

Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Heart Failure									
Number of competencies: (30)			Number of procedures that require certification : (NIL)						
IM01.1	Describe and discuss the epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic inflammatory	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the causes of heart disease correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define prevalence of rheumatic Heart disease correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define prevalence of ischaemic Heart disease correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to define prevalence of Hypertrophic Heart disease correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss pathogenesis of common causes of heart disease correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe clinical causes of common causes of heart disease correctly.	K	K	Y					
IM01.2	Describe and discuss the genetic basis of some forms of heart failure	K	KH	Y	Lecture, Small group discussion	Written		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list genetic causes of Heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe role of genetic causes in development of Heart failure correctly.	K	K	Y					
IM01.3	Describe and discuss the aetiology microbiology pathogenies and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology ,Microbiology	

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate aetiological agents of Rheumatic fever correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate infectious agents involved in Rheumatic fever correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe pathogenesis of Rheumatic fever correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe clinical causes of Rheumatic fever correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to define diagnostic criteria of Rheumatic fever correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate complications of Rheumatic fever correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe infective endocarditis of Rheumatic fever correctly.	K	K	Y					
IM01.4	Stage heart failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to classify Heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list different stages Heart failure correctly.	K	K	Y					
IM01.5	Describe ,discuss and differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to list clinical features of right sided Heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list clinical features of left sided Heart failure correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list clinical features of systolic Heart failure correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list clinical features of diastolic Heart failure correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to differentiate on the basis of clinical features between right vs left Heart failure correctly.	K	KH	Y					

Objective 6	At the end of the session, the phase III (part II) student must be able to differentiate on the basis of clinical features between systolic and diastolic Heart failure correctly.	K	KH	Y					
IM01.6	Describe and discuss the compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate compensatory mechanisms involved in heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe cardiac remodelling mechanisms in Heart failure correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe neurohormonal adaptations in heart failure correctly.	K	K	Y					
IM01.7	Enumerate, describe and discuss the factors that exacerbate heart failure including ischemia, arrhythmias, anemia, thyrotoxicosis, dietary factors drugs etc	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate exacerbating factors in heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe role of exacerbating factors in heart failure correctly.	K	K	Y					
IM01.8	Describe and discuss the pathogenesis and development of common arrhythmias involved in heart failure particularly atrial fibrillation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate arrhythmias involved in Heart Failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pathogenesis of development of Arrhythmias in Heart failure correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe pathogenesis of development of Atrial fibrillation in Heart failure correctly.	K	K	Y					

IM01.9	Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list clinical feature of acute rheumatic fever correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define diagnosis of acute rheumatic fever correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe management of acute rheumatic fever correctly.	K	K	Y					
IM01.10	Elicit document and present an appropriate history that will establish the diagnosis, cause and severity of heart failure including: presenting complaints, precipitating and exacerbating factors, risk factors exercise tolerance, changes in sleep patterns, features suggestive of infective endocarditis	S	SH	Y	Bedside clinic	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the causes of Heart failure correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate presenting complaints of Heart failure correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list precipitating factors of Heart failure correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list risk factors of Heart failure correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list changes in sleep patterns of a patient of Heart failure correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to list clinical features of a severe Heart failure correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to list clinical feature of infective endocarditis in a case of Heart failure correctly.	S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to list relevant questions in history taking to elicit the diagnosis of Heart failure correctly.	S	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to list relevant questions in history taking to elicit the cause of Heart failure correctly.	S	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to list relevant question in history taking to elicit the severity of Heart failure correctly.	S	K	Y					

Objective 11	At the end of the session, the phase III (part II) student must be able to describe History properly so the diagnosis of Heart failure can be made correctly.	S	K	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe history properly so that the cause Heart Failure can be made correctly.	S	K	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to describe history properly so that the severity of the heart failure can be asessed correctly.	S	K	Y					
Objective 14	At the end of the session, the phase III (part II) student must be able to present the History of a Heart failure patient correctly.	S	S	Y					
Objective 15	At the end of the session, the phase III (part II) student must be able to interpret the history of a heart failure patient correctly.	S	SH	Y					
IM01.11	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and estimate its severity including: measurement of pulse, blood pressure and respiratory rate, jugular venous forms and pulses, peripheral pulses, conjunctiva and fundus, lung, cardiac examination including palpation and auscultation with identification of heart sounds and murmurs, abdominal distension and splenic palpation	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the signs of Heart Failure correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the signs of Heart Failure on the basis of severity correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of pulse examination correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps of blood pressure examination correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the steps of jugular venous pulse examination correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to list the steps of fundus examination correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to list the steps of conjunctival examination correctly.	S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to list the steps of palpation in cardiac examination correctly.	S	K	Y					

Objective 9	At the end of the session, the phase III (part II) student must be able to list the steps of auscultation in cardiac examination correctly.	S	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to elicit Heart sounds in cardiac examination correctly.	S	S	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to list the steps of lung examination in a patient of Heart failure correctly.	S	K	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to list the steps of abdominal examination in a patient of Heart failure correctly.	S	K	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to list the steps of splenic palpation examination in a patient of Heart failure correctly.	S	K	Y					
Objective 14	At the end of the session, the phase III (part II) student must be able to describe abnormalities of pulse in a patient of Heart Failure correctly.	S	K	Y					
Objective 15	At the end of the session, the phase III (part II) student must be able to describe abnormalities of Blood pressure in a patient of Heart Failure correctly.	S	K	Y					
Objective 16	At the end of the session, the phase III (part II) student must be able to describe abnormalities of jugular various pulse/ forms in a patient of Heart Failure correctly.	S	K	Y					
Objective 17	At the end of the session, the phase III (part II) student must be able to describe abnormalities of cardiac examinations in a heart failure patient correctly.	S	K	Y					
Objective 18	At the end of the session, the phase III (part II) student must be able to describe abnormalities in lung examinations in a heart failure patient correctly.	S	K	Y					
IM01.12	Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the type of pulse in various causes of heart failure correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps of examination of peripheral pulse correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of examination of volume of the pulse correctly.	S	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps of examination of chartes of the pulse correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate the examination of the pulse correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to identify the abnormalities of the pulse in various causes of heart failure correctly.	S	S	Y					
IM01.13	Measure the blood pressure accurately, recognise and discuss alterations in blood pressure in valvular heart disease and other causes of heart failure and cardiac tamponade	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps of blood pressure examinations accurately.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe variations in blood pressure in values Heart disease correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe variations of blood pressure in other causes of Heart disease correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe variations of blood pressure in cardiac tamponade correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe variations of blood pressure examinations correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to record abnormalities of blood pressure in given case correctly.	S	S	Y					
IM01.14	Demonstrate and measure jugular venous distension	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define jugular pressure correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define different waves of jugular pressure correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list steps of examination of jugular pressure correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate examination of jugular pressure correctly.	S	SH	Y					

Objective 5	At the end of the session, the phase III (part II) student must be able to record measurement of jugular venous pressure in a given case correctly.	S	S	Y					
IM01.15	Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define a murmur correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify murmurs correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of examinations of murmur correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the qualities of the murmur correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify murmur in a given case correctly.	S	S	Y					
IM01.16	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the cause of Heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the causes of Heart failure on the basis of clinical presentations correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss the most likely differential diagnosis on the basis of a given set of clinical facts correctly.	K	KH	Y					
IM01.17	Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood cultures	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the investigations in Heart Failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the ECG abnormalities in various causes of Heart Failure correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the abnormalities of chest radiography in Heart Failure correctly.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to list the abnormalities in Blood culture in Heart Failure correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret the abnormalities of ECG in given case correctly.	K	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the abnormalities of chest radiography in given case correctly.	K	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to interpret the abnormalities of Blood cultures in given case correctly.	K	SH	Y					
IM01.18	Perform and interpret a 12 lead ECG	S	P	Y	Bedside clinic, DOAP session	Skill assessment 3			
Objective 1	At the end of the session, the phase III (part II) student must be able to define ECG correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define different waves of ECG correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define normal components of ECG correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps of performance of ECG correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the abnormalities of ECG correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to Interpret the abnormalities in a given ECG correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to perform the ECG in given case correctly.	S	S	Y					
IM01.19	Enumerate the indications for and describe the findings of heart failure with the following conditions including: 2D echocardiography, brain natriuretic peptide, exercise testing, nuclear medicine testing and coronary angiogram	S	KH	N	Lecture, Small group discussion, Bedside clinic	Skill assessment		Radiodiagnosis	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of 2D Echocardiography in a case of Heart failure correctly.	S	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of brain Natriuretic Peptide in a case of Heart failure correctly.	S	K	N					

Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of Exercise testing in a case of Heart failure correctly.	S	K	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the indications of nuclear medicine testing in a case of Heart failure correctly.	S	K	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indications of coronary Angiogram in a case of Heart failure correctly.	S	K	N					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the findings of 2D Echocardiography in a case of Heart failure correctly.	S	K	N					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe the findings of exercise testing in a case of Heart failure correctly.	S	K	N					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe the findings of nuclear medicine testing in a case of Heart failure correctly.	S	K	N					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe the findings of coronary Angiogram in a case of Heart failure correctly.	S	K	N					
IM01.20	Determine the severity of valvular heart disease based on the clinical and laboratory and imaging features and determine the level of intervention required including surgery	C	SH	Y	Small group discussion, Lecture, Bedside clinic	Written/ Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate clinical features of a severe valve on Heart disease correctly.	C	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the laboratory features of a severe valve on Heart disease correctly.	C	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the imaging of a severe valve on Heart disease correctly.	C	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the indications of medical management on Heart disease correctly.	C	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indications of surgery management on Heart disease correctly.	C	K	Y					

Objective 6	At the end of the session, the phase III (part II) student must be able to identify the severity of values on Heart disease in a case with given clinical facts correctly.	C	S	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to identify the correct management strategy in a case with given clinical facts correctly.	C	S	Y					
IM01.21	Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy	K	KH/SH	Y	Bedside clinic, Small group discussion, Lecture	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of acute endocarditis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of subacute endocarditis correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe Echocardiographic findings of acute endocarditis correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe Echocardiographic findings of subacute endocarditis correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe blood culture and sensitivity pattern of acute endocarditis correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe blood culture and sensitivity pattern of subacute endocarditis correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe treatment of acute endocarditis correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe treatment of subacute endocarditis correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to interpret the clinical finding correctly from a give set of clinical facts correctly.	K	S	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to demonstrate the clinical finding correctly from a give set of clinical facts correctly.	K	SH	Y					
IM01.22	Assist and demonstrate the proper technique in collecting specimen for blood culture	S	SH	Y	DOAP session	Skill assessment			Microbiology

Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps of proper technique in collecting specimen for blood culture correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the steps of proper technique in collecting specimen for blood culture correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to perform under supervision the steps of sample collection for blood culture correctly.	S	SH	Y					
IM01.23	Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations	S/C	SH	Y	Lecture, Small group discussion	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate non-pharmacologic management of Heart failure correctly.	S/C	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe sodium restriction in the management of Heart failure correctly.	S/C	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe physical activity in the management of Heart failure correctly.	S/C	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe limitation of non-pharmacologic management of Heart failure correctly.	S/C	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss limitation of non-pharmacologic management of Heart failure correctly.	S/C	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate limitation of non-pharmacologic management of Heart failure correctly.	S/C	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to document limitation of non-pharmacologic management of Heart failure correctly.	S/C	S	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to communicate non-pharmacologic management of Heart failure correctly.	S/C	SH	Y					
IM01.24	Describe and discuss the pharmacology of drugs including indications, contraindications in the management of heart failure including diuretics, ACE inhibitors, Beta blockers, aldosterone antagonists and cardiac glycosides	K	KH	Y	Lecture, Small group discussion	Viva voce/written		Pharmacology	

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of diuretics in the management of Heart failure correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of diuretics in the management of Heart failure correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the Indications of ACE inhibitors in the management of Heart failure correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of ACE inhibitors in the management of Heart failure correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the Indications of beta blood culture in the management of Heart failure correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of beta blockers in the management of Heart failure correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the Indications of aldosterone antagonist in the management of Heart failure correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of aldosterone antagonist in the management of Heart failure correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to enumerate the Indications of cardiac glycosides in the management of Heart failure correctly.	K	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of cardiac glycosides in the management of Heart failure correctly.	K	K	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of diuretics in the management of Heart failure correctly.	K	K	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of ACE inhibitors in the management of Heart failure correctly.	K	K	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of beta blockers in the management of Heart failure correctly.	K	K	Y					
Objective 14	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of aldosterone antagonist in the management of Heart failure correctly.	K	K	Y					

Objective 15	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of cardiac glycosides in the management of Heart failure correctly.	K	K	Y					
Objective 16	At the end of the session, the phase III (part II) student must be able to describe the pharmacology management in a given patient correctly.	K	K	Y					
IM01.25	Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation	K	KH	Y	Lecture, Small group discussion, Bedside clinic	Viva voce/written			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications for valvuloplasty correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications for vagotomy correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications for coronary revascularization correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the indications for cardiac Transplantation correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the correct treatment in a given patient correctly.	K	KH	Y					
IM01.26	Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology	S	SH	Y	Bedside clinic, Skill assessment Small group discussion	Bedside clinic/ Skill assessment/written			
Objective 1	At the end of the session, the phase III (part II) student must be able to classify the Heart failure correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the cause of Heart failure correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the type of Heart failure correctly.	S	S	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify the case of Heart failure correctly.	S	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the proper management plan as per the type of Heart failure correctly.	S	K	Y					

IM01.29	Elicit document and present an appropriate history, demonstrate correctly general examination, relevant clinical findings and formulate document and present a management plan for an adult patient presenting with a common form of congenital heart disease	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ written			
Objective 1	At the end of the session, the phase III (part II) student must be able to list appropriate steps to take an appropriate history for an adult with congenital Heart disease correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps of clinical examination correctly for an adult with congenital Heart disease correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to elicit an appropriate history for an adult preventing with congenital Heart disease correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate the steps of clinical examination for an adult preventing with congenital Heart disease correctly.	K	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify relevant clinical findings for an adult preventing with congenital Heart disease correctly.	K	S	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the diagnosis for an adult preventing with congenital Heart disease correctly.	K	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to document history and examination findings for an adult preventing with congenital Heart disease correctly.	K	S	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to document the diagnosis on the basis of history and examination findings for an adult preventing with congenital Heart disease correctly.	K	S	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to document the present the management plan for an adult with congenital Heart disease correctly.	K	S	Y					
IM01.30	Administer an intramuscular injection with an appropriate explanation to the patient	S	SH	Y	Bedside clinic, Skill assessment	Log book documentation of completion		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps of administering an intramuscular injection correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps of intramuscular injection correctly.	S	K	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to perform the intramuscular injection under supervision correctly.	S	S	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Acute Myocardial Infarction/ IHD		Number of competencies: (24)		Number of procedures that require certification : (02)					
IM02.1	Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology, Community Medicine	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the epidemiological factors for atherosclerosis and ischemic Heart disease correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the epidemiological for atherosclerosis and ischemic Heart disease correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the risk factors for atherosclerosis and ischemic Heart disease correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the risk factors for atherosclerosis and ischemic Heart disease correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss role of epidemiological factors for atherosclerosis and ischemic Heart disease correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss role of risk factors for atherosclerosis and ischemic Heart disease correctly.	K	KH	Y					
IM02.2	Discuss the aetiology of risk factors both modifiable and non modifiable of atherosclerosis and IHD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the modifiable risk factors of atherosclerosis and IHD correctly.	K	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the non-modifiable risk factors of atherosclerosis and IHD correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the etiology of modifiable risk factors of atherosclerosis and IHD correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the etiology of non-modifiable risk factors of atherosclerosis and IHD correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the role of risk factors in atherosclerosis and IHD correctly.	K	KH	Y					
IM02.3	Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Physiology, Biochemistry
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the different components of lipid profile correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define dyslipidemia correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe lipid cycle correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe role of dyslipidemia in the pathogenesis of atherosclerosis correctly.	K	K	Y					
IM02.4	Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to describe pathogenesis of atherosclerosis and IHD correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to Describe nature history of atherosclerosis and IHD correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the complications of atherosclerosis and IHD correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the each complication of atherosclerosis and IHD correctly.	K	KH	Y					

IM02.5	Define the various acute coronary syndromes and describe their evolution, natural history and outcomes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define the acute coronary syndrome correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify the acute coronary syndrome correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the evolution natural history of each component of acute coronary syndrome correctly.	K	K	Y					
IM02.6	Elicit document and present an appropriate history that includes onset evolution, presentation risk factors, family history, comorbid conditions, complications, medication, history of atherosclerosis, IHD and coronary syndromes	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of acute coronary syndrome correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list appropriate questions to elicit history on set of symptoms correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list appropriate questions to elicit evaluation of symptoms correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the risk factors present in the case correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the appropriate questionnaire to find relevant family history correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to list the comorbid conditions correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the complications of atherosclerosis, IHD and coronary syndromes correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to identify complications of atherosclerosis, IHD and coronary syndromes correctly.	K	S	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to document the medications of atherosclerosis, IHD and coronary syndromes correctly.	K	S	Y					

Objective 10	At the end of the session, the phase III (part II) student must be able to document the complications of atherosclerosis, IHD and coronary syndromes correctly.	K	S	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to interpret history appropriately in a given set of clinical facts correctly.	K	SH	Y					
IM02.7	Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps of vascular examination in a case of acute myocardial infection/IHD correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps of cardiac examination in a case of acute myocardial infection/IHD correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate the steps of vascular examination in a case of acute myocardial infection/IHD correctly.	K	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate the steps of Cardiac examination in a case of acute myocardial infection/IHD correctly.	K	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret the findings of vascular examination correctly.	K	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the findings of cardiac examination correctly.	K	SH	Y					
IM02.8	Generate document and present a differential diagnosis based on the clinical presentation and prioritise based on “cannot miss”, most likely diagnosis and severity	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the differential diagnosis of acute myocardial infection/IHD correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the clinical manifestations of each differential of acute myocardial infection/IHD correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the clinical manifestations of a severe case of acute myocardial infection/IHD correctly.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to interpret correct diagnosis in a given set of clinical facts of acute myocardial infection/IHD correctly.	K	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret severity in a given set of clinical facts of acute myocardial infection/IHD correctly.	K	SH	Y					
IM02.9	Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define stable, unstable angina and AMI correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate clinical features of stable, unstable angina and AMI correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe clinical features of stable, unstable angina and AMI correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify the between stable, unstable angina and AMI in a given set of clinical factor correctly.	K	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret the correct diagnosis on the basis of given clinical factors in a case correctly.	K	SH	Y					
IM02.10	Order, perform and interpret an ECG	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define ECG correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define different waves of ECG correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe a normal ECG correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe common abnormalities in ECG correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the steps of ECG examination correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate the steps of examination correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to interpret the ECG finding correctly.	S	SH	Y					

IM02.11	Order and interpret a Chest X-ray and markers of acute myocardial infarction	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the markers of acute myocardial infarction correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define a normal Chest X-ray correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the abnormalities of markers of acute myocardial infarction correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to analyse the abnormalities of markers of acute myocardial infarction correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to analyse the abnormalities of Chest X-ray in acute myocardial infarction correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the findings of Chest X-ray in acute myocardial infarction correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to interpret the findings of markers acute myocardial infarction correctly.	S	SH	Y					
IM02.12	Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context	K	SH	Y	Bedside clinic, DOAP session	Skill assessment		Biochemis try	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the different components of Lipid profile correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the complications of Lipid profile correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the normal level of components in the clinical context correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to interpret the lipid profile in a given report correctly.	S	SH	Y					
IM02.13	Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of echocardiogram correctly.	S	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of stress testing correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of coronary angiogram correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the findings of echocardiogram correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the findings of stress testing correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the findings of coronary angiogram correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to analyse the findings in a given set of investigation correctly.	S	KH	Y					
IM02.14	Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of coronary intervention for a patient with ACS correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify the coronary interventions for a patient with acute coronary syndrome correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe supportive therapy for a patient with acute coronary syndrome correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss the coronary intervention in a given patients correctly.	S	KH	Y					
IM02.15	Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the clinical manifestations of acute coronary syndrome correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the each clinical manifestations of acute coronary syndrome correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to classify the acute coronary syndrome on the basis of clinical manifestation correctly.	S	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to list the medications used in acute coronary syndrome correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indications of medicines used in acute coronary syndrome correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of medicines used in acute coronary syndrome correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to choose correct medicine in a given patient correctly.	S	KH	Y					
IM02.16	Discuss and describe the indications for acute thrombolysis, PTCA and CABG	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define acute thrombolysis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define PTCA correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define CABG correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the indications of acute thrombolysis correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of acute thrombolysis correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the indications of PTCA correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of PTCA correctly.	S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to enumerate the indications of CABG correctly.	S	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of CABG correctly.	S	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to discuss correct management plan in a given case correctly.	S	KH	Y					
IM02.17	Discuss and describe the indications and methods of cardiac rehabilitation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Objective 1	At the end of the session, the phase III (part II) student must be able to define cardiac rehabilitation correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of cardiac rehabilitation correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the methods of cardiac rehabilitation correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the methods of cardiac rehabilitation correctly.	S	K	Y					
IM02.18	Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology, Biochemistry
Objective 1	At the end of the session, the phase III (part II) student must be able to list the drugs used in the management of dyslipidaemia correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of use of drugs in to management of dyslipidaemia correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the formulations available in the management of dyslipidaemia correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe doses of drugs used in the management of dyslipidaemia correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe side effect of drugs used in the management of dyslipidaemia correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe methods of monitoring of drugs used in the management of dyslipidaemia correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to choose the correct drugs in a given case of dyslipidaemia correctly.	S	KH	Y					
IM02.19	Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the complications of acute coronary syndrome correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the pathogenesis of each complication of acute coronary syndrome correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the clinical manifestations of each complication of acute coronary syndrome correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the management of each complication of acute coronary syndrome correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to elicit the complications in a given case of acute coronary syndrome correctly.	S	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss the management plan in a given case of acute coronary syndrome with complications correctly.	S	KH	Y					
IM02.20	Discuss and describe the assessment and relief of pain in acute coronary syndromes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to define pain in acute coronary syndrome correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to Classify pain in acute coronary syndrome correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to differentiate coronary and non-coronary pain in give case correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the methods used for relief of pain in acute coronary syndrome correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list drug used for relief of pain in acute coronary syndrome correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss the management for relief of pain in acute coronary syndrome correctly.	S	KH	Y					
IM02.21	Observe and participate in a controlled environment an ACLS program	S	KH	Y	DOAP session	NA			

Objective 1	At the end of the session, the phase III (part II) student should be able to define ACLS correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student should be able to enumerate the indications of ACLS correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student should be able to list the steps of ACLS correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student should be able to describe the steps of ACLS correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student should be able to demonstrate the steps of ACLS correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student should be able to observe the performance of ACLS in a controlled environment correctly	S	SH	Y					
IM02.22	Perform and demonstrate in a mannequin BLS	S	P	Y	DOAP session	Skill assessment 1			
Objective 1	At the end of the session, the phase III (part II) student must be able to define BLS correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of BLS correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of performance of BLS correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate the steps of performance of BLS in a mannequin correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to perform the steps of performance of BLS in a mannequin at least once correctly.	S	P	Y					
IM02.23	Describe and discuss the indications for nitrates, anti-platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes	K	KH	Y	DOAP session	Skill assessment		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications for nitrates in the management of coronary syndromes correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contradictions for nitrates in the management of coronary syndromes correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications for anti-platelet agents in the management of coronary syndromes correctly.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the contradictions for anti-platelet agents in the management of coronary syndromes correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indications for gpIIb IIIa inhibitors in the management of coronary syndromes correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the contradictions for gpIIb IIIa inhibitors in the management of coronary syndromes correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the indications of beta blockers in the management of coronary syndromes correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to enumerate the contradictions of beta blockers in the management of coronary syndromes correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to enumerate the indications of ACE inhibitors in the management of coronary syndromes correctly.	K	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to enumerate the contradictions of ACE inhibitors in the management of coronary syndromes correctly.	K	K	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to discuss correct medical management in a given case of acute coronary syndrome correctly.	K	KH	Y					
IM02.24	Counsel and communicate to patients with empathy lifestyle changes in atherosclerosis / post coronary syndromes	C/A	SH	Y	DOAP session	Skill assessment		AETCOM	
Objective							Domain	Level	Core
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the life style changes in atherosclerosis/ post coronary syndromes correctly.	C/A	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the life style changes in atherosclerosis/ post coronary syndromes correctly.	C/A	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe with empathy life style changes in atherosclerosis/ post coronary syndromes correctly.	C/A	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate the communication related to life style changes in atherosclerosis/ post coronary syndromes correctly.	C/A	SH	Y					

IM 3.3	Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia	K	K	Y	Lecture ,small group discussion,	Short notes /viva voce			
Objective 1	At the end of the session phase three students must be able to classify pneumonia correctly.	K	K	Y					
Objective 2	At the end of the session phase three students must know aetiologies of all these types of pneumonia correctly.	K	K	Y					
Objective 3	At the end of the session phase three students must know the pathogenesis of all these types of pneumonia correctly.	K	K	Y					
Objective 4	At the end of the session phase three students must know the presentation of all these types of pneumonia correctly.	K	K	Y					
Objective 5	At the end of the session phase three students must know the natural history of all these types of pneumonia correctly.	K	K	Y					
Objective 6	At the end of the session phase three students must know the complications of all these types of pneumonia correctly.	K	K	Y					
IM 3.4	Elicit document and present an appropriate history including the evolution, risk factors including immune status and occupational risk	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to elicit appropriate clinical history in a case of pneumonia correctly.	S	S/H	Y					
Objective 2	At the end of the session phase three students must know the natural history of pneumonia correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must know the risk factors for pneumonia correctly.	S	S/H	Y					
Objective 4	At the end of the session phase three students must know the classification of pneumonia correctly	S	S/H	Y					
Objective 5	At the end of the session phase three students must know about pneumonia in an immuno- compromised patients correctly.	S	S/H	Y					
IM 3.5	Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of disease	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to elicit appropriate clinical history in a case of pneumonia correctly	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to perform general physical examination to elicit signs of pneumonia correctly	S	S/H	Y					

