ST JOSEPH UNIVERSITY

KANYAKUMARI MEDICAL MISSION RESEARCH CENTRE

ST. DEVA SAHAYAM NAGAR, MUTTOM,

KANYAKUMARI DIST – 629202

Syllabus for

MBBS

BACHELOR OF MEDICINE AND BACHELOR OF SURGERY

PHASE-II

ACADEMIC CALENDAR

Time distribution of MBBS Teaching & Examination Schedule

Academic calendar for admission batch 2024-2025												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Adm year										1 14 Oct	2	3
Phase 1 exam	4	5	6	7	8	9	10	11	12 Phase 1 exam, result	13 Phase 2 starts	14	15
Phase 2 exam	16	17	18	19	20	21	22	23	24 Phase 2 exam, result	25 Phase 3 part 1 starts	26	27
Phase 3 part I exam	28	29	30	31	32	33	34	35	36 Phase 3 Part 1 exam, result	37 Phase 3 part 2 starts	38	39
	40	41	42	43	44	45	46	47	48	49	50	51
Phase 3 part II exam	52	53	54 Proposed NExT step1	1 CRMI	2	3	4	5	6	7	8	9
Internship	10	11	12 Proposed NExT step2									

PATHOLOGY, PHARMACOLOGY & MICROBIOLOGY

Distribution of Subject Wise Teaching Hours for Phase -1I MBBS

Subjects	Large group teaching	SGT/ Practicals/ Tutorials/ Seminars	Clinical Postings*	SDL	Total
Pathology	80	170	-	10	260
Pharmacology	80	170	-	10	260
Microbiology	75	143	-	10	228
Community Medicine	25	0	0	10	35
FAP	0	0	24		24
Forensic Medicine and Toxicology	12	25	-	08	45
Clinical Subjects	60		540	-	600
AETCOM	-	29	-	8	37
Sports, Yoga & extra-curricular activities	-	-	-	32	32
Final total	**332**	**537**	**564**	**88**	**1521**

SGT: Small group teaching , SDL: Self-directed learning

Pl. note: *Clinical postings shall be for 3 hours per day, Monday to Friday.

There will be 15 hours per week for all clinical postings.

Volume I-2024

1

COMPETENCY BASED UNDERGRADUATE CURRICULUM FOR THE INDIAN MEDICAL GRADUATE

2024

National Medical Commission
Pocket-14, Sector- 8, Dwarka
New Delhi 110 077

Contents Volume I

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PATHOLOGY (Topics = 35, Competencies = 182)							
Topic 1: Introduction to Pathology		**Number of competencies: (3)**			**Number of competencies that require certification : (NIL)**		
PA1.1	Describe the role of a pathologist in diagnosis and management of disease	K	K	Y	LGT	Written/ Viva voce	
PA1.2	Enumerate common definitions and terms used in Pathology and Describe the history and evolution of Pathology	K	K	Y	LGT, SGT	Written/ Viva voce	
PA1.3	Describe proliferation and cell cycle and concept of regenerative medicine along with role of stem cells.	K	K	Y	LGT, SGT	Written/ Viva voce	
Topic 2: Cell Injury and Adaptation		**Number of competencies: (08)**			**Number of competencies that require certification: (NIL)**		
PA2.1	Describe the causes, mechanisms, types and effects of cell injury and their clinical significance	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.2	Describe the etiology of cell injury. Distinguish between reversible-irreversible injury: mechanisms; morphology of cell injury	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.3	Describe morphological changes in intracellular accumulation of fats, proteins, carbohydrates, pigments	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.4	Describe and explain Cell death- types, mechanisms, necrosis, apoptosis (basic as contrasted with necrosis), autolysis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.5	Describe types and pathology of calcifications and gangrene	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.6	Describe cellular adaptations: atrophy, hypertrophy, hyperplasia, metaplasia, dysplasia and carcinoma in situ	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA2.7	Describe the mechanisms of cellular aging and apoptosis	K	KH	N	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA2.8	Identify and describe various forms of cell injuries with their manifestations and consequences in gross and microscopic specimens	S	SH	Y	DOAP	Viva voce	
	Topic: 3 Inflammation	**Number of competencies:(04)**			**Number of competencies that require certification: (NIL)**		
PA3.1	Define and describe the general features of acute and chronic inflammation including stimuli, vascular and cellular events	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA3.2	Enumerate and describe the mediators of acute inflammation	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA3.3	Define and describe chronic inflammation including causes, types non-specific and granulomatous and enumerate examples of each	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA3.4	Identify and describe acute and chronic inflammation in gross and microscopic specimens	S	SH	Y	DOAP	Viva voce	
	Topic 4: Healing and repair	**Number of competencies: (01)**			**Number of competencies that require certification:(NIL)**		
PA4.1	Define and describe the process of repair and regeneration including wound healing and its types	K	KH	Y	LGT, SGT	Written/ Viva voce	
	Topic 5: Hemodynamic disorders	**Number of competencies: (06)**			**Number of competencies that require certification :(NIL)**		
PA5.1	Define and describe edema, its types, pathogenesis and clinical correlations	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA5.2	Define and describe hyperemia, congestion, hemorrhage	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA5.3	Define and describe shock, its pathogenesis and its stage	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA5.4	Define and describe normal haemostasis and the etiopathogenesis and consequences of thrombosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA5.5	Define and describe Ischemia/infarction, embolism its types, etiology, morphologic changes and clinical effects	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA5.6	Identify and describe the gross and microscopic features of infarction in a pathologic specimen	S	SH	Y	DOAP	Viva voce	
Topic 6: Neoplastic disorders		**Number of competencies: (07)**			**Number of competencies that require certification: (NIL)**		
PA6.1	Define and classify neoplasia. Describe the characteristics of neoplasia including gross, microscopy, Biological, behavior and spread. Differentiate between benign from malignant neoplasms	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA6.2	Describe the molecular basis of cancer, role of genetic and epigenetic alterations with special emphasis on common cancers like breast/ colon	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA6.3	Define and classify the carcinogens and describe the process of different types of carcinogenesis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA6.4	Describe the effects of tumor on the host including para neoplastic syndrome	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA6.5	Describe laboratory diagnosis of cancer including molecular profiles of tumors, tumors markers and future of cancer diagnostics	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA6.6	Describe immunology and the immune response to cancer with its clinical significance – Immunotherapy	K	KH	N	LGT, SGT	Written/ Viva voce	
PA6.7	Identify and describe the gross and microscopic features of Benign and malignant neoplasm in a pathologic specimen	S	SH	Y	DOAP	Viva voce	
Topic 7: Basic diagnostic cytology		**Number of competencies:(01)**			**Number of competencies that require certification:(NIL)**		
PA7.1	Describe the techniques of cytology, staining & diagnostic role of cytology and its application in clinical care	K	KH	Y	LGT, SGT	Written/ Viva voce	
Topic 8: Immunopathology and AIDS		**Number of competencies : (06)**			**Number of competencies that require certification: (NIL)**		
PA8.1	Describe the principles and mechanisms involved in immunity	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA8.2	Describe the mechanism of hypersensitivity reaction	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA8.3	Describe the HLA system and the immune principles involved in transplant and mechanism of transplant rejection	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA8.4	Define autoimmunity. Enumerate autoimmune disorder and describe the pathogenesis of common autoimmune diseases	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA8.5	Define and describe the pathogenesis of systemic Lupus Erythematosus	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA8.6	Define and describe the pathogenesis and pathology of HIV and AIDS	K	KH	Y	LGT, SGT	Written/ Viva voce	
	Topic 9: Amyloidosis	**Number of competencies: (02)**			**Number of competencies that require certification:(NIL)**		
PA9.1	Describe the pathogenesis and pathology of amyloidosis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA9.2	Identify and describe various forms of amyloidosis with their manifestations and consequences in gross and microscopic specimens	S	SH	Y	DOAP	Viva voce	
	Topic 10: Infections and Infestations	**Number of competencies: (05)**			**Number of competencies that require certification:(NIL)**		
PA10.1	Define and describe the pathogenesis and pathology of malaria	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA10.2	Define and describe the pathogenesis and pathology of cysticercosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA10.3	Define and describe the pathogenesis and pathology of leprosy	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA10.4	Define and describe the pathogenesis and pathology of common bacterial, viral, protozoal and helminthic diseases	K	KH	N	LGT, SGT	Written/ Viva voce	
PA10.5	Define and describe the pathogenesis and pathology and laboratory findings in COVID	K	KH	Y	LGT, SGT	Written/ Viva voce	
	Topic 11: Genetic and pediatric diseases	**Number of competencies: (03)**			**Number of competencies that require certification :(NIL)**		
PA11.1	Describe the pathogenesis and features of common cytogenetic abnormalities and mutations in with diagnostic modalities in childhood	K	KH	N	LGT, SGT	Written/ Viva voce	
PA11.2	Describe the pathogenesis and pathology of tumor and tumor like conditions in infancy and childhood	K	KH	N	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA11.3	Describe the pathogenesis of common storage disorders in infancy and childhood	K	KH	N	LGT, SGT	Written/ Viva voce	
Topic 12: Environmental and nutritional diseases		**Number of competencies:(03)**			**Number of competencies that require certification:(NIL)**		
PA12.1	Enumerate and describe the pathogenesis of disorders caused by air pollution, tobacco, alcohol and noise	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA12.2	Describe the pathogenesis of disorders caused by protein calorie malnutrition, vitamins and starvation	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA12.3	Describe the pathogenesis of obesity and its consequences with special emphasis on metabolic syndrome	K	KH	Y	LGT, SGT	Written/ Viva voce	
Topic 13: Introduction to hematology		**Number of competencies: (04)**			**Number of competencies that require certification:(1)**		
PA13.1	Describe hematopoiesis and extra medullary hematopoiesis and the role of anticoagulants in hematology	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA13.2	Define and classify anemia Enumerate and describe the investigation of anemia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA13.3	Describe collection of specimens and identify coagulants and anticoagulant bulbs, instruments	S	SH`	Y	DEMO	Viva voce / OSPE	
PA13.4	Perform common haematological tests – Hb, RBC count, WBC count and DLC	S	SH`	Y	DEMO	Viva voce / OSPE	4
Topic 14: Microcytic anemia		**Number of competencies: (02)**			**Number of competencies that require certification:(1)**		
PA14.1	Describe iron metabolism and Describe the etiology, investigations and differential diagnosis of microcytic hypochromic anemia	K	KH	Y	LGT, SGT	Written/ Viva voce	

PA14.2	Identify and describe the peripheral smear in microcytic Anemia	S	SH`	Y	DEMO	Viva voce / OSPE	1
	Topic 15: Macrocytic anemia	**Number of competencies: (03)**			**Number of competencies that require certification: (1)**		
PA15.1	Describe the metabolism of Vitamin B12 and the etiology and pathogenesis of B12 deficiency and describe laboratory investigations of macrocytic anemia	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/ S H/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PA15.2	Enumerate the differences and describe the etiology, laboratory features of megaloblastic anemia and distinguishing features of megaloblastic and non-megaloblastic macrocytic anemia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA15.3	Identify and describe the peripheral blood picture of macrocytic Anemia	S	SH`	Y	DEMO	Viva voce / OSPE	1
	Topic 16: Hemolytic anemia	**Number of competencies: (03)**			**Number of competencies that require certification: (01)**		
PA16.1	Define and classify hemolytic anemia and describe the pathogenesis and clinical features and hematologic indices of hemolytic anemia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA16.2	Describe the pathogenesis, features, hematologic indices and peripheral blood picture of sickle cell anemia and thalassemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	1
PA16.3	Describe the etiology, pathogenesis, hematologic indices and peripheral blood picture of Acquired hemolytic anemia and different hemolytic Anemia's	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce	
	Topic 17: Aplastic anemia	**Number of competencies: (01)**			**Number of competencies that require certification:(NIL)**		

