

Nootan Medical College & Research Centre, Visnagar

Department of General Medicine Curriculum of MBBS Course

Competencies: The student must demonstrate ability to do the following in relation to common medical problems of the adult in the community:

1. Demonstrate understanding of the patho-physiologic basis, epidemiological profile, signs and symptoms of disease and their investigation and management,
2. Competently interview and examine an adult patient and make a clinical diagnosis,
3. Appropriately order and interpret laboratory tests,
4. Initiate appropriate cost-effective treatment based on an understanding of the rational drug prescriptions, medical interventions required and preventive measures,
5. Follow up of patients with medical problems and refer whenever required,
6. Communicate effectively, educate and counsel the patient and family,
7. Manage common medical emergencies and refer when required,
8. Independently perform common medical procedures safely and understand patient safety issues.

Integration: The teaching should be aligned and integrated horizontally and vertically in order to provide sound biologic basis and incorporating the principles of general medicine into a holistic and comprehensive approach to the care of the patient.

TEACHING METHODS AND HOURS

<u>Professional Year</u>	Duration (months)	Teaching hours (hours)	Tutorials/ seminars/ Integrated Teaching (hours)	Self- Directed Learning (hours)	Total (hours)
Second Professional MBBS	12	25	-	-	25
Third Professional Part I	13	25	35	5	65
Third Professional Part II	13	70	125	15	210

25% of allotted time of third professional shall be utilized for integrated learning with pre- and para- clinical subjects and shall be assessed during the clinical subjects examination. This allotted time will be utilized as integrated teaching by para-clinical subjects with clinical subjects (as Clinical Pathology, Clinical Pharmacology and Clinical Microbiology).

CLINICAL POSTINGS

Subjects	Period of Training in weeks			Total
	II MBBS	III MBBS Part I	III MBBS Part II	
General Medicine	4	4	8+4	20

The clinical postings in the third professional part I shall be 18 hours per week (3 hrs per day from Monday to Saturday)

The clinical postings in the third professional part II shall be 18 hours per week (3 hrs per day from Monday to Saturday).

Hours from clinical postings can also be used for AETCOM modules.

UNIVERSITY EXAMINATION: MARK DISTRIBUTION

III MBBS Part II	Marks	Pass Criteria
Theory – Paper I	100	Mandatory 50% marks separately in theory and practical (clinical + viva)
Theory – Paper II	100	
Clinicals	100	
Orals	100	
Total	400	

The discipline of Psychiatry and Dermatology, Venereology and Leprosy (DVL), Respiratory Medicine including Tuberculosis will constitute 25% of the total theory marks in General Medicine incorporated as a separate section in paper II of General Medicine

Scheme of Internal assessment

Timing	Month	Theory	Practical & Viva
2 nd Professional Year	January	100	100
	April	100	100
3 rd Professional Year part I	January	100	100
	August	100	100
3 rd Professional Year part II	June	100	100
	December	100	100

DISTRIBUTION OF TOPICS IN PAPER I & IIN UNIVERSITY EXAMINATION

Paper	Topics
I	Fever and febrile Syndromes, HIV, Anaemia, Hypertension, Heart Failure, Acute Myocardial Infarction/ IHD, Liver Disease, GI Bleeding, Diarrhoeal disorders, Nutritional and Vitamin Deficiencies, Obesity, Poisoning, Envenomation, Acute and Chronic Kidney Failure, Mineral, Fluid Electrolyte Acid base disorders, Role of Physicians in Community

II	Diabetes Mellitus, Thyroid dysfunction, Endocrine disorders, Rheumatologic Problems, Headache, Cerebrovascular Accident, Movement Disorders, Common Malignancies, Geriatrics, Pneumonia, Respiratory Medicine, Psychiatry, Dermatology, Venereology and Leprosy (DVL)
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SECOND PROFESSIONAL MBBS