Objective 3	At the end of the session phase three students must be able to perform chest examination to ellicit signs of pneumonia correctly	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to demonstrate clinical diagnosis of pneumonia correctly	S	S/H	Y					
Objective 5	At the end of the session phase three students must know about the complications in a case of pneumonia correctly.	S	S/H	Y					
Objective 6	At the end of the session phase three students must know about the scoring systems for assesment of severity of pneumonia correctly.	S	S/H	Y					
IM 3.6	Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation.	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to ellicit appropriate clinical history in a case of pneumonia correctly	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to perform general physical examination to ellicit signs of pneumonia correctly	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to perform chest examination to ellicit signs of pneumonia correctly	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to demonstrate clinical diagnosis of pneumonia correctly.	S	S/H	Y					
Objective 5	At the end of the session phase three students must be able to document a differential diagnosis based on the above skills correctly	S	S/H	Y					
IM 3.7	Order and interpret diagnostic tests based on the clinical presentation including: CBC, Chest X ray PA view, Mantoux, sputum gram stain, sputum culture and sensitivity, pleural fluid examination and culture, HIV testing and ABG	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to demonstrate the clinical features in a case of pneumonia correctly.	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to document a differential diagnosis based on the demonstration of clinical signs correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to order investigations to confirm the diagnosis correctly	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to order investigations to exclude other causes and identify the development of complications correctly.	S	S/H	Y					

Objective 5	At the end of the session phase three students must be able to interpret the results of CBC ,chest xray,mantoux test, sputum examination,pleural fluid examination and culture and ABG analysis correctly.	S	S/H	Y					
IM 3.8	Demonstrate in a mannequin and interpret results of an arterial blood gas examination	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of session phase III students must know about Acid base homeostasis correctly.	S	S/H	Y					
Objective 2	At the end of session phase III students must know about Water and electrolyte homeostasis correctly.	S	S/H	Y					
Objective 3	At the end of session phase III students must know the Presenting problems in sodium ,potassium and water balance correctly.	S	S/H	Y					
Objective 4	At the end of session phase III students must know the Presenting problems in regulation of osmolality correctly.	S	S/H	Y					
Objective 5	At the end of session phase III students must know the Presenting problems in acid base balance correctly.	S	S/H	Y					
Objective 6	At the end of session phase III students must know the Renal control of acid base balance correctly.	S	S/H	Y					
Objective 7	At the end of session phase III students must be able to interpret the result of ABG analysis correctly.	S	S/H	Y					
Objective 8	At the end of session phase III students must be able to demonstrate following steps of ABG analysis in a mannequin correctly - Introduction Explaining procedure to a patient Gaining consent Assesment of aterial supply in hand (Modified Allen’s Test) Gathering necessary equipment Preparation of patient Sample collection Dressing the puncture site,disposing gloves and equipment Thanking the patient	S	S/H	Y					
IM 3.9	Demonstrate in a mannequin and interpret results of a pleural fluid Aspiration.	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to identify indications of pleural fluid aspiration.	S	S/H	Y					

Objective 2	At the end of the session phase three students must be able to identify contra- indications of pleural fluid aspiration.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to show necessary preparation for himself before tapping like hand washing, trolley cleaning, gathering necessary equipment	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to demonstrate necessary preparation on the part of the patient like, positioning and exposure of the patient, location of insertion point(safe triangle)	S	S/H	Y					
Objective 5	At the end of the session phase three students must be able to interpret microbiology, biochemistry, histopathology and other tests on pleural fluid	S	S/H	Y					
IM 3.10	Demonstrate in a mannequin and interpret results of a blood culture	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to enlist the indications for blood culture correctly.	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to show the technique of specimen collection correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to demonstrate skin preparation before the procedure correctly.	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to demonstrate bottle preparation for the procedure correctly.	S	S/H	Y					
IM 3.11	Describe and enumerate indications for further testing including HRCT,viral cultures,PCR and specialized testing	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to enlist the indications for HRCT chest correctly.	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to know the indications for viral cultures correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to know the indications for PCR correctly.	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to know the indications for specialized testings correctly.	S	S/H	Y					
IM 3.13	Select, describe and prescribe based on the most likely aetiology, an appropriate empirical antimicrobial based on the pharmacology and antimicrobial spectrum	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			

Objective 1	At the end of the session phase three students must be able to know the likely etiology of different types of pneumonias correctly..	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to know the empirical therapy in case of pneumonia correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to interpret the results of culture and sensitivity correctly.	S	S/H	Y					
Objective 4	At the end of the session phase three students must know the spectrum of antimicrobials effective in a case of pneumonia correctly..	S	S/H	Y					
IM 3.14	Perform and interpret a sputum gram stain and AFB	S	S/H	Y	Bed side clinic/DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to Explain the importance of special investigations in the diagnosis of T.B correctly.	S	S/H	Y					
Objective 2	At the end of the session phase three students must be able to Perform and interpret a mantoux skin test correctly.	S	S/H	Y					
Objective 3	At the end of the session phase three students must be able to Correctly collect a sputum sample correctly.	S	S/H	Y					
Objective 4	At the end of the session phase three students must be able to Interpret the results of a sputum smear examination correctly.	S	S/H	Y					
Objective 5	At the end of the session phase three students must be be able to Recognise tuberculosis on chest X ray correctly.	S	S/H	Y					
IM 3.15	Describe and enumerate the indications for hospitalisation in patients with pneumonia	K	K	Y	Lecture , Small group discussion	Short note,viva voce			
Objective 1	At the end of the session phase three students must be able to know the salient epidemiological features of CAP, including its risk factors and short-term and long-term prognosis correctly.	K	K	Y					
Objective 2	At the end of the session phase three students must be able to initiate appropriate risk stratification leading to valid recommendations for treatment, both in the outpatient setting and in the hospital correctly.	K	K	Y					
Objective 3	At the end of the session phase three students must be able to know the diagnostic and therapeutic steps that should be taken correctly.	K	K	Y					
IM 3.16	Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia	K	K	Y	Lecture , Small group discussion	Short note,viva voce			

Objective 1	At the end of the session phase three students must be able to know the clinical features of severe pneumonia correctly.	K	K	Y					
Objective 2	At the end of the session phase three students must be able to grade the severity of pneumonia on the basis of scoring systems correctly.	K	K	Y					
Objective 3	At the end of the session phase three students must be able to know the aims of isolation and barrier nursing care in a case of severe pneumonia correctly.	K	K	Y					
IM 3.17	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation	K	K	Y	Lecture , Small group discussion	Short note,viva voce			
Objective 1	At the end of the session phase three students must be able to asses the severity of pneumonia correctly.	K	K	Y					
Objective 2	At the end of the session phase three students must be able to know indications for ventilation in a case of pneumonia correctly.	K	K	Y					
Objective 3	At the end of the session phase three students must be able to Relieve symptoms of the patients.	K	K	Y					
Objective 4	At the end of the session phase three students must be able to Promptly recognize and minimize complications.	K	K	Y					
Objective 5	At the end of the session phase three students must be able to Provide end of life care if emerges.	K	K	Y					
IM 3.18	Communicate and counsel patient on family on the diagnosis and therapy of pneumonia	C/A	SH	Y	DOAP session	Skill assesment			
Objective 1	At the end of the session phase three students must be able to make the diagnosis of pneumonia correctly.	C/A	SH	Y					
Objective 2	At the end of the session phase three students must be able to know the treatment of a case of pneumonia correctly.	C/A	SH	Y					
Objective 3	At the end of the session phase three students must be able to communicate effectively regarding the diagnosis and treatment of pneumonia correctly.	C/A	SH	Y					
Objective 4	At the end of the session phase three students must be able to counsel regarding diagnosis and treatment of pneumonia correctly.	C/A	SH	Y					
IM 3.19	Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines	S/C	K	Y	LECTURE SMALL group discussion	Short note/viva voce			

Objective 1	At the end of the session phase three students must be able to know the clinical aspects aspects of influenza virus and streptococcus pneumoniae correctly.	S/C	K	Y					
Objective 2	At the end of the session phase three students must be able to know the causes and symptoms of pneumonia correctly.	S/C	K	Y					
Objective 3	At the end of the session phase three students must be able to understand the types of vaccines available correctly.	S/C	K	Y					
Objective 4	At the end of the session phase three students must be able to list the recommendations available for influenza and pneumococcal vaccine accurately.	S/C	K	Y					
Objective 5	At the end of the session phase three students must be able to communicate effectively regarding indications and benefits of vaccination in a case of pneumonia correctly.	S/C	K	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Fever and febrile syndromes		Number of competencies: (26)		Number of procedures that require certification : (NIL)					
IM04.1	Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response	K	K	Y	Lecture, Small group discussion	Written		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe febrile response correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the influence of host immune status on febrile response correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss influence of comorbidities/risk factors when associated with febrile response correctly.	K	KH	Y					
IM04.2	Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel	K	K	Y	Lecture, Small group discussion	Written		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe alterations in febrile response in the elderly & immunocompromised individuals correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe febrile response associated with malignancy & neutropenia correctly.	K	K	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to describe geographical prevalence of certain common infections in different parts of the country and travel history can help in identifying a particular infectious cause for febrile response.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe various opportunistic infections commonly associated with HIV infection & consequent febrile response.	K	K	Y					
IM04.3	Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g.Dengue, Chikungunya, Typhus)	K	K	Y	Lecture, Small group discussion	Written			Microbiology, Community Medicine
Objective 1	At the end of the session, the phase III (part II) student must be able to describe the prevalence of common bacterial parasitic & viral causes of fever with respect of geographical distribution & seasonal variation correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pathophysiology & manifestations of common infectious causes of fever prevalent in community during a particular season correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe pathophysiology and manifestations of Kalazar, Dengue, chickungunya, Leptospirosis, Typhoid, Japanese Encephalitis and Typhus fever.	K	K	Y					
IM04.4	Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever	K	KH	Y	Lecture, Small group discussion	Written			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to list inflammatory causes of fever correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pathophysiology of commonly encountered inflammatory causes of fever correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe manifestations of fever in individuals with underlying particular inflammatory cause correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss pathophysiology and manifestations of inflammatory causes of fever correctly.	K	KH	Y					

IM04.5	Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies	K	KH	Y	Lecture, Small group discussion	Written		Pathology, Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list commonly encountered malignancies correctly that present with fever.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe correctly pathophysiology of fever in various malignancies including leukaemia and lymphoma.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe correctly clinical manifestations of common malignant conditions presenting with fever.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss common malignancies presenting with fever, their pathophysiology & manifestations correctly.	K	KH	Y					
IM04.6	Discuss and describe the pathophysiology and manifestations of malaria	K	KH	Y	Lecture, Small group discussion	Written		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe types of malaria and their pathophysiology correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the important differences in life cycle of P.vivax and P.falciparum	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the important difference in pathology of P. Falciparum malaria which makes it more virulent	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe clinical manifestations of malaria correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list complications of malaria correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss aetiopathogenesis, clinical manifestations and complications of malaria correctly.	K	KH	Y					
IM04.7	Discuss and describe the pathophysiology and manifestations of the sepsis syndrome	K	K	Y	Lecture, Small group discussion	Written			
Objective 1	At the end of the session, the phase III (part II) student must be able to define sepsis and septic shock correctly.	K	KH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to describe pathophysiology of sepsis correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe clinical manifestations of sepsis correctly.	K	K	Y					
IM04.8	Discuss and describe the pathophysiology, aetiology and clinical manifestations of fever of unknown origin (FUO) including in a normal host neutropenic host nosocomial host and a host with HIV disease	K	K	Y	Lecture, Small group discussion	Written			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to define FUO. and the etiological factors of FUO correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe etiological factors of FUO.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe pathophysiology and clinical manifestations of FOU correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe aetiology of fever in neutropenic host, immunono-compromised host and a host with HIV disease.	K	K	Y					
IM4.9	Elicit document and present a medical history that helps delineate the aetiology of fever that includes the evolution and pattern of fever, associated symptoms, immune status, comorbidities, risk factors, exposure through occupation, travel and environment and medication use	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to elicit and document medical history in a patient of fever stating evolution and pattern of fever.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to document associated symptoms in a patient of fever while taking medical history.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to record immune status and comorbidities in the medical history of a patient of fever.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify and document risk factors of fever associated with occupation, travel and environment and use of medication.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to present medical history so recorded so as to identify likely aetiology of fever.	S	SH	Y					

IM4.12	Order and interpret diagnostic tests based on the differential diagnosis including CBC with differential, peripheral smear, urinary analysis with sediment, chest xray, blood and urine cultures, sputum gram stain and culture, sputum AFB & cultures, CSF analysis, pleural and body fluid analysis, stool routine and culture and QBC	K	SH	Y	bedside clinic, DOAP session	Skill assessment		Pathology, Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe indications and normal/abnormal values of diagnostic tests enumerated above	K	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to choose appropriate diagnostic tests based on differential diagnosis.	K	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss results of diagnostic tests based on differential diagnosis.	K	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify diagnostic tests to be ordered according to differential diagnosis.	K	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret results of diagnostic tests and arrive at diagnosis.	K	SH	Y					
IM4.13	Perform and interpret a sputum gram stain	S	SH	Y	DOAP session	Log book/ documentation		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe method of performing sputum gram stain.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss interpretation of sputum gram stain.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to perform sputum gram stain.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to interpret sputum gram stain.	S	SH	Y					
IM4.14	Perform and interpret a sputum AFB	S	SH	Y	DOAP session	Log book/ documentation		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe method of performing sputum AFB.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss interpretation of sputum AFB.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to perform sputum AFB correctly.	S	SH	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to interpret sputum AFB correctly	S	SH	Y					
IM4.15	Perform and interpret a malaria smear	S	SH	Y	DOAP session	Log book/ documentation/ Skill assessment		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe method of performing malaria smear	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss interpretation of malaria smear.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to perform malaria smear correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to interpret malaria smear correctly.	S	SH	Y					
IM4.16	Enumerate the indications and describe the findings in tests of inflammation and specific rheumatological tests, serological testing for pathogens including HIV, bone marrow aspiration and biopsy	K	KH	N	Lecture, Small group discussion	Written		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate indications for ordering tests of inflammation (ESR,CRP, hsCRP, S. Ferritin	K	KH	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate indications for ordering specific rheumatological tests (Rheumatoid factor, ACPAs, ANA, dsDNA, Antiphospholipid antibodies, ANCAs and complement).	K	KH	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate indications for ordering serological tests for pathogens including HIV.	K	KH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate indications for bone marrow aspiration and biopsy.	K	KH	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the interpretation of findings of the tests enumerated above.	K	KH	N					
IM4.17	Observe and assist in the performance of a bone marrow aspiration and biopsy in a simulated environment	S	SH	N	Skills lab	Log book/ documentation/ DOAP session		Pathology	

Objective 1	At the end of the session, the phase III (part II) student must be able to describe procedure of bone marrow aspiration and biopsy.	S	SH	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to demonstrate performance of bone marrow aspiration and biopsy after having observed and assisted in a simulated environment.	S	SH	N					
IM4.18	Enumerate the indications for use of imaging in the diagnosis of febrile syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate indications for use of imaging of abdomen (USG, CT scan) in the diagnosis of febrile syndrome.	K	KH	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate indications for use of chest imaging (Plain skiagram, HRCT/CECT Chest) in the diagnosis of febrile syndrome.	K	KH	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss role and modalities of imaging in the diagnosis of febrile syndrome.	K	KH	N					
IM4.19	Assist in the collection of blood and wound cultures	S	SH	Y	DOAP session	Log book/ documentation			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to describe indications and procedure of collection of blood and wound culture.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to demonstrate the collection of blood and wound culture after having observed and assisted the procedure.	S	SH	Y					
IM4.20	Interpret a PPD (Mantoux)	S	SH	Y	DOAP session	Log book/ documentation			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to describe performance and interpretation of Mantoux test.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform under supervision Mantoux test.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to interpret a PPD (Mantoux).	S	SH	Y					

IM4.21	Develop and present an appropriate diagnostic plan based on the clinical presentation, most likely diagnosis in a prioritised and cost effective manner	K	KH	Y	Bedside clinic, Skill assessment				
Objective 1	At the end of the session, the phase III (part II) student must be able to describe interpretation of history and clinical examination to arrive at prioritised differential diagnosis.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss relevant investigations in cost effective manner to be ordered for arriving at final diagnosis.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to present an appropriate diagnostic plan for given clinical presentation including prioritised differential diagnosis and relevant cost effective investigative modalities to establish most likely diagnosis correctly.	K	KH	Y					
IM4.22	Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe indications and pharmacology of antimalarial drugs.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe adverse reactions and drug interactions of antimalarial drugs.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe that antimalarial drugs are better used in combinations to avoid emergence of drug resistance with appropriate examples of drug combinations used in clinical practice.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss drugs used for treatment of malaria, their adverse reactions and drug interactions.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss use of antimalarial drugs in combination to prevent emergence of drug resistance.	K	KH	Y					
IM4.23	Prescribe drugs for malaria based on the species identified, prevalence of drug resistance and national programmes	S	SH	Y	Small group discussion	Small group discussion		Microbiology, Pharmacology	

Objective 1	At the end of the session, the phase III (part II) student must be able to describe antimalarial drugs for use based on species keeping in mind prevalence of drug resistance.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe treatment of malaria as recommended in national programmes.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to document prescription for treatment of malaria.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate prescription for uncomplicated/complicated malaria and malaria in pregnancy.	S	SH	Y					
IM4.24	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe empiric treatment plan based on patient's clinical and immune status pending definitive diagnosis.	C	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to counsel the patient about the nature and severity of his illness empathetically.	C	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to inform the patient about the empiric treatment instituted based on clinical diagnosis awaiting investigation results.	C	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate his understanding of his illness and empiric treatment instituted.	C	SH	Y					
IM4.25	Communicate to the patient and family the diagnosis and treatment	C	SH	Y	DOAP session	Skill assessment		AETCOM	
Objective 1	At the end of the session, the phase III (part II) student must be able to inform the patient and family in the language they understand about the exact nature of his illness.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to counsel them about the ongoing treatment and its efficacy and safety.	S	SH	Y					
IM4.26	Counsel the patient on malaria prevention	C	SH	Y	Y DOAP session	Skill assessment		Microbiology, Pharmacology	

IM05.3	Describe and discuss the pathologic changes in various forms of liver disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to describe the pathogenic mechanism and hepatic fibrosis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the pathogenic change in acute Viral hepatitis correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the pathologic change in chronic hepatitis B&C correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to describe the pathologic change in cirrhotic liver correctly.	K	K	Y					
IM05.4	Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to list the viruses causing acute hepatitis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the various features of viral hepatitis viruses including their incubation period and mode of spread correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to differences the viruses which can lead to chronic infection correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the prevention of various hepatitis viruses accurately.	K	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss the clinical features of acute viral hepatitis	K	KH	Y					
IM05.5	Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the factors in noted in pathogenesis of alcoholic liver disease correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the pathology features of alcoholic liver disease correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the clinical syndrome of alcoholic liver diseases correctly.	K	K	Y					

Objective 4	At the end of the session, the phase II student must be able to discuss the clinical features of alcoholic hepatitis accurately.	K	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to list the stigmata of alcoholic liver diseases accurately.	K	K	Y					
IM05.6	Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to discuss the pathophysiology of cirrhosis	K	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the various causes of cirrhosis correctly	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the various complications of cirrhosis correctly	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to describe the clinical features of cirrhosis correctly	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to classify portal hypertension according to the site vascular obstruction correctly.	K	K	Y					
Objective 6	At the end of the session, the phase II student must be able to describe the path physiology of Ascites correctly	K	K	Y					
Objective 7	At the end of the session, the phase II student must be able to describe the clinical features of type I and Type II hepatorenal syndrome correctly	K	K	Y					
Objective 8	At the end of the session, the phase II student must be able to discuss the path physiology of hepatic encephalopathy correctly	K	KH	Y					
Objective 9	At the end of the session, the phase II student must be able to describe the clinical features of spontaneous bacterial peritonitis correctly.	K	K	Y					
IM05.7	Enumerate and describe the causes and pathophysiology of drug induced liver injury	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the common drugs causing liver injury correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the pathophysiology of drug induced liver injury	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the pathophysiology of paracetamol induced liver injury.	K	K	Y					

IM05.8	Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the risk factors of cholesterol and pigment gall stones.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the pathophysiology of gall stones formation	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the complications of gall stones correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the pathophysiology of acute and chronic cholecystitis correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to describe the clinical features of Acute cholecystitis correctly.	K	K	Y					
Objective	At the end of the session, the phase II student must be able to enumerate the complications of Acute cholecystitis correctly.	K	K	Y					
IM05.9	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes clinical presentation, risk factors, drug use, sexual history, vaccination history and family history	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase II student must be able to elicit the impotent findings on clinical examination of the abdomen for liver and biliary disease correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to document the medical history with emphasis on risk factors including drugs use, sexual history, vaccination history and family history inpatient of suspected liver disease correctly	K	S	Y					
Objective 3	At the end of the session, the phase II student must be able to present the medical history in a patient of suspected liver disease correctly.	K	S	Y					
Objective 4	At the end of the session, the phase II student must be able to delineate the aetiology of the current presentation on the basic medical history correctly.	K	K	Y					
IM05.10	Perform a systematic examination that establishes the diagnosis and severity that includes nutritional status, mental status, jaundice, abdominal distension ascites, features of portosystemic hypertension and hepatic encephalopathy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

Objective 1	At the end of the session, the phase II student must be able to enumerate the causes of portal hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the clinical features of hepatic encephalopathy accurately.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to perform general physical examination specifically looking for nutritional status, mantel status and jaundice in patient of liver disease correctly.	K	S	Y					
Objective 4	At the end of the session, the phase II student must be able to demonstrate shifting dullness and fluid thrill correctly	K	SH	Y					
Objective 5	At the end of the session, the phase II student must be able to demonstrate flapping tremor (Asterixis) in patient of hepatic encephalopathy correctly	K	SH	Y					
Objective 6	At the end of the session, the phase II student must be able to identify the dilated veins and their distension of flow in patient of portosystemic hypertension correctly.	K	S	Y					
IM05.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to describe the clinical features of impotent liver disease accurately	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to choose the correct aetiology of suspected liver disease on the basis of clinical features	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to differential between different liver disease on basis of clinical features correctly	K	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to generate a differential diagnosis from given set of clinical features correctly	K	KH	Y					
IM05.12	Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis ascitic fluid examination in patient with liver diseases.	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to enumerate various diagnostic tests advised in patient of liver disease correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to choose appropriate diagnostic tests depending upon differential diagnosis in a given patient of liver disease correctly	K	KH	Y					

Objective 3	At the end of the session, the phase II student must be able to interpret the hepatic serology reports for both acute and chronic hepatitis correctly	K	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to interpret the type of liver disease from ascitic fluid examination test reports correctly	K	SH	Y					
IM05.13	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to enumerate the indications for ultrasound abdomen correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the indications of CT abdomen, MRCP and ERCP correctly	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the ultrasound findings in patient of gall stones and organomegaly correctly	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to describe CT abdomen finding in patient of cirrhosis correctly	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to describe MRCP findings in patient of choledocolithiasis correctly	K	K	Y					
IM05.14	Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to enumerate the causes of hyper bilirubinaemia correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to choose appropriate serology tests for different hepatitis correctly	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to identify the cause of liver function tests abnormalities correctly	K	S	Y					
Objective 4	At the end of the session, the phase II student must be able to outline a diagnostic approach in a patient of jaundice correctly	K	K	Y					
IM05.15	Assist in the performance and interpret the findings of an ascetic fluid analysis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to describe the procedure of doing ascetic tap correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to assist in the performance of an ascetic tap.	K	K	Y					

Objective 3	At the end of the session, the phase II student must be able to describe the finding of ascetic fluid analysis in a patient of cirrhosis correctly	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to identify the aetiology of ascetic from given set of ascetic fluid analysis parameters correctly.	K	K	Y					
IM05.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to discuss the management of hepatic correctly.	K	KH						
Objective 2	At the end of the session, the phase II student must be able to discuss the management of cirrhosis correctly	K	KH						
Objective 3	At the end of the session, the phase II student must be able to describe the management of portal hypertension correctly	K	K						
Objective 4	At the end of the session, the phase II student must be able to describe the management of Ascites correctly	K	K						
Objective 5	At the end of the session, the phase II student must be able to discuss the management of spontaneous bacterial peritonitis correctly	K	KH						
Objective 6	At the end of the session, the phase II student must be able to describe the management of hepatic encephalopathy correctly	K	K						
IM05.17	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase II student must be able to enumerate the indications of hepatitis A and hepatitis B vaccination correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to the precautions taken for vaccination of hepatitis correctly	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to counsel the patient for post exposure prophylaxis of hepatitis B correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to counsel the patients regarding requirement of hepatitis A vaccine correctly.	K	K	Y					
IM05.18	Enumerate the indications for hepatic transplantation	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology

Objective 1	At the end of the session, the phase II student must be able to enumerate the types of liver transplantation correctly	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the indications of liver transplantation correctly	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the contraindications of liver transplantation correctly.	K	K	Y					
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core Y/N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: HIV	Number of competencies: (23)	Number of procedures that require certification : (NIL)							
IM06.1	Describe and discuss the symptoms and signs of acute HIV seroconversion	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to describe the clinical features of primary HIV infection correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss in clinical important clinical feature live lymphadenopathy Wight loss and fever correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the causes of prolonged period of clinical literacy following primary infection in HIV correctly.	K	KH	Y					
IM06.2	Define and classify HIV AIDS based on the CDC criteria	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to classify HIV-AIDS based on CDC correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe category A,B &C of HIV-AIDS on basis of CDC criteria correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to choose the correct category of HIV-AIDS on basis of given set clinical symptoms and signs correctly.	K	KH	Y					
IM06.3	Describe and discuss the relationship between CDC count and the risk of opportunistic infections	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to discuss about CDC4 counts and its clinical usefulness correctly.	K	KH	Y					

Objective 2	At the end of the session, the phase II student must be able to discuss the relationship between CD4 counts and risk of common HIV associated diseases correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the HIV associated diseases which can occur for a given CD4 count correctly.	K	K	Y					
IM06.4	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to list the common HIV related opportunistic infections of various systems correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the pathogenesis of common and clinically important opportunistic infections correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the clinical features of common and clinically important opportunistic infections correctly.	K	K	Y					
IM06.5	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to enumerate common HIV related malignancies correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the pathogenesis of common HIV related malignancies correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the clinical features of common HIV related malignancies correctly.	K	K	Y					
IM06.6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to list the important oral conditions seen in HIV patients correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to classify the various skin conditions seen in HIV patients based on life of lesions correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the pathogenesis of seborrhoea, herpes simplex and herpes zoster infections in HIV patients correctly.	K	K	Y					

Objective 4	At the end of the session, the phase II student must be able to discuss the clinical features of important skin infections like herpes simplex and herpes zoster in HIV patients correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to describe the clinical features of oropharyngeal candidiasis in HIV patients correctly.	K	K	Y					
IM06.7	Elicit document and present a medical history that helps delineate the aetiology of the current presentation and includes risk factors for HIV, mode of infection, other sexually transmitted diseases, risks for opportunistic infections and nutritional status	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase II student must be able to enumerate the risk factors of HIV correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the various modes of transmission of HIV correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to document proper medical history in patient of suspected HIV-AIDS correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to elicit the history related to presence of various important opportunistic infections in HIV correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase II student must be able to elicit proper history regarding other sexually transmitted disease in HIV patient correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase II student must be able to elicit proper history regarding other sexually transmitted diseases in HIV patient correctly.	S	SH	Y					
IM06.8	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment			
Objective 1	At the end of the session, the phase II student must be able to enumerate the various causes of fever with generalized lymphadenopathy correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the clinical features of HIV – AIDS correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to interpret the presenting symptoms of patient in order to suspect HIV-AIDS in a patient correctly.	S	SH	Y					

