading to CRF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.3	Describe the pathogenesis of CRF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.4	Discuss the laboratory and urinary findings to diagnose CRF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.5	Discuss the clinical progression and complications of CRF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.4.6	Describe the pathology of kidney in CRF	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
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	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.1	Define glomerulonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.2	Classify glomerular diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.3	Describe the etio-pathogenesis of glomerular diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.4	Discuss the mechanisms of glomerular injury	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.5	Distinguish between primary and secondary glomerular disease	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.6	Describe the clinical manifestations of glomerulonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 28.5.7	Describe the pathology of kidney in glomerulonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA28.6	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.6.1	Define IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 28.6.2	Describe the etio-pathogenesis of IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.6.3	Discuss the laboratory and urinary findings to diagnose IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.6.4	Discuss the clinical progression and complications of IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.6.5	Describe the pathology of IgA nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA28.7	Enumerate and describe the findings in glomerular manifestations of systemic disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.7.1	Enumerate the systemic causes of glomerular diseases	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.7.2	Describe the glomerular manifestation in systemic lupus erythematosus	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.7.3	Describe the glomerular manifestation in Diabetes mellitus	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA28.8	Enumerate and classify diseases affecting the tubular Interstitium	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.8.1	Enumerate diseases affecting tubular interstitium	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.8.2	Classify tubulo-interstitial diseases	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA28.9	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of acute tubular necrosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.9.1	Define acute tubular necrosis (ATN)	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.9.2	Describe the etio-pathogenesis of ATN	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.9.3	Discuss the laboratory and urinary findings to diagnose ATN	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 28.9.4	Discuss the clinical progression and complications of ATN	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.9.5	Describe the pathology of ATN	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA28.10	Describe the etiology, pathogenesis, pathology, laboratory findings, distinguishing features progression and complications of acute and chronic pyelonephritis and reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.1	Describe the etio-pathogenesis of acute pyelonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.2	Describe the pathology of acute pyelonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.3	Discuss the laboratory findings in favour of acute pyelonephritis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.4	Describe the etio-pathogenesis of chronic pyelonephritis and reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.5	Describe the pathology of chronic pyelonephritis and reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.6	Discuss the laboratory findings in favour of chronic pyelonephritis and reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 28.10.7	Distinguish between the pathology of acute and chronic pyelonephritis/reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 28.10.8	Discuss the complications of acute and chronic pyelonephritis/reflux nephropathy	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA28.11	Define classify and describe the etiology, pathogenesis pathology, laboratory, urinary findings, distinguishing features progression and complications of vascular disease of the kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.1	Classify vascular diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.2	Describe the etio-pathogenesis of benign nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.3	Describe the pathology of benign nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.4	Discuss the laboratory and urinary findings in favour of benign nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.5	Describe the etio-pathogenesis of malignant nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.6	Describe the pathology of malignant nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.7	Discuss the laboratory and urinary findings in favour of malignant nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.8	Discuss the complications of benign and malignant nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.11.9	Distinguish between the pathology of benign and malignant nephrosclerosis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA28.12	Define classify and describe the genetics, inheritance, etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features, progression and complications of cystic disease of the kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.1	Classify cystic diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.2	Describe the etio-pathogenesis of cystic disorders of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.3	Describe the genetic basis for adult dominant and recessive cystic kidney diseases	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.4	Discuss the laboratory and urinary findings in favour of cystic diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.5	Describe the pathology of cystic diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.6	Discuss the clinical progression of cystic diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.7	Discuss the complications of cystic diseases of kidney	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA 28.12.8	Distinguish between the pathology of adult dominant and recessive cystic disorders	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine, Pediatrics	