PA 17.1	Describe the etiology, pathogenesis and findings in aplastic Anemia and Enumerate the indications and describe the findings in bone marrow aspiration and biopsy	K	K	N	LGT, SGT	Written/ Viva voce	
	Topic 18: Leukocyte disorders	**Number of competencies: (02)**			**Number of competencies that require certification:(NIL)**		
PA18.1	Enumerate and describe the causes of leukocytosis leucopenia lymphocytosis and leukemoid reactions	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA 18.2	Describe the etiology, genetics, pathogenesis classification, features, hematologic features of acute and chronic leukemia	K	KH	Y	LGT, SGT	Written/ Viva voce	
	Topic 19: Lymph node and spleen	**Number of competencies: (06)**			**Number of competencies that require certification:(NIL)**		
PA19.1	Enumerate the causes and describe the differentiating features of lymphadenopathy	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA19.2	Describe the pathogenesis and pathology of tuberculous Lymphadenitis	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/ S H/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PA19.3	Describe and discuss the pathogenesis, pathology and the differentiating features of Hodgkin's and non-Hodgkin's lymphoma	S	SH	Y	DOAP	Skill assessment	
PA19.4	Enumerate and differentiate the causes of splenomegaly	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA19.5	Identify and describe the features of tuberculous lymphadenitis in a gross and microscopic specimen	S	SH	Y	DOAP	Viva voce	
PA19.6	Identify and describe the features of Hodgkin's lymphoma in a gross and microscopic specimen	S	SH	Y	DOAP	Viva voce	

Topic 20: Hemorrhagic disorders		**Number of competencies: (03)**			**Number of competencies that require certification:(NIL)**		
PA20.1	Describe normal hemostasis Classify and describe the etiology, pathogenesis and pathology of vascular and platelet disorders including ITP and hemophilia's	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA20.2	Define and describe disseminated intravascular coagulation, its laboratory findings and diagnosis of disseminated intravascular coagulation and diagnosis of Vitamin K deficiency	S	SH	Y	LGT, SGT	Written/ Viva voce	
PA20.3	Define and describe its laboratory findings and diagnosis of Multiple Myeloma	K	KH	Y	LGT, SGT	Written/ Viva voce	
Topic 21: Blood banking and transfusion		**Number of competencies: (06)**			**Number of competencies that require certification: (1)**		
PA21.1	Classify and describe blood group systems (ABO and RH)	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA21.2	Enumerate blood components and describe their clinical uses	S	SH	Y	LGT, SGT	Written/ Viva voce	
PA21.3	Enumerate and describe infections transmitted by blood transfusion	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA21.4	Describe transfusion reactions and enumerate the steps in the investigation of a transfusion reaction	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA21.5	Enumerate the indications and describe the principles and procedure of autologous transfusion	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA21.6	Describe the correct technique to perform blood grouping Describe the correct technique to perform a cross match	S	SH`	Y	DEMO	Viva voce / OSPE	1

Number	**COMPETENCY The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/ S H/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
Topic 22: Clinical Pathology Number of competencies: (05) Number of competencies that require certification: (2)							
PA22.1	Describe abnormal urinary findings in disease states and identify and describe common urinary abnormalities in a clinical specimen	S	SH	Y	DOAP	Skill Assessment	
PA22.2	Describe abnormal findings in body fluids in various disease states	K	KH	Y	LGT, SGT	Written/ Viva voce	

PA22.3	Describe and interpret the abnormalities in a panel containing semen analysis, thyroid function tests.	S	SH	Y	DOAP	Skill Assessment	
PA22.4	Describe and interpret the abnormalities in a panel containing liver function tests	KS	KH	Y	LGT/DOAP	Written/ Viva voce/ Skill Assessment	4
PA22.5	Describe and interpret the abnormalities in a panel containing, renal function tests	KS	KH	Y	LGT/DOAP	Written/ Viva voce/ Skill Assessment	4
Topic 23: Gastrointestinal tract		**Number of competencies: (09)**			**Number of competencies that require certification: (NIL)**		
PA23.1	Describe the etiology, pathogenesis, pathology and clinical features of oral cancers	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.2	Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of carcinoma esophagus	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.3	Describe the etiology, pathogenesis, pathology, microbiology, clinical and microscopic features of peptic ulcer disease	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.4	Describe and etiology and pathogenesis and pathologic features of carcinoma of the stomach	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.5	Describe and etiology and pathogenesis and pathologic features of Tuberculosis of the intestine and appendicitis.	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.6	Describe and etiology and pathogenesis and pathologic and distinguishing features of Inflammatory bowel disease	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.7	Enumerate causes and describe laboratory diagnosis of malabsorption syndrome	K	KH	N	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA23.8	Describe the etiology, pathogenesis, pathology and distinguishing features of carcinoma of the colon	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA23.9	Describe and identify the microscopic features of peptic ulcer ,intestinal ulcers and tumours of GIT	S	SH	Y	DOAP	Viva voce	
	Topic 24: Hepatobiliary system	**Number of competencies: (09)**			**Number of competencies that require certification: (01)**		
PA24.1	Describe Bilirubin metabolism, enumerate the etiology and pathogenesis of jaundice, distinguish between direct and indirect hyper Bilirubinemia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.2	Describe the pathophysiology and pathologic changes seen in hepatic failure and their clinical manifestations, complications and consequences	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.3	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	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.4	Describe the pathophysiology, pathology and progression of alcoholic liver disease including cirrhosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.5	Describe the etiology, pathogenesis and complications of portal hypertension	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.6	Interpret liver function and viral hepatitis serology panel. Distinguish obstructive from non-obstructive jaundice based on clinical features and liver function tests	S	P	Y	DOAP	Skill assessment	1
PA24.7	Define and describe the etiology, types, pathogenesis, morphology and complications of Hepatocellular Carcinoma	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA24.8	Describe the pathophysiology, pathology and complications of acute cholecystitis and Cholelithiasis	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA24.9	Describe and identify the microscopic features of liver diseases and tumors	S	SH	Y	DOAP	Viva voce	
	Topic 25: Respiratory system	**Number of competencies: (07)**			**Number of competencies that require certification: (NIL)**		
PA25.1	Define and describe the etiology, types, pathogenesis, stages, morphology and complications of pneumonia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA25.2	Describe the etiology, gross and microscopic appearance and complications of lung abscess	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA25.3	Define and describe the etiology, types, pathogenesis, stages morphology and complications and evaluation of Obstructive airway disease (OAD) and bronchiectasis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA25.4	Define and describe the etiology, types, pathogenesis, stages, morphology microscopic appearance and complications of tuberculosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA25.5	Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease	K	KH	Y	LGT, SGT	Written / Viva voce	
PA25.6	Define and describe the etiology, types, exposure, genetic environmental influence, pathogenesis, stages, morphology, microscopic appearance, metastases and complications of tumors of the lung and pleura including mesothelioma	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA25.7	Identify and describe the features of diseases and tumors of lung in a gross and microscopic specimen	S	SH	Y	DOAP	Viva voce	
	Topic 26: Cardiovascular system	**Number of competencies: (10)**			**Number of competencies that require certification: (NIL)**		
PA26.1	Distinguish arteriosclerosis from atherosclerosis. Describe the pathogenesis and pathology of various causes and types of atherosclerosis	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA26.2	Describe the etiology, dynamics, pathology types and complications of aneurysms including aortic aneurysms	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.3	Describe the etiology, types, stages pathophysiology, pathology and complications of heart failure	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.4	Describe the etiology, pathophysiology, pathology, gross and, complications of Congenital heart disease	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.5	Describe the etiology, pathophysiology, pathology, gross and microscopic features, criteria and complications of rheumatic fever	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.6	Describe the epidemiology, risk factors, etiology, pathophysiology, pathology, presentations, gross and microscopic features, diagnostic tests and complications of ischemic heart disease and Interpret abnormalities in cardiac function testing in acute coronary syndromes	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.7	Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of infective endocarditis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA26.8	Describe the etiology, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of pericarditis and pericardial effusion	S	SH	Y	DOAP	Skill Assessment	
PA26.9	Classify and describe the etiology, types, pathophysiology, pathology, gross and microscopic features, diagnosis and complications of cardiomyopathies	K	KH	N	LGT, SGT	Written/ Viva voce	
PA26.10	Describe the etiology, pathophysiology, pathology features and complications of tumors of cardiovascular system.	K	KH	N	LGT, SGT	Written/ Viva voce	
	Topic 27 : Urinary Tract	**Number of competencies: (17)**			**Number of competencies that require certification: (NIL)**		
PA27.1	Describe the normal histology of the kidney	K	K	Y	LGT, SGT	Written/ Viva voce	
PA27.2	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	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA27.3	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings, progression and complications of acute renal failure	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.4	Define and describe the etiology, precipitating factors, pathogenesis, pathology, laboratory urinary findings progression and complications of chronic renal failure	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.5	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	LGT, SGT	Written/ Viva voce	
PA27.6	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of IgA nephropathy	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.7	Enumerate and describe the findings in glomerular manifestations of systemic disease	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.8	Enumerate and classify diseases affecting the tubular Interstitium	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.9	Define and describe the etiology, pathogenesis, pathology, laboratory, urinary findings, progression and complications of acute tubular necrosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.10	Describe the etiology, pathogenesis, pathology, laboratory findings, distinguishing features progression and complications of acute and chronic pyelonephritis and reflux nephropathy	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA27.11	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	LGT, SGT	Written/ Viva voce	
PA27.12	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	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA27.13	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	LGT, SGT	Written/ Viva voce	
PA27.14	Classify and describe the etiology, genetics, pathogenesis, pathology, presenting features, progression and spread of renal tumors	K	KH	N	LGT, SGT	Written/ Viva voce	
PA27.15	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of thrombotic angiopathies	K	KH	N	LGT, SGT	Written/ Viva voce	
PA27.16	Describe the etiology, genetics, pathogenesis, pathology, presenting features and progression of urothelial tumors	K	KH	N	LGT, SGT	Written/ Viva voce	
PA27.17	Identify and describe the features of kidney diseases and tumors in a gross and microscopic specimen	S	SH`	Y	DEMO	Viva voce / OSPE	
Topic 28: Male Genital Tract		**Number of competencies: (06)**			**Number of competencies that require certification: (NIL)**		
PA28.1	Classify testicular tumors and describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of testicular tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA28.2	Describe the pathogenesis, pathology, presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the penis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA28.3	Describe the pathogenesis, pathology, hormonal dependency presenting and distinguishing features, urologic findings & diagnostic tests of benign prostatic hyperplasia	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA28.4	Describe the pathogenesis, pathology, hormonal dependency presenting and distinguishing features, diagnostic tests, progression and spread of carcinoma of the prostate	K	KH	Y	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA28.5	Describe the etiology, pathogenesis, pathology and progression of prostatitis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA28.6	Describe and identify the morphologic and microscopic features of diseases and tumors of male genital tract	S	SH	Y	DOAP	Viva voce	
	Topic 29: Female Genital Tract	**Number of competencies: (10)**			**Number of competencies that require certification: (NIL)**		
PA.29.1	Describe the epidemiology, pathogenesis, etiology, pathology, screening, diagnosis and progression of carcinoma of the cervix	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA29.2	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the endometrium	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA29.3	Describe the pathogenesis, etiology, pathology, diagnosis and progression and spread of carcinoma of the leiomyoma and leiomyosarcomas	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA29.4	Classify and describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of ovarian tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA29.5	Describe the etiology, pathogenesis, pathology, morphology, clinical course, spread and complications of gestational trophoblastic neoplasms	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA29.6	Describe the etiology and morphologic features of cervicitis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA29.7	Describe the etiology, hormonal dependence, features and morphology of endometriosis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA29.8	Describe the etiology and morphologic features of adenomyosis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA29.9	Describe the etiology, hormonal dependence and morphology of endometrial hyperplasia	K	KH	N	LGT, SGT	Written/ Viva voce	
PA29.10	Describe and identify the morphologic and microscopic features of diseases and tumors of female genital tract	S	SH	Y	DOAP	Viva voce	
	Topic 30: Breast	**Number of competencies: (05)**			**Number of competencies that require certification: (NIL)**		