Objective 4	At the end of the session, the phase II student must be able to discuss the other medical conditions which come under different diagnosis of HIV-AIDS correctly.	S	SH	Y					
IM06.9	Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC	K	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the specific test used to diagnose HIV-AIDS correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the opportunistic infections seen in HIV-AIDS correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to classify HIV-AIDS in category A, B&C according to CDC criteria correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to choose appropriate baseline investigations important in recently diagnosed HIV patient correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to interpret the results of screening and confirmatory test used to diagnosis HIV-AIDS correctly.	K	SH	Y					
IM06.10	Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC, sputum examination and cultures, blood cultures, stool analysis, CSF analysis and Chest radiographs	K	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the important opportunistic infections in HIV patients correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to choose appropriate test to diagnosis opportunistic infection in HIV-AIDS patients depending upon history and clinical examination correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to interpret the result of spline and blood culture in HIV-AIDS patient correctly.	K	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to interpret the findings of chest X-ray in HIV-AIDS patients correctly.	K	SH	Y					

Objective 5	At the end of the session, the phase II student must be able to interpret CSF analysis report in HIV-AIDS patient with special emphasis on Cryptococci meningitis correctly.	K	SH	Y					
Objective 6	At the end of the session, the phase II student must be able to interpret stool culture in HIV-AIDS related diarrhoea correctly.	K	SH	Y					
IM06.11	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	K	K	Y	Small group discussion, Lecture, Bedside clinic	Written/ Viva voce		Radiodiagnosis	
Objective 1	At the end of the session, the phase II student must be able to enumerate the indication of CT chest correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the findings of normal CT chest correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the indication of MRI brain correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to enumerate the indication of CT Head correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to enumerate the indication of CT and MRI brain correctly.	K	K	Y					
IM06.12	Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph	K	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Skill assessment			
Objective 1	At the end of the session, the phase II student must be able to describe the purpose of pulse oximetry correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the abnormalities of pulse oximetry correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to interpret the pulse oximetry correctly.	K	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to describe the various parameters and reference ranges seen in ABG correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to choose the correct acid base imbalance from given ABG report correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase II student must be able to describe the important structures seen in normal X-Ray chest PA view correctly.	K	K	Y					

Objective 7	At the end of the session, the phase II student must be able to interpret the finding of X-Ray chest PA view correctly.	K	K	Y					
IM06.13	Describe and enumerate the indications and side effects of drugs for bacterial, viral and other types of diarrhea	K	K	Y	Lecture, Small group discussion	Written/ Skill assessment		Pharmacology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to define diarrhoea correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to list the various bacteria, viral and other organisms causing to diarrhoea correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the indications of use to drugs in management of infective diarrhoea correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to enumerate the drug used for treating various types of diarrhoea correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss the side effects of common drugs used to treat diarrhoea correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase II student must be able to list the common pathogenesis causing diarrhoea in immune compromised host correctly.	K	K	Y					
IM06.14	Perform and interpret AFB sputum	S	P	Y	DOAP session	Skill assessment		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to define the AFB correctly.	S	K	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the indications of doing AFB sputum correctly.	S	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the method of doing staining for AFB detection in sputum correctly.	S	K	Y					
Objective 4	At the end of the session, the phase II student must be able to perform independently AFB sputum correctly.	S	S	Y					
Objective 5	At the end of the session, the phase II student must be able to interpret the results AFB sputum correctly.	S	SH	Y					
IM06.15	Demonstrate in a model the correct technique to perform a lumbar puncture	S	SH	Y	Simulation	Skill assessment		Microbiology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the indications of lumbar puncture correctly.	S	K	Y					

Objective 2	At the end of the session, the phase II student must be able to describe the normal CSF finding correctly.	S	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the correct procedure of doing lumber puncture correctly.	S	K	Y					
Objective 4	At the end of the session, the phase II student must be able to list the complications of lumber puncture correctly.	S	K	Y					
Objective 5	At the end of the session, the phase II student must be able to demonstrate in a model technique to perform a lumber puncture correctly.	S	SH	Y					
IM06.16	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Pharmacology	
Objective 1	At the end of the session, the phase II student must be able to discuss the principles and indications of starting HAART correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to enumerate the classes of antiretrovirals drugs used in HIV-AIDS correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the various combinations of HAART commonly used correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to describe the adverse reaction of HAART commonly used correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss the importance drug interactions of antivirals used in AIDS with other drugs correctly.	K	KH	Y					
IM06.17	Discuss and describe the principles and regimens used in post exposure prophylaxis	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Microbiology, Pharmacology	
Objective 1	At the end of the session, the phase II student must be able to list the prevention measures for HIV transmission correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the indications for recommending post exposure prophylaxis correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to describe the commonly used antiretroviral therapy for post exposure prophylaxis correctly.	K	K	Y					

IM06.18	Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections	K/C	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session, the phase II student must be able to enumerate the important opportunistic infections in HIV-AIDS correctly.	K/C	K	Y					
Objective 2	At the end of the session, the phase II student must be able to list the opportunistic infections reduced by Co-trimoxazole correctly.	K/C	K	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the tuberculosis prevention therapy in HIV-AIDS correctly.	K/C	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the problems encountered with vaccination in HIV patient correctly.	K/C	KH	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss the vaccination recommended in HIV patient other diseases correctly.	K/C	KH	Y					
Objective 6	At the end of the session, the phase II student must be able to counsel the HIV patient regarding need of chemoprophylaxis correctly.	K/C	K	Y					
IM06.19	Counsel patients on prevention of HIV transmission	C	SH	Y	DOAP session	Skills assessment		AETCOM	
Objective 1	At the end of the session, the phase II student must be able to Enumerate the modes of transmission of HIV correctly.	C	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the risk of HIV transmission after single exposure to an HIV infection source correctly.	C	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to list the factors increasing the risk of transmission of HIV correctly.	C	K	Y					
Objective 4	At the end of the session, the phase II student must be able to counsel patient regarding prevention of HIV transmission correctly.	C	SH	Y					
Objective 5	At the end of the session, the phase II student must be able to counsel the HIV patient regarding need of chemoprophylaxis correctly.	C	SH	Y					
IM06.20	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	C	SH	Y	DOAP session	Skills assessment		AETCOM	

Objective 1	At the end of the session, the phase II student must be able to describe the diagnostic criteria of HIV-AIDS correctly.	C	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the commonly used combination antiretroviral therapy for HIV-AIDS patients correctly.	C	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to counsel patient regarding diagnosis of HIV-AIDS in a patient correctly.	C	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to demonstrate understanding of treatment plan of HIV-AIDS with patient correctly.	C	SH	Y					
Objective 5	At the end of the session, the phase II student must be able to inform regarding importance of follow up plan of HIV-AIDS to the patient correctly.	C	SH	Y					
IM06.21	Communicate with patients on the importance of medication adherence	C	SH	Y	DOAP session	Skills assessment			AETCOM
Objective 1	At the end of the session, the phase II student must be able to discuss about HAART therapy correctly.	C	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss about resistance development against antiretroviral drugs correctly.	C	K	Y					
Objective 3	At the end of the session, the phase II student must be able to counsel the patient regarding importance of adherence to HAART correctly.	C	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to inform about risk of non-adherence to medications to HIV-AIDS patients correctly.	C	SH	Y					
IM06.22	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV	K/A	SH	Y	DOAP session, Small group discussion	Viva voce/ Written/ Skill Assessment			AETCOM
Objective 1	At the end of the session, the phase II student must be able to discuss the ethical issue specific to HIV patients correctly.	K/A	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the legal issue related to HIV patients correctly.	K/A	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to demonstrate understanding of confidentiality of medical information of HIV patients correctly.	K/A	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to demonstrate understanding of informed consent for HIV testing correctly.	K/A	SH	Y					

Objective 5	At the end of the session, the phase II student must be able to demonstrate understanding of ethical and legal issues regarding disclosure of HIV positive patients correctly.	K/A	SH	Y					
IM06.23	Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles	A	SH	Y	Small group discussion	observation by teacher		AETCOM	
Objective 1	At the end of the session, the phase II student must be able to discuss about discrimination towarded people living with HIV in society correctly.	A	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to demonstrate understanding of Non- judgemental attitude towards life styles of HIV patients including their occupation, sexual preferences etc. correctly.	A	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to demonstrate understanding of importance of positive attitudes and behaviours towards HIV patients during clinical encounters correctly.	A	SH	Y					
Number	COMPETENCY The student should be able to	DomainK/ S/A/C	Level K/KH/ SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Rheumatologic problems		Number of competencies: (27)			Number of procedures that require certification : (NIL)				
IM7.1	Describe the pathophysiology of autoimmune disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session the phase II student must be able to define autoimmune disease correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate mechanisms preventing autoimmunity correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate mechanisms of autoimmunity correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to describe the pathophysiology of autoimmunity correctly.	K	KH	Y					
IM7.2	Describe the genetic basis of autoimmune disease	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session the phase II student must be able to enumerate the genetic causes of autoimmune disease correctly.	K	K	N					

Objective 2	At the end of the session the phase II student must be able to describe the role of the genetic factors in causing autoimmune disease correctly.	K	K	N					
IM7.3	Classify cause of joint pain based on the pathophysiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to enumerate the features articular joint pain correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the features of non-articular joint pain correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the features of inflammatory joint pain correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to enumerate the features of non inflammatory joint pain correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to classify joint pain on basis of pathophysiology correctly.	K	KH	Y					
IM7.4	Develop a systematic clinical approach to joint pain based on the pathophysiology	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to enumerate the features articular joint pain correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the features of non-articular joint pain correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the features of inflammatory joint pain correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to enumerate the features of non inflammatory joint pain correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to classify joint pain on basis of pathophysiology correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to enumerate common causes of articular joint pain correctly.	K	K	Y					
Objective 7	At the end of the session the phase II student must be able to enumerate common causes of non articular joint pain correctly.	K	K	Y					

IM7.6	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to define arthralgia correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to define arthritis correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to define mechanical joint pain correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to define inflammatory joint pain correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to enumerate the differentiating features of arthralgia from arthritis correctly.	K	K	Y					
Objective 6	At the end of the session the phase II student must be able to enumerate the differentiating features of mechanical vs inflammatory joint pain correctly.	K	K	Y					
Objective 7	At the end of the session the phase II student must be able to discriminate arthralgia from arthritis correctly.	K	KH	Y					
Objective 8	At the end of the session the phase II student must be able to discriminate mechanical from inflammatory causes of joint pain correctly.	K	KH	Y					
IM7.7	Discriminate, describe and discuss distinguishing articular from periarticular complaints	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to enumerate features of articular joint pain correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate features of periarticular joint pain correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to distinguish between articular and periarticular joint correctly.	K	KH	Y					
IM7.8	Determine the potential causes of joint pain based on the presenting features of joint involvement	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to define monoarthritis correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to define oligoarthritis correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to define polyarthritis correctly.	K	K	Y					

IM7.11	Elicit document and present a medical history that will differentiate the aetiologies of disease	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to classify various rheumatological diseases as per pattern of joint involvement correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the salient/ classical clinical features of various rheumatological diseases correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to list the question to be asked to a patient to classify the rheumatological diseases correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to list the question to be asked to a patient to identify the rheumatological disease correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to describe the process of history taking of a patient with rheumatological diseases correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to describe the identify the rheumatological disease based on given clinical features correctly.	K	KH	Y					
Objective 7	At the end of the session the phase II student must be able to perform history taking of a patient with Rheumatological diseases correctly.	S	SH	Y					
Objective 8	At the end of the session the phase II student must be able to document salient features in history to identify the aetiology of the joint diseases in a patient correctly.	S	SH	Y					
IM7.12	Perform a systematic examination of y all joints, muscle and skin that will establish the diagnosis and severity of disease	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			Orthopedics
Objective 1	At the end of the session the phase II student must be able to list the points to be covered in systemic examination of all joints correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the points to be covered in systemic examination of muscles correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to list the points to be covered in systemic examination of Skin correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to describe the findings in systemic examination of all joints correctly.	K	KH	Y					

Objective 5	At the end of the session the phase II student must be able to describe the findings in examination of mussels correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to describe the findings in examinations of skin correctly.	K	KH	Y					
Objective 7	At the end of the session the phase II student must be able to demonstrate the procedure of examination of joints correctly.	S	SH	Y					
Objective 8	At the end of the session the phase II student must be able to demonstrate the procedure of examination of mussels correctly.	S	SH	Y					
Objective 9	At the end of the session the phase II student must be able to demonstrate the procedure of examination of skin correctly.	S	SH	Y					
Objective 10	At the end of the session the phase II student must be able to identify the undelaying disease based on finding of systemic correctly.	S	SH	Y					
IM7.13	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K/S	KH	Y	Bedside clinic, Small group discussion	Skill assessment/Written			
Objective 1	At the end of the session the phase II student must be able to enumerate the clinical features of various rheumatological diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the differential diseases of various rheumatological diseases correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to describe the differential diagnosis of a patient based on clinical features correctly.	K/S	KH	Y					
Objective 4	At the end of the session the phase II student must be able to prioritise the differential diagnosis based on clinical features to suggest the most likely diagnosis/ aetiology correctly.	K/S	KH	Y					
IM7.14	Describe the appropriate diagnostic work up based on the presumed aetiology	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written			
Objective 1	At the end of the session the phase II student must be able to enumerate the criteria for various rheumatological diseases correctly.	K	K	Y					

IM7.17	Enumerate the indications and interpret plain radiographs of joints	K	SH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written		Radiodiagnosis	Orthopedics
Objective 1	At the end of the session the phase II student must be able to enumerate the indication of plain radiographs of joints correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe the findings in a plain radiograph of joint correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the solicited radiographic features seen in various rheumatological disease correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to interpret the plain radiography of joint correctly.	K	SH	Y					
IM7.18	Communicate diagnosis, treatment plan and subsequent follow up plan to patients	C	SH	Y	DOAP session	Skill assessment/ Written			
Objective 1	At the end of the session the phase II student must be able to list the points to be covered in patient communication of a disease correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the treatment options of various rheumatological disease correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the plan of follow up in patients undergoing treatment for rheumatological disease correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to describe the treatment plan to best suit the diagnosis of the patient correctly.	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to describe the follow up schedule of a patient as per the treatment plan correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to communicate the diagnosis to a patient correctly.	S	SH	Y					
Objective 7	At the end of the session the phase II student must be able to communicate the treatment plan to a patient correctly.	S	SH	Y					
IM7.19	Develop an appropriate treatment plan for patients with rheumatologic diseases	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written			

Objective 1	At the end of the session the phase II student must be able to list the available treatment modalities for various rheumatologic diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the indication of each treatment modality correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to describe an appropriate treatment plan for patient with rheumatologic disease correctly.	K	KH	Y					
IM7.20	Select, prescribe and communicate appropriate medications for relief of joint pain	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	Orthopedics
Objective 1	At the end of the session the phase II student must be able to enumerate/ classify the causes of joint pain correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the pharmacological categories of changes available to treat joint pain correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the indication of these drugs correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to enumerate the adverse effects of the drugs correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to describe the proceri of selecting appropriate medication for joint pain correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to demonstrate write a prescription for joint pain correctly.	S	SH	Y					
Objective 7	At the end of the session the phase II student must be able to communicate to a patient the selected prescription of medications for joint pain correctly.	C	SH	Y					
IM7.21	Select, prescribe and communicate preventive therapy for crystalline arthropathies	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to enumerate the changes available for preventivetherapy of crystalline arthropathies correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the Indication of these drugs correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to list the adverse effects of these drugs correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to describe the selection of a preventive drug for crystalline arthroplastycorrectly.	K	KH	Y					

Objective 5	At the end of the session the phase II student must be able to demonstrate counting a prescription of a preventive drug correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to communicate the prescription of a selected drug for preventive therapy of crystalline arthropathies correctly.	C	SH	Y					
IM7.22	Select, prescribe and communicate treatment option for systemic rheumatologic conditions	K/C	SH	Y	DOAP session	Skill assessment/ Written		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to enumerate the various systemic rheumatological conditions correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the treatment option for each of these systemic rheumatological conditions correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the indication of various drugs available for treatment of systemic rheumatological conditions correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to list the adverse effects of these drugs correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to describe the process/ steps to choose treatment option for systemic rheumatological diseases correctly.	K	K	Y					
Objective 6	At the end of the session the phase II student must be able to demonstrate writing a prescription for treatment of various systemic rheumatological diseases correctly.	K	KH	Y					
Objective 7	At the end of the session the phase II student must be able to communicate the prescription of drugs for treatment of various systemic rheumatological diseases correctly.	C	SH	Y					
IM7.23	Describe the basis for biologic and disease modifying therapy in rheumatologic diseases	K	KH	Y	Bedside clinic, Small group discussion	Skill assessment/ Written		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to enumerate the factors involved in causation of rheumatologic diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe the pathogenesis of rheumatologic diseases correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the various biologic & disease modifying drugs need In treating rheumatologic diseases correctly.	K	K	Y					

Objective 4	At the end of the session the phase II student must be able to describe the basis for use of these drugs correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to describe the basis for use of these drugs correctly.	K	KH	Y					
IM7.24	Communicate and incorporate patient preferences in the choice of therapy	C/A	SH	Y	DOAP session	Skill assessment			AETCOM
Objective 1	At the end of the session the phase II student must be able to enumerate the therapy option in rheumatologic diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to list the approximate therapy in rheumatologic diseases correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the economic binder of rheumatologic diseases correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe the process of selecting of appropriate therapy its cost effective nous, safety correctly.	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to understand the implication of disease its therapy on economic, social aspect of patients life correctly.	A	KH	Y					
Objective 6	At the end of the session the phase II student must be able to communicate to the patient various aspects of the treatment motilities available to the patient correctly.	C	SH	Y					
Objective 7	At the end of the session the phase II student must be able to identify patient preference to select treatment plan for the patient correctly.	C	SH	Y					
IM7.25	Develop and communicate appropriate follow up and monitoring plans for patients with rheumatologic conditions	CA	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to enumerate the various treatment plan available for patient with rheumatologic diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe the follow up schedules for these treatment protocol correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the monitoring plan for the treatment protocol of rheumatologic disease correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to communicate to the patient the follow up plan of the selected treatment plan of the patient correctly.	C	SH	Y					

Objective 5	At the end of the session the phase II student must be able to communicate to the patient the monitoring plan of the treatment protocol of the patient correctly.	C	SH	Y					
IM7.26	Demonstrate an understanding of the impact of rheumatologic conditions on quality of life, well being, work and family	A	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to list the impact of rheumatologic conditions on quality of life correctly.	A	SH	Y					
Objective 2	At the end of the session the phase II student must be able to list the impact of rheumatologic conditions on well being of patient correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to list the impact of rheumatologic logical conditions on social life/ family of patient correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to list the impact of rheumatologic conditions on economic life/ work of patient correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to demonstrate the understanding of impact of rheumatologic condition on quality of life, work, wellbeing correctly.	A	SH	Y					
IM7.27	Determine the need for specialist consultation	K	K	Y	Small group discussion, Lecture	Viva voce			
Objective 1	At the end of the session the phase II student must be able to enumerate the complication of various rheumatologic diseases correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the criteria for evaluation severity of disease correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the indications for specialist care in various rheumatologic diseases correctly.	K	K	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Hypertension		Number of competencies: (20)		Number of procedures that require certification : (NIL)					
IM08.1	Describe and discuss the epidemiology, aetiology and the prevalence of primary and secondary hypertension	K	KH	Y	Lecture, Small group	Written/ Viva voce		Pathology, Physiology	

					discussion				
Objective 1	At the end of the session, the phase III (part II) student must be able to Define Hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to Classify Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the aetiology of primary hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the aetiology of secondary hypertension correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe epidemiology of primary hypertension correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe epidemiology of secondary hypertension correctly.	K	K	Y					
IM08.2	Describe and discuss the pathophysiology of hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology, Physiology
Objective 1	At the end of the session, the phase III (part II) student must be able to describe physiology of Hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pathology of Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss pathophysiology of hypertension in a given case correctly.	K	KH	Y					
IM08.3	Describe and discuss the genetic basis of hypertension	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the genetic causes of Hypertension correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the genetic case of Hypertension correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss the genetic basis of hypertension in a given case correctly.	K	KH	N					
IM08.4	Define and classify hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology

Objective 1	At the end of the session, the phase III (part II) student must be able to define Hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to differentiate type of hypertension in a given case correctly.	K	KH	Y					
IM08.5	Describe and discuss the differences between primary and secondary hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of primary Hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of secondary Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the clinical features of primary Hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the clinical features of secondary Hypertension correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the difference between primary and secondary Hypertension correctly.	K	KH	Y					
IM08.6	Define, describe and discuss and recognise hypertensive urgency and emergency	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define hypertensive urgency correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the define hypertensive emergency correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe clinical manifestations of Hypertensive urgency correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe clinical manifestations of Hypertensive emergency correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the difference between Hypertensive emergency and urgency in a given case correctly.	K	KH	Y					

IM08.7	Describe and discuss the clinical manifestations of the various aetiologies of secondary causes of hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the aetiologies of secondary hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the clinical manifestations of aetiologies of secondary hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the clinical manifestations of aetiologies of secondary hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss the clinical manifestations of in a given etiologies of secondary hypertension correctly.	K	KH	Y					
IM08.8	Describe, discuss and identify target organ damage due to hypertension	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list the complications due to hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the clinical manifestation of each complication due hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the clinical manifestation of each complication due hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify the target organ damage in a given case correctly.	K	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the complication due hypertension correctly.	K	KH	Y					
IM08.9	Elicit document and present a medical history that includes: duration and levels, symptoms, comorbidities, lifestyle, risk factors, family history, psychosocial and environmental factors, dietary assessment, previous and concomitant therapy	K	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the appropriate questions in medical history to elicit duration and level of hypertension correctly.	K	K	Y					

IM08.10	Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps of blood pressure examination accurately correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps of fundus examination correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of examination of vasculature correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps of cardiac examination correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate steps of blood pressure examination correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate steps of fundus examination correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to demonstrate steps of vasculature examination correctly.	S	SH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to demonstrate steps of Heart examination correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to perform independently steps of blood pressure examination accurately.	S	S	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to perform independently steps of fundus examination accurately.	S	S	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to perform independently steps of vasculature examination accurately.	S	S	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to perform independently steps of Heart examination accurately.	S	S	Y					
IM08.11	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pathology	
Objective							Domain	Level	Core
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the differential diagnosis in a hypertension correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to identify the specific aetiology in a hypertension correctly.	S	S	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to differentiate the clinical manifestations to find specific aetiology in hypertension correctly.	S	KH	Y					
IM08.12	Describe the appropriate diagnostic work up based on the presumed aetiology	K	KH	Y	Small group discussion	Skill assessment/Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the investigations done in a Hypertension to find aetiology correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the investigations done in a Hypertension to find aetiology correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss appropriate investigation in a given case of hypertension correctly.	K	KH	Y					
IM08.13	Enumerate the indications for and interpret the results of : CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG	K	KH	Y	Small group discussion	Skill assessment/Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications for CBC in a Hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications for Urine routine in a Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications for BUN in a Hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the indications for Creatinine in a Hypertension correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indications for Electrolytes in a Hypertension correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the indications for Uric acid in a Hypertension correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the indications for ECG in a Hypertension correctly.	K	K	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in CBC in a Hypertension correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in Urine routine in a Hypertension correctly.	K	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in BUN in a Hypertension correctly.	K	K	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in Creatinine in a Hypertension correctly.	K	K	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in Electrolytes in a Hypertension correctly.	K	K	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in Uric acid in a Hypertension correctly.	K	K	Y					
Objective 14	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in ECG in a Hypertension correctly.	K	K	Y					
Objective 15	At the end of the session, the phase III (part II) student must be able to interpret the results of CBC in a Hypertension correctly.	K	SH	Y					
Objective 16	At the end of the session, the phase III (part II) student must be able to interpret the results of BUN in a Hypertension correctly.	K	SH	Y					
Objective 17	At the end of the session, the phase III (part II) student must be able to interpret the results of Creatinine in a Hypertension correctly.	K	SH	Y					
Objective 18	At the end of the session, the phase III (part II) student must be able to interpret the results of Electrolytes in a Hypertension correctly.	K	SH	Y					
Objective 19	At the end of the session, the phase III (part II) student must be able to interpret the results of Uric acid in a Hypertension correctly.	K	SH	Y					
Objective 20	At the end of the session, the phase III (part II) student must be able to interpret the results of ECG in a Hypertension correctly.	K	SH	Y					
IM08.14	Develop an appropriate treatment plan for essential hypertension	K	KH	Y	Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list the drugs for patient of essential Hypertension correctly.	K	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of each drug for patient of essential Hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of each drug for patient of essential Hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss treatment plan in a given case of essential Hypertension correctly.	K	KH	Y					
IM08.15	Recognise, prioritise and manage hypertensive emergencies	S	SH	Y	DOAP session	Skill assessment/Written		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define hypertensive emergencies correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate clinical manifestation of hypertensive emergencies correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify hypertensive emergency on the basis of clinical manifestatic correctly.	S	S	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the drug used in Hypertensive emergency correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indication of each drug in Hypertensive emergency correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of each drug in Hypertensive emergency correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to perform the management of Hypertensive emergency correctly.	S	S	Y					
IM08.16	Develop and communicate to the patient lifestyle modification including weight reduction, moderation of alcohol intake, physical activity and sodium intake	C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the lifestyle modification correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe benefits of weight reduction in a Hypertension correctly.	K	K	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to describe ways of weight reduction in a Hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe benefits of moderation of alcohol intake in a Hypertension correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe benefits of Physical activity in a Hypertension correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe ways of Physical activity in a Hypertension correctly.	S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe benefits of sodium intake correctly.	S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to discuss lifestyle modification in a hypertension correctly.	S	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to document lifestyle modification in a hypertension correctly.	S	S	Y					
IM08.17	Perform and interpret a 12 lead ECG	S	P	Y	DOAP session	documentation in log book/ skills station			
Objective 1	At the end of the session, the phase III (part II) student must be able to define ECG correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list ECG changes in a Hypertension correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of performance of ECG correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to perform under supervision the steps of performance of ECG correctly.	S	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to record ECG independently in a given patient correctly.	S	S	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret changes in ECG in a hypertension patient correctly.	S	SH	Y					
IM08.18	Incorporate patient preferences in the management of HTN	A/C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the investigations in a hypertension correctly.	A/C	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the drug in a Hypertension correctly.	A/C	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the investigation in a hypertension correctly.	A/C	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the drugs in a hypertension correctly.	A/C	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the management plan in a hypertension correctly.	A/C	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to choose the correct management plan in consultation with patient correctly.	A/C	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to document the management plan in a Hypertension correctly.	A/C	S	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to inform the management plan in a Hypertension correctly.	A/C	A/C	Y					
IM08.19	Demonstrate understanding of the impact of Hypertension on quality of life, well being, work and family	A	SH	Y	Bedside clinic, DOAP session	observation by faculty			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the effects of hypertension on quality of life in a hypertension correctly.	A	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the effects of hypertension on quality of well being in a hypertension correctly.	A	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the effects of hypertension on the wellbeing in a hypertension correctly.	A	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the effects of hypertension on quality of family in a hypertension correctly.	A	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the hypertension on the individual correctly.	A	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate the understanding of the impact on the individual correctly.	A	SH	Y					
IM08.20	Determine the need for specialist consultation	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			