PA28.13	Define classify and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, distinguishing features progression and complications of renal stone disease and obstructive uropathy	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 28.13.1	. Classify renal stones	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.13.2	. Describe the etio-pathogenesis of renal stone disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.13.3.	Discuss the laboratory and urinary findings in favour of renal stone disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.13.4.	Describe the pathology of renal stone disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.13.5.	Discuss the clinical progression of renal stone disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.13.6.	Discuss the complications of renal stone disease	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA28.14	Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 28.14.1	Classify renal tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 28.14.2	Describe the etio-pathogenesis and genetics of renal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 28.14.3	Discuss the presenting features of renal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 28.14.4	Describe the spread and clinical progression of renal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 28.14.5	Describe the gross and microscopy of renal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA28.15	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.15.1	Describe the etio-pathogenesis and genetics of Hemolytic uremic syndrome (HUS) and Thrombotic thrombocytopenic purpura (TTP)	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.15.2	Discuss the presenting features of HUS and TTP	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 28.15.3	Describe the clinical progression in HUS and TTP	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.15.4	Describe the gross and microscopy of HUS and TTP	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA 28.15.5	Differentiate HUS from TTP based on clinical, laboratory and genetic findings	K	KH	N	Lecture, SGD	Written/viva voce	General Medicine	
PA28.16	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of urothelial tumors	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.16.1	Describe the etio-pathogenesis and genetics of Urothelial tumors	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.16.2	Discuss the presenting features of Urothelial tumors	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.16.3	Describe the clinical progression of Urothelial tumors	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 28.16.4	Describe the gross and microscopy of Urothelial tumors	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
TOPIC : MALE GENITAL TRACT								
PA 29.1	Classify testicular tumours and describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.1	Classify testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.2	Describe the etiopathogenesis of testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.3	Enlist the presenting clinical features of testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.4	Describe the gross and microscopy of each of the testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.5	Enumerate the investigations done for the diagnosis of testicular tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 29.1.6	Outline the distinguishing features of germ cell tumours based on clinical features, pathological findings and tumour markers	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.7	Enumerate the sites of metastasis of germ cell tumours based on routes of metastasis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.1.8	Describe the prognosis of seminomatous versus non-seminomatous testicular germ cell tumours	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2	Describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the penis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2.1	Describe the etiopathogenesis of carcinoma penis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2.2	Enlist the presenting clinical features of carcinoma penis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2.3	Describe the microscopic features of most common type of carcinoma penis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2.4	Name the diagnostic test for confirmation of carcinoma penis	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.2.5	Describe the prognosis of carcinoma penis based on stage progression	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.3	Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, urologic findings and diagnostic tests of benign prostatic hyperplasia	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.3.1	Describe the etiopathogenesis of benign prostatic hyperplasia (BPH)	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.3.2	Outline the role of hormones in the pathogenesis of BPH	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.3.3	Enlist the clinical features of BPH	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.3.4	Describe the gross and microscopic features of BPH	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 29.3.5	Name the tests done for the diagnosis of BPH	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4	Describe the pathogenesis, pathology, hormonal dependency, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the prostate	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.1	Describe the etiopathogenesis of carcinoma prostate	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.2	Outline the role of hormones in the pathogenesis of carcinoma of prostate	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.3	Enlist the clinical features of carcinoma of prostate	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.4	Describe the gross and microscopic features of prostatic adenocarcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.5	Enumerate the investigations done for the diagnosis of prostatic adenocarcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.6	Enumerate the routes of metastasis in prostatic adenocarcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.4.7	Name the grading and staging system used for prostatic adenocarcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.5	Describe the etiology, pathogenesis, pathology and progression of prostatitis	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.5.1	Categorize the types of prostatitis	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.5.2	Describe the etiopathogenesis of prostatitis	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA 29.5.3	Enlist the clinical features of prostatitis	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
TOPIC: FEMALE GENITAL TRACT								