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA30.1	Classify and describe the types, etiology, pathogenesis, hormonal dependency of breast pathology and benign disease	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA30.2	Classify and describe the epidemiology, pathogenesis, classification, morphologic and microscopic features, prognostic factors, hormonal dependency, staging and spread of carcinoma of the breast	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA30.3	Describe and identify the morphologic and microscopic features of Phyllodes tumor of the breast	S	SH	N	DOAP	Skill Assessment	
PA30.4	Enumerate and describe the etiology, hormonal dependency and pathogenesis of Gynaecomastia	K	KH	N	LGT, SGT	Written/ Viva voce	
PA30.5	Describe and identify the morphologic and microscopic features of benign and malignant tumors of the breast	S	SH	Y	DOAP	Viva voce	
	Topic 31: Endocrine system	**Number of competencies: (10)**			**Number of competencies that require certification: (NIL)**		
PA31.1	Enumerate, classify and describe the etiology, pathogenesis, pathology and iodine dependency of thyroid swellings	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA31.2	Describe the etiology, cause, iodine dependency, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA31.3	Describe the etiology, pathogenesis, manifestations, laboratory and imaging features and course of thyrotoxicosis/ hypothyroidism	K	KH	Y	LGT, Small group	Written/ Viva voce	
PA31.4	Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features & complications of Thyroid tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA31.5	Classify and describe the epidemiology, etiology, pathogenesis, pathology, clinical laboratory features, complications and progression of diabetes mellitus	K	KH	N	LGT, SGT	Written/ Viva voce	
PA31.6	Describe the etiology, genetics, pathogenesis, manifestations, laboratory and morphologic features of hyperparathyroidism	K	KH	N	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA31.7	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications and metastases of pancreatic cancer	K	KH	N	LGT, SGT	Written/ Viva voce	
PA31.8	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of adrenal insufficiency	K	KH	N	LGT, SGT	Written/ Viva voce	
PA31.9	Describe the etiology, pathogenesis, manifestations, laboratory, morphologic features, complications of Cushing's syndrome	K	KH	N	LGT, SGT	Written/ Viva voce	
PA31.10	Describe the etiology, pathogenesis, manifestations, laboratory and morphologic features of adrenal neoplasms	S	SH	Y	DOAP	Viva voce	
	Topic 32: Bone and soft tissue	**Number of competencies: (07)**			**Number of competencies**		
PA32.1	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of osteomyelitis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA32.2	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of bone tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA32.3	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications and metastases of soft tissue tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA32.4	Classify and describe the etiology, pathogenesis, manifestations, radiologic and morphologic features and complications of Paget's disease of the bone	K	KH	N	LGT, SGT	Written/ Viva voce	
PA32.5	Classify and describe the etiology, immunology, pathogenesis, manifestations, radiologic and laboratory features, diagnostic criteria and complications of rheumatoid arthritis	K	KH	N	LGT, SGT	Written/ Viva voce	
PA32.6	Classify and describe the etiology, pathogenesis, manifestations, radiologic and laboratory features, diagnostic criteria and complications of Osteo arthritis and Gouty arthritis	K	KH	N	LGT, SGT	Written/ Viva voce	

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA32.7	Describe and identify the morphologic and microscopic features of diseases and tumors of bone	S	SH	Y	DOAP	Viva voce	
	Topic 33: Skin	**Number of competencies: (04)**			**Number of competencies that require certification:(NIL)**		
PA33.1	Describe the risk factors pathogenesis, pathology and natural history of squamous cell carcinoma of the skin	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA33.2	Describe the risk factors pathogenesis, pathology and natural history of basal cell carcinoma of the skin	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA33.3	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	LGT, SGT	Written/ Viva voce	
PA33.4	Identify, distinguish and describe common tumors of the skin	S	SH	N	DOAP	Skill Assessment	
	Topic 34: Central Nervous System	**Number of competencies:(03)**			**Number of competencies that require certification: (01)**		
PA34.1	Describe the etiology, types and pathogenesis, differentiating factors, CSF findings in meningitis	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA34.2	Classify and describe the etiology, genetics, pathogenesis, pathology, presentation sequelae and complications of CNS tumors	K	KH	Y	LGT, SGT	Written/ Viva voce	
PA34.3	Identify the etiology of meningitis based on given CSF parameters	S	P	Y	DOAP	Skill Assessment	1
	Topic 35: Eye	**Number of competencies: (01)**			**Number of competencies that require certification: (NIL)**		

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/ S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PA35.1	Describe the etiology, genetics, pathogenesis, pathology, presentation, sequelae and complications of retinoblastoma	K	KH	N	LGT, SGT	Written/ Viva voce	

BLUEPRINT GRID FOR SETTING QUESTION PAPERS

Pathology Paper 1-

Pathology Paper 1	% weightage
Cell injury and adaptations-	15
Infection and infestation	3
Paediatrics and genetic diseases	3
Amyloidosis immunopathology & aids	10
Inflammation Healing and repair	15
Neoplasia	10
Hemodynamics	10
Environment and nutrition	3
Introduction to hematology ,anemias and Leucocytic disorders	10
Anemias- Microcytic ,macrocytic ,hemolytic and aplastic anaemia	10
Lymph node and spleen ,Plasma cell disorders and Hemorrhagic disorders	3
Blood bank and transfusion plus clinical pathology	3
AETCOM 2.1	5
Total	100

Pathology Paper 2-

Pathology Paper 2	% weightage
Gastrointestinal tract	14
Hepatobiliary diseases	10
Respiratory system	12
Cardiovascular system	12
Urinary tract	10
Male genital tract	5
Female genital tract and breast	14
Endocrine disorders	5
Bone and soft tissue	5
Central nervous system , Eye ,skin	3
Basic diagnostic cytology PA 8.1-8.3	5
AETCOM 2.7	5
TOTAL	100

PRACTICALS (80 Marks)

EXERCISES & SKILLS

1	Peripheral smear staining & interpretation		30 Minutes	10 Marks
2	Hb Estimation		20 Minutes	05 Marks
3	Urine Analysis		30 Minutes	10 Marks
4	Histopathology slides	1 mark x 10	30 Minutes	10 Marks
5	Hematology	1 mark x 5		05 Marks
6	Cytology	1 mark x 5		05 Marks
7	Gross Specimens	2.5 marks x 4	20 Minutes	10 Marks
8	OSPE OSPE Exercise Blood – Grouping, Rh typing Clinical Interpretation Skills OSPE case based discussion including Interpretation of CBC report, Abnormal Semen Analysis Report, Laboratory Requisition writingfor the given Clinical case scenario.		50 Minutes	5 Marks 15 Marks
	Hematology (1), Systemic (2) 3 case charts x 5 marks 3) OSPE spotters – H& E, SpecialStains, IHC, Histotechniques Gross specimen, Interpretation of Urine strips 5 x 1 = 5 Marks			5 Marks

VIVA – 20 Marks

General Pathology	5 Marks
Systemic Pathology – I	5 Marks
Systemic Pathology – II	5 Marks
Hematology	5 Marks
TOTAL	20 Marks

PHARMACOLOGY

Number	COMPETENCY The student should be able to	Predominant Domain K/S/A/C	Level K/KH/S H/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P
PHARMACOLOGY (Topics = 10, Competencies = 92)							
Topic 1: General Pharmacology (GP)		**Number of competencies: (13)**			**Number of competencies that require certification : (04)**		
PH1.1	Describe the principles of pharmacology, pharmacotherapeutics and define various terms in pharmacology.	K	KH	Y	LGT/ SGT	Written, Tutorial	
PH1.2	Describe evidence based medicine and rational use of drugs & discuss why these are relevant to therapeutics.	K	KH	Y	LGT/ SGT	Written, Tutorial	
PH1.3	Describe nomenclature of drugs i.e., generic, branded drugs and scheduled drugs, explaining the utility of the nomenclature, cost effectiveness and use.	K	KH	Y	LGT/ Practical	Written, Tutorial	
PH1.4	Identify the common drug formulations and drug delivery systems, demonstrate their use and describe their advantages and disadvantages.	K,S,A,C	KH, SH	Y	SGT, DOAP, role plays/ Simulations (mannequins, hybrid, computer)	Written/ Viva voce / Tutorial /OSPE/ direct observation	1
PH1.5	Describe various routes of drug administration, their advantages and disadvantages and demonstrate administration of, e.g., SC, IV, IM, SL, rectal, spinal, sublingual, intranasal sprays and inhalers	K, S,A,C	KH, SH	Y	SGT, videos, DOAP, simulations, hybrid models	Written/ Viva voce/Tutorial/ OSPE	2
PH1.6	Describe salient features of absorption, distribution, metabolism and excretion of drugs with emphasis on various routes of drug Administration	K	KH	Y	LGT/ SGT, CBL, Simulations, practical exercises, Graphs, Flipped class room	Written/ Tutorial	

PH1.7	Describe various principles of mechanism of action of drugs	K	KH	Y	LGT, Small Group discussion, Demonstration	Written/ Viva voce/ OSPE	
PH1.8	Demonstrate the mechanism of action & effects of common prototype drugs on human body using computer assisted learning	S,K	KH/SH	Y	Animations, videos	OSPE	
Number	**COMPETENCY The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH 1.9	Select rational drug combinations based on the pharmacokinetics/pharmacodynamic (PK/PD) parameters with emphasis on synergism, antagonism, 'therapeutic efficacy', risk benefit ratio	K	KH,SH	Y	LGT, SGT, demonstrations, CBL, Flipped class room	Written, OSPE, Viva voce/Tutorial	
PH1.10	Describe changes in pharmacology of drugs in geriatric, pediatric and special situations such as Pregnancy, lactation, hepatic and renal disorders and adjust the drug treatment accordingly.	K, S, A	KH, SH	Y	LGT, CBL/ PBL	Written/ Tutorial, OSPE	
PH 1.11	Define Adverse Drug Reactions (ADRs) & their types. Identify the ADRs in the given case scenario and assess causality.	K	KH, SH	Y	LGT, SGT, CBL	Written, Viva voce/Tutorial, OSPE	
PH1.12	Define Pharmacovigilance its principles and demonstrate ADR reporting	K, S, C	KH, SH	Y	LGT, DOAP, CBL, Can be covered in Pandemic module sessions	Written/ Viva voce OSPE	2
PH1.13	Identify and describe the management of drug interactions	K	KH, SH	Y	LGT, SGT/ CBL	Written/Viva/ Tutorial/ Prescription audit	1
Topic 2 : Autonomic & Peripheral Nervous system, Autacoids		**Number of competencies: (8)**			**Number of competencies that require certification : (NIL)**		
PH2.1	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of adrenergic and antiadrenergic drugs	K	KH	Y	LGT, SGT	Written/ Tutorial	