Objective 1	At the end of the session, the phase III (part II) student must be able to define resistant hypertension correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define secondary hypertension correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe comorbidities in hypertension correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to classify the patient on the basis of severity in a hypertension correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify the patient in whom specialist consultation correctly.	K	SH	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Anemia		Number of competencies: (21)		Number of procedures that require certification: (NIL)					
IM9.1	Define, describe and classify anaemia based on red blood cell size and reticulocyte count	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session the phase III student must be able to define anaemia correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe erythropoiesis -the red blood cell synthesis correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the normal red blood cell size accurately	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe the normal reticulocyte accurately	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to describe laboratory approach to classify anaemia correctly	K	K	Y					
Objective 6	At the end of the session the phase III student must be able to classify anaemia correctly for a given size of red blood cell accurately	K	K	Y					
Objective 7	At the end of the session the phase III student must be able to classify anaemia correctly for a given reticulocyte count accurately	K	K	Y					
IM9.2	Describe and discuss the morphological characteristics, aetiology and prevalence of each of the causes of anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

Objective 1	At the end of the session the phase III student must be able to enumerate the various causes of anaemia correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the prevalence of each of the causes of anaemia correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the morphological characteristics, of each of the causes of anaemia correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe each of the cause of anaemia correctly	K	K	Y					
IM9.3	Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, and family history	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to elicit a comprehensive medical history document correctly	S	KH	Y					
Objective 2	At the end of the session the phase III student must be able to elicit a medical history document of symptoms correctly	S	KH	Y					
Objective 3	At the end of the session the phase III student must be able to elicit a medical history document of risk factors including GI bleeding correctly	S	KH	Y					
Objective 4	At the end of the session the phase III student must be able to elicit a medical history document of prior history correctly	S	KH	Y					
Objective 5	At the end of the session the phase III student must be able to elicit a medical history document of medications correctly	S	KH	Y					
Objective 6	At the end of the session the phase III student must be able to elicit a medical history document of menstrual history correctly	S	KH	Y					
Objective 7	At the end of the session the phase III student must be able to elicit a medical history document of family history correctly	S	KH	Y					
Objective 8	At the end of the session the phase III student must be able to present a detailed medical history correctly	S	S	Y					
IM9.4	Perform a systematic examination that includes: general examination for pallor, oral examination, DOAP session of hyperdynamic circulation, lymph node and splenic examination	S	S H	Y	Bed side clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to perform a systematic examination including general examination correctly	S	S	Y					
Objective 2	At the end of the session the phase III student must be able to perform a general examination for pallor correctly	S	S	Y					

Objective 3	At the end of the session the phase III student must be able to perform a general examination of oral cavity correctly	S	S	Y					
Objective 4	At the end of the session the phase III student must have attended a DOAP session on hyperdynamic circulation to be able to demonstrate/perform a general examination for pallor correctly	S	SH	Y					
Objective 5	At the end of the session the phase III student must be able to perform a general examination for hyperdynamic circulation correctly after a DOAP session	S	S	Y					
Objective 6	At the end of the session the phase III student must be able to perform a lymph node examination correctly after a DOAP session	S	S	Y					
Objective 7	At the end of the session the phase III student must be able to perform a splenic examination correctly after a DOAP session	S	S	Y					
IM9.5	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
Objective 1	At the end of the session the phase III student must be able to enumerate causes of anaemia	S	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe clinical features for a specific aetiology of anaemia accurately	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to generate differential diagnosis of anaemia based on clinical features suggesting a specific aetiology correctly	S	KH	Y					
Objective 4	At the end of the session the phase III student must be able to prioritise differential diagnosis of anaemia based on clinical features correctly	S	KH	Y					
IM9.6	Describe the appropriate diagnostic work up based on the presumed aetiology	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pathology	
Objective 1	At the end of the session the phase III student must be able to enumerate the causes for anaemia correctly	S	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe the diagnostic work up for various aetiologies of anaemia correctly	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the appropriate diagnostic work up for a given/presumed aetiology accurately	S	K	Y					

IM9.11	Describe the indications and interpret the results of a bone marrow aspirations and biopsy	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
Objective 1	At the end of the session the phase III student must be able to describe bone marrow aspiration correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe bone marrow biopsy correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to enumerate the various sites for a bone marrow examination correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to enumerate the various sites for a bone marrow examination correctly	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to interpret the bone marrow results from a given aetiology of anaemia accurately	K	SH	Y					
Objective 6	At the end of the session the phase III student must be able to identify the aetiology of anaemia correctly from a given set of bone marrow examination results	K	S	Y					
IM9.12	Describe, develop a diagnostic plan to determine the aetiology of anaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
Objective 1	At the end of the session the phase III student must be able to enumerate the most common causes of anaemia correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the various investigations of anaemia correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe a diagnostic plan to determine the aetiology of anaemia correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to develop a diagnostic plan to determine the aetiology of anaemia correctly	K	KH	Y					
IM9.13	Prescribe replacement therapy with iron, B12, folate	S	S H	Y	Bedside clinic, DOAP session	Skill assessment/ Written		Pharmacology	
Objective 1	At the end of the session the phase III student must be able to perform a systematic examination including general examination correctly	S	S	Y					
Objective 2	At the end of the session the phase III student must be able to perform a general examination for pallor correctly	S	S	Y					

Objective 3	At the end of the session the phase III student must be able to perform a general examination of oral cavity correctly	S	S	Y					
Objective 4	At the end of the session the phase III student must have attended a DOAP session of hyperdynamic circulation able to demonstrate/perform a general examination for pallor correctly	S	S H	Y					
Objective 5	At the end of the session the phase III student must be able to perform a general examination for hyperdynamic circulation correctly after a DOAP session	S	S	Y					
Objective 6	At the end of the session the phase III student must be able to perform a splenic examination correctly after a DOAP session	S	S	Y					
IM9.14	Describe the national programs for anaemia prevention	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, CM	
Objective 1	At the end of the session the phase III student must be able to enumerate the national programs for anaemia prevention correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe the national nutritional anaemia prophylaxis programme of anaemia for mothers and children correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the iron fortification programme accurately	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe the changing dietary habits, control of parasites and nutrition education for anaemia prevention correctly	K	K	Y					
IM9.15	Communicate the diagnosis and the treatment appropriately to patients	C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to communicate the diagnosis of anaemia appropriately to patients accurately	C	SH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the treatment options of anaemia to patients accurately	C	K	Y					
Objective 3	At the end of the session the phase III student must be able to communicate the treatment of anaemia appropriately to patients correctly	C	SH	Y					
Objective 4	At the end of the session the phase III student must be able to communicate the treatment of anaemia appropriately to patients accurately for a given aetiology	C	SH	Y					

IM9.16	Incorporate patient preferences in the management of anaemia	C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to enumerate the management options of anaemia to patients accurately	C	K	Y					
Objective 2	At the end of the session the phase III student must be able to discuss the cost and benefits of various management options of anaemia to patients correctly	C	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the advantages and disadvantages of various management options of anaemia to patients accurately	C	K	Y					
Objective 4	At the end of the session the phase III student must be able to incorporate the patient preferences in the management of anaemia to patients correctly	C	SH	Y					
Objective 5	At the end of the session the phase III student must be able to incorporate the patient preferences in the management of anaemia to patients for a given aetiology correctly	C	SH	Y					
IM9.17	Describe the indications for blood transfusion and the appropriate use of blood components	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment		Pathology	
Objective 1	At the end of the session the phase III student must be able to describe blood and blood components correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe blood transfusion correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe various blood components correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to enumerate the indications for blood transfusion correctly	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to enumerate the indications for various blood components correctly	K	K	Y					
Objective 6	At the end of the session the phase III student must be able to describe appropriate indication for blood transfusion or blood component for a given aetiology of anaemias correctly	K	K	Y					
IM9.18	Describe the precautions required necessary when performing a blood transfusion	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce/ Skill assessment			
Objective 1	At the end of the session the phase III student must be able to enumerate the possible various acute transfusion reactions correctly	K	KH	Y					

Objective 2	At the end of the session the phase III student must be able to describe the precautions for a possible febrile non-haemolytic transfusion reaction correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe precautions for a possible ABO incompatibility correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the precautions for a possible severe allergic reaction correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the precautions for a possible bacterial contamination correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to describe the precautions for a possible fluid overload correctly	K	KH	Y					
Objective 7	At the end of the session the phase III student must be able to describe the precautions for a transfusion-related acute lung injury correctly	K	KH	Y					
IM9.19	Assist a blood transfusion	S	SH	Y	Bedside clinic	document in log book			
Objective 1	At the end of the session the phase III student must be able to enumerate various bedside procedures for safe blood transfusion correctly	S	S H	Y					
Objective 2	At the end of the session the phase III student must be able to assist while taking blood for pre-transfusion testing correctly	S	S H	Y					
Objective 3	At the end of the session the phase III student must be able to assist while administering blood transfusion correctly	S	S H	Y					
Objective 4	At the end of the session the phase III student must be able to assist in record-keeping like reason for transfusion, the product given, dose and any adverse effects accurately	S	S H	Y					
Objective 5	At the end of the session the phase III student must be able to assist while observations for vital signs like, pulse, BP, temperature, respiration and signs of bleeding taking blood for pre-transfusion testing correctly	S	S H	Y					
Objective 6	At the end of the session the phase III student must be able to assist while treating a blood-transfusion reaction correctly	S	S H	Y					
IM9.20	Communicate and counsel patients with methods to prevent nutritional anaemia	C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to enumerate the preventable nutritional anaemias correctly	C	SH	Y					

Objective 2	At the end of the session the phase III student must be able to describe the various methods to prevent nutritional anaemias correctly	C	SH	Y					
Objective 3	At the end of the session the phase III student must be able to communicate the various methods to prevent nutritional anaemias correctly	C	SH	Y					
Objective 4	At the end of the session the phase III student must be able to counsel the various methods to prevent nutritional anaemias correctly	C	SH	Y					
Objective 5	At the end of the session the phase III student must be able to counsel the patient for a given aetiology of anaemia regarding the appropriate methods to prevent nutritional anaemias accurately	C	SH	Y					
IM9.21	Determine the need for specialist consultation	K	KH	Y	Lecture, Small group discussion	Written			
Objective							Domain	Level	Core
Objective 1	At the end of the session the phase III student must be able to enumerate reasons/indications for the need for specialist consultation in anaemias	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe various specialities required to diagnose and treat various causes of anaemia accurately	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to identify the most appropriate specialist consultation required correctly from a given set of clinical features and haematological parameters	K	KH	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Acute Kidney Injury and Chronic renal failure		Number of competencies: (31)			Number of procedures that require certification: (NIL)				
IM10.1	Define, describe and differentiate between acute and chronic renal failure.	K	KH	Y					
Objective 1	At the end of the session the phase III student must be able to define acute and chronic renal failure correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to categorise acute kidney injury based on history, examination and investigations correctly.	K	KH	Y					

Objective 3	At the end of the session the phase III student must be able to describe the management of AKI correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe epidemiology, pathophysiology, clinical features, complications, investigations and management of chronic renal failure correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to enumerate differences between acute and chronic renal failure correctly.	K	KH	Y					
IM10.2	Classify, describe and differentiate the pathophysiologic causes of acute renal failure.	K	KH	Y	Lecture, Small group discussion.	Written ,Viva voce			
Objective 1	At the end of the session the phase III student must be able to know the pathophysiology of acute renal failure correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to know the etiology of acute renal failure correctly.	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to do the diagnostic evaluation of AKI based on relevant history ,physical examination and lab investigations correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to classify AKI based on relevant history ,physical examination and lab investigations correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe various subtypes of AKI based on relevant history ,physical examination and lab investigations correctly.	K	KH	Y					
IM10.3	Describe the pathophysiology and causes of pre renal ARF,renal and post renal ARF	K	KH	Y	Lecture, small group discussion.	Written/ viva voce		pathology	
Objective 1	At the end of the session the phase III student must be able to know the etiology of acute renal failure correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to know the pathophysiology of acute renal failure correctly.	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to know relevant history ,physical examination findings and lab investigations in a case of AKI correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to classify AKI as pre renal, intrinsic renal and post renal based on relevant history ,physical examination and lab investigations correctly.	K	KH	Y					

IM10.7	Describe and discuss the pathophysiology and clinical findings of uraemia.	K	KH	Y	Lecture, small group discussion	Written/ viva voce			
Objective 1	At the end of the session the phase III students must be able to know the metabolic and endocrine functions of kidney accurately	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to know the consequences of metabolic and endocrine derangements on kidney function correctly.	K	KH	Y					
Objective 3	At the end of the session the phase III students must be able to define uraemia based on the knowledge of its endocrine and metabolic functions correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III students must be able to know the surrogate markers involved in uraemic state correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III students must be able to know the effect uraemia on various systems correctly.	K	KH	Y					
Objective 6	At the end of the session the phase III students must be able to know the clinical features of uraemia correctly.	K	KH	Y					
IM10.8	Classify, describe and discuss the significance of proteinuria in CKD	K	KH	Y	Lecture, small group discussion.	Written/ viva voce			
Objective 1	At the end of the session the phase III student must know about urine analysis correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III student must know about anatomy and morphology of kidney and glomerular basement membrane in particular correctly.	K	KH	Y					
Objective 3	At the end of the session the phase III students must know about albumin creatinine ratio and protein creatinine ratio correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III student must know the staging of CKD correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III student must know the staging of proteinuria in relation to stages of CKD correctly.	K	KH	Y					
IM10.10	Describe and discuss the association between CKD, glycemia and hypertension.	K	KH	Y	Lecture, small group discussion.	Written/ viva voce			
Objective 1	At the end of the session the phase III students must be know the endocrine and cardiovascular functions of kidney correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III students must know about urine analysis and quantification of proteinuria correctly.	K	KH	Y					

Objective 3	At the end of the session the phase III students must know common causes of end stage renal failure correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III students must know clinical features of CKD with endocrine and cardiovascular symptoms in particular correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III students must know the effects of blood pressure control on proteinuria and progression of CKD correctly.	K	KH	Y					
Objective 6	At the end of the session the phase III students must know the effect of CKD on the half life of insulin correctly.	K	KH	Y					
Objective 7	At the end of the session the phase III students must be able to correlate the association between CKD, glycemia and hypertension correctly.	K	KH	Y					
IM10.11	Describe and discuss the relationship between CAD risk factors and CKD and in dialysis	K	KH	Y	Lecture, small group discussion.	Written/ viva voce.			
Objective							Domain	Level	Core
Objective 1	At the end of the session the phase III students must be know the staging of CKD according to level of GFR and proteinuria correctly.	K	KH	Y					
Objective 2	At the end of the session the phase III students must know about importance of proteinuria in CKD and quantification of proteinuria in a urine sample correctly.	K	KH	Y					
Objective 3	At the end of the session the phase III students must know about the effect of CKD on traditional risk factors for CKD correctly.	K	KH	Y					
Objective 4	At the end of the session the phase III students must know about complications of CKD correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III students must know about pathophysiology of CAD complications correctly.	K	KH	Y					
Objective 6	At the end of the session the phase III students must know the complications of Haemodialysis correctly.	K	KH	Y					
Objective 7	At the end of the session the phase III students must know about the additional complications of HD with cardiovascular risk factors and morbidity correctly.	K	KH	Y					
IM10.12	Elicit document and present a medical history that will differentiate the etiologies of disease,distinguish acute and chronic disease,identify predisposing conditions,nephrotoxic drugs and systemic causes	K	SH	Y	Bedside clinic and DOAP session.	Written/ viva voce.			

Objective 1	At the end of the session the phase III students must be able to elicit and document a comprehensive medical history in a patient of ARF correctly.	K	SH	Y					
Objective 2	At the end of the session the phase III students must be able to elicit and document a comprehensive medical history in a patient of CKD correctly.	K	SH	Y					
Objective 3	At the end of the session the phase III students must know etiologies and types of AKI correctly.	K	SH	Y					
Objective 4	At the end of the session the phase III students must differentiate the types of AKI based on comprehensive history correctly.	K	SH	Y					
Objective 5	At the end of the session the phase III students must know the common causes of CKD correctly.	K	SH	Y					
Objective 6	At the end of the session the phase III students must be able to elicit relevant history in case of CKD correctly.	K	SH	Y					
Objective 7	At the end of the session the phase III students must be able to differentiate AKI and CKD based on relevant history, predisposing conditions and systemic causes correctly.	K	SH	Y					
IM10.13	Perform a systemic examination that establishes the diagnosis and severity including determining of volume status, presence of edema and heart failure, features of uremia and associated systemic disease.	S	SH	Y	Bedside clinic, DOAP session.	Skill assesment			
Objective 1	At the end of the session the phase III students must be able to demonstrate the assesment of hydration status of a patient correctly.	K	SH	Y					
Objective 2	At the end of the session the phase III students must be able to demonstrate pitting oedema in a patient correctly.	K	SH	Y					
Objective 3	At the end of the session the phase III students must be able to demonstrate method of recording blood pressure in a patient correctly.	K	SH	Y					
Objective 4	At the end of the session the phase III students must be able to demonstrate JVP in a patient correctly.	K	SH	Y					
Objective 5	At the end of the session the phase III students must be able to document principal causes of generalized oedema correctly.	K	SH	Y					
Objective 6	At the end of the session the phase III students must be able to do general and systemic examination to differentiate various causes of oedema correctly.	K	SH	Y					
Objective 7	At the end of the session the phase III students must know the causes of heart failure correctly.	K	SH	Y					

Objective 8	At the end of the session the phase III students must be able to do general and systemic examination in a case of heart failure correctly.	K	SH	Y					
Objective 9	At the end of the session the phase III students must know the clinical features of uraemia correctly.	K	SH	Y					
IM10.14	Generate a differential diagnosis and prioritise based on clinical features that suggest specific etiology	K	KH	Y	DOAP session, small group discussion.	Skill assesment/written/viva voce			
Objective 1	At the end of the session the phase III students must know the principal causes of generalized oedema and form a differential diagnosis based on them correctly.	K	KH	Y					
Objective 2	At the end of the session phase III students must know the causes of heart failure correctly.	K	KH	Y					
Objective 3	At the end of the session phase III students must know the clinical features in a case of heart failure correctly.	K	KH	Y					
Objective 4	At the end of the session phase III students must know the physical signs in advanced chronic kidney disease correctly.	K	KH	Y					
Objective 5	At the end of the session the phase III students must be able to know the clinical features of uraemia correctly.	K	KH	Y					
Objective 6	At the end of the session the phase III students must be able to know the effect uraemia on various systems correctly.	K	KH	Y					
IM10.15	Describe the appropriate diagnostic workup based on presumed etiology.	K	SH	Y	Lecture, small group discussion.	DOAP/Small group discussion	Skill assesment/written viva voce		
Objective 1	At the end of the session the phase III students must know the principal causes of generalized oedema and form a differential diagnosis based on them correctly.	K	SH	Y					
Objective 2	At the end of the session phase III students must know the causes of heart failure correctly.	K	SH	Y					
Objective 3	At the end of the session phase III students must know the clinical features in a case of heart failure correctly.	K	SH	Y					
Objective 4	At the end of the session phase III students must know the investigations in a case of generalized oedema and heart failure correctly.	K	SH	Y					
Objective 5	At the end of the session phase III students must know the physical signs in advanced chronic kidney disease correctly.	K	SH	Y					
Objective 6	At the end of the session the phase III students must be able to know the clinical features of uraemia correctly.	K	SH	Y					

Objective 7	At the end of the session the phase III students must be able to know the effect uraemia on various systems correctly.	K	SH	Y					
Objective 8	At the end of the session the phase III students must be able to know the investigations in a case of CKD and uraemia correctly.	K	SH	Y					
IM10.16	Enumerate the indications for and interpret the results of renal function, tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, anion gap	K	SH	Y	Lecture, small group discussion.	DOAP/Small group discussion	Skill assesment/w ritten viva voce		
Objective 1	At the end of the session the phase III students must be able to know the functional anatomy and physiology of kidney correctly.	K	SH	Y					
Objective 2	At the end of the session the phase III students must be able to know the clinical features of advanced CKD correctly.	K	SH	Y					
Objective 3	At the end of the session the phase III students must be able to know the clinical features of uraemia correctly.	K	SH	Y					
Objective 4	At the end of the session the phase III students must be able to know the endocrine and metabolic disturbances in uraemia correctly.	K	SH	Y					
Objective 5	At the end of the session the phase III students must be able to know about the presenting problems in renal and urinary tract disease accurately.	K	SH	Y					
IM10.17	Describe and calculate indices of renal function based on available laboratories including FENa(fraction excretion excretion of Sodium) and CrCl(creatinine clearance)	K	SH	Y	Lecture, small group discussion.	DOAP/Small group discussion	Skill assesment/writ ten viva voce		
Objective 1	At the end of the session the phase III students must be able to know the metabolic and endocrine functions of the kidney correctly.	K	SH	Y					
Objective 2	At the end of the session the phase III students must be able to know the various methods of estimating GFR including direct measurement method, Creatinine clearance(CrCl) and estimation of GFR with equations correctly.	K	SH	Y					
Objective 3	At the end of the session the phase III students must be able to know the limitations and advantages of estimating GFR correctly.	K	SH	Y					
Objective 4	At the end of session phase III students must be able to know the types of Acute Renal failure as Pre renal, intrinsic renal and post renal correctly.	K	SH	Y					

Objective 5	At the end of session phase III students ,using various renal failure indices should be able to differentiate between various types of ARF correctly.	K	SH	Y					
IM10.18	Identify the ECG findings in Hyperkalemia.	S	SH	Y	DOAP session, small group discussion.	DOAP/Small group discussion	Skill assesment/writ ten viva voce		
Objective 1	At the end of session phase III students must interpret a normal ECG correctly.	S	SH	Y					
Objective 2	At the end of session phase III students must know normal serum electrolyte levels correctly.	S	SH	Y					
Objective 3	At the end of session phase III students must know to classify Hyperkalemia according to its severity correctly.	S	SH	Y					
Objective 4	At the end of session phase III students must be able to identify the ECG findings as that in Hyperkalemia correctly.	S	SH	Y					
IM10.19	Enumerate the indications and describe the findings in renal ultrasound.	S	SH	Y	DOAP session, small group discussion.	DOAP/Small group discussion	Skill assesment/w ritten viva voce		
Objective 1	At the end of session phase III students must know the normal anatomy of the kidney and urinary tract correctly.	S	SH	Y					
Objective 2	At the end of session phase III students must know the radiological and clinical features of urinary tract obstruction correctly.	S	SH	Y					
Objective 3	At the end of session phase III students must know the Tumors affecting the kidney and urinary tract correctly.	S	SH	Y					
Objective 4	At the end of session phase III students must know the Diseases of the collecting system and ureters like congenital abnormalities ,retroperitoneal fibrosis correctly.	S	SH	Y					
Objective 5	At the end of session phase III students must know the Benign and malignant diseases of the prostate correctly.	S	SH	Y					
IM10.20	Describe and discuss the indications to perform arterial blood gas analysis: interpret the data	S	P	Y	DOAP session,	DOAP/Small group discussion	documentation in log book		
Objective 1	At the end of session phase III students must know about Acid base homeostasis correctly.	S	P	Y					
Objective 2	At the end of session phase III students must know about Water and electrolyte homeostasis correctly.	S	P	Y					

IM10.22	Describe and discuss the indications, demonstrate in a model and assist in the insertion of a central venous or a dialysis catheter	S	SH	Y	DOAP session,	DOAP/	Skill assessment with model		
Objective 1	At the end of the session phase three students must Identify types and definitions of Central Venous Asses Devices(CAVD) correctly.	S	SH	Y					
Objective 2	At the end of the session phase three students must Document indications of inserting central venous line device correctly.	S	SH	Y					
Objective 3	At the end of the session phase three students must Identify the anatomy and physiology of blood flow in relation to Central Venous Asses Devices (CAVD) correctly.	S	SH	Y					
Objective 4	At the end of the session phase three students must Describe the differences between each device correctly.	S	SH	Y					
Objective 5	At the end of the session phase three students must Describe the principles of infection prevention and control correctly.	S	SH	Y					
Objective 6	At the end of the session phase three students must Identify complications of central venous catheter and describe prevention and management of each correctly.	S	SH	Y					
Objective 7	At the end of the session phase three students must Understand the action of medications and drug precipitates correctly.	S	SH	Y					
Objective 8	At the end of the session phase three students must Accurately document assesment correctly.	S	SH	Y					
Objective 9	At the end of the session phase three students must Understand the principles of patient education correctly.	S	SH	Y					
Objective 10	At the end of the session phase three students must Describe catheter consideration when administering Parental Nutrition correctly.	S	SH	Y					
IM10.23	Communicate diagnosis treatment plan and subsequent followup to patients	S	SH	Y	DOAP session,	DOAP/	Skill assessment with model		
Objective 1	At the end of the session phase three students must develop effective communication skills with patients, families and other health care providers	S	SH	Y					
Objective 2	At the end of the session phase three students must develop effective communication skills to Collaborate with patient and families	S	SH	Y					
Objective 3	At the end of the session phase three students must know to Communicate for shared decision making regarding treatment plan and followup	S	SH	Y					
Objective 4	At the end of the session phase three students must develop Verbal and written communication skills.	S	SH	Y					

IM10.26	Describe and discuss supportive therapy in CKD including diet, anti hypertensives, glycemic therapy, dyslipidemia, anemia, hyperkalemia, hyperphosphatemia and secondary hyperparathyroidism	K/c	KH	Y	lecture, small group discussion	DOAP	Written viva voce		
Objective 1	At the end of the session phase three students must be able to outline treatment options for patients with CKD to decrease progression of renal deterioration and potentially decrease morbidity and mortality correctly.	K/C	KH	Y					
Objective 2	At the end of the session phase three students must be able to highlight and common co-morbid conditions such as cardiovascular disease and diabetes, dyslipidemia, anemia, serum electrolyte abnormalities ,disturbed mineral homeostasis emphasizing the importance of aggressive management of these conditions to potentially decrease morbidity and mortality among patients with CKD correctly.	K/C	KH	Y					
IM10.27	Describe and discuss the indications for renal dialysis	K/c	KH	Y	lecture, small group discussion	DOAP	Written viva voce		
Objective 1	At the end of the session phase three students must be able to know Acid base changes in ARF and CKD correctly.	K/C	KH	Y					
Objective 2	At the end of the session phase three students must be able to understand Disturbances in serum electrolytes in ARF and CKD and its management correctly.	K/C	KH	Y					
Objective 3	At the end of the session phase three students must be able enumerate Nephrotoxic drugs implicated in ARF and CKD correctly.	K/C	KH	Y					
Objective 4	At the end of the session phase three students must be able know Complications and management of volume overload states correctly.	K/C	KH	Y					
Objective 5	At the end of the session phase three students must be able to know Complications and management of uremia correctly.	K/C	KH	Y					
IM10.28	Describe and discuss the indications for renal replacement therapy	K/c	KH	Y	lecture, small group discussion	DOAP	Written viva voce		
Objective 1	At the end of the session phase three students must be able to describe treatment options for renal replacement therapy to improve awareness and understanding.	K/C	KH	Y					