PA 30.1	Describe the epidemiology, pathogenesis, etiology, pathology, screening, diagnosis and progression of carcinoma of the cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 30.1.1	Enumerate the various risk factors of carcinoma cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.1.2	Enumerate the different HPV subtypes	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.1.3	Classify the precursor lesions of carcinoma cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.1.4	Explain the progression of carcinoma cervix from the precursor lesions	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.1.5	Explain the pathogenesis of carcinoma cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.1.6	Enumerate the histological types of carcinoma cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.1.7	Describe the microscopic findings of carcinoma cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.1.8	Outline the recommendations for screening of cervical cancer	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.1.9	Discuss the tests performed for the diagnosis of cancer cervix	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.2	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the endometrium	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.2.1	List out the risk factors for carcinoma of endometrium	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.2.2	List the types of endometrial carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.2.3	Explain the pathogenesis of type 1 endometrial carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA30.2.4.	Explain the pathogenesis of type 2 endometrial carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.2.5	Describe the histological findings of endometrial carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.2.6	Explain the behavior of endometrial carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.3	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the leiomyomas and leiomyosarcomas	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.3.1	Explain the etio-pathogenesis of Leiomyoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.3.2	Describe the gross feature of Leiomyoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.3.3	Describe the microscopic features of Leiomyoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.3.4	List the morphological variants of Leiomyoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.3.5	Explain the etiopathogenesis of Leiomyosarcoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.3.6	Describe the microscopic features of Leiomyosarcoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.4	Classify and describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of ovarian tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.1	Classify ovarian tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.2	Explain the pathogenesis of surface epithelial tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.3	Describe the gross features of Serous epithelial tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA30.4.4	Describe the microscopic features of Serous tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.5	Describe the gross features of Mucinous tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.6	Describe the microscopic features of Mucinous tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.7	Differentiate between Serous and Mucinous tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.8	Enumerate other surface epithelial tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.9	Explain the histogenesis and interrelationships of ovarian tumors of germ cell origin	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.10	Classify Teratomas	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.11	Describe the gross findings in Mature cystic teratoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.12	Describe the microscopic findings in Mature cystic teratoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.4.13	Differentiate between Mature and Immature Teratoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.14	Describe the gross findings in Dysgerminoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.15	Describe the microscopic findings in Dysgerminoma	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.16	Describe the gross findings in Yolk Sac tumor	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.17	Describe the microscopic findings in Yolk Sac tumor	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.18	Describe the gross findings in Choriocarcinoma (non gestational)	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.19	Describe the microscopic findings in Choriocarcinoma (non gestational)	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA30.4.20	Describe the gross findings in Granulosa cell tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.21	Describe the microscopic findings in Granulosa cell tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.22	Describe the gross findings in Thecomas, Fibromas, and Fibrothecomas	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.23	Describe the microscopic findings in Thecomas, Fibromas, and Fibrothecomas	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.24	Describe the gross findings in Sertoli-Leydig Cell tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.25	Describe the microscopic findings in Sertoli-Leydig Cell tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.4.26	Define Krukenberg tumor	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5	Describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of gestational trophoblastic neoplasms	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.1	Classify Gestational trophoblastic neoplasms	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.2	Explain the pathogenesis of Hydatidiform mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.3	Differentiate between Complete and Partial Hydatidiform Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.4	Describe the gross findings of Hydatidiform Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.5	Describe the microscopic findings in Complete Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.6	Describe the microscopic findings in Partial Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.7	Describe the gross findings in Invasive Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.8	Describe the microscopic findings in Invasive Mole	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA30.5.9	Describe the gross findings in Choriocarcinoma (gestational)	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.10	Describe the microscopic findings in Choriocarcinoma (gestational)	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.11	Describe the gross findings in Placental Site Trophoblastic Tumor	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.5.12	Describe the microscopic findings in Placental Site Trophoblastic Tumor	K	KH	Y	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA 30.6	Describe the etiology and morphologic features of cervicitis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.6.1	Classify Cervicitis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.6.2	Explain the etiology of Cervicitis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.6.3	Describe the morphological features of cervicitis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.7	