PH2.2	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of cholinergic and anticholinergic drugs and demonstrate OPC poisoning management	K,S,A,C	KH, SH	Y	LGT, SGT, Simulations, Role play, CBL	Written/ Tutorial/ Direct observations	
PH 2.3	Explain the rationale and demonstrate the emergency use of various sympathetic and parasympathetic drug agonists/antagonists (like Noradrenaline/ Adrenaline/Dopamine/Dobutamine, Atropine) in case-based scenarios	S,A,C	KH,SH	Y	CBL, SGT, Simulations,	Written/ Viva/ Tutorial/ OSCE	
Number	**COMPETENCY The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH2.4	.Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of skeletal muscle relaxants	K	KH	Y	LGT, SGT	Written/ Viva voce/Tutorial	
PH2.5	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of local anaesthetics (LA) & demonstrate various methods of administration of LA	K, S	KH, SH	Y	LGT, SGT, DOAP in simulated environment	Written/ Viva voce/Tutorial, OSPE	
PH2.6	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of anti-histaminics and explain management of common cold & allergic rhinitis.	K	KH	Y	LGT, CBL	Written/ Viva voce/ Tutorial	
PH2.7	Define pain and enumerate drugs used for pain. Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of analgesics including NSAIDs (except opioids)	K	KH	Y	LGT, SGT, Flipped class room	Written/ Viva voce/Tutorial	
PH2.8	Devise management plan for a case of gout, arthritis and migraine using appropriate drugs	K, S	KH, SH	Y	LGT, CBL, PBL, prescription writing	Written/ Viva voce/Tutorial, prescription audit	
Topic 3: Central Nervous system		**Number of competencies: (09)**			**Number of competencies that require certification : (NIL)**		
PH3.1	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of General anaesthetics, and pre-anaesthetic medications	K	KH	Y	LGT, SGT, Flipped class room	Written/ Tutorial	

PH3.2	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of different sedative and hypnotic agents and explain pharmacological basis of selection and use of different sedative and hypnotic agents	K	KH	Y	LGT, CBL/ PBL, prescription writing	Written/ Viva voce/Tutorial, prescription audit	
PH3.3	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used in epilepsy and devise management plan for a case of uncontrolled seizure	K, S,A,C	KH, SH	Y	LGT, CBL/PBL/ Bedside teaching, prescription writing	Written/ Viva voce/ Tutorial, prescription audit	
Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH3.4	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs of opioid analgesics and explain the special instructions for use of opioids.	K, C	KH, SH	Y	LGT, CBL/PBL/ Bedside teaching	Written/ Viva voce/Tutorial/ Direct observation	
PH3.5	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for depression and psychosis, devise management plan for depressive and psychotic Disorders	K, A, C	KH, SH	Y	LGT, CBL/PBL/ Bedside teaching, prescription writing	Written/ Viva voce/ prescription audit	
PH3.6	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used in anxiety disorders. Discuss about general goals of Pharmacotherapy for the management of above disorders	K, A,C	KH, SH	Y	LGT, CBD, Bedside teaching, prescription writing	Written/ Viva voce, prescription audit	
PH3.7	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for Parkinsonism and other neurodegenerative disorders. Write a prescription to manage a case of drug induced parkinsonism	K	KH	Y	LGT, Problem/ case-based group discussion, prescription writing	Written/ Viva voce, prescription audit	
PH3.8	Identify and manage methanol poisoning and chronic ethanol intoxication	K, S,A,C	KH, SH	Y	LGT, SGT, CBL, bedside teaching	Written/ Viva voce, direct observation	

PH3.9	Describe the drugs that are abused and cause addiction (dependence, addiction, stimulants, depressants, psychedelics, drugs used for criminal offences). Explain the process and steps for management of drug de addiction	K	KH	Y	LGT, SGT/CBL, Simulations, Flipped class room	Written/ Viva voce/Tutorial	
Topic 4: Cardiovascular system & Blood		**Number of competencies: (11)**			**Number of competencies that require certification : (NIL)**		
PH4.1	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for different anaemias and thrombocytopenia.	K	KH	Y	LGT, integration module, CBL, SDL, Prescription writing	Written/ Tutorial/ Prescription audit	Anemia Integration
PH4.2	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs acting on coagulation system (Coagulants/anticoagulants) and devise a plan to monitor therapy and management of adverse effects.	K, A, C	KH, SH	Y	LGT, SGT, bedside teaching	Written/Viva voce/ Direct observation	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH4.3	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of Fibrinolytics and Antifibrinolytic agents.	K	KH	Y	LGT, SGT	Written/Tutorial	
PH4.4	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of Antiplatelets agents.	K	KH	Y	LGT, CBL, Flipped class room	Written/Tutorial	
PH4.5	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of Diuretics, antidiuretics-vasopressin and analogues	K	KH	Y	LGT, SGT	Written/ Tutorial	
PH4.6	Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs modulating renin angiotensin aldosterone system.	K	KH	Y	LGT, SGT	Written/ Tutorial	

PH4.7	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of hypertension Devise plan for pharmacologic management of hypertension with Diabetes, Pregnancy induced hypertension and hypertensive emergency and urgency	K	KH	Y	LGT, CBL/PBL, prescription writing, Simulations	Written/ Viva voce/Tutorial prescription audit/ Direct observations	
PH4.8	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of ischemic heart disease (stable, unstable angina and myocardial infarction), peripheral vascular disease and devise management plan for a patient of acute myocardial Infarction	K, S,A,C	KH, SH	Y	LGT, CBL, Simulations, prescription writing	Written/ Viva voce/ Direct observations, audit of prescriptions	
PH4.9	Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of heart failure. Devise management plan for heart failure patients and describe the strategies to prevent long term complications of heart failure.	K, A,C	KH	Y	LGT, CBL, PBL, SDL, prescription writing	Written/ Viva voce/ prescription audit	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/S H/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH4.10	Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for cardiac arrhythmias. Devise a plan to manage a patient with supraventricular, ventricular arrhythmias, cardiac arrest and fibrillations	K,S, A,C	KH, SH	Y	LGT, SGT, CBL, SDL, simulations, prescription writing	Written/ Viva voce/ direct observation/ prescription audit	
PH4.11	Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of dyslipidaemias and enumerate drugs leading to dyslipidaemias	K	KH	Y	LGT, SGT, CBL	Written/ Viva voce/ Tutorial	
Topic 5: Respiratory system		**Number of competencies: (2)**			**Number of competencies that require certification : (NIL)**		

PH5.1	Devise management of various stages of Bronchial asthma, COPD. Explain salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of Bronchial asthma, COPD and Rhinitis.	K, A, C	KH /SH	Y	LGT, SGT, Demonstration of devices used in Br Asthma, Prescription writing	Written/ Viva voce/ OSPE/ Direct observation, Prescription audit	
PH5.2	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for cough management. Describe management of dry & productive cough	K	KH	Y	LGT , SGT, Flipped class room	Written/ Tutorial	
Topic 6: Gastrointestinal system		**Number of competencies: (5)**			**Number of competencies that require certification : (NIL)**		
PH6.1	Explain types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used in Acid peptic diseases including Peptic Ulcers, GERD and devise a management plan for a case of peptic ulcer.	K,	KH	Y	LGT, SGT, Prescription writing	Written/ Viva voce/ Tutorial, Prescription audit	
PH6.2	Describe types, salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of prokinetics & drugs used for emesis and antiemetics.	K	KH	Y	LGT, SGT	Written/ Viva voce/ Tutorial	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH6.3	Describe salient pharmacokinetics, pharmacodynamics, therapeutic uses, adverse drug reactions of drugs used for the management of diarrhoea and devise pharmacotherapeutic plan to manage acute and chronic diarrhoea in adults and children.	K, C	KH, SH	Y	LGT, SGT, bed side teaching, SDL	Written/ Viva voce, Direct observation, OSPE	
PH6.4	Describe salient pharmacokinetics, pharmacodynamics, adverse drug reactions of drugs used for the management of constipation and devise management plan for a case of constipation	K, C	KH, C	N	LGT, SGT, Direct observation	Written/ Tutorial	
PH6.5	Describe salient pharmacokinetics, pharmacodynamics, adverse drug reactions of drugs used for the management of Inflammatory Bowel Disease and Irritable Bowel Disorders	K	KH	N	LGT, SGT	Written/ Tutorial	
Topic 7: Endocrine system		**Number of competencies: (9)**			**Number of competencies that require certification : (NIL)**		

PH7.1	Describe the types, kinetics, dynamics, adverse drug reactions of drugs used in diabetes mellitus and devise management for an obese and non-obese diabetic patient & also comment on prevention of complications of the diabetes.	K,A	KH	Y	LGT, CBL, SDL, SGT, Prescription writing	Written/ Viva voce/Tutorial, prescription audit	
PH7.2	Describe the types, kinetics, dynamics, therapeutic uses, adverse drug reactions of drugs used in osteoporosis and devise management plan for a female and male patient with osteoporosis.	K	KH	Y	LGT, CBL/ SDL/ SGT, Prescription writing	Written/ Viva voce/ Tutorial, prescription audit	
PH7.3	Describe the types, kinetics, dynamics, adverse drug reactions of drugs used in thyroid Disorders and devise a management plan for a case with thyroid Disorder.	K	KH	Y	LGT, CBL, SDL, SGT, Prescription writing	Written/ Tutorial, prescription audit	
PH7.4	Describe the types, mechanisms of action, adverse effects, indications and contraindications of the drugs which modify the release of Anterior Pituitary Hormones	K	KH	N	LGT	Written/ Tutorial	
PH7.5	Explain the types, kinetics, dynamics, adverse effects, indications and contraindications of corticosteroids and communicate to patient the appropriate use of corticosteroids	K, A,C	KH, SH	Y	LGT, SGT/ CBL/ PBL, Role play	Written/ Viva voce/tutorial, Direct observation, OSPE	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH7.6	Describe the types, kinetics, dynamics, adverse effects, indications and contraindications of Androgens and drugs used of Erectile Dysfunction	K	KH	N	LGT, SGT/ CBL	Written/ tutorial	
PH7.7	Explain the types, kinetics, dynamics, adverse effects, indications and contraindications of drugs which modify Female Reproductive Functions including contraceptives. Explain the important instruction for use of female and male contraceptives	K,A,C	KH, SH	Y	LGT, SDL, CBL, PBL, SGT, Role play	Written/ Viva voce/tutorial, OSPE	
PH7.8	Explain the types, kinetics, dynamics, adverse effects, indications and contraindications of uterine relaxants and stimulants.	K	KH	Y	LGT, CBL, Flipped class room	Written/ Tutorial	