Sl No	Topic Code	Topic	Learning Methods	Integration
	IM 4	Fever and febrile syndromes		
1	4. 1 4.2	Describe and discuss the febrile response and the influence of host immune status, risk factors and comorbidities on the febrile response Describe and discuss the influence of special populations on the febrile response including: the elderly, immune suppression, malignancy and neutropenia, HIV and travel	Lecture	Micro
2	4. 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)	Lecture	Micro
3	4. 4 4. 5	Describe and discuss the pathophysiology and manifestations of inflammatory causes of fever Describe and discuss the pathophysiology and manifestations of malignant causes of fever including hematologic and lymph node malignancies	Lecture	Patho Micro
4	4.8	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	Lecture	Micro
5	4.16 4.18	Enumerate the indications and describe the findings in tests of inflammation and specific rheumatologic tests, serologic testing for pathogens including HIV, bone marrow aspiration and biopsy Enumerate the indications for use of imaging in the diagnosis of febrile syndromes	Lecture	Path
6	4. 7	Discuss and describe the pathophysiology and manifestations of the sepsis syndrome	Lecture	Micro
7	4. 6 4.22	Discuss and describe the pathophysiology and manifestations of malaria Describe and discuss the pharmacology, indications, adverse reactions, interactions of antimalarial drugs and basis of resistance	Lecture	Micro
	IM25	Miscellaneous Infections		

8	25.1	Describe and discuss the response and the influence of host, immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus)	Lecture	Micro
9	25.2 25.8	Discuss and describe the common causes, pathophysiology and manifestations of these diseases Enumerate the indications for use of newer techniques in the diagnosis of these infections	Lecture	Micro
	IM23	Nutritional and Vitamin Deficiencies		
10	23.1	Discuss and describe the methods of nutritional assessment	Lecture	Physio
	23.2 23.4	in an adult and calculation of caloric requirements during illnesses Discuss and describe the causes and consequences of protein caloric malnutrition in the hospital Enumerate the indications for enteral and parenteral nutrition in critically ill patients		Biochem Paed
11	23.3	Discuss and describe the aetiology, causes, clinical manifestations, complications, diagnosis and management of common vitamin deficiencies	Lecture	Physio Biochem
	IM16	Diarrheal disorder		
12	16.1	Describe, discuss the aetiology of acute and chronic diarrhoea including infectious and noninfectious causes	Lecture	Micro
13	16.2	Describe and discuss the acute systemic consequences of diarrhoea including its impact on fluid balance	Lecture	
14	16.3	Describe and discuss the chronic effects of diarrhoea including malabsorption	Lecture	
15	16.6 16.11	Distinguish between diarrhoea and dysentery based on clinical features Enumerate the indications for stool cultures and blood cultures in patients with acute diarrhoea	Lecture	Micro
16	16.12	Enumerate and discuss the indications for further investigations including antibodies, colonoscopy, diagnostic imaging and biopsy in the diagnosis of chronic diarrhoea	Lecture	Patho
17	16.13 16.14	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for parasitic causes of diarrhoea Describe, enumerate the indications, pharmacology and side effects of drugs for bacterial and viral diarrhoea	Lecture	Pharma Micro
18	16.15 16.16 16.17	Distinguish based on the clinical presentation Crohn's disease from Ulcerative Colitis Describe and the indications, pharmacology and side effects of pharmacotherapy including immunotherapy Describe and enumerate the indications for surgery in inflammatory bowel disease	Lecture	Path Pharma Surg
	IM15	GI bleeding		

19	15. 1 15. 6	Enumerate, describe and discuss the aetiology of upper and lower GI bleeding Distinguish between upper and lower gastrointestinal bleeding based on the clinical features	Lecture	Path Surg
20	15. 3 15. 2	Describe and discuss the physiologic effects of acute blood and volume loss Enumerate, describe and discuss the evaluation and steps involved in stabilizing a patient who presents with acute volume loss and GI bleed	Lecture	Physio Path
21	15. 9 15.10	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 Enumerate the indications for endoscopy, colonoscopy and other imaging procedures in the investigation of Upper GI bleeding	Lecture	Path Surg
22	15.11	Develop, document and present a treatment plan that	Lecture	Path
	15.12	includes fluid resuscitation, blood and blood component transfusion, and specific therapy for arresting blood loss Enumerate the indications for whole blood, component and platelet transfusion and describe the clinical features and management of a mismatched transfusion		
23	15.14 15.15 15.16	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of pressors used in the treatment of Upper GI bleed Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy of acid peptic disease including Helicobacter pylori Enumerate the indications for endoscopic interventions and Surgery	Lecture	Pharma Surg
	IM 9	Anaemia		
24	9. 1 9. 2 9.7 9.8	Define, describe and classify anemia based on red blood cell size and reticulocyte count Describe and discuss the morphological characteristics, aetiology, prevalence of each of the causes of anemia Describe and discuss the meaning and utility of various components of the hemogram Describe, discuss the various tests for iron deficiency	Lecture	Path
25	9.11 9.12 9.17 9.18	Describe the indications and interpret the results of a bone marrow aspirations and biopsy Describe, develop a diagnostic plan to determine the aetiology of anemia Describe the indications for blood transfusion and the appropriate use of blood components Describe the precautions required necessary when performing a blood transfusion	Lecture	Path