Objective 2	At the end of the session phase three students must be able to use evidence based strategies to manage patients with renal failure in need of renal replacement therapy to improve outcomes.	K/C	KH	Y					
Objective 3	At the end of the session phase three students must be able to manage patients receiving dialysis or living with a renal transplant from a primary care perspective.	K/C	KH	Y					
IM10.29	Describe discuss and communicate the ethical and legal issues involved in renal replacement therapy	K/c	KH	Y	lecture, small group discussion	DOAP	Written viva voce		
Objective 1	At the end of the session phase three students must understand that good communication skills are the key to shared decision- making and patient centered care.	K/C	KH	Y					
Objective 2	At the end of the session phase three students must know the perspectives to consider in ethical decision making that is 1.Medical indications, diagnosis, prognosis and treatment. 2.Patient preferences 3.Quality of life 4.Contextual features (social, economic, legal and administrative)	K/C	KH	Y					
Objective 3	At the end of the session phase three students must understands the seven step process of ethical decision making in patient care that is - 1.What are the ethical questions 2.What are the clinically relevant facts 3.What are the values at stake 4.List options (what could you do) 5.What should you do(choice the best option from the ethical point of view balancing the above factors) 6.Justify your choice based on the ethical principles 7.How could this ethical issue have been prevented.	K/C	KH	Y					
IM10.30	Recognise the impact of CKD on patient's quality of life well being work and family	A	K	Y	lecture, small group discussion	DOAP	Written viva voce		
Objective 1	At the end of the session phase three students must understand the the core components of quality of life that is physical, functional, psychological/emotional, and work/occupational.	A	K	Y					

Objective 2	At the end of the session phase three students must be able to do the assessment of patient symptom burden using patient reported measures: formulation of treatment options	A	K	Y					
Objective 3	At the end of the session phase three students must understand the importance of optimization of medical therapy in in improving quality of life in a CKD patient.	A	K	Y					
Objective 4	At the end of the session phase three students must be able to review social support systems	A	K	Y					
Objective 5	At the end of the session phase three students must be able to do Management of anemia: maintenance of hemoglobin levels in 11–12 range	A	K	Y					
Objective 6	At the end of the session phase three students must be able to do treatment of depression: medication, counseling, and/or other strategies	A	K	Y					
Objective 7	At the end of the session phase three students must be able to do modifications in dialysis treatment regimen: more frequent hemodialysis	A	K	Y					
Objective 8	At the end of the session phase three students must be able to manage physical functioning: utilization of exercise programs	A	K	Y					
Objective 9	At the end of the session phase three students must be able to do assessment and treatment of sleep disturbances	A	K	Y					
Objective 10	At the end of the session phase three students must be able to do assessment and treatment of pain	A	K	Y					
Objective 11	At the end of the session phase three students must be able to assessment and treatment of stress and anxiety	A	K	Y					
Objective 12	At the end of the session phase three students must be able to assessment and treatment of sexual dysfunction	A	K	Y					
Objective 13	At the end of the session phase three students must be able to do assessment of cognitive dysfunction with appropriate support	A	K	Y					
Objective 14	At the end of the session phase three students must be able to do caregiver assessment and support	A	K	Y					
IM10.31	Incorporate patient preferences in to the care of CKD	A/C	KH	Y	Lecture ,small group discussion,Be dside clinic session,	Observation by faculty			
Objective 1	At the end of the session phase three students must demonstrate understanding of aligning treatment with patient preferences in a case of CKD	A/C	KH	Y					

Objective 2	At the end of the session phase three students must demonstrate understanding that Survival and long term health outcomes are balanced with maximising quality of life and symptom control	A/C	KH	Y					
Objective 3	At the end of the session phase three students must develop effective communication skills with patient and families so as to be able to do advance care planning for end of life care in a patient of CKD.	A/C	KH	Y					
Objective 4	At the end of the session phase three students must develop effective communication skills with patient and families so as to be able to integrate various kidney supportive care.	A/C	KH	Y					
Objective 5	At the end of the session phase three students must demonstrate understanding of integrated renal care.	A/C	KH	Y					
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Diabetes Mellitus		Number of competencies: (24)			Number of procedures that require certification : (02)				
IM11.1	Define and classify diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define diabetes mellitus correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define the American Diabetes Association (ADA) Criteria for diagnosis of diabetes correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define the spectrum of glucose homeostasis including diabetes correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to define the normal values of FBG, 2 hr PPBG, HBA1c correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the aetiologies of diabetes mellitus as per ADA correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the etiological classification of diabetes correctly.	K	K	Y					
IM11.2	Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the epidemiological factors of type 1 DM correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the steps in pathogenesis of type 1 DM correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the risk factors for development of type 1 DM correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the natural disease progression type 1 DM correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the clinical evolution of type 1 DM in a patient correctly.	K	KH	Y					
IM11.3	Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the epidemiological factors of type 2 DM correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the steps in pathogenesis of type 2 DM correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the risk factors for development of type 2 DM correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the natural disease progression type 2 DM correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the clinical evolution of type 2 DM in a patient correctly.	K	KH	Y					
Object 6	At the end of the session, the phase III (part II) student must be able to define the economic burden of type 2 DM correctly.	K	KH	Y					
IM11.4	Describe and discuss the genetic background and the influence of the environment on diabetes	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student should be able to enumerate the genetic factors playing a role in development of type 1 DM Correctly.	K	K	N					

Objective 2	At the end of the session, the phase III (part II) student should be able to enumerate the environmental factors playing a role in development of type 1 DM Correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student should be able to describe the genetic basis in development of type 1 DM correctly.	K	K	N					
Objective 4	At the end of the session, the phase III (part II) student should be able to describe the influence of environmental factors in development of type 1 DM Correctly.	K	K	N					
IM11.5	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session, the phase III (part II) student must be able to list the microvascular complications of DM correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the macrovascular complications of DM correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the mechanisms involved in pathogenesis of Complications of DM correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the temporal association of various complications from the onset of DM correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss the temporal evolution of microvascular complications of DM correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss the temporal evolution of microvascular complications of DM correctly.	K	KH	Y					
IM11.6	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the emergencies occurring in diabetes correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define Diabetic Ketoacidosis (DKA) correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define Non Ketotic Hyperosmolar State (NKHS) correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps in pathogenesis of DKA correctly.	K	KH	Y					

Objective 5	At the end of the session, the phase III (part II) student must be able to list the steps in pathogenesis of NKHS correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the precipitating factors for DKA/NKHS correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the diagnostic criteria for DKA/NKHS correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to define the treatment protocol for DKA/NKHS correctly.	K	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to discuss the recognition of DKA in a patient correctly.	K	K	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to discuss the recognition of NKHS in a patient correctly.	K	K	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to describe the management of DKA correctly.	K	KH	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe the management of NKHS correctly.	K	KH	Y					
IM11.7	Elicit document and present a medical history that will differentiate the aetiologies of diabetes including risk factors, precipitating factors, lifestyle, nutritional history, family history, medication history, co-morbidities and target organ disease	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the aetiologies of diabetes correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the risk factors of diabetes correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the precipitating factors of diabetes correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the lifestyle factors related to diabetes correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the nutritional factors related to diabetes correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to list the comorbidities related to diabetes correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to list the various target organ damages of diabetes correctly.	S	SH	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to describe the classical presentation of various types of diabetes correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to enumerate the pertinent questions in history taking of a diabetes patient for aetiology, risk factors, precipitating factors, family history, medication history, comorbidities, target organ damage related to diabetes correctly.	S	SH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to demonstrate taking an elaborate history of a patient of diabetes correctly.	S	SH	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to document the salient points in the history of a patient of diabetes correctly.	S	SH	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to present the history of a patient of diabetes covering all relevant points correctly.	S	SH	Y					
IM11.8	Perform a systematic examination that establishes the diagnosis and severity that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries)	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the steps in systemic examination of the Skin correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the steps in examination of the peripheral pulses correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps in measurement of blood pressure correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps in fundus examination correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the methods in examination of deep tendon reflexes, sensations correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the systemic examination of the Skin correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe the examination of the peripheral pulses correctly.	S	SH	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to describe the measurement of blood pressure correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe the fundus examination findings correctly.	S	SH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to describe the examination of deep tendon reflexes, sensations correctly.	S	SH	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to perform systemic examination of the Skin correctly.	S	SH	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to perform the examination of the peripheral pulses correctly.	S	SH	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to perform measurement of blood pressure correctly.	S	SH	Y					
Objective 14	At the end of the session, the phase III (part II) student must be able to perform fundus examination correctly.	S	SH	Y					
Objective 15	At the end of the session, the phase III (part II) student must be able to examination of deep tendon reflexes, sensations correctly.	S	SH	Y					
IM11.9	Describe and recognise the clinical features of patients who present with a diabetic emergency	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate all the diabetic emergencies correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the clinical features of DKA correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the clinical features of NKHS correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify the underlying diabetic emergency from a given set of clinical parameters correctly.	K	KH	Y					
IM11.10	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	K	KH	Y	Small group discussion, Lecture	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the differential diagnosis of diabetes correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the cardinal manifestations of diabetes correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the classical features of all differentials of diagnosis correctly.	K	KH	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to classify the underlying aetiology based on a given set of clinical features in a patient correctly.	K	KH	Y					
IM11.11	Order and interpret laboratory tests to diagnose diabetes and its complications including: glucoses, glucose tolerance test, glycosylated hemoglobin, urinary micro albumin, ECG, electrolytes, ABG, ketones, renal function tests and lipid profile	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list the ADA criteria for diagnosis of diabetes correctly.	S	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the investigations for diagnosis of diabetes correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the complications of diabetes correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the tests for diagnosis the complications of diabetes correctly.	S	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to define the normal values of FBG, PPBG, HBA1c correctly.	S	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to define the normal values of serum electrolytes correctly.	S	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to define the normal values of renal function tests correctly.	S	KH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to define the normal values of lipid profile parameters correctly.	S	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to define normal values of ABG parameters correctly.	S	KH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to define normal values of urine examination correctly.	S	KH	Y					
Objective 11	At the end of the session, the phase III (part II) student must be able to describe the tests to order for diagnosis of diabetes correctly.	S	KH	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe the tests to order for diagnosis of diabetes complications correctly.	S	KH	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to describe the abnormalities in these tests correctly.	S	KH	Y					

Objective 14	At the end of the session, the phase III (part II) student must be able to diagnose diabetes and its complications on the basis of lab tests ordered correctly.	S	KH	Y					
IM11.12	Perform and interpret a capillary blood glucose test	S	P	Y	Bedside clinic, DOAP session	Skill assessment	2	Pathology, Biochemistry	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the steps in performing a capillary blood glucose test correctly.	S	P	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define the normal values of capillary blood glucose levels correctly.	S	P	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate the steps to perform a capillary blood glucose estimation correctly.	S	P	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to perform a capillary blood glucose estimation correctly.	S	P	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to interpret the result of a capillary blood glucose test correctly.	S	P	Y					
IM11.13	Perform and interpret a urinary ketone estimation with a dipstick	S	P	Y	Bedside clinic, DOAP session	Skill assessment	2	Pathology, Biochemistry	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the steps in urine sample collection correctly.	S	H	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the steps in doing a ketone dipstick examination in a urine sample correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define the normal values of a urine dipstick test for ketones correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate how to do a urine dipstick test correctly.	S	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to perform a urine dipstick test for ketones in a sample correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the result of a urine ketone dipstick test correctly.	S	K	Y					

IM11.16	Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to classify anti diabetic drugs correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify Insulin types correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the indications of anti-diabetic drugs correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the indications of Insulin therapy correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the adverse reactions of anti-diabetic drugs correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the adverse reactions of Insulins correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe the contraindications of anti-diabetic drugs correctly.	K	KH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe the contraindications of Insulins correctly.	K	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe the interactions of anti-diabetic drugs correctly.	K	KH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to describe the interactions of Insulins correctly.	K	KH	Y					
IM11.17	Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost effective manner	K	KH	Y	Small Group discussion, Lecture	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities of Diabetes correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of each treatment modality correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define the best treatment modality for a given example of diabetic patient based on presentation correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to define the best treatment modality for a given example of diabetic patient based on severity correctly.	K	KH	Y					

Objective 5	At the end of the session, the phase III (part II) student must be able to define the best treatment modality for a given example of diabetic patient based on complications correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to identify the best cost effective treatment for a patient of diabetes correctly.	K	KH	Y					
IM11.18	Describe and discuss the pharmacology, indications, adverse reactions and interactions of drugs used in the prevention and treatment of target organ damage and complications of Type II Diabetes including neuropathy, nephropathy, retinopathy, hypertension, dyslipidemia and cardiovascular disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for hypertension in diabetes correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for dyslipidemia in diabetes correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for cardiovascular disease in diabetes correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for neuropathy in diabetes correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for nephropathy in diabetes correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for retinopathy in diabetes correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the treatment modalities for prevention of diabetes complications correctly.	K	KH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe indications of drugs used in treatment of diabetes complications correctly.	K	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe indications of drugs used in prevention of diabetes complications correctly.	K	KH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to describe adverse reactions of drugs used in treatment of diabetes complications correctly.	K	KH	Y					

Objective 11	At the end of the session, the phase III (part II) student must be able to describe adverse reactions of drugs used in prevention of diabetes complications correctly.	K	KH	Y					
Objective 12	At the end of the session, the phase III (part II) student must be able to describe interactions of drugs used in treatment of diabetes complications correctly.	K	KH	Y					
Objective 13	At the end of the session, the phase III (part II) student must be able to describe interactions of drugs used in prevention of diabetes complications correctly.	K	KH	Y					
IM11.19	Demonstrate and counsel patients on the correct technique to administer insulin	S/C	SH	Y	DOAP session	Skill assessment			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the steps in administration of Insulin correctly.	S/C	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the sites for Insulin administration correctly.	S/C	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the precautions to be taken when using Insulin therapy correctly.	S/C	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the complication of Insulin administration correctly.	S/C	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the actual process of Insulin administration correctly.	S/C	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate to a patient the actual process of Insulin administration correctly.	S/C	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to counsel a patient about relevant points for Insulin therapy to a patient correctly.	S/C	SH	Y					
IM11.20	Demonstrate to and counsel patients correct technique on the of self-monitoring of blood glucoses	S/C	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the steps of self-monitoring of blood glucose correctly.	S/C	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the benefits of SMBG correctly.	S/C	SH	Y					

IM11.23	Describe the precipitating causes,pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the precipitating causes of DKA correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the pathogenesis of DKA correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of DKA correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the diagnostic criteria of DKA correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the diagnostic tests for DKA correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to modalities for treatment of DKA correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss the principles of management of DKA correctly.	K	KH	Y					
IM11.24	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the precipitating causes of NKHS correctly.	K	KH	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the pathogenesis of NKHS correctly.	K	KH	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of NKHS correctly.	K	KH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the diagnostic criteria of NKHS correctly.	K	KH	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the diagnostic tests for NKHS correctly.	K	KH	N					
Objective 6	At the end of the session, the phase III (part II) student must be able to modalities for treatment of NKHS correctly.	K	KH	N					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss the principles of management of NKHS correctly.	K	KH	N					
Number	COMPETENCY The student should be able to	DomainK/S /A/C	Level K/KH/ SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Thyroid dysfunction		Number of competencies: (15)			Number of procedures that require certification : (NIL)				

IM12.1	Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of Iodine deficiency and autoimmunity in the pathogenesis of thyroid disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define the prevalence of hypothyroidism in India correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define the prevalence of hyperthyroidism in India correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the causes of hypothyroidism correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the causes of hyperthyroidism correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the role of iodine deficiency in hypothyroidism correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the role of autoimmunity in causation of thyroid dysfunction correctly.	K	K	Y					
IM12.2	Describe and discuss the genetic basis of some forms of thyroid dysfunction	K	K	N	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student should be able to list some genetic causes of hypothyroidism correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student should be able to list some genetic causes of hyperthyroidism correctly.	K	K	N					
IM12.3	Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function	K	K	Y	Lecture, Small group discussion	Short notes		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define the role of hypothalamus in thyroid gland regulation correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define the role of anterior pituitary in thyroid gland regulation correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the components of thyroid function test accurately.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to define normal values of the components of thyroid function tests correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to classify the alteration in thyroid function test values correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to differentiate the abnormality in thyroid function test into hyperthyroidism/hypothyroidism correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to differentiate the thyroid function test abnormality into primary / secondary thyroid disorder correctly.	K	K	Y					
IM12.4	Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders	K	KH	Y	Lecture, Small group discussion	Short notes/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the radioisotopes of Iodine used for Nuclear Imaging of thyroid gland correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the steps in Iodine uptake by the thyroid gland correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of RAIU scan in thyroid disorders correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the patterns of Iodine uptake in RAIU scan in various thyroid disorders correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to classify the underlying thyroid disorder based on a given uptake pattern of RAIU scan report correctly.	K	KH	Y					
IM12.5	Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity	S	SH	Y	Bedside clinic	Skill assessment/ Short case			
Objective							Domain	Level	Core
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of hypothyroidism correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the clinical features of hyperthyroidism correctly.	S	SH	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to list the clinical features of severe thyroid dysfunction correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the relevant questions in history taking for thyroid disorder screening correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate appropriately the exercise of taking history in a patient of thyroid disorder correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to present the history of a patient of thyroid disorder correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to identify the underlying thyroid disorder in a given set of clinical facts in the patient case proforma correctly.	S	SH	Y					
IM12.6	Perform and demonstrate a systematic examination based on the history that will help establish the diagnosis and severity including systemic signs of thyrotoxicosis and hypothyroidism, palpation of the pulse for rate and rhythm abnormalities, neck palpation of the thyroid and lymph nodes and cardiovascular findings	S	SH	Y	Bed side clinic, DOAP session	Skill assessment			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the systemic signs of thyrotoxicosis correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate systemic signs of hypothyroidism correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps in examination of pulse correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps in palpation of the thyroid gland correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the steps in lymph node examination of the neck correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the characteristic abnormalities of pulse in thyroid disorders correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe the findings of palpation of the neck for thyroid gland correctly.	S	SH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to perform systemic examination in a patient of thyroid disorder correctly.	S	SH	Y					

IM12.9	Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to list the clinical features of various thyroid disorders correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the diagnostic tests for various thyroid disorders correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to classify/differentiate the underlying thyroid disorder based on a given clinical scenario correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to choose the diagnostic tests to order for the underlying clinical diagnosis correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the steps in interpreting thyroid function tests correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the steps in interpreting an ECG correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe the steps in interpreting RAIU scan correctly.	S	SH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to identify the clinical diagnosis based on the diagnostic tests ordered correctly.	S	SH	Y					
IM12.10	Identify atrial fibrillation, pericardial effusion and bradycardia on ECG	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define atrial fibrillation correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define pericardial effusion correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define bradycardia correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate ECG features of atrial fibrillation correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate ECG features of pericardial effusion correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate ECG features of bradycardia correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to identify Atrial fibrillation in an ECG correctly.	S	SH	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to identify features of pericardial effusion in an ECG correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to identify bradycardia in an ECG correctly.	S	SH	Y					
IM12.11	Interpret thyroid function tests in hypo and hyperthyroidism	S	SH	Y	Bedside clinic, lab	Skill assessment			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the parameters in thyroid function test correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the abnormalities in thyroid function tests in hypothyroidism correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the abnormalities in thyroid function tests in hyperthyroidism correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to classify the abnormality in a given thyroid function test correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify the clinical diagnosis based on the set of parameters in a given thyroid function test correctly.	S	SH	Y					
IM12.12	Describe and discuss the iodisation programs of the government of India	K	KH	Y	Lecture, Bedside clinic	Short note			Community Medicine
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate/ name the Iodisation programs in India correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the objectives of the Iodisation programs in India correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the goals of the Iodisation programs in India correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss the implementation of the Iodisation programs in India correctly.	K	KH	Y					
IM12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	K	KH	Y	Lecture, Small group discussion	Viva voce/ Short note			Pharmacology General Surgery

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the pharmacological properties of thyroxine correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of using thyroxine correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the adverse reactions of thyroxine correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the important drug interactions of thyroxine correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the pharmacological properties of anti-thyroid drugs correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the indications of using anti-thyroid drugs correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to enumerate the adverse reactions of anti-thyroid drugs correctly.	K	KH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to list the important drug interactions of anti-thyroid drugs correctly.	K	KH	Y					
IM12.14	Write and communicate to the patient appropriately a prescription for thyroxine based on age, sex, and clinical and biochemical status	S/C	SH	Y	Skill assessment	Skill assessment			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to define the abnormalities on thyroid function test in various thyroid disorders correctly.	S/C	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify the thyroid disorder based on the parameters in a thyroid function test correctly.	S/C	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the clinical diagnosis based on the thyroid function test given correctly.	S/C	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the treatment protocol for the various thyroid disorders as per current guidelines correctly.	S/C	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to write a prescription for the given thyroid disorder correctly as per current guidelines.	S/C	SH	Y					

Objective 6	At the end of the session, the phase III (part II) student must be able to inform the patient about the drug prescribed with regards to its mode, time of administration, precautions to be taken correctly.	S/C	SH	Y						
Objective 7	At the end of the session, the phase III (part II) student must be able to counsel the patient regarding adverse reactions of the prescribed drug if any, correctly.	S/C	SH	Y						
IM12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of using Thionamides correctly.	K	KH	Y						
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of radioactive Iodine therapy in thyrotoxicosis correctly.	K	KH	Y						
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of surgery in thyrotoxicosis correctly.	K	KH	Y						
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the appropriate therapy in a given clinical scenario pertaining to thyrotoxicosis correctly.	K	KH	Y						
Objective 5	At the end of the session, the phase III (part II) student must be able to identify the most suitable treatment option for a given case of thyrotoxicosis correctly.	K	KH	Y						
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration	
Topic: Common malignancies		Number of competencies: (19)			Number of procedures that require certification : (NIL)					
IM13.1	Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Biochemistry		
Objective 1	At the end of the session the phase III student must be able to enumerate the common malignancies in India correctly	K	KH	Y						
Objective 2	At the end of the session the phase III student must be able to describe the clinical epidemiology of common malignancies in India correctly	K	KH	Y						

Objective 3	At the end of the session the phase III student must be able to describe the inherited & modifiable risk factors for common malignancies in India correctly	K	KH	Y					
IM13.2	Describe the genetic basis of selected cancers	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pathology,	
Objective 1	At the end of the session the phase III student must be able to describe the inherited & modifiable risk factors for common malignancies correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the malignancies caused by inherited risk factors correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the genetic basis of selected cancers correctly	K	KH	Y					
IM13.3	Describe the relationship between infection and cancers	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Microbiology	
Objective 1	At the end of the session the phase III student must be able to describe the inherited & modifiable risk factors for common malignancies correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the malignancies caused by modifiable risk factors like infections for cancers correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the relationship between infection and cancers correctly	K	K	Y					
IM13.4	Describe the natural history, presentation, course, complications and cause of death for common cancers	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
Objective 1	At the end of the session the phase III student must be able to enumerate common cancers correctly	K	K	Y					
Objective 2	At the end of the session the phase III student must be able to describe the natural history for common cancers correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical presentation for common cancers correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe the course for common cancers correctly	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to describe the complications for common cancers correctly	K	K	Y					

Objective 6	At the end of the session the phase III student must be able to describe the cause of death for common cancers correctly	K	K	Y					
IM13.5	Describe the common issues encountered in patients at the end of life and principles of managements	K	K	N	Lecture, Small group discussion	Short note/ Viva voce			
Objective 1	At the end of the session the phase III student must be able to enumerate the various issues in terminally ill cancer patients correctly	K	K	N					
Objective 2	At the end of the session the phase III student must be able to describe the common issues encountered in patients at the end of life correctly	K	K	N					
Objective 3	At the end of the session the phase III student must be able to describe principles of management of cancer patients at the end of life correctly	K	K	N					
IM13.6	Describe and distinguish the difference between curative and palliative care in patients with cancer	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology	
Objective 1	At the end of the session the phase III student must be able to enumerate the principles of management of cancer patients correctly	K	K	N					
Objective 2	At the end of the session the phase III student must be able to describe the principles of curative care in patients with cancer correctly	K	K	N					
Objective 3	At the end of the session the phase III student must be able to describe the principles of palliative care in patients with cancer correctly	K	K	N					
Objective 4	At the end of the session the phase III student must be able to distinguish the difference between curative and palliative care in patients with cancer correctly	K	K	N					
IM13.7	Elicit document and present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution	S	K	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
Objective 1	At the end of the session the phase III student must be able to enumerate the causes of caners correctly	S	K	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the appropriate risk factors for cancers correctly	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the duration of exposure to risk factors for cancers correctly	S	K	Y					

Objective 4	At the end of the session the phase III student must be able to describe the evolution of exposure to risk factors for cancers correctly	S	K	Y					
Objective 5	At the end of the session the phase III student must be able to elicit document a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution correctly	S	K	Y					
Objective 6	At the end of the session the phase III student must be able to present a history that will help establish the aetiology of cancer and includes the appropriate risk factors, duration and evolution correctly	S	K	Y					
IM13.8	Perform and demonstrate a physical examination that includes an appropriate general and local examination that excludes the diagnosis, extent spread and complications of cancer	S	SH	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
Objective 1	At the end of the session the phase III student must be able to perform a physical examination that includes an appropriate general and local examination correctly	S	SH	Y					
Objective 2	At the end of the session the phase III student must be able to demonstrate a physical examination that includes an appropriate general and local examination after a DOAP session correctly	S	SH	Y					
Objective 3	At the end of the session the phase III student must be able to perform a physical examination that excludes the diagnosis of cancer after general and local examination correctly	S	SH	Y					
Objective 4	At the end of the session the phase III student must be able to demonstrate a physical examination that excludes the diagnosis of cancer after general and local examination after a DOAP session correctly	S	SH	Y					
Objective 5	At the end of the session the phase III student must be able to perform a physical examination that excludes the extent/distant spread of cancer after general and local examination correctly	S	SH	Y					
Objective 6	At the end of the session the phase III student must be able to demonstrate a physical examination that excludes the extent/distant spread of cancer after general and local examination after a DOAP session correctly	S	SH	Y					
Objective 7	At the end of the session the phase III student must be able to perform a physical examination that excludes the complications of cancer after general and local examination correctly	S	SH	Y					