PH7.9	Describe drugs used for treatment of Infertility	K	KH	Y	LGT, CBL	Written/ tutorial	
Topic 8: Chemotherapy		**Number of competencies: (11)**			**Number of competencies that require certification : (NIL)**		
PH8.1	Discuss general principles of chemotherapy with emphasis on antimicrobial resistance.	K	KH	Y	LGT	Written/ Viva voce/tutorial, Pandemic module	
PH8.2	Discuss rational use of antimicrobials and describe antibiotic stewardship program of your institute	K	KH	Y	LGT, CBL, SGT, Flipped class room	Written/ Viva voce/tutorial, Pandemic module	
PH8.3	Explain the kinetics, dynamics, adverse effects, indications of the following antibacterial drugs: Sulphonamides Quinolones, Beta-lactams, Macrolides, Tetracyclines, Aminoglycosides, and newer antibacterial drugs	K	KH	Y	LGT, CBL, SGT	Written/ Viva voce/tutorial	
PH8.4	Devise a pharmacotherapeutic plan for UTI and STDs and explain to patient the instructions and adherence to treatment.	K,A,C	KH, SH	Y	LGT, CBL/ PBL/ SGT, role play, Prescription writing	Written/Viva voce/tutorial, OSPE/ Prescription audit, Direct observation	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH8.5	Explain the types, kinetics, dynamics, therapeutic uses and adverse effects of drugs used in tuberculosis. Devise management plan for tuberculosis treatment in various categories.	K	KH, SH	Y	LGT, CBL, PBL, SDL, Prescription writing	Written/ Viva voce/tutorial, Prescription audit	
PH8.6	Discuss the types, Kinetics, dynamics, adverse effects for drugs used for Leprosy and outline management of Lepra reactions	K	KH	Y	LGT/CBL. Prescription writing	Written/ Viva voce/tutorial Prescription audit	

PH8.7	Discuss the types, Kinetics, dynamics, adverse effects of drugs used for following Protozoal / Vector borne diseases: 1. Amoebiasis 2. Kala-azar 3. Malaria 4. Filariasis	K	KH	Y	LGT SGT, CBL, Prescription writing	Written/Viva voce/tutorial, Prescription audit	
PH8.8	Explain the types, kinetics, dynamics, adverse effects of drugs used for fungal infections	K	KH	Y	LGT SGT, CBL, Prescription writing	Written/Viva voce/tutorial, Prescription	
PH8.9	Discuss the types, kinetics, dynamics, adverse effects of drugs used for Intestinal Helminthiasis	K	KH	Y	LGT SGT, CBL, Prescription writing	Written/Viva voce, Prescription	
PH8.10	Discuss the types, kinetics, dynamics, adverse effects, indications and contraindications of drugs used for viral diseases including HIV	K	KH	Y	LGT SGT, CBL, Prescription writing	Written/Viva voce/tutorial, Prescription	
PH8.11	Describe the types, kinetics, dynamics, adverse effects, indications and contraindications of anti-cancer drugs . Devise plan for amelioration of anticancer drug induced toxicity.	K	KH	N	LGT, SGT, CBL	Written/tutorial	
Topic 9: Miscellaneous		**Number of competencies: (7)**			**Number of competencies that require certification : (NIL)**		
PH9.1	Describe the types, kinetics, dynamics, therapeutic uses, adverse drug reactions of immunomodulators	K	KH	N	LGT/ SGT	Written/ Viva voce /tutorial	
PH9.2	Describe management of common drug poisonings, insecticides, common stings and bites	K	KH	Y	LGT, CBL, Simulations	Written/ Viva voce/tutorial, direct observations	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/S H/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH9.3	Describe chelating agents and make a plan for management of heavy metal poisoning	K	KH	N	LGT, CBL	Written/ tutorial	
PH9.4	Describe basics of vaccine use and types of vaccines	K	KH	Y	SGT, LGT	Written/ tutorial	
PH9.5	Describe types, precautions and uses of antiseptics and disinfectants	K	KH	Y	SGT, LGT	Written/ tutorial	

PH9.6	Describe drugs used in various skin disorders like acne vulgaris, scabies , pediculosis, psoriasis including sunscreens	K	KH	N	LGT, Prescription writing	Written/ tutorial, Prescription audit	
PH9.7	Describe drugs used in glaucoma and other ocular disorders including topical (ocular) drug delivery systems	K	KH	N	LGT	Written/ tutorial	
Topic 10: Applied Pharmacology		**Number of competencies: (17)**			**Number of competencies that require certification : (7)**		
PH10.1	Compare and contrast different sources of drug information and update on latest information on drugs	K, C	KH, SH	Y	SGT, Practicals, Debate	Written, OSPE	2
PH10.2	Perform a critical evaluation of the drug promotional literature and Interpret the package insert information contained in the drug package	K	KH/SH	Y	CBL, SGT, Debate	Written, OSPE	1
PH10.3	To prepare and explain a list of P-drugs for a given case/condition	S,K,C	SH/KH	Y	CBL, SGT	OSPE, written	2
PH10.4	Describe parts of a correct, rational and legible prescription and write rational prescriptions for the provided condition. (examples of conditions to be used are given with other relevant competencies)	K	KH, SH	Y	Practical, DOAP, CBL, prescription writing	Written/ Viva voce/tutorial prescription audit	5
PH10.5	Identify and apply the legal and ethical regulation of prescribing drugs especially when prescribing for controlled drugs, off-label medicines, and prescribing for self, close family and friends	K	KH	Y	SGT, CBL	short note/ Viva voce/tutorial	
PH10.6	Perform a critical appraisal of a given prescription and suggest ways to improve it	SK	KH	Y	CBL, SGT, prescription critique	Written, Viva voce, OSPE	
PH10.7	Describe Pharmacogenomics and Pharmacoeconomics and manage genomic & economic issues in drug use and find out the price of given medication(s).	K	KH, SH	N	LGT, SGT,	Written/ Viva voce	

Number	**COMPETENCY** **The student should be able to**	**Predominant Domain K/S/A/C**	**Level K/KH/SH/P**	**Core (Y/N)**	**Suggested Teaching Learning method**	**Suggested Assessment method**	**Number required to certify P**
PH10.8	Describe Essential medicines, Fixed dose combination, Over the counter drugs and explain steps to choose essential medicines.	K	KH, SH	Y	SGT, DOAP, Debate	Written/ Viva voce/ OSPE	

PH10.9	Calculate the dosage of drugs for an individual patient, including children, elderly, pregnant and lactating women and patients with renal or hepatic dysfunction.	K,S	SH	Y	LGT, practical	Written/ OSPE	1
PH10.10	Identify when therapeutic drug monitoring is considered for a particular patient, determine timing of sampling and calculate revised dose.	K	KH	N	LGT, SGT/CBL	Written, OSPE	
PH10.11	Identify and apply drug Regulations principles, acts and legal aspects related of drug discovery and clinical use	K	KH/SH	Y	LGT, Visit to clinical research facility, Can be covered in Pandemic module sessions	Written/ Viva voce/ tutorial	
PH10.12	Describe overview of drug development including phases of clinical trials and Good Clinical Practice & reflect on the role of research in developing new drugs	K,A	KH	Y	LGT, SGT, Can be covered in Pandemic module sessions	Written/ Viva voce/ tutorial	
PH10.13	Demonstrate how to optimize interaction with pharmaceutical representative/media to get/disseminate authentic information on drugs	C,A,K	SH	Y	Role Play, Videos, actual encounters	Direct observation, OSPE	2
PH10.14	Communicate with the patient regarding optimal use of a drug therapy using empathy and professionalism e.g. Oral contraceptives, anti TB drugs etc.	A,C	SH	Y	Role Play, Videos, actual encounters	OSPE, Direct observation	
PH10.15	Describe methods to improve adherence to treatment and motivate patients with chronic diseases to adhere to the prescribed pharmacotherapy	K,C,A	SH	Y	Role Play, Videos, actual encounters	Written/ OSPE, Direct observation	2
PH10.16	Demonstrate an understanding of the caution in prescribing drugs likely to produce dependence and recommend the line of management	K,C	KH,SH	Y	SGT, CBL	Written/ OSPE, Direct observation	
PH10.17	Demonstrate ability to educate public & patients about various aspects of drug use including drug dependence and OTC drugs	A,C	SH	Y	Role Play, Videos, actual encounters, Plays	OSPE, Direct observation	

BLUEPRINT GRID FOR SETTING QUESTION PAPERS

PHARMACOLOGY

PAPER I

SL No.	TOPICS	WEIGHTAGE %
1	General Pharmacology	15
2.	Central Nervous System	20
3.	Cardiovascular System	15
4.	ANS, PNS	15
5.	Blood, Diuretics	10
6.	Respiratory System	10
7.	Autocoids	10
8.	AETCOM 2.2, 2.3	5
	TOTAL	100

PAPER II

SL No.	TOPICS	WEIGHTAGE %
1.	Endocrine	25
2.	Gastrointestinal System	15
3.	Antibiotics	20
4.	Cancer chemotherapy	15
5.	Miscellaneous	20
8.	AETCOM 2.5	5
	TOTAL	100

PRACTICAL SCHEME- PHARMACOLOGY

TOTAL – 80 MARKS

PRACTICALS I (40 MARKS)	
1. Prescription Writing	05 marks
2. Prescription Audit	10 marks
3. Clinical Problem Solving	10 marks
4. Dosage Calculation	05 marks
5. Review of Drug Promotional Literature	05 marks
6. Toxicology charts	05 marks

PRACTICALS II (40 MARKS)	
1. OSPE P-Drug	05marks
2. OSPE - ADR	02marks
3. Preparation of ORS	03marks
4. AETCOM – demonstration of Routes with communication	10 marks
5. Experimental Charts Qualitative (CAL/ Charts)	10 marks
6. Clinical Pharmacology – PharmacokineticCharts	10 marks

VIVA - 20 Marks

GP, RS, CNS, GIT, Autocoids	5 Marks
ANS, CVS, Blood, Diuretics, Therapeutic Gases, Ocular Pharmacology	5 Marks
Chemotherapy Dermatological Pharmacology Immunomodulators	5 Marks
Endocrine Enzymes in Therapy Vitamins, Toxicology	5 Marks
Total	20 Marks

MICROBIOLOGY

Topic: General Microbiology and Immunity **Number of competencies: (11)** **Number of procedures that require certification : (01)**