Describe the etiology, hormonal independence, features and morphology of endometriosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.7.1	Define Endometriosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.7.2	Explain the pathogenesis of Endometriosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.7.3	Describe the gross features of endometriosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.7.4	Describe the microscopic features of Endometriosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.8	Describe the etiology and morphologic features of adenomyosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.8.1	Define Adenomyosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.8.2	Explain the etiology of Adenomyosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA30.8.3	Describe the gross features of Adenomyosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.8.4	Describe the microscopic features of Adenomyosis	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.9	Describe the etiology, hormonal dependence and morphology of endometrial hyperplasia	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.9.1	Explain the etiopathogenesis of Endometrial hyperplasia	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.9.2	Classify Endometrial hyperplasia	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
PA30.9.3	Tabulate the characteristics of Type 1 and Type 11 Endometrial hyperplasia	K	KH	N	Lecture, SGD	Written/viva voce	Obstetrics & Gynaecology	
TOPIC: BREAST								
PA 31.1	Classify and describe the types, etiology, pathogenesis and hormonal dependency of benign breast disease. Lecture	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 31.1.1	Classify benign breast diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 31.1.2	Describe the types of benign breast diseases including fibroadenosis, fibrocystic disease, fibroadenoma, benign phylloides.	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 31.1.3	Describe the clinical features and gross, microscopy of benign breast diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	
PA 31.1.4	Describe the role of hormones in benign breast diseases	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 31.2	Classify and describe the epidemiology, pathogenesis, classification, morphology, prognostic factors, hormonal dependency, staging and spread of the breast carcinoma.SGD	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 31.2.1	. Describe the epidemiology of breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.2	Describe the pathogenesis of breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.3	Classify breast carcinomas based on morphology	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.4	Classify breast carcinoma based on molecular profile	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.5	. Describe the morphology (gross & microscopy) of breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.6	Describe the prognostic factors and risk factors in breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.7	Describe the role of hormones in the prognosis of breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA 31.2.8	Describe the staging and spread (metastasis) of breast carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	General Surgery	
PA31.3	Describe and identify the morphologic and microscopic features of carcinoma of the breast	S	SH	Y	DOAP session	Skill assessment	General Surgery	
PA 31.3.1	Identify the organ and describe the gross specimen	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 31.3.2	Demonstrate the microscopic features in the given slide	S	SH	Y	DOAP session	OSPE	General Surgery	
PA 31.3.3	Distinguish between benign and malignant lesion of the breast	S	SH	Y	DOAP session	OSPE	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA31.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of gynaecomastia	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics, General Medicine	
PA 31.4.1	Enumerate the etiological factors in gynaecomastia	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics, General Medicine	
PA 31.4.2	Describe the role of hormones in gynaecomastia	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics, General Medicine	
PA 31.4.3	Describe the pathogenesis of gynaecomastia	K	KH	N	Lecture, SGD	Written/viva voce	Pediatrics, General Medicine	
TOPIC: ENDOCRINE								
PA32.1	Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.1.1	Enumerate/Classify the causes of thyroid swellings due to iodine dependency	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.1.2	Discuss the etiopathogenesis of goitre	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.1.3	Describe the gross and microscopic features of goitre	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.2	Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.2.1	Discuss the etiopathogenesis of thyrotoxicosis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.2.2	Describe the clinical manifestations of thyrotoxicosis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.2.3	Outline the laboratory diagnosis including imaging features of thyrotoxicosis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.2.4	Discuss the clinical course of thyrotoxicosis	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.3	Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of hypothyroidism	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.3.1	. Discuss the etiopathogenesis of hypothyroidism	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.3.2	Describe the clinical manifestations of hypothyroidism	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.3.3	Outline the laboratory diagnosis including imaging features of hypothyroidism	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.3.4	Discuss the clinical course of hypothyroidism	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4	Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features, complications and progression of diabetes mellitus	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.1	Classify diabetes mellitus.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.2	Discuss etiology and pathogenesis of Type I and Type II diabetes	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.3	Outline the laboratory diagnosis of diabetes mellitus.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.4	Discuss oral glucose tolerance test.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.5	Discuss the metabolic derangements in diabetes and types of coma in diabetic individual.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.6	Discuss various complications in diabetes mellitus.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.4.7	Describe the pathology of development of complications in diabetes.	K	KH	Y	Lecture, SGD	Written/viva voce	Physiology, General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.5	Describe the etiology, genetics, pathogenesis, manifestations, laboratory and morphologic features of hyperparathyroidism	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.1	Classify hyperparathyroidism.