Objective 8	At the end of the session the phase III student must be able to demonstrate a physical examination that excludes the complications of cancer after general and local examination after a DOAP session correctly	S	SH	Y					
IM13.9	Demonstrate in a mannequin the correct technique for performing breast exam, rectal examination and cervical examination and pap smear	S	K	Y	Bedside clinic	Skill assessment/ Short case		Human Anatomy	General Surgery
Objective 1	At the end of the session the phase III student must be able to describe the correct technique for performing breast examination correctly	S	K	Y					
Objective 2	At the end of the session the phase III student must be able demonstrate in a mannequin the correct technique for performing breast examination correctly	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the correct technique for performing rectal examination correctly	S	K	Y					
Objective 4	At the end of the session the phase III student must be able demonstrate in a mannequin the correct technique for performing rectal examination correctly	S	K	Y					
Objective 5	At the end of the session the phase III student must be able to describe the correct technique for performing cervical examination correctly	S	K	Y					
Objective 6	At the end of the session the phase III student must be able demonstrate in a mannequin the correct technique for performing cervical examination correctly	S	K	Y					
Objective 7	At the end of the session the phase III student must be able to describe the correct technique for performing pap smear correctly	S	K	Y					
Objective 8	At the end of the session the phase III student must be able demonstrate in a mannequin the correct technique for performing pap smear correctly	S	K	Y					
IM13.10	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	K	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
Objective 1	At the end of the session the phase III student must be able to describe the most common symptoms and clinical features required to generate a diagnosis of a specific cancer correctly	S	K	Y					

Objective 2	At the end of the session the phase III student must be able to describe various diagnosis based on the presenting symptoms and clinical features in the most common causes of cancers correctly	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to generate a differential diagnosis based on the presenting symptoms and clinical features in the most common causes of cancers correctly	S	K	Y					
Objective 4	At the end of the session the phase III student must be able to prioritise a diagnosis of a cancer based on the presenting symptoms and clinical features in the most common causes of cancers correctly	S	K	Y					
IM13.11	Order and interpret diagnostic testing based on the clinical diagnosis including CBC and stool occult blood and prostate specific antigen	S	K	Y	Bedside clinic	Skill assessment/ Short case			General Surgery
Objective 1	At the end of the session the phase III student must be able to order appropriate tests for cancer of various causes based on the clinical diagnosis correctly	S	K	Y					
Objective 2	At the end of the session the phase III student must be able to order and interpret CBC blood test for a cancer based on the clinical diagnosis correctly	S	K	Y					
Objective 3	At the end of the session the phase III student must be able to order and interpret stool for occult blood test for cancer based on the clinical diagnosis correctly	S	K	Y					
Objective 4	At the end of the session the phase III student must be able to order and interpret prostate specific antigen blood test based on the clinical diagnosis correctly	S	K	Y					
IM13.12	Describe the indications and interpret the results of Chest X Ray, mammogram, skin and tissue biopsies and tumor markers used in common cancers	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce			Radiodiagnosis
Objective 1	At the end of the session the phase III student must be able to enumerate the most common cancers correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the various investigations for common cancers correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the indications for chest X Ray in common cancers correctly	K	KH	Y					

Objective 4	At the end of the session the phase III student must be able to interpret the results of chest X Ray in common cancers correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the indications for mammogram in common cancers correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to interpret the results of mammogram in common cancers correctly	K	KH	Y					
Objective 7	At the end of the session the phase III student must be able to describe the indications for skin biopsy in common cancers correctly	K	KH	Y					
Objective 8	At the end of the session the phase III student must be able to interpret the results of skin biopsy in common cancers correctly	K	KH	Y					
Objective 9	At the end of the session the phase III student must be able to describe the indications for tissue biopsy in common cancers correctly	K	KH	Y					
Objective 10	At the end of the session the phase III student must be able to interpret the results of tissue biopsy in common cancers correctly	K	KH	Y					
IM9.13	Describe and assess pain and suffering objectively in a patient with cancer	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session the phase III student must be able to enumerate complications in a patient with cancer correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe pain and suffering in a patient with cancer correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe various methods/techniques to assess the pain and suffering objectively in a patient with cancer correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to assess the pain and suffering in a patient with cancer correctly	K	KH	Y					
IM13.14	Describe the indications for surgery, radiation and chemotherapy for malignancies	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session the phase III student must be able to enumerate the various modalities of treatment for malignancies correctly	K	KH	Y					

Objective 2	At the end of the session the phase III student must be able to describe the indications for surgical therapy for malignancies correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the indications for radiation therapy for malignancies correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the indications for chemotherapy for malignancies correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the indications for appropriate modality of therapy for malignancies correctly for a given set of clinical and investigations	K	KH	Y					
IM13.15	Describe the need, tests involved, their utility in the prevention of common malignancies	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pathology	
Objective 1	At the end of the session the phase III student must be able to enumerate the preventable common malignancies correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe the various tests to prevent common malignancies correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the need of tests in the prevention of common malignancies correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the tests involved in the prevention of common malignancies correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the utility of tests in the prevention of common malignancies correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to describe the utility of appropriate tests in the prevention of a given malignancy accurately	K	KH	Y					
IM13.16	Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy	A/C	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		AETCOM	
Objective 1	At the end of the session the phase III student must be able to enumerate the management options of cancer therapy to patients accurately	A/C	KH	Y					

Objective 2	At the end of the session the phase III student must be able to describe the advantages and disadvantages of various management options of malignancy to patients accurately	A/C	KH	Y					
Objective 3	At the end of the session the phase III student must be able demonstrate an understanding to incorporate the patient needs and preferences when choosing curative therapy correctly	A/C	KH	Y					
Objective 4	At the end of the session the phase III student must be able demonstrate an understanding to incorporate the patient needs and preferences when choosing palliative therapy correctly	A/C	KH	Y					
Objective 5	At the end of the session the phase III student must be able to demonstrate an understanding while incorporating the patient needs and preferences in the management of a given cancer correctly	A/C	KH	Y					
IM13.17	Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		Pharmacology	Anesthesiology
Objective 1	At the end of the session the phase III student must be able to describe pain alleviation in patients with cancer correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the indications of narcotics in pain alleviation in patients with cancer correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe use of narcotics in pain alleviation in patients with cancer correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to enumerate the side effects of narcotics in pain alleviation in patients with cancer correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to enumerate the indications, use and side effects for a given narcotic in pain alleviation in patients with cancer correctly	K	KH	Y					
IM13.18	Describe and discuss the ethical and the medico legal issues involved in end of life care	K	KH	Y	Bedside clinic, Small group discussion	Short note/ Viva voce		AETCOM	
Objective 1	At the end of the session the phase III student must be able to describe end of life care correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe and discuss the ethical issues involved in the end of life care correctly	K	KH	Y					

IM 14.2	Describe and discuss the aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes.	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
Objective 1	At the end of the session the phase II student must be able to describe the mismatch between energy intake and energy expenditure as the principal etiological factor of obesity.	K	K	N					
Objective 2	At the end of the session the phase II student must be able to describe endocrine factors, drug treatments and genetic factors that may cause obesity.	K	K	N					
Objective 3	At the end of the session the phase II student must be able to describe modifiable and non-modifiable risk factors associated with obesity.	K	K	N					
IM 14.3	Describe and discuss the monogenic forms of obesity.	K	K	N	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
Objective 1	At the end of the session the phase II student must be able to describe the single gene disorders that lead to severe childhood obesity (MC4R, POMC, Mutations in the Leptin gene).	K	K	N					
IM 14.4	Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Community Medicine	
Objective 1	At the end of the session the phase II student must be able to describe the “obesogenic “environment that is constituted by increasing energy intake and decreasing energy expenditure correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe the constituents of obesogenic environment correctly.	K	K	Y					
IM14.5	Describe and discuss the natural history of obesity and its complications.	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	
Objective 1	At the end of the session the phase II student must be able to describe adverse effects of obesity on morbidity & mortality in smokers/non-smokers correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe important psychosocial, cardiovascular, endocrine, pulmonary, musculoskeletal complications of obesity and increased incidence of certain malignancies associated with obesity correctly.	K	K	Y					

Objective 3	At the end of the session the phase II student must be able to describe natural history of obesity as influenced by smoking and various complications of obesity.	K	K	Y					
IM 14.6	Elicit and document and present an appropriate history that includes the natural history, dietary history, modifiable risk factors, family history, clues for secondary causes and motivation to lose weight	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to record, document and present correctly appropriate history in a patient of obesity.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to identify and record accurately aetiology of obesity, coexisting modifiable risk factors, any complication if present and his/her motivation to lose weight .	S	SH	Y					
IM 14.7	Perform, document and demonstrate a physical examination based on the history that includes general examination, measurement of abdominal obesity, signs of secondary causes and co-morbidities	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to perform independently and demonstrate calculation of BMI, measurement of waist circumference/waist hip ratio accurately and interpret the result.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to identify and demonstrate correctly signs of secondary causes on physical examination of a obese patient.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to identify and demonstrate correctly co-morbidities on physical examination of a obese patient.	S	SH	Y					
IM 14.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ Short note/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to record, interpret and demonstrate presenting symptoms and clinical findings on examination to generate a differential diagnosis correctly.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to identify symptoms and signs in favour of and against each disease, amongst those recorded in differential diagnosis correctly.	S	SH	Y					

Objective 3	At the end of the session the phase II student must be able to interpret and record most likely disease first and the least likely disease last correctly.	S	SH	Y					
IM 14.9	Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc,	S	SH	Y	Bedside clinic, Skills lab, Small group	Skill assessment/ Short note/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to identify and order & interpret relevant lab investigations for the provisional clinical diagnosis arrived at, after history and clinical examination correctly.	S	SH	Y					
Objective 2	A obese female patient in her mid thirties presents with weight gain, cold intolerance and on clinical examination is found to have BMI of 30 kg/m ² , thyroid swelling, the student must be able to make provisional diagnosis of obesity & hypothyroidism.	S	SH	Y					
Objective 3	Student must be able to demonstrate, identify, order and interpret thyroid function tests correctly.	S	SH	Y					
IM14.10	Describe the indications and interpret the results of tests for secondary causes of obesity	K	KH	Y	Bedside clinic, Skills lab, Small group discussion	Skill assessment/ Short note/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to enumerate secondary causes of obesity correctly and relevant tests for each cause.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to identify and interpret lab tests to confirm that secondary cause of obesity correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to identify secondary cause of obesity correctly.	K	KH	Y					
IM14.11	Communicate and counsel patient on behavioural, dietary and lifestyle modifications	C	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to counsel patient on health implications of obesity and importance of maintaining BMI.	C	SH	Y					
Objective 2	At the end of the session the phase II student must be able to demonstrate understanding of the obesogenic environment and how to adopt healthy lifestyle and dietary habits.	C	SH	Y					

Objective 3	At the end of the session the phase II student must be able to inform the patient ill effects of obesity.	C	SH	Y					
Objective 4	At the end of the session the phase II student must be able to counsel patient what dietary and lifestyle modifications he/she should follow.	C	SH	Y					
IM14.12	Demonstrate an understanding of patient's inability to adhere to lifestyle instructions and counsel them in a non-judgemental way	A/C	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to demonstrate understanding of reasons for patient's inability to adhere to lifestyle modifications and offer possible solutions to enable him/her to adhere to lifestyle instructions.	A/C	SH	Y					
Objective 2	At the end of the session the phase II student must be able to counsel the patient with empathy the adverse consequences of non-adherence to lifestyle instructions.	A/C	SH	Y					
Objective 3	At the end of the session the phase II student must be able to inform the patient about necessity to adhere to lifestyle instructions with resultant better quality of life.	A/C	SH	Y					
IM14.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to describe indications of pharmacotherapy for obesity.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate available drugs for obesity and describe their pharmacology & side effects.	K	K	Y					
IM14.14	Describe and enumerate the indications and side effects of bariatric surgery	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
Objective 1	At the end of the session the phase II student must be able to describe and enumerate indications of bariatric surgery for obesity.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe and enumerate side effects of bariatric surgery.	K	K	Y					
IM14.15	Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			

Objective 1	At the end of the session the phase II student must be able to describe and educate patients on measures to prevent obesity and promote a healthy lifestyle.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe and educate healthcare workers on measures to prevent obesity and promote a healthy lifestyle.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to describe and educate the public on measures to prevent obesity and promote a healthy lifestyle.	K	K	Y					
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: GI bleeding		Number of competencies: (18)			Number of procedures that require certification : (NIL)				
IM15.1	Enumerate, describe and discuss the aetiology of upper and lower GI bleeding	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
Objective 1	At the end of the session the phase II student must be able to describe hematemesis, melena and haematochezia correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to discuss the difference between upper and lower GI bleeding correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate causes of upper and lower GI bleeding correctly.	K	K	Y					
IM15.2	Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed	S	SH	Y	DOAP session, Small group discussion, Lecture	Written/ Viva voce/ Skill assessment		Pathology	General Surgery
Objective 1	At the end of the session the phase II student must be able to discuss and demonstrate approach to assess initial clinical assessment of a patient correctly who presents with acute volume loss due to GI bleed correctly.	S	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe basic investigations to be sent on arrival and of a patient with GI bleed correctly.	S	K	Y					
Objective 3	At the end of the session the phase II student must be able to interpret various parameters for risk stratification correctly.	S	SH	Y					

Objective 4	At the end of the session the phase II student must be able to discuss resuscitative measures to be instituted including fluid administration, blood transfusion, oxygen supplementation correctly.	S	KH	Y					
IM15.3	Describe and discuss the physiologic effects of acute blood and volume loss	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology, Physiology	General Surgery
Objective 1	At the end of the session the phase II student must be able to describe physiologic effects of acute blood/volume loss correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to describe the effect of acute blood loss on co morbidities correctly.	K	K	Y					
IM15.4	Elicit and document and present an appropriate history that identifies the route of bleeding, quantity, grade, volume loss, duration, etiology, comorbid illnesses and risk factors	S	SH	Y	Bedside clinic	Skill assessment			General Surgery
Objective 1	At the end of the session the phase II student must be able to identify and document whether a patient is having hematemesis/hemoptysis, melena/hematochezia correctly.	S	S	Y					
Objective 2	At the end of the session the phase II student must be able to elicit approximate quantum of blood loss in a patient of GI bleed correctly.	S	KH	Y					
Objective 3	At the end of the session the phase II student must be able to elicit and differentiate acute vs chronic blood loss correctly.	S	KH	Y					
Objective 4	At the end of the session the phase II student must be able to identify aetiology, co morbid illnesses and risk factors if any correctly.	S	SH	Y					
Objective 5	At the end of the session the phase II student must be able to elicit, document and present appropriate history in a patient of GI bleeding and be able to identify quantum & duration of blood loss, likely aetiology and presence of co morbid illnesses correctly.	S	SH	Y					
IM15.5	Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			General Surgery

Objective 1	At the end of the session the phase II student must be able to perform, demonstrate and document general physical examination and abdominal examination to arrive at likely aetiology of GI bleed correctly.	S	S	Y					
Objective 2	At the end of the session the phase II student must be able to interpret pulse rate, BP & demonstrate postural hypotension/hypotension to identify quantum of blood loss and volume status of a patient correctly.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to demonstrate & document pallor, jaundice, oedema and peripheral signs of cirrhosis of liver as the aetiology of GI bleed correctly.	S	SH	Y					
Objective 4	At the end of the session the phase II student must be able to demonstrate and document dilated veins over abdominal wall, hepatomegaly, liver span, splenomegaly and ascites and interpret the results correctly.	S	SH	Y					
IM15.6	Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce			General Surgery
Objective 1	At the end of the session the phase II student must be able to demonstrate and differentiate between upper and lower GI bleed based on history and clinical examination correctly.	S	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss and demonstrate signs of Portal Hypertension/Cirrhosis of liver correctly.	S	KH	Y					
IM15.7	Demonstrate the correct technique to perform q p an anal and rectal examination in a mannequin or equivalent	S	SH	Y	DOAP session	Skill assessment			General Surgery
Objective 1	At the end of the session the phase II student must be able to demonstrate the technique of anal and rectal examination in a mannequin correctly.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to interpret the findings of anal and rectal examination correctly.	S	SH	Y					
IM15.8	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ Short note/ Viva voce			General Surgery

Objective 1	At the end of the session the phase II student must be able to interpret presenting symptoms and findings of clinical examination correctly.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to demonstrate and generate differential diagnosis correctly.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to interpret positive/negative points in favour of/against each likely disease correctly.	S	SH	Y					
Objective 4	At the end of the session the phase II student must be able to demonstrate the most likely diagnosis so arrived correctly.	S	SH	Y					
IM15.9	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, PT and PTT, stool examination, occult blood, liver function tests, H.pylori test.	S	SH	Y	Bedside clinic, DOAP session, Small group discussion	Skill assessment/ Short note/ Viva voce		Pathology	General Surgery
Objective 1	At the end of the session the phase II student must be able to identify and interpret relevant lab investigations to substantiate the clinical diagnosis correctly.	S	S	Y					
Objective 2	At the end of the session the phase II student must be able to interpret and record results of CBC, stool examination, occult blood in view of aetiology of GI bleed and quantum & duration of blood loss correctly.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to interpret and record results of liver function tests, PT and PTT and H. pylori test correctly.	S	SH	Y					
IM15.10	Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
Objective 1	At the end of the session the phase II student must be able to enumerate and discuss indications of UGI endoscopy and colonoscopy correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate and discuss indications of ultrasonography, CT scan, angiography and capsule endoscopy correctly.	K	KH	Y					
IM15.11	Develop, document and present a treatment plan that includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss	S	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery

Objective 1	At the end of the session the phase II student must be able to record and present nature and quantum of fluid required for resuscitation correctly.	S	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss and present indications and quantum of blood and blood component transfusion required correctly.	S	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss and present indications and role of endoscopic haemostatic therapy and angiographic embolization correctly.	S	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss indications and role of surgical intervention for arresting blood loss correctly.	S	KH	Y					
IM15.12	Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Pathology	General Surgery
Objective 1	At the end of the session the phase II student must be able to enumerate the indications of transfusion of whole blood correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the indications of transfusion of blood components namely Packed RBC, platelets, FFP and cryoprecipitate correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to describe the adverse transfusion reactions correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about transfusion transmitted infections correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to describe the management of mismatched transfusion correctly.	K	K	Y					
IM15.13	Observe cross matching and blood / blood component transfusion	S	SH	Y	Bedside clinic	Short note/ Viva voce/ Skill assessment		Pathology	General Surgery
Objective 1	At the end of the session the phase II student must be able to describe the pre transfusion testing or cross matching correctly.	S	K	Y					
Objective 2	At the end of the session the phase II student must be able to discuss about bedside procedure for safe transfusion correctly.	S	KH	Y					
Objective 3	At the end of the session the phase II student must be able to observe cross matching and direct confirmation of compatibility of individual units of blood/blood components correctly.	S	SH	Y					

IM15.16	Enumerate the indications for endoscopic interventions and Surgery	K	K	Y	Lecture, Small group discussion	Short note/Viva voce			General Surgery
Objective 1	At the end of the session the phase II student must be able to enumerate the indication of upper GI endoscopy correctly.	K	K	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the indication of endoscopic ultrasound correctly.	K	K	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the indication of capsule endoscopy correctly.	K	K	Y					
Objective 4	At the end of the session the phase II student must be able to enumerate the important indications of sigmoidoscopy and colonoscopy correctly.	K	K	Y					
Objective 5	At the end of the session the phase II student must be able to enumerate the indications of ERCP correctly.	K	K	Y					
Objective 6	At the end of the session the phase II student must be able to discuss the indications of surgery in variceal upper GI bleed correctly.	K	KH	Y					
IM15.17	Determine appropriate level of specialist consultation	S	K	Y	Small group discussion				General Surgery
Objective 1	At the end of the session the phase II student must be able to classify the patients which more enquire specialist correctly.	S	K	Y					
Objective 2	At the end of the session the phase II student must be able to identify the requirement of consultation in a given patient by appropriate specialist correctly.	S	S	Y					
Objective 3	At the end of the session the phase II student must be able to record the purpose of consultation and referral by appropriate specialist correctly.	S	K	Y					
IM15.18	Counsel the family and patient in an empathetic non-judgmental manner on the diagnosis and therapeutic options	S	SH	Y	DOAP session	Skill assessment			General Surgery
Objective 1	At the end of the session the phase II student must be able to discuss the diagnosis with patient and family in empathetic manner correctly.	S	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss the various therapeutic options enable for a given disease with patient and/or family in empathetic non-judgemental way correctly.	S	SH	Y					

Objective 3	At the end of the session the phase II student must be able to inform the patient and family regarding risks and benefits of a given procedure or therapeutic option correctly.	S	SH	Y					
Objective 4	At the end of the session the phase II student must be able to counsel the family and the patient in empathetic non-judgemental manner regarding prognosis of given disease correctly.	S	SH	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Diarrheal disorder		Number of competencies: (17)			Number of procedures that require certification : (NIL)				
IM16.1	Describe and discuss the aetiology of acute and chronic diarrhea including infectious and non infectious causes	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define acute and chronic diarrhoea.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the aetiology of acute diarrhoea including infectious and non infectious causes.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the aetiology of chronic diarrhoea including infectious and non infectious causes.	K	K	Y					
IM16.2	Describe and discuss the acute systemic consequences of diarrhea including its impact on fluid balance	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe acute systemic consequences of diarrhoea.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe resultant dehydration and electrolyte imbalance and its impact especially in children and elderly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss acute systemic consequences including dehydration and dyselectrolytemia of diarrhoea.	K	K	Y					
IM16.3	Describe and discuss the chronic effects of diarrhea including malabsorption	K	K	Y	Lecture, Small group discussion	Short note/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe chronic effects of diarrhoea.	K	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to describe effects of malabsorption on nutritional status of a patient.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss effects of chronic diarrhoea including malabsorption.	K	K	Y					
IM16.4	Elicit and document and present an appropriate history that includes the natural history, dietary history, travel , sexual history and other concomitant illnesses	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe significance of dietary & travel history, sexual history and concomitant illnesses in a patient of diarrhoea.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss natural history in a patient of diarrhoea.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to elicit and document appropriate history in a patient of diarrhoea taking into consideration its natural history, travel & sexual history and presence or absence of concomitant illnesses.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to present history so documented logically.	S	SH	Y					
IM16.5	Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination	S	SH	Y	Bedside clinic, Skills lab	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to perform independently general examination and an appropriate abdominal examination based on the history.						S	SH	Y
Objective 2	At the end of the session, the phase III (part II) student must be able to document the examination findings correctly.						S	SH	Y
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate method of examination and positive examination findings if any and their interpretation.						S	SH	Y
IM16.6	Distinguish between diarrhea and dysentery based on clinical features	S	KH	Y	Bedside clinic, Skills lab	Short note/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe differentiating features of diarrhoea and dysentery.	S	KH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to discuss relevant points in history and examination to differentiate diarrhoea and dysentery.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to present the history and clinical findings so elicited.	S	KH	Y					
IM16.7	Generate a differential diagnosis based on the presenting symptoms and clinical features and prioritise based on the most likely diagnosis	S	SH	Y	Bedside clinic, Skills lab	Skill assessment/ short note/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to document the differential diagnosis based on the presenting symptoms and clinical findings.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to interpret the clinical findings and prioritise the differential diagnosis so generated.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the most likely diagnosis.	S	SH	Y					
IM16.8	Choose and interpret diagnostic tests based on the clinical diagnosis including complete blood count, and stool examination	S	SH	Y	Bedside clinic, Skills lab, Small group discussion	Skill assessment/ short note/ Viva voce		Microbiology, Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to choose appropriate diagnostic tests including complete blood count and stool examination, based on the clinical diagnosis.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to identify that leucocytosis is usually associated with infectious diarrhoea.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to interpret stool examination (naked eye, microscopic and culture) findings to confirm/exclude the clinical diagnosis.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate diagnostic work up of acute diarrhoea.	S	SH	Y					
IM16.9	Identify vibrio cholera in a hanging drop specimen	S	SH	Y	DOAP session	Skill assessment		Microbiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate microscopic examination of a stool sample.	S	SH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to identify trophozoites & cysts of Giardia lamblia and Entamoeba histolytica on microscopic examination of a stool sample.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify ova of common helminths (enterobius vermicularis, ankylostoma duodenale and ascaris lumbricoides) on microscopic examination of a stool sample.	S	SH	Y					
IM16.10	Identify vibrio cholera in a hanging drop specimen	S	SH	Y	DOAP session	Skill assessment			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate vibrio cholera in a hanging drop preparation of stool specimen.	S	SH	Y					
IM16.11	Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhea	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Microbiology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of stool culture in a patient with acute diarrhoea.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe indications for blood cultures in patients with acute diarrhoea.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss indications for stool and blood cultures in acute diarrhoea.	K	KH	Y					
IM16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhea	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pathology General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate indications for further investigations in chronic diarrhea .	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe role of Tissue Transglutaminase antibodies in the diagnosis of celiac disease Corretly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe role of sigmoidoscopy/ colonoscopy & biopsy in cases of IBD & IBS as causis of chronic diarrhea correctly	K	KH	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to describe role of Barium meal follow through and capsule Enteroscopy in Chronic Diarrhea correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to discuss various investigative modalities as described above in the diagnosis of chronic diarrhea correctly.	K	KH	Y					
IM16.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhea	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to describe the indications of pharmacotherapy for parasitic causes of diarrhoea.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhoea.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe commonly used drugs with their pharmacology & side effects in diarrhoea caused by E.histolytica, Giardia and common helminthic infestations.	K	K	Y					
IM16.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for bacterial and viral diarrhea	K	K	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology, Microbiology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate commonly used drugs with indications, pharmacology and side effects of bacterial diarrhoea.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe pharmacotherapy for viral diarrhoeas.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe commonly used drugs with pharmacology in the management of bacterial and viral diarrhoeas.	K	K	Y					
IM16.15	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis	S	SH	Y	Lecture, Small group discussion	Written/ Viva voce		Pathology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to describe to describe indications, pharmacology and side effects of pharmacotherapy for Crohn's disease.	S	SH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to describe to describe indications, pharmacology and side effects of pharmacotherapy for Ulcerative colitis.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the use of immuno modulatory drugs in the treatment of Crohn's disease and Ulcerative colitis.	S	SH	Y					
IM16.16	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy including immunotherapy	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to describe to describe indications, pharmacology and side effects of pharmacotherapy for Crohn's disease.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe to describe indications, pharmacology and side effects of pharmacotherapy for Ulcerative colitis.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the use of immuno modulatory drugs in the treatment of Crohn's disease and Ulcerative colitis.	K	K	Y					
IM16.17	Describe and enumerate the indications for surgery in inflammatory bowel disease	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications for surgery in inflammatory bowel disease.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the indications for surgery in inflammatory bowel disease.	K	K	Y					
Number	COMPETENCY The student should be able to	DomainK/S /A/C	Level K/KH/ SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Headache		Number of competencies: (14)		Number of procedures that require certification : (NIL)					
IM17.1	Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce			Human Anatomy
Objective 1	At the end of the session, the phase III (part II) student must be able to define Headache correctly.	K	K	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to classify Headache correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the Preventing feature of various kinds of Headache correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the Preventing feature of various kinds of Headache correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe Precipitating feature of various kinds of Headache correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe aggravating feature of various kinds of Headache correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe relieving feature of various kinds of Headache correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe various kinds of Headache in a given case of Headache correctly.	K	K	Y					
IM17.2	Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define Aura correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the symptoms of Aura correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the appropriate questions to elicit the arura correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to list the appropriate questions to elicit the precipitating factors correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the appropriate questions to elicit the aggravating factors correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to list the appropriate questions to elicit the relieving factors correctly.	S	K	Y					