THIRD PROFESSIONAL MBBS PART- I

Sl No	Topic Code	Topic	Learning Methods	Integration
	IM 8	Hypertension		
1	8. 1 8. 2	Epidemiology, aetiology and prevalence of primary and secondary hypertension Pathophysiology of hypertension	Lecture	Patho Physio
2	8. 4 8. 8	Define and classify hypertension Discuss target organ damage due to hypertension	Lecture	Path
3	8.5 8.7	Differences between primary and secondary hypertension Clinical manifestations of the various aetiologies of secondary hypertension	Lecture	Path
4	8.12 8.13	Describe the appropriate diagnostic work up based on the presumed aetiology Enumerate the indications for and interpret the results of: CBC, Urine routine, BUN, Cr, Electrolytes, Uric acid, ECG	Small group	
5	8.14	Develop an appropriate treatment plan for essential hypertension Determine the need for specialist consultation	Small group	
	8.20			
6	8.6	Define, describe, discuss and recognise hypertensive urgency	Lecture	
7	8.3	Describe and discuss the genetic basis of hypertension	SDL	
	IM14	Obesity		
8	14.1 14.2	Define and measure obesity in the Indian population Aetiology of obesity including modifiable and non-modifiable risk factors and secondary causes	Lecture	Path
9	14.3	Describe and discuss the monogenic forms of obesity	SDL	
10	14.4 14.5	Describe and discuss the impact of environmental factors -eating habits, food, work, environment, physical activity on the incidence of obesity Natural history of obesity and its complications	Lecture	Path Com Med
11	14.9 14.10	Order and interpret diagnostic tests based on the clinical diagnosis including blood glucose, lipids, thyroid function tests etc. Describe the indications and interpret the results of tests for secondary causes of obesity	Small group	
12	14.13	Describe and enumerate the indications, pharmacology and side effects of pharmacotherapy for obesity	Lecture	Pharma
13	14.14 14.15	Describe and enumerate the indications and side effects of bariatric surgery Describe and enumerate and educate patients, health care workers and the public on measures to prevent obesity and promote a healthy lifestyle	Small group	Surg