MI1.1	Describe the different causative agents of Infectious diseases+A208, the methods used in their detection, and discuss the role of microbes in health and disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
MI1.2	Perform and identify the different causative agents of Infectious diseases by Gram Stain, ZN stain and stool routine microscopy	S	P	Y	DOAP session	Skill assessment	5		
MI1.3	Describe the epidemiological basis of common infectious diseases	K	KH	Y	Lecture	Written/ Viva voce			Community Medicine
MI1.4	Classify and describe the different methods of sterilization and disinfection. Discuss the application of the different methods in the laboratory, in clinical and surgical practice	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
MI1.5	Choose the most appropriate method of sterilization and disinfection to be used in specific situations in the laboratory, in clinical and surgical practice	K	KH	Y	Small group discussion, Case discussion	Written/Viva voce/ OSPE		General Surgery	
MI1.6	Describe the mechanisms of drug resistance, and the methods of antimicrobial susceptibility testing and monitoring of antimicrobial therapy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
MI1.7	Describe the immunological mechanisms in health	K	KH	Y	Lecture	Written/ Viva voce			Pathology
MI1.8	Describe the mechanisms of immunity and response of the host immune system to infections	K	KH	Y	Lecture	Written/ Viva voce		Pediatrics	Pathology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI1.9	Discuss the immunological basis of vaccines and describe the Universal Immunisation schedule	K	KH	Y	Lecture	Written/ Viva voce		Paediatrics	
MI1.10	Describe the immunological mechanisms in immunological disorder (hypersensitivity, autoimmune disorders and immunodeficiency states) and discuss the laboratory methods used in detection.	K	KH	Y	Lecture	Written/ Viva voce		Paediatrics	
MI1.11	Describe the immunological mechanisms of transplantation and tumor immunity	K	KH	Y	Lecture	Written/ Viva voce			
Topic: CVS and Blood		**Number of competencies: (7)**				**Number of procedures that require certification : (NIL)**			
MI2.1	Describe the etiologic agents in rheumatic fever and their diagnosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.2	Describe the classification etio-pathogenesis, clinical features and discuss the diagnostic modalities of Infective endocarditis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.3	Identify the microbial agents causing Rheumatic Heart Disease & infective Endocarditis	S	SH	Y	DOAP session	Skill assessment		General Medicine	Pathology
MI2.4	List the common microbial agents causing anemia. Describe the morphology, mode of infection and discuss the pathogenesis, clinical course, diagnosis and prevention and treatment of the common microbial agents causing Anemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.5	Describe the etio-pathogenesis and discuss the clinical evolution and the laboratory diagnosis of kalaazar, malaria, filariasis and other common parasites prevalent in India	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
MI2.6	Identify the causative agent of malaria and filariasis	K/S	SH	Y	DOAP session	Skill assessment		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 method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI2.7	Describe the epidemiology, the etio- pathogenesis, evolution complications, opportunistic infections, diagnosis, prevention and the principles of management of HIV	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology
Topic: Gastrointestinal and hepatobiliary system		**Number of competencies: (8)**				**Number of procedures that require certification : (NIL)**			
MI3.1	Enumerate the microbial agents causing diarrhea and dysentery. Describe the epidemiology, morphology, pathogenesis, clinical features and diagnostic modalities of these agents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Paediatrics	Pathology
MI3.2	Identify the common etiologic agents of diarrhea and dysentery	S	SH	Y	DOAP session	Skill assessment		General Medicine, Paediatrics	
MI3.3	Describe the enteric fever pathogens and discuss the evolution of the clinical course and the laboratory diagnosis of the diseases caused by them	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Pathology
MI3.4	Identify the different modalities for diagnosis of enteric fever. Choose the appropriate test related to the duration of illness	S	KH	Y	DOAP session	Skill assessment		General Medicine	Pathology
MI3.5	Enumerate the causative agents of food poisoning and discuss the pathogenesis, clinical course and laboratory diagnosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology
MI3.6	Describe the etio-pathogenesis of Acid peptic disease (APD) and the clinical course. Discuss the diagnosis and management of the causative agent of APD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pharmacology, Pathology
MI3.7	Describe the epidemiology, the etio-pathogenesis and discuss the viral markers in the evolution of Viral hepatitis. Discuss the modalities in the diagnosis and prevention of viral hepatitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	Pathology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI3.8	Choose the appropriate laboratory test in the diagnosis of viral hepatitis with emphasis on viral markers	K	KH	Y	Small group discussion, Case discussion	Written/ Viva voce/ OSPE		General Medicine	Pathology
Topic: Musculoskeletal system skin and soft tissue infections		**Number of competencies: (3)**			**Number of procedures that require certification : (NIL)**				
MI4.1	Enumerate the microbial agents causing anaerobic infections. Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of anaerobic infections	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	
MI4.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of bone & joint infections	K	KH	Y	Lecture	Written/ Viva voce		Orthopaedics	
MI4.3	Describe the etio-pathogenesis of infections of skin and soft tissue and discuss the clinical course and the laboratory diagnosis	K	KH	Y	Lecture	Written/ Viva voce		Dermatology, Venereology & Leprosy, General Surgery	
Topic: Central Nervous System infections		**Number of competencies: (3)**			**Number of procedures that require certification : (NIL)**				
MI5.1	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of meningitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Pathology
MI5.2	Describe the etiopathogenesis, clinical course and discuss the laboratory diagnosis of encephalitis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine, Pediatrics	Pathology
MI5.3	Identify the microbial agents causing meningitis	S	SH	Y	DOAP session	Skill assessment		General Medicine, Pediatrics	
Topic: Respiratory tract infections		**Number of competencies: (3)**			**Number of procedures that require certification : (02)**				
MI6.1	Describe the etio-pathogenesis, laboratory diagnosis and prevention of Infections of upper and lower respiratory tract	K	KH	Y	Lecture, Small group discussion	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 method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI6.2	Identify the common etiologic agents of upper respiratory tract infections (Gram Stain)	S	P	Y	DOAP session	Skill assessment	3	General Medicine	
MI6.3	Identify the common etiologic agents of lower respiratory tract infections (Gram Stain & Acid fast stain)	S	P	Y	DOAP session	Skill assessment	3	General Medicine	
Topic: Genitourinary & Sexually transmitted infections		**Number of competencies: (3)**				**Number of procedures that require certification : (NIL)**			
MI7.1	Describe the etio-pathogenesis and discuss the laboratory diagnosis of infections of genitourinary system	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Surgery	
MI7.2	Describe the etio-pathogenesis and discuss the laboratory diagnosis of sexually transmitted infections. Recommend preventive measures	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Dermatology, Venereology & Leprosy, Obstetrics & Gynaecology	
MI7.3	Describe the etio-pathogenesis, clinical features, the appropriate method for specimen collection, and discuss the laboratory diagnosis of Urinary tract infections	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
Topic: Zoonotic diseases and miscellaneous		**Number of competencies: (16)**				**Number of procedures that require certification : (01)**			
MI8.1	Enumerate the microbial agents and their vectors causing Zoonotic diseases. Describe the morphology, mode of transmission, pathogenesis and discuss the clinical course, laboratory diagnosis and prevention	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine	
MI8.2	Describe the etio-pathogenesis of opportunistic infections (OI) and discuss the factors contributing to the occurrence of OI, and the laboratory diagnosis	K	KH	Y	Lecture	Written/ Viva voce		General Medicine	Pathology
MI8.3	Describe the role of oncogenic viruses in the evolution of virus associated malignancy	K	KH	Y	Lecture	Written		General Medicine	Pathology

Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core (Y/N)	Suggested Teaching Learning method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI8.4	Describe the etiologic agents of emerging Infectious diseases. Discuss the clinical course and diagnosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Community Medicine	
MI8.5	Define Healthcare Associated Infections (HAI) and enumerate the types. Discuss the factors that contribute to the development of HAI and the methods for prevention	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		General Medicine, Community Medicine	
MI8.6	Describe the basics of Infection control	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Community Medicine
MI8.7	Demonstrate Infection control practices and use of Personal Protective Equipments (PPE)	S	P	Y	DOAP session	Skill assessment	3 each in (Hand hygiene & PPE)	General Surgery	Community Medicine
MI8.8	Describe the methods used and significance of assessing the microbial contamination of food, water and air	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
MI8.9	Discuss the appropriate method of collection of samples in the performance of laboratory tests in the detection of microbial agents causing infectious diseases	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
MI8.10	Demonstrate the appropriate method of collection of samples in the performance of laboratory tests in the detection of microbial agents causing Infectious diseases	S	SH	Y	DOAP session	Skill assessment			
MI8.11	Demonstrate respect for patient samples sent to the laboratory for performance of laboratory tests in the detection of microbial agents causing Infectious diseases	A	SH	Y	DOAP session	Skill assessment			
MI8.12	Discuss confidentiality pertaining to patient identity in laboratory results	A	KH	Y	Lecture, Small group discussion	Viva voce			
MI8.13	Choose the appropriate laboratory test in the diagnosis of the infectious disease	K	KH	Y	Small group discussions, Case discussion	Written/ Viva voce/ 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 method	Suggested Assessment method	Number required to certify P	Vertical integration	Horizontal Integration
MI8.14	Demonstrate confidentiality pertaining to patient identity in laboratory results	A	SH	Y	DOAP session	Skill assessment		AETCOM	
MI8.15	Choose and Interpret the results of the laboratory tests used in diagnosis of the infectious diseas	K/S	SH	Y	Small group discussion, Case discussion	Written/ Viva voce/ OSPE			
MI8.16	Describe the National Health Programs in the prevention of common infectious disease (for information purpose only as taught in CM)	K	K	Y	Lecture	Written/ Viva voce			Community Medicine
	*causative agents of Infectious diseases are inclusive of bacterial, viral, parasites and fungal agents causing various clinical conditions.								
	Column C: K- Knowledge, S – Skill, A - Attitude / professionalism, C- Communication. Column D: K – Knows, KH - Knows How, SH - Shows how, P- performs independently, Column F: DOAP session – Demonstrate, Observe, Assess, Perform. **Column H: If entry is P: indicate how many procedures must be done independently for certification/ graduation**								

BLUEPRINT GRID FOR SETTING QUESTION PAPERS

MICROBIOLOGY

PAPER I

SL No.	TOPICS	WEIGHTAGE %
1	General Microbiology	25
2.	Immunology	15
3.	Hospital infection control	15
4.	Zoonotic diseases & Miscellaneous	25
5.	Skin & soft tissue infection (SST) and Musculoskeletal system infections	15
6.	AETCOM 2.1	5
	TOTAL	100

PAPER II

SL No.	TOPICS	WEIGHTAGE %
1.	CVS & blood stream infection	20
2.	Respiratory tract infection	20
3.	Genitourinary & sexually transmitted infections	15
4.	Gastrointestinal & hepatobiliary system	20
5.	Central Nervous system infections	20
6.	AETCOM 2.8	5
	TOTAL	100

MICROBIOLOGY - PRACTICALS (80 Marks)

1	Gram staining	16 Marks
2	AFB Staining	16 Marks
3	Bacteriology	06 Marks
4	Immuno Serology	06 Marks
5	Parasitology	06 Marks
6	Mycology	06 Marks
7	Virology	06 Marks
	For problem solving exercise no.3 to 7, Clinical case scenario to be given for identification of thedisease causing agent and interpretation of Immuno-serology.	
8	Spotters	10 Marks
9	OSPE (any two of the following) Hand Hygiene Bio Medical Waste Management Donning/Doffing Interpretation of Antibiotic Sensitivity Testing	2 X 4 MARKS = 8
	Laboratory Requisition writing for the givenclinical case scenario Specimen Collection (any one of thefollowing) Blood Naso-Pharyngeal Swab Wound Swab Urine sample collection from indwellingcatheter	

VIVA – 20 Marks

General Bacteriology and Immunology	5 Marks
Blood stream infections, CVS,GIT and Hepato Biliary System	5 Marks
Respiratory System, Genitourinary System and STD	5 Marks
Skin and soft tissue, CNS, HAI, BMW and Antimicrobial Susceptibility	5 Marks
TOTAL	20 Marks

CLINICAL POSTING

Clinical Posting Schedule for **100 MBBS students** from

October 2025 to September 2026

Department	Weeks
General Medicine	8
General Surgery	6
Obstetrics & Gynaecology	6
Paediatrics	4
Otorhinolaryngology (ENT)	4
Ophthalmology	4
Community Medicine	4
Total	**36 weeks**

36 weeks of clinical postings — a perfect fit for 9 months (October–June), leaving July–September free for revisions, electives, exams, or backlog adjustments.