Objective 7	At the end of the session, the phase III (part II) student must be able to list the appropriate questions to elicit the associated symptoms correctly.	S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to document the history appropriately correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to present the history correctly.	S	S	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to identify the case of headache in a given case of clinical factors correctly.	S	S	Y					
IM17.3	Classify migraine and describe the distinguishing features between classical and non classical forms of migraine	K	KH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to define migraine correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify migraine correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe clinical features of migraine correctly.	K	K	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe clinical features of classical migraine correctly.	K	K	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe clinical features of non-classical migraine correctly.	K	K	N					
Objective 6	At the end of the session, the phase III (part II) student must be able to differentiate between classical and non-classical migraine on the basis of clinical features correctly.	K	KH	N					
IM17.4	Perform and demonstrate a general neurologic examination and a focused examination for signs of intracranial tension including neck signs of meningitis	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate neck signs of meningitis correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the signs of intracranial tension correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of examination to elicit neck signs of meningitis correctly.	S	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to list the steps of examinations to elicit signs of intracranial tension correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to list the steps of general neurological examination in a case of Headache correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate the examination of neck signs of meningitis correctly.	S	SH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to demonstrate the examination of signs of intracranial tension correctly.	S	SH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to demonstrate the examination of signs of external neurological in a case of Headache correctly.	S	SH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be perform the relevant examinations in a given case of Headache correctly.	S	S	Y					
IM17.5	Generate document and present a differential diagnosis based on the clinical features and prioritise the diagnosis based on the presentation	S	SH	Y	Bedside clinic, Small group discussion	Bedside clinic/ Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the differential diagnosis of a case of headache correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list appropriate questions to elicit the clinical features correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to differentiate among various Headache on the basis of clinical presentation correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify the various headache on the basis of clinical presentations correctly.	S	S	Y					
IM17.6	Choose and interpret diagnostic testing based on the clinical diagnosis including imaging	S	SH	Y	Lecture, Small group discussion, Bedside clinic	Skill Assessment			

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the diagnosis tests in a case of Headache correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the imaging tests in a case of Headache correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of diagnostic tests in a case of Headache correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of in a case of Headache correctly.	S	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the features of diagnostic test of in a case of Headache correctly.	S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to interpret the findings of diagnostic test in a case of Headache correctly.	S	SH	Y					
IM17.7	Enumerate the indications and describe the findings in the CSF in patients with meningitis	K	K	Y	Small group discussion, Bedside clinic	Skill Assessment		Microbiology, Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of CSF in patients with meningitis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of CSF in patients with meningitis correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe components of CSF analysis correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe abnormalities in complications of CSF as per case of meningitis correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify the cause from given set of CSF parameters correctly.	K	S	Y					
IM17.8	Demonstrate in a mannequin or equivalent the correct technique for performing a lumbar puncture	S	SH	Y	DOAP session	Skill Assessment		Microbiology, Pathology	

Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indication of lumber puncture correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of lumber puncture correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the steps of procedure of lumber puncture correctly.	S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate the technique of lumber puncture correctly.	S	SH	Y					
IM17.10	Enumerate the indications for emergency care admission and immediate supportive care in patients with headache	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the cause of severe Headache correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe clinical features of severe Headache correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of emergency admission in severe Headache correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the supportive case in a case of severe Headache correctly.	K	K	Y					
IM17.11	Describe the indications, pharmacology, dose, side effects of abortive therapy in migraine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to classify the drugs of abortive therapy in migraine correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the drug of each class of abortive therapy in migraine correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of abortive therapy in migraine correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe pharmacology of each drug of abortive therapy in migraine correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe dose of each drug of abortive therapy in migraine correctly.	K	K	Y					

Objective 6	At the end of the session, the phase III (part II) student must be able to describe side effects of drugs of abortive therapy in migraine correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss treatment plan in a given case of migraine with acute attack correctly.	K	KH	Y					
IM17.12	Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to define prophylactic therapy in migraine correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of prophylactic therapy in migraine correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the drug used in the prophylactic therapy in migraine correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the pharmacology of each drug of prophylactic therapy in migraine correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe the dose of each drug of prophylactic therapy in migraine correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe the site effects of each drug of prophylactic therapy in migraine correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss prophylactic therapy in a given case of migraine correctly.	K	KH	Y					
IM17.13	Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the Bacterial agents causing meningitis correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the Viral agents causing meningitis correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the drug against identified bacterial agents in meningitis correctly.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to list the drug against tubercular bacteria in meningitis correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe regimens of drugs used in meningitis correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe pharmacology of each drug in meningitis correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe dose of each drug in meningitis correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to describe site effects/ adverse reactions of each drug in meningitis correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to describe treatment plan in a given case of meningitis correctly.	K	KH	Y					
IM17.14	Counsel patients with migraine and tension headache on lifestyle changes and need for prophylactic therapy	A/C	SH	N	DOAP session	Skill Assessment		Pharmacology	Psychiatry
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of life style changes in patients with migraine correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of life style changes in patients with tension Headache correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the lifestyle change in patients with migraine correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the lifestyle change in patients with tension Headache correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the indication of proper lactic therapy in migraine correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to enumerate the indication of proper lactic therapy in tension Headache correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to identify the patients who need lifestyle change in patients with migraine and tension correctly.	K	S	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to identify the patients who need prophylactic therapy in patients with migraine and tension correctly.	K	S	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to counsel the need of lifestyle change in patients with migraine and tension correctly.	K	A/C	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to counsel the need of prophylactic therapy in patients with migraine and tension correctly.	K	A/C	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Cerebrovascular accident		Number of competencies: (17)		Number of procedures that require certification : (NIL)					
IM18.1	Describe the functional and the vascular anatomy of the brain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Human Anatomy	
Objective 1	At the end of the session, the phase III (part II) student must be able to know different Parts of the Brain correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe functions of different part of the Brain correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss clinical effects on the basis of Vascular supply correctly.	K	KH	Y					
IM18.2	Classify cerebrovascular accidents and describe the aetiology,predisposing genetic and risk factors pathogenesis of hemorrhagicand non hemorrhagic stroke	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	
Objective 1	At the end of the session, the phase III (part II) student should be able to define Cerebrovascular accident correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student should be able to classify Cerebrovascular accident correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student should be able to enumerate aetiology of Cerebrovascular accident correctly.	K	K	N					
Objective 4	At the end of the session, the phase III (part II) student should be able to describe genetic factors causing Cerebrovascular accident correctly.	K	K	N					

Objective 5	At the end of the session, the phase III (part II) student should be able to list risk factors causing Cerebrovascular accident correctly.	K	K	N					
Objective 6	At the end of the session, the phase III (part II) student should be able to discuss pathogenesis of non hemorrhagic stroke correctly.	K	KH	N					
IM18.3	Elicit and document and present an appropriate history including onset, progression, precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the cerebrovascular accident	K	SH	Y	Bedside clinic	Skill assessment		Pathology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the questions to be asked in history taking in reference to or set correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the questions to be asked in history taking in reference to programing correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the precipitating factor accurately.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the aggravating factor correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to enumerate the associated symptoms correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to present proper history show that learner should be able to find out the correctly.	K	S	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to interpret in given clinical scenario the case of Cerebrovascular accident correctly.	K	SH	Y					
IM18.4	Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness	K	KH	Y	Bedside clinic, Small group discussion	Skill Assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to know temporal evaluation of different types of cerebrovascular accident correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to know resolution process of different types of cerebrovascular accident correctly.	K	K	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to identify nature of illness in given set of clinical scenario correctly.	K	S	Y					
IM18.5	Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to elicit general examination correctly.	S	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to elicit examinations of higher function correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to elicit examinations of cranial nerves correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to elicit examinations of motor system correctly.	S	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to elicit examinations of sensory system correctly.	S	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to elicit signs of meningeal irritation correctly.	S	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to elicit signs of autonomic functions correctly.	S	KH	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to elicit signs of incoordination correctly.	S	KH	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to demonstrate examinations correctly.	S	SH	Y					
Objective 10	At the end of the session, the phase III (part II) student must be able to interpret examination finding in given clinical scenario correctly.	S	SH	Y					
IM18.6	Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion	K/S	SH	Y	Bed side clinic, DOAP session	Skill assessment		Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define upper motor neuron Lesions correctly.	K/S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define lower motor neuron lesions correctly.	K/S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to Enumerate clinical features on the basis of site of upper motor neuron lesions correctly.	K/S	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to Enumerate clinical features on the basis of site of lower motor neuron lesions correctly.	K/S	K	Y					

Objective 5	At the end of the session, the phase III (part II) student must be able to Enumerate clinical features on the basis of nature of lesions in upper motor neuron lesions correctly.	K/S	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to Enumerate clinical features on the basis of nature of lesions in lower motor neuron lesions correctly.	K/S	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to Enumerate demonstrate signs of upper motor neuron lesions correctly.	K/S	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to Enumerate demonstrate signs of lower motor neuron lesions correctly.	K/S	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to interpret neurological examination finding in given case correctly.	K/S	SH	Y					
IM18.7	Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech	K/S	SH	N	Bedside clinic, DOAP session	Skill assessment		Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to Enumerate different component of speech correctly.	K/S	K	N					
Objective 2	At the end of the session, the phase III (part II) student should be able to enumerate disorders of speech correctly.	K/S	K	N					
Objective 3	At the end of the session, the phase III (part II) student should be able to enumerate clinical features of different disorders of speech correctly.	K/S	K	N					
Objective 4	At the end of the session, the phase III (part II) student should be able to identify different disorders of speech in given set of clinical scenario correctly.	K/S	S	N					
IM18.8	Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease	K	KH	Y	Small group discussion, Bedside clinic	Written/ Viva voce		Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to describe normal anatomy of the bladder correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe normal physiology of the bladder correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe normal neuronal control of bladder correctly.	K	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate types of bladder dysfunction in CNS disease correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe clinical feature of different types of bladder dysfunction correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to Differentiate between different types of bladder dysfunction correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss bladder dysfunction on the basis of clinical features correctly.	K	KH	Y					
IM18.9	Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion	S	KH	Y	Bedside clinic, DOAP session, Small group discussion	Written/ Viva voce/ Skill assessment		Radiodiagnosis	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate different types of imaging test iter CNS diseases correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to report abnormalities in different types of lesion correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to choose appropriate imaging test in given case correctly.	S	KH	Y					
IM18.10	Choose and interpret the appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA)	S	SH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define CVA in young correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate causes of CVA in young correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to elicit the cause of CVA in young on the basis of clinical examinations correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to choose correct diagnostic test on the basis of case in CVA in young correctly.	S	KH	Y					

Objective 5	At the end of the session, the phase III (part II) student must be able to interpret the reports of diagnosis tests in CVA in young correctly.	S	SH	Y					
IM18.11	Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA)	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list supportive measures of a patients presenting with cerebrovascular accident correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe supportive measures in a patients presenting with cerebrovascular accident correctly.	K	K	Y					
IM18.12	Enumerate the indications for and describe acute therapy of nonhemorrhagic stroke including the use of thrombolytic agents	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of thrombolytic in acute therapy of haemorrhagic stroke correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of thrombolytic in acute therapy of haemorrhagic stroke correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe acute therapy of haemorrhagic stroke other than thrombolytic therapy correctly.	K	K	Y					
IM18.13	Enumerate the indications for and describe the role of anti platelet agents in non hemorrhagic stroke	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of antiplatelet therapy in haemorrhagic stroke correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the contraindications of antiplatelet therapy in haemorrhagic stroke correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe role of antiplatelet therapy in haemorrhagic stroke correctly.	K	K	Y					

IM18.14	Describe the initial management of a hemorrhagic stroke	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define haemorrhagic stroke correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list complications in haemorrhagic stroke correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the management of complications correctly.	K	K	Y					
IM18.15	Enumerate the indications for surgery in a hemorrhagic stroke	K	K	Y	Lecture, Small group discussion	Written/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define haemorrhagic stroke correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of haemorrhagic stroke correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the contraindication of haemorrhagic stroke correctly.	K	K	Y					
IM18.16	Enumerate the indications describe and observe the multidisciplinary rehabilitation of patients with a CVA	S	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Physical Medicine & Rehabilitation
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate indications of rehabilitation of patients with CVA correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list disciplines involved in rehabilitation of patient with CVA correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss rehabilitation measures in patients with CVA correctly.	S	KH	Y					
IM18.17	Counsel patient and family about the diagnosis and therapy in an empathetic manner	A/C	SH	Y	DOAP session	Skill assessment			

Objective 1	At the end of the session, the phase III (part II) student must be able to know how to communication with patient and family about the diagnosis in an empathic member correctly.	A/C	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to know how to communication with patient and family about the therapy in an empathic member correctly. A/C	A/C	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to do know how to communication with patient and family about the prognosis in an empathic member correctly.	A/C	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate communication in an empathetic manner in given case correctly.	A/C	SH	Y					
Number	COMPETENCY The student should be able to	DomainK/S /A/C	Level K/KH/ SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Headache		Number of competencies: (14)		Number of procedures that require certification : (NIL)					
IM19.1	Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache	K	KH	Y	Lecture, Small group discussion	Short note/ Viva voce		Human Anatomy	
Objective 1	At the end of the session, the phase III (part II) student must be able to define Headache correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify Headache correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the Preventing feature of various kinds of Headache correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe the Preventing feature of various kinds of Headache correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe Precipitating feature of various kinds of Headache correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to describe aggravating feature of various kinds of Headache correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to describe relieving feature of various kinds of Headache correctly.	K	K	Y					

Objective 8	At the end of the session, the phase III (part II) student must be able to describe various kinds of Headache in a given case of Headache correctly.	K	K	Y					
IM19.2	Classify movement disorders of the brain based on distribution, rhythm, repetition, exacerbating and relieving factors	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the movement disorders of the Brain correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to classify the movement disorders of the brain based on distribution correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to classify the movement disorders of the brain based on Rhythm correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to classify the movement disorders of the brain based on repetition correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to classify the movement disorders of the brain based on exacerbating factors correctly.	K	K	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to classify the movement disorders of the brain based on relieving factors correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to differentiate various movement disorders of the brain in given set of clinical scenario correctly.	K	KH	Y					
IM19.3	Elicit and document and present an appropriate history including onset, progression precipitating and aggravating relieving factors, associated symptoms that help identify the cause of the movement disorders	S	SH	Y	Bedside clinic	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the causes of movement disorders correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the clinical features of movement disorders on the basis of various causes correctly.	S	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list relevant questions in history taking pertaining to on set progression, aggravating and relieving factors and associated symptoms correctly.	S	K	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to present history properly so that it may help to identify the causes of movement disorder correctly.	S	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify the case of the movement disorder in a given set of clinical facts in the patient case proform correctly.	S	S	Y					
IM19.4	Perform, demonstrate and document a physical examination that includes a general examination and a detailed neurologic examination using standard movement rating scales	S	SH	Y	Bedside clinic	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate standard movement rating scales correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to elicit general examination as per standard movement rating scales correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to elicit retailed neurological examination as per standard movement rating scales correctly.	S	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to document clinical examination as per standard movement rating scales correctly.	S	S	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate clinical examination as per standard movement rating scales correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to Interpret clinical examination as per standard movement rating scales correctly.	S	SH	Y					
IM19.5	Generate document and present a differential diagnosis and prioritise based on the history and physical examination	S	SH	Y	Bedside clinic	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to elicit proper history in a patient of movement disorder correctly.	S	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to elicit physical examination in a patient of movement disorder correctly.	S	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify differential diagnosis on the basis of history and physical examination correctly.	S	S	Y					

IM19.8	Describe the functional anatomy of the locomotor system of the brain	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to list the drugs used in the therapy of Parkinson's syndrome correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to choose the drugs in the different stages of Parkinson's syndrome correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe doses of the drugs used in Pharmacotherapy correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe side effects of the drugs used in Pharmacotherapy correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to describe interactions of the drugs used in Pharmacotherapy correctly.	K	K	Y					
IM19.9	Enumerate the indications for use of surgery and botulinum toxin in the treatment of movement disorders	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the indications of treatment in movement disorders correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the indications of surgery in the treatment of movement disorders correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate the indications of botulinum toxin in the treatment of movement disorders correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to choose correct treatment in given case of movement disorders correctly.	K	KH	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Envenomation		Number of competencies: (09)		Number of procedures that require certification : (NIL)					

IM20.4	Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Forensic Medicine	
Objective 1	At the end of the session the phase II student must be able to elicit and document appropriate history in a patient of snake bite. History should include time of bite, provoked/unprovoked bite, type of snake if recognised and evolution of symptoms if any.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to present thus documented history logically and correctly.	S	SH	Y					
IM20.5	Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session the phase II student must be able to perform general and local examination.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to perform appropriate cardiac and neurological examination.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to document and present examination findings thus recorded with emphasis on signs of local/systemic envenomation.	S	SH	Y					
IM20.6	Choose and interpret the appropriate diagnostic testing in patients with snake bite	S	SH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to choose blood investigations that include full blood count, blood grouping, coagulation screen, blood urea/creatinine, electrolytes, CK and ECG.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to choose pulse oximetry and arterial blood gases in cases with potential or established respiratory failure.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to choose 20 WBCT where there is limited facility for investigatios.	S	SH	Y					
Objective 4	At the end of the session the phase II student must be able to identify and interpret appropriate diagnostic tests in a patient with snake bite.	S	SH	Y					
IM20.7	Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti snake venom	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	

Objective 1	At the end of the session the phase II student must be able to enumerate the indications for administering polyvalent anti snake venom.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to differentiate dry bites from bites associated with local/systemic envenomation requiring administration of anti snake venom.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe pharmacology, dosing and early and late hypersensitivity reactions of anti snake venom.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss indications, pharmacology, dose and adverse/hypersensitivity reactions to anti snake venom.	K	KH	Y					
IM20.8	Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to describe local and systemic manifestations of scorpion sting.	K	KH	N					
Objective 2	At the end of the session the phase II student must be able to describe the diagnosis of scorpion sting based on history and clinical manifestations.	K	KH	N					
Objective 3	At the end of the session the phase II student must be able to discuss initial management of scorpion sting including relief of local pain, measures for stabilisation of cardiovascular and neurological status.	K	KH	N					
Objective 4	At the end of the session the phase II student must be able to discuss role of Prazosin and antivenom therapy of scorpion envenomation.	K	KH	N					
IM20.9	Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session the phase II student must be able to describe diagnosis of bee sting based on history and clinical manifestations.	K	KH	N					
Objective 2	At the end of the session the phase II student must be able to describe initial approach towards stabilisation of patient of bee sting.	K	KH	N					
Objective 3	At the end of the session the phase II student must be able to discuss complications of bee sting allergy including angioedema & anaphylaxis.	K	KH	N					

Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Mineral, Fluid Electrolyte and Acid base Disorder		Number of competencies: (13)			Number of procedures that require certification : (NIL)				
IM22.1	Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated hypercalcemia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology, Physiology	
Objective 1	At the end of the session the phase III student must be able to define hypercalcemia correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe the key role of parathyroid hormone (PTH) in the regulation of calcium and phosphate homeostasis and vitamin D metabolism correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to enumerate the causes of hypercalcemia correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the PTH mediated & non PTH mediated hypercalcemia correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to distinguish the features of PTH mediated & non PTH mediated hypercalcemia correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to distinguish the features of PTH mediated & non PTH mediated hypercalcemia for a given set of clinical and laboratory parameters correctly	K	KH	Y					
IM22.2	Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	K	KH	N	Lecture, Small group discussion	Written/ Viva voce		Pathology	General Surgery
Objective 1	At the end of the session the phase III student must be able to define primary hyperparathyroidism correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe the aetiology of primary hyperparathyroidism correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical manifestations of primary hyperparathyroidism correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the diagnostic approach to primary hyperparathyroidism correctly	K	KH	Y					

Objective 5	At the end of the session the phase III student must be able to describe the clinical approach to primary hyperparathyroidism correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to describe the appropriate approach to primary hyperparathyroidism for given set of clinical and biochemical parameters correctly	K	KH	Y					
IM22.3	Describe the approach to the management of hypercalcemia	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Pharmacology
Objective 1	At the end of the session the phase III student must be able to define hypercalcemia correctly	K	KH	N					
Objective 2	At the end of the session the phase III student must be able to describe the key role of parathyroid hormone (PTH) in the regulation of calcium and phosphate homeostasis and vitamin D metabolism correctly	K	KH	N					
Objective 3	At the end of the session the phase III student must be able to enumerate the principles of management of hypercalcemia correctly	K	KH	N					
Objective 4	At the end of the session the phase III student must be able to describe the approach to the management of hypercalcemia	K	KH	N					
IM22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Pathology
Objective 1	At the end of the session the phase III student must be able to define multiple endocrine neoplasia syndrome correctly	K	KH	N					
Objective 2	At the end of the session the phase III student must be able to enumerate the components of multiple endocrine neoplasia syndrome	K	KH	N					
Objective 3	At the end of the session the phase III student must be able to describe the genetic basis of the multiple endocrine neoplasia syndrome correctly	K	KH	N					
Objective 4	At the end of the session the phase III student must be able to describe the genetic basis for a given multiple endocrine neoplasia syndrome correctly	K	KH	N					
IM22.5	Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patient with hyponatremia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase III student must be able to define hyponatremia correctly	K	KH	Y					

IM22.7	Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce				
Objective 1	At the end of the session the phase III student must be able to define hypokalaemia correctly	K	KH	Y						
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of hypokalaemia correctly	K	KH	Y						
Objective 3	At the end of the session the phase III student must be able to describe the clinical features of hypokalaemia correctly	K	KH	Y						
Objective 4	At the end of the session the phase III student must be able to describe the laboratory features of hypokalaemia correctly	K	KH	Y						
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the diagnosis of the patient with hypokalaemia correctly	K	KH	Y						
Objective 6	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with hypokalaemia correctly	K	KH	Y						
Objective 7	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with hypokalaemia accurately for given set of clinical and biochemical parameters	K	KH	Y						
IM22.8	Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalaemia	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce				
Objective 1	At the end of the session the phase III student must be able to define hyperkalaemia correctly	K	KH	Y						
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of hyperkalaemia correctly	K	KH	Y						
Objective 3	At the end of the session the phase III student must be able to describe the laboratory features of hyperkalaemia correctly	K	KH	Y						
Objective 4	At the end of the session the phase III student must be able to describe the clinical features of hyperkalaemia correctly	K	KH	Y						
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the diagnosis of the patient with hyperkalaemia correctly	K	KH	Y						
Objective 6	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with hyperkalaemia correctly	K	KH	Y						

Objective 7	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with hyperkalaemia accurately for given set of clinical and biochemical parameters correctly.	K	KH	Y					
IM22.9	Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Physiology
Objective 1	At the end of the session the phase III student must be able to define metabolic acidosis correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of metabolic acidosis correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical features of metabolic acidosis correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the laboratory features of metabolic acidosis correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with metabolic acidosis accurately for given set of clinical and biochemical parameters	K	KH	Y					
IM22.10	Enumerate the causes and describe the clinical and laboratory features of metabolic alkalosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Physiology
Objective 1	At the end of the session the phase III student must be able to define metabolic alkalosis correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of metabolic alkalosis correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical features of metabolic alkalosis correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the laboratory features of metabolic alkalosis correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with metabolic alkalosis accurately for given set of clinical and biochemical parameters	K	KH	Y					
IM22.11	Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Physiology
Objective 1	At the end of the session the phase III student must be able to define respiratory acidosis correctly	K	KH	Y					

Objective 2	At the end of the session the phase III student must be able to enumerate the causes of respiratory acidosis correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical features of respiratory acidosis correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe the laboratory features of respiratory acidosis correctly	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with respiratory acidosis accurately for given set of clinical and biochemical parameters	K	K	Y					
IM22.12	Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis	K	KH	N	Lecture, Small group discussion	Written/ Viva voce			Physiology
Objective 1	At the end of the session the phase III student must be able to define respiratory alkalosis correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of respiratory alkalosis correctly	K	K	Y					
Objective 3	At the end of the session the phase III student must be able to describe the clinical features of respiratory alkalosis correctly	K	K	Y					
Objective 4	At the end of the session the phase III student must be able to describe the laboratory features of respiratory alkalosis correctly	K	K	Y					
Objective 5	At the end of the session the phase III student must be able to describe the correct approach to the management of the patient with respiratory alkalosis accurately for given set of clinical and biochemical parameters	K	K	Y					
IM22.13	Identify the underlying acid based disorders correctly based on ABG report and clinical situation	S	KH	N	Lecture, Small group discussion	Written/ Viva voce			Physiology
Objective 1	At the end of the session the phase III student must be able to describe the most common acid based disorders correctly	S	SH	Y					
Objective 2	At the end of the session the phase III student must be able to define arterial blood gas (ABG) correctly	S	SH	Y					
Objective 3	At the end of the session the phase III student must be able to enumerate the components of arterial blood gas (ABG) report correctly	S	SH	Y					
Objective 4	At the end of the session the phase III student must be able to enumerate various acid based disorders correctly	S	SH	Y					

IM23.2	Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
Objective 1	At the end of the session the phase III student must be able to describe the protein caloric malnutrition correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to enumerate the causes of protein caloric malnutrition in the hospital correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to describe the consequences of protein caloric malnutrition in the hospital correctly	K	KH	Y					
IM23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
Objective 1	At the end of the session the phase III student must be able to enumerate the common vitamin deficiencies correctly	K	KH	Y					
Objective 2	At the end of the session the phase III student must be able to describe the common vitamin deficiencies correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to enumerate the causes of common vitamin deficiencies correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to describe the clinical manifestations of common vitamin deficiencies correctly	K	KH	Y					
Objective 5	At the end of the session the phase III student must be able to describe the complications of common vitamin deficiencies correctly	K	KH	Y					
Objective 6	At the end of the session the phase III student must be able to discuss the diagnosis of common vitamin deficiencies correctly	K	KH	Y					
Objective 7	At the end of the session the phase III student must be able to describe the management of common vitamin deficiencies correctly	K	KH	Y					
IM23.4	Enumerate the indications for enteral and parenteral nutrition in critically ill patients	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce		Physiology, Biochemistry	Pediatrics
Objective 1	At the end of the session the phase III student must be able to describe the enteral and parenteral nutrition correctly	K	KH	Y					