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.2	Discuss fine regulation of Calcium and Phosphate balance in blood stream by parathormone.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.3	Describe the clinical manifestation of secondary hyperparathyroidism.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.4	Discuss the pathogenesis of primary and secondary hyperparathyroidism	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.5	Discuss various morphological spectrum associated with hyperfunctioning parathyroid gland.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.6	Discuss genetics of primary hyperparathyroidism.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.5.7	Outline laboratory diagnosis to distinguish primary and secondary hyperparathyroidism.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.6	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications and metastases of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.6.1	Discuss the etiopathogenesis of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.6.2	Describe the clinical manifestations of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.6.3	Outline the laboratory diagnosis of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.6.4	Discuss the gross and microscopic features of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.6.5	Enlist the complications of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.6.6	Enumerate the sites of metastasis of pancreatic cancer	K	KH	N	Lecture, SGD	Written/viva voce	General Surgery	
PA32.7	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of adrenal insufficiency	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA 32.7.1	Enumerate the various causes of acute and chronic adrenal insufficiency.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.7.2	Discuss the pathogenesis of adrenal insufficiency	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.7.3	. Describe the clinical manifestations of adrenal insufficiency.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.7.4	Outline the laboratory diagnosis of a case of adrenal insufficiency	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.7.5	Discuss the pathological features in a case of adrenal insufficiency	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.7.6	Enlist the complications of adrenal insufficiency	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of Cushing's syndrome	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8.1	Enumerate the causes of Cushing's syndrome	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.8.2	Discuss the pathogenesis of Cushing's syndrome	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8.3	Describe the common clinical manifestations of Cushing's syndrome.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8.4	Outline the laboratory diagnosis in a case of Cushing's syndrome.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8.5	Describe the various morphologies of the adrenal cortex in these disorders.	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.8.6	. Enlist the complications of Cushing's syndrome	K	KH	N	Lecture, SGD	Written/viva voce	Physiology, General Medicine	
PA32.9	Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.9.1	Enumerate the various neoplasms of adrenal glands	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA32.9.2	Discuss the etiopathogenesis of adrenal neoplasms.	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.9.3	Describe the clinical manifestations in a case of adrenal neoplasm	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.9.4	Outline the laboratory diagnosis in a case of adrenal neoplasm	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA32.9.5	Describe the gross and microscopic features of adrenal adenoma and carcinoma.	K	KH	N	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 32.10	<i>Classify, discuss the etiology, pathogenesis, morphology, routes of metastasis and laboratory diagnosis of thyroid gland malignancies</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.1	<i>Classify malignancies of thyroid gland</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.2	<i>Discuss the etio-pathogenesis of Papillary carcinoma, Follicular carcinoma, Medullary carcinoma and Anaplastic carcinoma</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.3	<i>Describe the gross and microscopy of Papillary carcinoma, Follicular carcinoma, Medullary carcinoma and Anaplastic carcinoma</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 32.10.4	<i>Differentiate between a follicular adenoma and follicular carcinoma</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.5	<i>Discuss the routes of metastasis of Papillary carcinoma, Follicular carcinoma, Medullary carcinoma and Anaplastic carcinoma</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.6	<i>Enumerate the laboratory diagnosis of thyroid malignancies</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	
PA 32.10.7	<i>List the syndromes associated with Medullary carcinomas</i>	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Physiology, General Medicine, General Surgery	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
TOPIC: BONE AND SOFT TISSUE								
PA 33.1:	Classify and describe the etiology, pathogenesis, radiologic and morphologic features and complications of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.1	Classify osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.2	Describe the etio-pathogenesis of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.3	Enlist the clinical manifestations of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.4	Describe the radiological features of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.5	Describe the morphological features of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.1.6	Describe the complications of osteomyelitis	K	KH	Y	Lecture, SGD	Written/viva voce	Human Anatomy, Orthopaedics	Microbiology