Batch Rotation Plan

Split 100 students into **5 batches** of 20 students (A, B, C, D, E). Each batch rotates through all departments.

Clinical Posting Cycle

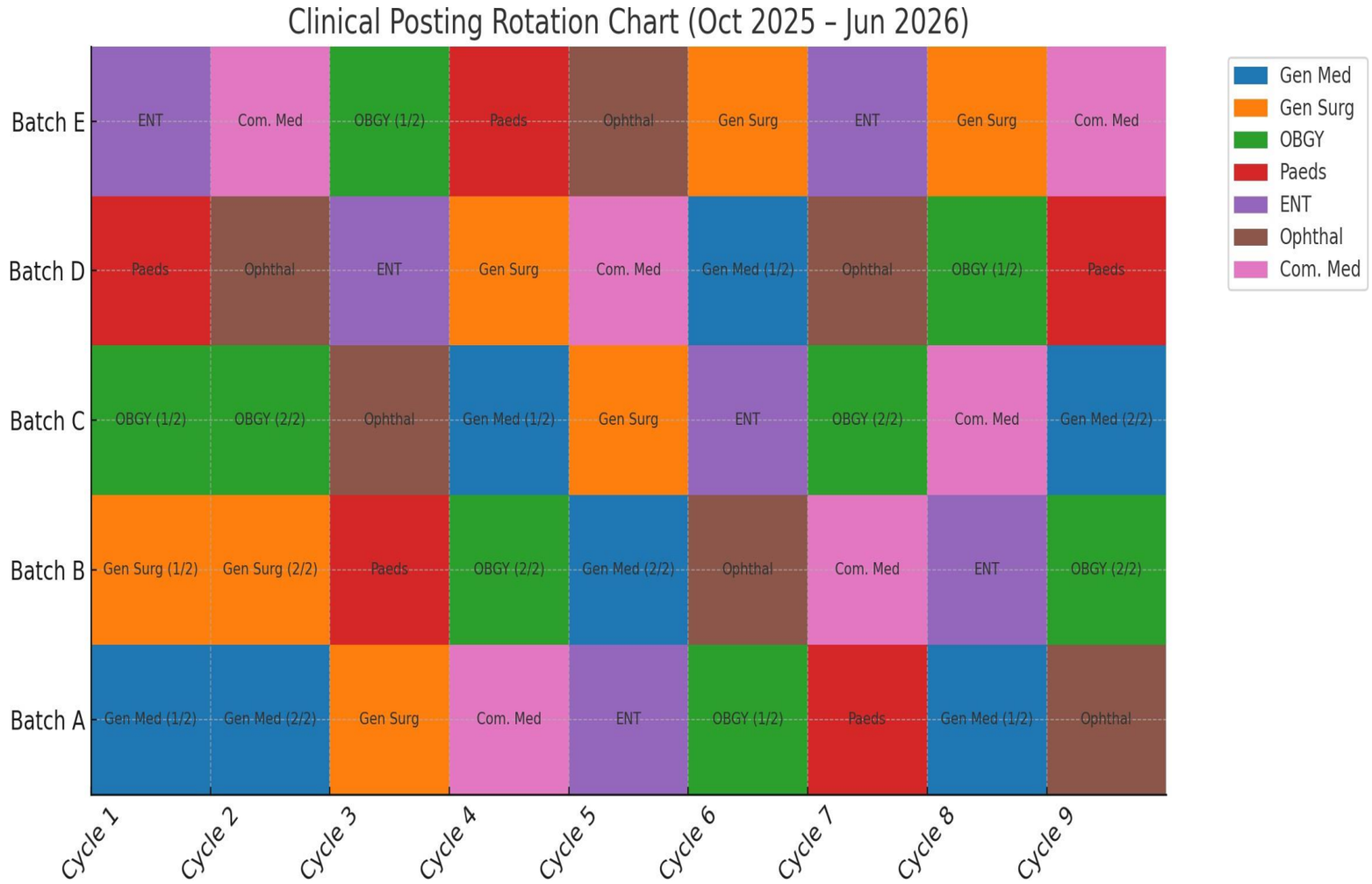
Each posting cycle = 4 weeks (1 month), repeated 9 times to cover 36 weeks.

Cycle	Dates	Batch A	Batch B	Batch C	Batch D	Batch E
1	1st Oct – 28th Oct	Gen Med (1/2)	Gen Surg (1/2)	OBGY (1/2)	Paeds	ENT
2	29th Oct – 25th Nov	Gen Med (2/2)	Gen Med(1/2)	Paed	Ophthal	Com. Med
3	26th Nov – 23rd Dec	Gen Surg(1/2)	Paeds	Ophthal	ENT	OBGY (1/2)
4	24th Dec – 20th Jan	Com. Med	OBGY (1/2)	Gen Med(1/2)	Gen Surg(1/2)	Paeds
5	21st Jan – 17th Feb	ENT	Gen Med(2/2)	Gen Surg(1/2)	Com. Med	Ophthal
6	18th Feb – 17th Mar	OBGY (1/2)	Ophthal	ENT	Gen Med(1/2)	Gen Surg(1/2)
7	18th Mar – 14th Apr	Paeds	Com. Med	Gen. surg/OG	Gen Med(2/2)	OBGY/Gen. surg
8	15th Apr – 12th May	Gen. surg /OG	ENT	Com. Med	OBGY (1/2)	Gen Med(1/2)
9	13th May – 9th Jun	Ophthal	Gen. surg/OG	Gen Med(2/2)	OG/Gen. surg	Gen. Med(2/2)

Gen. surg/ OG: 2 weeks per subject in the respective order.

Timing: 10AM – 01 PM (clinical).

- Internal **Assessments**: After every cycle
- Logbooks to be maintained per posting


Clinical Posting Rotation Chart (Oct 2025 – Jun 2026)
Batch E
Batch D
Batch C
Batch B
Batch A
ENT
Com. Med
OBGY (1/2)
Paeds
Ophthal
Gen Surg
ENT
Gen Surg
Com. Med
Paeds
Ophthal
ENT
Gen Surg
Com. Med
Gen Med (1/2)
Ophthal
OBGY (1/2)
Paeds
OBGY (1/2)
OBGY (2/2)
Ophthal
Gen Med (1/2)
Gen Surg
ENT
OBGY (2/2)
Com. Med
Gen Med (2/2)
Gen Surg (1/2)
Gen Surg (2/2)
Paeds
OBGY (2/2)
Gen Med (2/2)
Ophthal
Com. Med
ENT
OBGY (2/2)
Gen Med (1/2)
Gen Med (2/2)
Gen Surg
Com. Med
ENT
OBGY (1/2)
Paeds
Gen Med (1/2)
Ophthal
Cycle 1
Cycle 2
Cycle 3
Cycle 4
Cycle 5
Cycle 6
Cycle 7
Cycle 8
Cycle 9
Gen Med
Gen Surg
OBGY
Paeds
ENT
Ophthal
Com. Med

Month	Cycle	Posting Dates
Oct 2025	1	1 Oct – 28 Oct
Nov 2025	2	29 Oct – 25 Nov
Dec 2025	3	26 Nov – 23 Dec
Jan 2026	4	24 Dec – 20 Jan
Feb 2026	5	21 Jan – 17 Feb
Mar 2026	6	18 Feb – 17 Mar
Apr 2026	7	18 Mar – 14 Apr
May 2026	8	15 Apr – 12 May
Jun 2026	9	13 May – 9 Jun

Learner- Doctor programme (Clinical Clerkship)

Year of Curriculum	**Focus of Learner-Doctor programme**
Phase-I	Introduction to hospital environment, early clinical exposure, understanding perspectives of illness, family adoption program
Phase-II	History taking, physical examination, assessment of change in clinical status, communication and patient education, family adoption program
Phase-III Part -1	All of the above and choice of investigations, basic procedures and continuity of care
Phase-III Part -2	All of the above (except Family adoption programme) and decision making, management and outcomes

MASTER TIMETABLE

KMMC Medical College and Hospitals, Muttom, Kanyakumari

Timetable for Phase II MBBS – Batch of 2024

The timetable for Phase II is divided into 3 blocks, of 3 months each.

First block of 3 months (October 2025 to December 2025)

Day	**8 – 9 am**	**9 – 10 am**	**10 am – 1 pm**	**1 – 2pm**	**2 – 4 pm**
Monday	Pathology	CM/FMT[a]	Clinical Postings	Lunch	Practicals
Tuesday	Pharmacology	GM/ Ophthal[b]			Practicals
Wednesday	Microbiology	Pathology			Practicals
Thursday	Pharmacology	OBG/Paediatrics[c]			SDL/SGT CM/FMT[d]
Friday	Microbiology	GS / ENT[e]			Integrated Seminar/AETCOM/SGT[f]
Saturday	SDL	**9-11am**	**11 am to 1 pm**		Seminar / Extra-curricular activities
		Tutorials	Assessment		

Second block: Jan 2026 to March 2026

Day	**8 – 9 am**	**9 – 10 am**	**10 am – 1 pm**	**1 – 2pm**	**2 – 4 pm**
Monday	Pathology	CM/FMT[a]	Clinical Postings	Lunch	Practicals
Tuesday	Pharmacology	GM/ Ophthal[b]			Practicals
		Microbiology/Ophthal[*]			
Wednesday	Microbiology	Pharmacology			Practicals
Thursday	Pathology	OBG/Paediatrics[c]			FMT – Jan & Feb SGT[#] from March
		Pharmacology / Paediatrics[**]			
Friday	Microbiology	GS / ENT[e]			Integrated Seminar/AETCOM/SGT[f]
		Pathology / ENT [***]			
Saturday	SDL	**9-11am**	**11 am to 1 pm**		Seminar / Extra-curricular activities
		Tutorials	Assessment		

Third block: April 2026 to June 2026

Day	**8 – 9 am**	**9 – 10 am**	**10 am – 1 pm**	**1 – 2pm**	**2 – 4 pm**
Monday	Pathology	CM/FMT[a]	Clinical Postings	Lunch	Practicals
Tuesday	Pharmacology	Microbiology			Practicals
Wednesday	Microbiology	Microbiology			Practicals
Thursday	Pathology	Pharmacology			SGT[#] / Sports
Friday	Pharmacology	Pathology			Integrated Seminar/ AETCOM/SGT[f]/sports
					LGT[$] (May & June)
Saturday	SDL	**9-11am**	**11 am to 1 pm**		Seminar / Extra-curricular activities
		Tutorials	Assessment		

- [a]. CM – 1st, 3rd and 5th week, FMT – 2nd and 4th week
- [b]. General Medicine - 1st, 2nd , 3rd and 5th week, Ophthalmology – 4th week
- [c]. OBG - 1st, 2nd , 3rd and 5th week, Paediatrics – 4th week
- [d]. FMT – 1st, 2ndand 3rd week; CM- 4th and 5th week
- [e]. General Surgery - 1st, 2nd , 3rd and 5th week, ENT – 4th week
- [f]. Fridays 2-4pm
    - Integrated Seminar on 1st week of every month. Phase II subjects (Pathology in October, January & April; Pharmacology in November, February & May and Microbiology in December, March & June) will handle in rotation basis.
    - AETCOM: 2nd week – Pathology, 3rd week – Pharmacology and 4th week – Microbiology
    - 5th week SGT: October – Pathology, January – Pharmacology, April – Microbiology

- $ Fridays 2-4pm from May 2026 – LGT on Pathology – 1st , 4th week, Pharmacology – 2nd week, Microbiology – 3rd week.
- Saturdays

Week	Department	8am – 1pm	2pm – 4 pm
First	October 2025 to January 2026 Community Medicine	SDL (8-10am) FAP (10 am – 4 pm)	
	Feb 2026 – Pathology March 2026 – Pharmacology April 2026 – Microbiology May 2026 – Pathology June 2026 - Pharmacology	SDL, Tutorials, and SGT	Seminar
Second and fifth	Pathology	SDL, Tutorials, and assessment	Seminar
Third	Pharmacology	SDL, Tutorials, and assessment	Seminar
Fourth	Microbiology	SDL, Tutorials, and assessment	Seminar

- # From March, Thursdays 2-4pm is SGT. 1st week Pathology, 2nd week Pharmacology, 3rd week Microbiology, 4th, 5th week – Sports / Yoga/ EC
- * From March – Microbiology classes will be conducted at 9-10 am on 1st, 2nd , 3rd and 5th week Tuesdays, and Ophthalmology on 4th Tuesdays.
- **From February, Pharmacology classes will be conducted at 9-10 am on 1st, 2nd , 3rd and 5th week Thursdays, and Paediatrics on 4th Thursdays.
- *** From February Pathology classes will be conducted at 9-10 am on 1st, 2nd , 3rd and 5th week Fridays, and ENT on 4th Friday.