Objective 2	At the end of the session the phase III student must be able to describe the advantages and disadvantages of enteral and parenteral nutrition correctly	K	KH	Y					
Objective 3	At the end of the session the phase III student must be able to enumerate the indications for enteral nutrition in critically ill patients correctly	K	KH	Y					
Objective 4	At the end of the session the phase III student must be able to enumerate the indications for parenteral nutrition in critically ill patients correctly	K	KH	Y					
IM23.5	Counsel and communicate to patients in a simulated environment with illness on an appropriate balanced diet	S	SH	Y	DOAP session	Skill assessment			
Objective 1	At the end of the session the phase III student must be able to describe balanced diet correctly	S	SH	Y					
Objective 2	At the end of the session the phase III student must be able to perform counselling to patients in a simulated environment with illness on an appropriate balanced diet correctly	S	SH	Y					
Objective 3	At the end of the session the phase III student must be able to communicate to patients in a simulated environment with illness on an appropriate balanced diet correctly	S	SH	Y					
Objective 4	At the end of the session the phase III student must be able to counsel and communicate in a simulated environment with illness on an appropriate balanced diet correctly for a given patient	S	SH	Y					
Number	COMPETENCY The student should be able to	Domain K/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify	Vertical Integration	Horizontal Integration
							P		
Topic: Geriatrics		Number of competencies: (22)		Number of procedures that require certification : (NIL)					
IM24.1	Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to discuss the epidemiology and demography of elderly population correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss the system-wise physiological changes occurring in elderly correctly.	K	KH	Y					

Objective 3	At the end of the session the phase II student must be able to discuss the common presenting problems characteristic of old age correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss the clinical course of common disorders in elderly correctly.	K	KH	Y					
IM24.2	Perform multidimensional geriatric assessment that includes medical, psycho-social and functional components	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			Psychiatry
Objective 1	At the end of the session the phase II student must be able to list the important points in comprehensive assessment of geriatric population correctly.	S	SH	Y					
Objective 2	At the end of the session the phase II student must be able to perform medical assessment in elderly correctly.	S	SH	Y					
Objective 3	At the end of the session the phase II student must be able to perform social assessment including information about home circumstances and activity of daily living(ADL) correctly	S	SH	Y					
Objective 4	At the end of the session the phase II student must be able to perform psychological assessment in elderly including cognitive functions by doing mini-mental state examination correctly.	S	SH	Y					
Objective 5	At the end of the session the phase II student must be able to perform assessment of functional components including gait and balance in elderly correctly.	S	SH	Y					
IM24.3	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to defined delirium correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to enumerate the risk factors for delirium in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the presentation in acute confusion state correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss how to detect delirium correctly.	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to differentiate delirium from dementia correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to describe acute care, stabilization and management of confusional states in elderly correctly.	K	KH	Y					

IM24.8	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to define osteoporosis correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the pathophysiology of osteoporosis in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about clinical features in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about non-pharmacological and pharmacological management of osteoporosis in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to enumerate the complications of osteoporosis in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss about the rehabilitation of osteoporosis in elderly patients correctly.	K	KH	Y					
IM24.9	Discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to enumerate fixed and modifiable risk factors of CVA in elderly Correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the pathophysiology of cerebral infarction & ICH in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the important points in clinical examinations of stroke in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe clinical features of CVA in elderly correctly.	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss about investigations used in CVA in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss management of CVA in elderly including supportive care correctly.	K	KH	Y					
Objective 7	At the end of the session the phase II student must be able to discuss about rehabilitation in CVA in elderly correctly.	K	KH	Y					

IM24.10	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Respiratory Medicine
Objective 1	At the end of the session the phase II student must be able to describe the aetiopathogenesis of COPD in elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the clinical presentation of COPD in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to enumerate the relevant investigations required to confirm the diagnosis of COPD in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about management of COPD in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss about rehabilitation of COPD in elderly correctly.	K	KH	Y					
IM24.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Anesthesiology, General Surgery
Objective 1	At the end of the session the phase II student must be able to enumerate the risks specifically associated with elderly undergoing surgery correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss about cardiac risk assessment in elderly undergoing surgery correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about pulmonary assessment in non-lung surgery in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe pre-operative haematological evaluation in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to describe neurological evaluation in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss about management of diabetes mellitus in elderly undergoing surgery correctly.	K	KH	Y					

Objective 7	At the end of the session the phase II student must be able to discuss about assessment of kidney disease in elderly undergoing surgery correctly.	K	KH	Y					
IM24.12	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to discuss the aetiopathogenesis of degenerative joint disease (osteoarthritis) correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the signs and symptoms of degenerative joint disease in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the laboratory findings and imaging in degenerative joint disease in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to differentiate osteoarthritis from other arthritis in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss the medical management of degenerative joint disease in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss about the rehabilitation of elderly patients with osteoarthritis correctly.	K	KH	Y					
IM24.13	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics, Physical Medicine & Rehabilitation
Objective 1	At the end of the session the phase II student must be able to discuss the causes of falls in elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the points in assessment of elderly patient with falls correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about complications of falls in elderly correctly.	K	KH	Y					

Objective 4	At the end of the session the phase II student must be able to discuss about various steps which can be taken to prevent falls in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss about management of falls in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss about the rehabilitation of elderly patients with falls correctly.	K	KH	Y					
IM24.14	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Orthopedics
Objective 1	At the end of the session the phase II student must be able to list the common fractures encountered in elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss about clinical presentation of common fractures in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about principles of acute management of common in fractures correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about rehabilitation of elderly patient with fractures correctly	K	KH	Y					
IM24.15	Describe and discuss the aetiopathogenesis,clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Ophthalmology
Objective 1	At the end of the session the phase II student must be able to enumerate the important causes of visual loss in the elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the discuss about aetiopathogenesis of important causes of visual loss in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about clinical presentation of cataract and age related macular degeneration (ARMD) in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about management of cataract and ARMD in elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss about rehabilitation elderly with visual loss correctly.	K	KH	Y					

IM24.18	Describe the impact of the demographic changes in ageing on the population	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Community Medicine
Objective 1	At the end of the session the phase II student must be able to discuss the causes of increasing elderly population correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss the impact of demography changes in ageing of the population correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe socio-economic effects of ageing population correctly.	K	KH	Y					
IM24.19	Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health.	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Psychiatry
Objective 1	At the end of the session the phase II student must be able to able to enumerate the social problems encountered by elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the problem of isolation and loneliness in elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the problem of abuse of elderly in family correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe the problem of change in family structure including replacement of extended family by nuclear family correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to enumerate the complications of osteoporosis in elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss the effect of social problems in elderly on their health correctly.	K	KH	Y					
IM24.20	Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, old age homes and state interventions	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session the phase II student must be able to enumerate various social interventions in the case of elderly correctly.	K	KH	Y					

Objective 2	At the end of the session the phase II student must be able to describe the role of domiciliary care services in the case of elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to discuss about clinical features in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to discuss about rehabilitation facilities for the elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to discuss the role of old age homes for care of elderly correctly.	K	KH	Y					
Objective 6	At the end of the session the phase II student must be able to discuss the role of government interventions for care of the elderly correctly.	K	KH	Y					
IM24.21	Enumerate and describe ethical issues in the care of the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			AETCOM
Objective 1	At the end of the session the phase II student must be able to enumerate the basic principles of ethics of medicine in elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to describe the ethical principle of autonomy in case of the elderly correctly.	K	KH	Y					
Objective 3	At the end of the session the phase II student must be able to describe the ethics of beneficence in case of the elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe the ethics of non-maleficence in case of the elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to describe the ethical principle of justice in case of elderly correctly.	K	KH	Y					
IM24.22	Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly	K	KH	Y	Lecture, Small group discussion	Written/ Viva voce			Physiology , Biochemistry
Objective 1	At the end of the session the phase II student must be able to enumerate the common nutritional disorders seen in elderly correctly.	K	KH	Y					
Objective 2	At the end of the session the phase II student must be able to discuss the aetiopathogenesis of nutritional disorder in elderly correctly.	K	KH	Y					

Objective 3	At the end of the session the phase II student must be able to describe the clinical features of important nutritional disorders seen in elderly in elderly correctly.	K	KH	Y					
Objective 4	At the end of the session the phase II student must be able to describe the management of individual nutritional disorders in the elderly correctly	K	KH	Y					
Objective 5	At the end of the session the phase II student must be able to enumerate the important complications of nutritional disorders seen in elderly correctly.	K	KH	Y					
Number	COMPETENCY The student should be able to	DomainK/S/A/C	Level K/KH/SH/P	Core Y/ N	Suggested Learning methods	Suggested Assessment methods	Number required to certify P	Vertical Integration	Horizontal Integration
Topic: Miscellaneous Infections		Number of competencies: (13)			Number of procedures that require certification : (NIL)				
IM25.1	Describe and discuss the symptoms and signs of acute HIV seroconversion immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus)	K	K	Y	Lecture, Small group discussion	Written		Microbiology, Community Medicine	
Objective 1	At the end of the session, the phase II student must be able to enumerate the important zoonotic disease occurring in humans correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the response and the influence of host immune status on occurrence of zoonotic diseases correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to enumerate the risk factors and co-morbidities zoonotic diseases correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the response and influence of host immune status on occurrence of tetanus correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss the risk factors and co-morbidities in non-febrile infectious diseases like tetanus correctly.	K	K	Y					
IM25.2	Discuss and describe the common causes, pathophysiology and manifestations of these diseases	K	K	Y	Lecture, Small group discussion	Written		Microbiology, Community Medicine	

Objective 1	At the end of the session, the phase II student must be able to list causation organising of carious important zo-oncotic diseases correctly.	K	K	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the mode of infection and manifestation of leptospirosis correctly.	K	K	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the mode of transmission and manifestation of tetanus correctly.	K	K	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the mode of transmission and manifestation of rabies correctly.	K	K	Y					
Objective 5	At the end of the session, the phase II student must be able to discuss about mode of infection and manifestations of brucellosis correctly.	K	K	Y					
IM25.3	Describe and discuss the pathophysiology and manifestations of these diseases	K	KH	Y	Lecture, Small group discussion	Written		Microbiology,	
Objective 1	At the end of the session, the phase II student must be able to enumerate high risk groups for zoonotic diseases correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss the manifestations of important viral haemorrhagic fevers correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase II student must be able to discuss the mode of transmission and manifestation of Q fever correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase II student must be able to discuss the mode of transmission and manifestation of toxoplasmosis correctly.	K	KH	Y					
IM25.4	Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel	S	SH	Y	Bedside clinic, DOAP session	Skill assessment		Community Medicine	
Objective 1	At the end of the session, the phase II student must be able to enumerate the risk factors associated with zoonotic disease including occupation and travel correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to document the medical history which includes pattern and symptoms in a patients of suspected zoonotic disease correctly.	S	SH	Y					

Objective 3	At the end of the session, the phase II student must be able to present the medical history of the patient of suspected zoonotic disease correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to document history of exposure to animals through occupation and travel which can increase the risk of zoonotic diseases correctly.	S	SH	Y					
IM25.5	Perform a systematic examination that establishes the diagnosis and severity of presentation that includes: general skin, mucosal and lymph node examination, chest and abdominal examination (including examination of the liver and spleen)	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase II student must be able to enumerate the important points in general physical examination of patient of infectious disease correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to describe steps of abdominal & chest examination in patient of infectious disease correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to perform general physical examination that includes skin, mucous members and lymph nodes in patient of infectious disease correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to perform chest examination including inspection, palpation, percussion and auscultation in patient of infectious disease correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase II student must be able to perform abdominal examination (including examination of liver and spleen) by inspection, palpation, percussion and auscultation in patient of infectious disease correctly.	S	SH	Y					
IM25.6	Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes	K	SH	Y	Bedside clinic, DOAP session	Written/ Viva voce			
Objective 1	At the end of the session, the phase II student must be able to describe the clinical features of infection diseases correctly.	K	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to describe important clinical features of inflammatory disease correctly.	K	SH	Y					

IM25.11	Develop an appropriate empiric treatment plan based on the patient's clinical and immune status pending definitive diagnosis	C	SH	Y	DOAP session	Skill assessment		Microbiology, Pharmacology	
Objective 1	At the end of the session, the phase II student must be able to describe the treatment of important zoonotic disease like rabies and leptospirosis correctly.	C	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to describe the treatment of important non febrile infectious diseases like tetanus correctly.	C	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to present treatment plan empirically based on the patients clinical and immune Status correctly pending definitive diagnosis.	C	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to demonstrate understanding of importance of starting empirical treatment early pending definitive diagnosis diagnosis.	C	SH	Y					
IM25.12	Communicate to the patient and family the diagnosis and treatment of identified infection	C	SH	Y	DOAP session	Skill assessment		AETCOM	
Objective 1	At the end of the session, the phase II student must be able to discuss the diagnosis and treatment of identified infection correctly.	C	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to present the diagnostic and treatment plan of identified infection correctly.	C	SH	Y					
Objective 3	At the end of the session, the phase II student must be able to demonstrate a clear serotine of treatment plan of identified infection with patient and family correctly.	C	SH	Y					
Objective 4	At the end of the session, the phase II student must be able to inform the patient and family regarding nature and prognosis off identified disease showing appropriate empathy correctly.	C	SH	Y					
IM25.13	Counsel the patient and family on prevention of various infections due to environmental issues	C	SH	Y	DOAP session	Skill assessment		Community Medicine, General Medicine	
Objective 1	At the end of the session, the phase II student must be able to enumerate various environmental factors causing disease in Humans correctly.	C	SH	Y					
Objective 2	At the end of the session, the phase II student must be able to discuss about infectious diseases caused by air pollution, contaminated soil and water correctly.	C	SH	Y					

M26.4	Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe the role of autonomy in patient care .	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss the role of shared responsibility as guiding principal in patient care correctly.	K	KH	Y					
M26.5	Describe and discuss the role of beneficence of a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate the role of beneficence in patient care correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe beneficence as a guiding principal patient care correctly.	K	K	Y					
M26.6	Describe and discuss the role of a physician in health care system	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to discuss the role of physician in health care system .	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the duties of physician in health care setup.	K	K	Y					
M26.7	Describe and discuss the role of justice as a guiding principle in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe the role of justice in guiding patient care.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss the principles on which justice should be implemented in patient care.	K	KH	Y					
M26.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the law regarding organ donation correctly	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to discuss the socioeconomic aspects pertaining to organ demotion is our country.	K	KH	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to discuss the ethical issues related to organ donation correctly.	K	KH	Y					
M26.9	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the right of his patient visiting health care system correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate the cause of ethical disparity in our health system correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss the sociocultural & economic aspect of patient affecting his health outcome .	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to discuss the medicolegal aspects of the right, justice, equity of patient visit health care .	K	KH	Y					
M26.10	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to discuss the role of confidentiality in patient care correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate some diseases where confidentiality of patients record is needed .	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to discuss the medicolegal aspects of confidentiality in patient care correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to elicits the sociocultural & ethical issues pertaining to confidentiality in patient care correctly.	K	KH	Y					
M26.11	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care	K	KH	Y	Small group discussion	Written/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to list the medicolegal, sociocultural & ethical issue in health care correctly.	K	KH	Y					

M26.17	Identify, discuss physician's role and responsibility to society and the community that she/ he serves	K	KH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to discuss the role of physician in society .	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to list the various measures which a physician may take to spread awareness regarding various diseases in society correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to differentiate the role of physician in a tertiary care centre from role of physician in community.	K	KH	Y					
M26.18	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships	K	KH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to describe ethical issues related to physician - pharma industry relationship correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to differntiate between pros and cons of pharma sponsered research .	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to list the role of physician to reduce the cost of health care expenditure correctly.	K	KH	Y					
M26.19	Demonstrate ability to work in a team of peers and superiors	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate the structure of health care system in our community correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to present the advantage and disadvantage of institute based health care over clinic based health care.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate the ability to work with peers in respect to in our health care system correctly.	K	KH	Y					
M26.20	Demonstrate ability to communicate to patients in a patient, respectful, non threatening, non judgemental and empathetic manner	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			

Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate how to communicate with patient on his visit to the hospital correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform independently an interview with the patient regarding his visit to hospital correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to document the precautions and consent taken before a interview or examination of a patient correctly.	S	SH	Y					
M26.21	Demonstrate respect to patient privacy	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate how patient privacy will be ensured correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to record the points under which patients privacy will be maintained correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to interpret the condition where patients privacy has to be breached correctly.	S	SH	Y					
M26.22	Demonstrate ability to maintain confidentiality in patient care	S	SH	Y	Bedside clinic, DOAP session	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to present how will you maintain confidentiality of patient correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to demonstrate the measure taken to maintain confidentiality in patient care correctly.	K	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the methods in which a hospital can maintain patient confidentiality correctly.	S	SH	Y					
M26.23	Demonstrate a commitment to continued learning	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to present the various methods in which a doctor can continue to learn even after passing from college correctly.	K	KH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to document the importance of continuous learning in a physician's life correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the steps to be taken by the government to check whether the physician is keeping up with recent advances in medical science.	K	KH	Y					
M26.24	Demonstrate respect in relationship with patients, fellow team members, superiors and other health care workers	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to perform under supervision how you will show respect to patient while interviewing him/her correctly.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to interpret importance of respect for medical colleague.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to present the importance of good manners in care of critically ill patient correctly.	K	KH	Y					
M26.25	Demonstrate work working responsibility and ethics while in the health care team	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to document your responsibilities while working as a part of health care team.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to interpret the importance of work ethics in a health care correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the problem faced by a junior doctor in our health care system correctly.	K	KH	Y					
M26.26	Demonstrate ability to maintain required documentation in health care (including correct use of medical records)	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate the importance of medical record keeping.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform independently how medical record keeping can be used for research purpose.	K	KH	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to present the medicolegal aspect of medical record keeping.	K	KH	Y					
M26.27	Demonstrate personal grooming that is adequate and appropriate for health care responsibilities	S	SH	Y	Small group discussion	Skill assessment			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate the importance of early clinical exposure in grooming of medical student.	K	KH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to present the importance of continuous medical education (CME) in grooming of medical professional.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify the various measure to groom paramedical staff for emergency care such as natural disaster.	K	KH	Y					
M26.28	Demonstrate adequate knowledge and use of information technology that permits appropriate patient care and continued learning	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate the use of information technology in health care correctly.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform independently the use of information technology in patient awareness.	S	S	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to present technology can be used by a physician for confirmed learning.	S	S	Y					
M26.29	Communicate diagnostic and therapeutic options to patient and family in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to perform under supervision how you will communicate about a invasive diagnostic procedure.	S	S	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform under supervision how you will be tell about the pros and cons of a invasive therapeutic procedure.	S	S	Y					

Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate the importance of communication with patient's family.	S	SH	Y					
M26.30	Communicate care options to patient and family with a terminal illness in a simulated environment	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to perform under supervision, how you will explain the poor prognosis of terminally ill patient.	S	S	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to perform under supervision, how to communicate the care options in a terminally ill patient correctly.	S	S	Y					
M26.31	Demonstrate awareness of limitations and seeks help and consultations appropriately	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate when to seek for consultation from doctor in health care.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to present when you with refer his patient.	S	S	Y					
M26.32	Demonstrate appropriate respect to colleagues in the profession	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate the ways in which you will show appropriate respect for colleague in the profession.	S	SH	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to interpret how medical advice guide us towards professional respect.	S	S	Y					
M26.33	Demonstrate an understanding of the implications and the appropriate procedures and response to be followed in the event of medical errors	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to demonstrate how you will deal with a procedure gone wrong situation.	S	SH	Y					

Objective 2	At the end of the session, the phase III (part II) student must be able to interpret the various ways to stop medical error correctly.	S	S	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to present the medicolegal aspect of a medical error correctly.	S	S	Y					
M26.34	Identify conflicts of interest in patient care and professional relationships and describe the correct response to these conflicts	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to identify the various conflict of interest in patient care correctly.	S	S	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to document the response to conflict of interest which you may face in your profession.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to interpret the pros and cons of doctor and pharma company relationship correctly.	S	SH	Y					
IM26.35	Demonstrate empathy in patient encounters	S	SH	Y	Bedside clinic, DOAP session	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student should be able to define empathy correctly.	S	K	Y					
Objective 2	At the end of the session, the phase III (part II) student should be able to enumerate benefits & being empathetic correctly.	S	SH	Y					
Objective 3	At the end of the session, the phase III (part II) student should be able to differentiate empathy from sympathy correctly.	S	SH	Y					
Objective 4	At the end of the session, the phase III (part II) student should be able to describe empathy examples in patient encounters correctly.	S	SH	Y					
Objective 5	At the end of the session, the phase III (part II) student should be able to demonstrate empathy in patient encounters correctly.	S	SH	Y					
IM26.36	Demonstrate ability to balance personal and professional priorities	S	SH	N	Small group discussion	Skill assessment/ Viva voce		Pathology, Physiology	
Objective 1	At the end of the session, the phase III (part II) student must be able to enumerate personal priorities adequately correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate professional priorities adequately correctly.	K	K	N					

Objective 3	At the end of the session, the phase III (part II) student must be able to describe the conflicts between personal & professional priorities satisfactorily .	K	KH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify strategies to balance personal & professional priorities adequately.	K	KH	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate ability to balance personal & professional priorities satisfactorily.	S	SH	N					
IM26.37	Demonstrate ability to manage time appropriately	S	SH	Y	Small group discussion	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define time management correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate time management strategies in medical practise correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the implication of time management in medicine correctly.	K	KH	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate ability to manage time appropriately .	S	SH	Y					
IM26.38	Demonstrate ability to form and function in appropriate professional networks	S	SH	N	Small group discussion	Skill assessment/ Viva voce			
Objective 1	At the end of the session, the phase III (part II) student must be able to define professional networks correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the function, advantages of a professional network correctly.	S	SH	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate ability to form appropriate professional network correctly.	S	SH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate ability to function in appropriate professional network correctly.	S	SH	N					
IM26.39	Demonstrate ability to pursue and seek career advancement	S	SH	N	Small group discussion	Skill assessment/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to classify carreer advancement option correctly.	K	K	N					

Objective 2	At the end of the session, the phase III (part II) student must be able to identify goals in career advancement correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe strategies to pursue and seek career advancement adequately.	K	KH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate ability to pursue and seek career advancement satisfactory correctly.	S	SH	N					
IM26.40	Demonstrate ability to follow risk management and medical error reduction practices where appropriate	S	SH	N	Small group discussion	Skill assessment/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define risk management correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to define medical error reduction practice correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to enumerate various medical error risk reduction practices correctly.	K	K	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to describe risk management in medical error reduction practice correctly.	K	KH	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate ability to follow risk management practices correctly.	S	SH	N					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate ability to follow medical error reduction practices appropriately correctly.	S	SH	N					
IM26.41	Demonstrate ability to work in a mentoring relationship with junior colleagues	S	SH	N	Small group discussion	Skill assessment/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define mentorship correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe the methodology of a mentor- mentee relationship/activity correctly.	K	KH	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to participate actively in a mentorship program with junior colleagues satisfactorily.	S	SH	Y					

Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate ability to work in a mentoring relationship with junior colleagues adequately.	S	SH	Y					
IM26.42	Demonstrate commitment to learning and scholarship	S	SH	N	Small group discussion	Skill assessment/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define participation in learning correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to describe practices related to excellent commitment to learning correctly.	K	KH	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to demonstrate commitment to learning by participation, feedback, time management challenging correctly.	S	SH	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate commitment to scholarship adequately.	S	SH	N					
IM26.43	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood	K	KH	N	Small group discussion	Written/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define in vitro fertilisation correctly.	K	KH	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to define donor insemination correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define surrogacy correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify, discuss & defend medicolegal issues related to IVF, donor insemination & surrogate motherhood correctly.	K	KH	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify discuss, defend sociocultural issues correctly.	K	KH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to identify discuss, defend economic issues correctly.	K	KH	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to identify, discuss, defend ethical issues correctly.	K	KH	Y					
IM26.44	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence	K	KH	N	Small group discussion	Written/ Viva voce			General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define medical negligence correctly.	K	K	N					

IM26.46	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians	K	KH	N	Small group discussion	Written/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define impaired physician correctly.	K	K	N					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate risk factors for impaired physician correctly.	K	K	N					
Objective 3	At the end of the session, the phase III (part II) student must be able to identify medicolegal issues in dealing with impaired physician correctly.	K	K	N					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify socio cultural issues in dealing with impaired physician correctly.	K	K	N					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify ethical issues in dealing with impaired physician correctly.	K	K	N					
Objective 6	At the end of the session, the phase III (part II) student must be able to discuss medicolegal issues in dealing with impaired physician correctly.	K	KH	N					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss socio cultural issues in dealing with impaired physician correctly.	K	KH	N					
Objective 8	At the end of the session, the phase III (part II) student must be able to discuss ethical issues in dealing with impaired physician correctly.	K	KH	N					
IM26.47	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as they pertain to refusal of care including do not resuscitate and withdrawal of life support	K	KH	Y	Small group discussion	Written/ Viva voce		Pharmacology	
Objective 1	At the end of the session, the phase III (part II) student must be able to define refusal of care correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define do not resuscitate directive correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to define withdrawal of life support correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to identify medicolegal issues in refusal of care including do not resuscitate and correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to identify socio cultural issues in refusal of care correctly.	K	K	Y					

Objective 6	At the end of the session, the phase III (part II) student must be able to identify ethical issues in refusal of care correctly.	K	K	Y					
Objective 7	At the end of the session, the phase III (part II) student must be able to discuss medicolegal issues in refusal of care correctly.	K	K	Y					
Objective 8	At the end of the session, the phase III (part II) student must be able to discuss socio-cultural issues in refusal of care correctly.	K	K	Y					
Objective 9	At the end of the session, the phase III (part II) student must be able to discuss ethical issues in refusal of care correctly.	K	K	Y					
IM26.48	Demonstrate altruism	S	SH	Y	Small group discussion	Written/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define altruism correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to enumerate aspects of patient care that require altruist approach correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe altruist behaviour / response correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to demonstrate altruism in patient care correctly.	K	K	Y					
IM26.49	Administer informed consent and appropriately address patient queries to a patient being enrolled in a research protocol in a simulated environment	S	SH	Y	Small group discussion	Written/ Viva voce		Pharmacology	General Surgery
Objective 1	At the end of the session, the phase III (part II) student must be able to define informed consent correctly.	K	K	Y					
Objective 2	At the end of the session, the phase III (part II) student must be able to define the aims, objectives of a research protocol correctly.	K	K	Y					
Objective 3	At the end of the session, the phase III (part II) student must be able to describe the methodology of a research protocol correctly.	K	K	Y					
Objective 4	At the end of the session, the phase III (part II) student must be able to enumerate the points to be covered in valid informed consent for research protocol correctly.	K	K	Y					
Objective 5	At the end of the session, the phase III (part II) student must be able to demonstrate administering informed consent correctly.	S	SH	Y					
Objective 6	At the end of the session, the phase III (part II) student must be able to demonstrate ability to address patient queries correctly.	S	SH	Y					