PA 33.2	Classify and describe the etiology , pathogenesis, manifestations, radiologic and morphologic features, complications and metastases bone tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.2.1	Classify Bone tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.2.2	Describe the etiopathogenesis of bone tumours - osteosarcoma, osteoclastoma, chondrosarcoma, Ewings sarcoma	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.2.3	Enlist the clinical manifestations of bone tumours with complications and modes of metastases of each stated above	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 33.2.4	: Describe the radiological features of bone tumours – osteosarcoma, osteoclastoma, chondrosarcoma, Ewings sarcoma	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.2.5	Describe the morphological features of bone tumours – osteosarcoma, osteoclastoma, chondrosarcoma, Ewings sarcoma	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.3	Classify and describe the etiology ,pathogenesis,manifestations, radiologic and morphologic features, complications and metastases soft tissue tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.3.1	Classify Soft tissue tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.3.2	Describe the etiopathogenesis of soft tissue tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.3.3	Enlist the clinical manifestations of soft tissue tumors with complications and modes of metastases	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.3.4	Describe the radiological and morphological features of soft tissue tumours	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.4	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of Paget's disease of the bone	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.4.1	Describe the etiopathogenesis of osteoporosis (abnormal matrix) and Pagets disease of the bone (abnormal osteoclastic function)	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.4.2	Describe the pathology and clinical features of osteoporosis (abnormal matrix) and Pagets disease of the bone (abnormal osteoclastic function)	K	KH	Y	Lecture, SGD	Written/viva voce	Orthopaedics	
PA 33.4.3	Discuss diseases with abnormal mineral homeostasis (parathyroid and thyroid hormones , vitamin D metabolism)	K	KH	N	Lecture, SGD	Written/viva voce	Orthopaedics	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 33.5	Classify and describe the etiology, immunology, pathogenesis, manifestations , radiologic, and laboratory features , diagnostic criteria and complications of rheumatoid arthritis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 33.5.1	Describe the etio- pathogenesis and immunologic basis of rheumatoid arthritis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 33.5.2	Describe the pathology, clinical,radiologic and laboratory features of rheumatoid arthritis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
PA 33.5.3	Enumerate the diagnostic criteria and complications of rheumatoid arthritis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	
TOPIC: SKIN								
PA34.1	Describe the risk factors, pathogenesis, pathology and natural history of squamous cell carcinoma of the skin	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.1.1	Enumerate the risk factors for squamous cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.1.2	Describe the pathogenesis of squamous cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.1.3	Describe the pathology of squamous cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.1.4	Outline the natural history of squamous cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.2	Describe the risk factors, pathogenesis, pathology and natural history of basal cell carcinoma of the skin	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.2.1	Enumerate the risk factors for basal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 34.2.2	Describe the pathogenesis of basal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.2.3	Describe the pathology of basal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.2.4	Outline the natural history of basal cell carcinoma	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3	Describe the distinguishing features between a nevus and melanoma. Describe the etiology, pathogenesis, risk factors, morphology, clinical features and metastases of melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3.1	Describe the differences between naevi and melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3.2	Describe the etio-pathogenesis with risk factors of melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3.3	Describe the pathology of melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3.4	Enlist the clinical features in melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.3.5	Describe the mode of metastasis in melanoma	K	KH	N	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	
PA 34.4	Identify, distinguish and describe common tumors of the skin							
PA 34.4.1	Enumerate common tumors of skin	K	KH	Y	Lecture, SGD	Written/viva voce	Dermatology, Venereology & Leprology	

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/ SH/P	Core Y/N	Suggested Teaching Learning methods	Suggested Assessment methods	Vertical integration	Horizontal Integration
PA 34.4.2	List out few differential diagnosis from the clinical images given	S	SH	Y	DOAP, SGD	OSPE	Dermatology, Venereology & Leprology	
PA 34.4.3	Describe the microscopic features seen in squamous cell carcinoma, basal cell carcinoma and melanoma	s	SH	Y	Demonstration	OSPE	Dermatology, Venereology & Leprology	
TOPIC: CENTRAL NERVOUS SYSTEM								
PA 35.1	Describe the etiology, types and pathogenesis, differentiating factors, CSF findings in meningitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 35.1.1	Discuss the types of Meningitis based on etiology	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 35.1.2	Discuss on the etio-pathogenesis of Meningitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 35.1.3	Differentiate the CSF findings between bacterial, viral/fungal, and tubercular meningitis	K	KH	Y	Lecture, SGD	Written/viva voce	General Medicine	Microbiology
PA 35.2	Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 35.2.1	Classify CNS tumors based on recent classification	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 35.2.2	Describe their etio-pathogenesis of CNS tumors with emphasis on genetics – Glioma, Meningioma, Medulloblastoma (GMM)	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 35.2.3	Define the clinical features and morphology of CNS tumors (GMM)	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 35.2.4	List the complications associated with CNS tumors (GMM)	K	KH	Y	Lecture, SGD	Written/viva voce	Pediatrics	
PA 35.3	Identify the etiology of meningitis based on given CSF parameters(CERTIFIABLE SKILL)	S	P	Y	DOAP session	OSPE	General Medicine	Microbiology
PA 35.3.1	Interpret the CSF charts and give the probable diagnosis	S	P	Y	DOAP session	OSPE	General Medicine	Microbiology

Number	COMPETENCY	Domain	Level	Core	Suggested	Suggested	Vertical	Horizontal
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	The student should be able to	K/S/A/C	K/KH/SH/P	Y/N	Teaching Learning methods	Assessment methods	integration	Integration
TOPIC: EYE								
PA36	Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.1	Describe the etiopathogenesis of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.2	Describe the genetics of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.3	Enlist the clinical features in a case of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.4	Describe the gross morphology of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.5	Describe the microscopic features of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	
PA36.6	Enumerate the sequelae/complications of retinoblastoma	K	KH	N	Lecture, SGD	Written/viva voce	Ophthalmology	



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