- Hours of other phase subjects will be handed over to the phase II subjects after the required NMC teaching hours have conducted.

ALIGNMENT-INTEGRATION

Annexure 11- Phase II Alignment

	Pathology	Microbiology	Pharmacology
1st month	Gen. Path	Gen. Micro, Communication and Ethics(14 competencies)	Gen. Pharm
2nd month	Gen. Path	Gen. Micro, Communication and Ethics(14 competencies)	Gen. Pharm
3rd month	Inflammation Immunology HIV	Immunology and Immunological Disorders (8 competencies)	(ANS/PNS) NSAIDs
4th month	Immunology	Immunology and Immunological Disorders	Immunosuppressants CVS
	CVS	CVS & Bloodstream infections (1.5 months)	
1st Internal Assessment			
5th month	CVS Hematology	CVS & Bloodstream infections (1.5 months)	CVS Blood
6th month	Respiratory System (2-3 weeks)	Respiratory System (2.5 weeks) Tb	Chemo
7th month	Respiratory system	CNS 1.5 weeks	Respiratory System TB (7 hours)
	CNS 2 hours Kidney		CNS 4weeks
2nd Internal Assessment			

8th month	Kidney Genito-urinary 2 weeks	Genito-urinary and STI 2 wks GIT Hepatobiliary	Chemotherapy
9th month	GIT Hepatobiliary	GIT Hepatobiliary	GIT
10th month	Bone Breast Skin, eye, joints Endocrine	Musculoskeletal system, Skin and Soft Tissue Infections (2 weeks) Zoonotic & Miscellaneous Infections (2 weeks) HAI and Antimicrobial Stewardship Hospital Infection Control	Drugs on skin, ocular Endocrine
3rd Internal Assessment/ Pre University			
11th month	**Phase 2 University Exam**		

AETCOM

AETCOM Phase II		
Subject	**Paper**	**Module number**
Microbiology	Paper 1	2.1
	Paper 2	2.8
Pharmacology	Paper 1	2.2, 2.3
	Paper 2	2.5
Pathology	Paper 1	2.4
	Paper 2	2.7

INTERNAL ASSESSMENT (Pg 39)

SL NO	SUBJECTS IN PHASE II	THEORY IA MARK	PRACTICAL IA MARK
1.	PATHOLOGY	100	100
2.	PHARMACOLOGY	100	100
3.	MICROBIOLOGY	100	100
4.	COMMUNITY MEDICINE	25	25
5.	FORENSIC MEDICINE	25	25
6.	ENT	25	25
7.	OPHTHALMOLOGY	25	25
8.	GENERAL MEDICINE	50	50
9.	GENERAL SURGERY	25	25
10.	O&G		
11.	PEDIATRICS	25	25

THEORY INTERNAL ASSESSMENT FORMAT

Name of Institution:

Name of Examination:

Name of Department:

MBBS Batch: **Phase:** **Date:**

Sl.No.	Reg. No.	Name of student	FORMATIVE ASSESSMENT			CONTINUOUS INTERNAL ASSESSMENT				
			PCT 1	PCT 2	PRELIM THEORY (PAPER I& II)	CLASS TESTS	ATTENDANCE	SEMINAR/ MUSEUM STUDY / **SELF DIRECTED LEARNING**	LIBRARY/ HOME ASSIGNMENT	TOTAL
MAXIMUM MARKS			20	20	40	8	4	4	4	100

PRACTICAL/ CLINICAL INTERNAL ASSESSMENT FORMAT

Name of Institution:

Name of Examination:

Name of Department:

MBBS Batch: **Phase:** **Date:**

Sl.No.	Reg. No.	Name of student	FORMATIVE ASSESSMENT			CONTINUOUS INTERNAL ASSESSMENT						
			PCT 1	PCT 2	PRELIM PRACTICAL	RECORD/ PORTFOLIO	ATTENDANCE	CERTIFIABLE SKILL	AETCOM	SVL LAB	RESEARCH/ EXTRACURRICULAR	TOTAL
								LOGBOOK				
MAXIMUM MARKS			20	20	20	5	4	14	5	8	4	100

INTERNAL MARKS FOR ATTENDANCE

ATTENDANCE %	MARKS AWARDED	
	THEORY	PRACTICAL
100	4	4
91-99	3	3
85-90	2	2
81-84	1	1
>75 & <80	1	0

ELIGIBILITY CRITERIA

- **Learners must secure at least 50% of the total marks (combined in theory and practical / clinical; and minimum 40% in theory and practical separately) for internal assessment in a particular subject in order to be eligible for appearing at the final University examination of that subject.**
- **The results of internal assessment should be intimated to students at least once in 3 months and as and when a student wants to see the results.**

ATTENDANCE (THEORY & PRACTICAL)

- In each subject, the student shall have a minimum of 75% attendance in theory and 80% attendance in practical / clinical, separately to be eligible to appear for the University examinations.
- The student shall also have 75 % attendance in theory and 80% in practical / clinical of the non-examination going subjects in a phase, to be eligible to appear for the University examinations of that phase. e.g., Attendance for Gen. Medicine in Second Professional MBBS and Third Professional MBBS Part I.
- 75% attendance in Professional Development Programme (AETCOM Module) is required for eligibility to appear for final examination in each professional year.
- There shall be minimum of 80% attendance in family visits under Family adoption programme.
- **Calculation of attendance**
  - The Quarterly attendance has to be displayed on notice board for taking remedial measures, if necessary.

University Examinations

Eligibility to appear for University examination

i. Attendance as per Clause above.

ii. Internal examination marks as per Clause above.

iii. Learners must have completed the required certifiable competencies and completed the logbook for that phase of training including subjects which do not have a University Examination in that Professional year (e.g., Gen. Medicine in Second Professional and Third Professional Part I). iv. Submission of the logbook / case record to the department is required for eligibility to appear for the final examination of the subject.

MBBS

SUGGESTED FORMAT FOR A THEORY PAPER-UNIVERSITY

Duration – 3 Hrs **Maximum Marks** – 100

QUESTION SL NO.	QUESTION PATTERN	NO. OF QUESTIONS	MARKS AWARDED	TOTAL MARKS
I	SCENARIO BASED MCQ	20	1	20
II	LONG STRUCTURED ESSAY QUESTION	1	10	10
III	REASONING QUESTION	5	3	15
IV	SHORT NOTES • 1-AETCOM • 4-APPLIED ASPECT • 3-DIAGRAMATIC REPRESENTATION • 1 – INTEGRATED TOPICS • 1- RECENT ADVANCES • 1- BASIC SCIENCES	10+1	5	55
			GRAND TOTAL	100

Marks distribution for subjects for University Annual Examinations

Phase of Course	Theory	Practicals	Passing criteria
Phase-II MBBS			
Pathology - 2 papers	Paper 1- 100	100	Mandatory to get 40% marks separately in theory and in practicals; and totally 50% for theory plus practicals.
	Paper 2 -100		
Microbiology- 2 papers	Paper 1- 100	100	
	Paper 2- 100		
Pharmacology- 2 papers	Paper 1 -100	100	
	Paper 2- 100		

PHASE II SYLLABUS IS PREPARED ACCORDING TO NMC'S LATEST GUIDELINES & IS APPROVED BY CURRICULUM COMMITTEE OF KANYAKUMARI MEDICAL MISSION RESEARCH CENTER.

HEAD, DEPARTMENT OF PATHOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF PHARMACOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF MICROBIOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF COMMUNITY MEDICINE (Name & Signature with date)

HEAD, DEPARTMENT OF FORENSIC MEDICINE (Name & Signature with date)

HEAD, DEPARTMENT OF OTO-RHINO-LARYNGOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF OPTHALMOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF GENERAL MEDICINE (Name & Signature with date)

HEAD, DEPARTMENT OF PEDIATRICS (Name & Signature with date)

HEAD, DEPARTMENT OF GENERAL SURGERY (Name & Signature with date)

HEAD, DEPARTMENT OF OBSTETRICS & GYNECOLOGY (Name & Signature with date)

CO-OORDINATOR, MEDICAL EDUCATION UNIT (Name & Signature with date)

VICE PRINCIPAL, KMMC (Name & Signature with date)

DEAN, KMMC (Name & Signature with date)

PHASE II SYLLABUS IS PREPARED ACCORDING TO NMC'S LATEST GUIDELINES & IS APPROVED BY CURRICULUM COMMITTEE OF KANYAKUMARI MEDICAL MISSION & RESEARCH CENTER.

HEAD, DEPARTMENT OF PATHOLOGY (Name & Signature with date) Dr. J. Bindhuja J. Bindhuja 28/8/25

HEAD, DEPARTMENT OF PHARMACOLOGY (Name & Signature with date) 28/08/2025

HEAD, DEPARTMENT OF MICROBIOLOGY (Name & Signature with date) 28/8/25 (Dr.a) DR. M. A. ASHA BEGUM

HEAD, DEPARTMENT OF COMMUNITY MEDICINE (Name & Signature with date) DR. LIAQUAT ROOPESH JOHNSON 28/08/2025

HEAD, DEPARTMENT OF FORENSIC MEDICINE (Name & Signature with date)

HEAD, DEPARTMENT OF OTO-RHINO-LARYNGOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF OPHTHALMOLOGY (Name & Signature with date)

HEAD, DEPARTMENT OF GENERAL MEDICINE (Name & Signature with date)

HEAD, DEPARTMENT OF PEDIATRICS (Name & Signature with date)

HEAD, DEPARTMENT OF GENERAL SURGERY (Name & Signature with date)

HEAD, DEPARTMENT OF OBSTETRICS & GYNECOLOGY (Name & Signature with date)

CO-ORDINATOR, MEDICAL EDUCATIION UNIT (Name & Signature with date) Delinda 28/8/25 Dr. Delinda Linn Swornika.

VICE PRINCIPAL, KMMC (Name & Signature with date) 28/08/2025 Dr. T. Ashok kumar.

DEAN, KMMC (Name & Signature with date)