	IM21	Poisoning		
14	21.1	Describe the initial approach to the stabilisation of the patient who presents with poisoning	Lecture	Pharma
15	21.2	Enumerate the common plant poisons seen in your area and describe their toxicology, clinical features, prognosis and specific approach to detoxification	Lecture	Pharm a FMT
16	21.3	Enumerate the common corrosives used in your area and describe their toxicology, clinical features, prognosis and approach to therapy	Lecture	FMT Pharma
17	21.4	Commonly observed Drug overdose, their toxicology, clinical features, prognosis and approach	Lecture	Pharma FMT
18	21.6	Describe the medico legal aspects of suspected suicidal or homicidal poisoning and demonstrate the correct procedure to write a medico legal report on a suspected poisoning	Small group	Pharma FMT
	IM20	Envenomation		
19	20.1 20.3	Enumerate the local poisonous snakes and describe the distinguishing marks of each Describe the initial approach to the stabilisation of the patient who presents with snake bite	Lecture	FMT Pharma
20	20.6 20.7	Choose and interpret the appropriate diagnostic testing in patients with snake bites Enumerate the indications and describe the pharmacology, dose, adverse reactions, hypersensitivity reactions of anti-snake venom	Small group	Pharma
21	20.8	Describe the diagnosis, initial approach stabilisation and therapy of scorpion envenomation	Lecture	Pharma
	20.9	Describe the diagnosis initial approach stabilisation and therapy of bee sting allergy		
		Environmental Medicine		
22		Enumerate the heat-related illnesses. Discuss the clinical features and management of heat stroke	Small group	
23		Discuss the causes, clinical features, investigations and management of hypothermia. Discuss frostbite.	Small group	
24		Discuss the adverse effects and management of radiation exposure	Small group	
	IM 3	Pneumonia		
25	3. 1 3. 2	Define, discuss, describe and distinguish community acquired pneumonia, nosocomial pneumonia and aspiration pneumonia Discuss and describe the aetiologies of various kinds of pneumonia and their microbiology depending on the setting and immune status of the host	Lecture	Anatomy Patho Micro
26	3. 3	Discuss and describe the pathogenesis, presentation, natural history and complications of pneumonia	Lecture	Patho Micro
27	3.15 3.16	Describe and enumerate the indications for hospitalisation in patients with pneumonia Describe and enumerate the indications for isolation and barrier nursing in patients with pneumonia	Small group	Path Micro
28	3.17 1.19	Describe and discuss the supportive therapy in patients with pneumonia including oxygen use and indications for ventilation Discuss, describe, enumerate the indications and communicate to patients on pneumococcal and influenza vaccines	Small group	

	IM 6	HIV		
29	6. 1 6. 2	Describe and discuss the symptoms and signs of acute HIV seroconversion Define and classify HIV AIDS based on the CDC criteria	Lecture	Micro
30	6. 3	Describe and discuss the relationship between CDC count and the risk of opportunistic infections	Small group	Patho Micro
31	6.4	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related opportunistic infections	Lecture	Micro
32	6. 6	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related skin and oral lesions	Lecture	Patho Micro
33	6.5	Describe and discuss the pathogenesis, evolution and clinical features of common HIV related malignancies	Lecture	Patho Micro
34	6.9	Choose and interpret appropriate diagnostic tests to diagnose and classify the severity of HIV-AIDS including specific tests of HIV, CDC	Small group	Micro
35	6.10	Choose and interpret appropriate diagnostic tests to diagnose opportunistic infections including CBC sputum examination and cultures, blood cultures, stool analysis, CSF analysis and Chest radiograph	Small group	
36	6.11	Enumerate the indications and describe the findings for CT of the chest and brain and MRI	Small group	Radiology
37	6.12	Enumerate the indications for and interpret the results of: pulse oximetry, ABG, Chest Radiograph	Small group	
38	6.13	Indications, side effects of drugs for bacterial, viral and other types of diarrhoea	Lecture	Pharma Micro
39	6.14	Discuss and describe the principles of HAART, the classes of antiretrovirals used, adverse reactions and interactions	Lecture	Pharma
40	6.17 6.18	Discuss and describe the principles and regimens used in post exposure prophylaxis Enumerate the indications and discuss prophylactic drugs used to prevent HIV related opportunistic infections	Lecture	Pharm a Micro
41	6.22 6.23	Demonstrate understanding of ethical and legal issues regarding patient confidentiality and disclosure in patients with HIV Demonstrate a non-judgemental attitude to patients with HIV and to their lifestyles	Small group	
	IM5	Liver disease		
42	5.1 5.2	Describe and discuss the physiologic and biochemical basis of hyperbilirubinemia Describe and discuss the aetiology and pathophysiology of liver injury	Lecture	Path Physio
43	5.3	Describe and discuss the pathologic changes in various forms of liver disease	Lecture	Patho
44	5.4	Describe and discuss the epidemiology, microbiology, immunology and clinical evolution of infective (viral) hepatitis	Lecture	Path Micro
45	5.5	Describe and discuss the pathophysiology and clinical evolution of alcoholic liver disease	Lecture	Path

46	5.6	Describe and discuss the pathophysiology, clinical evolution and complications of cirrhosis and portal hypertension including ascites, spontaneous bacterial peritonitis, hepatorenal syndrome and hepatic encephalopathy	Lecture	Path
47	5.7	Enumerate and describe the causes and pathophysiology of drug induced liver injury	Small group	Path Pharma
48	5.13 5.14	Enumerate the indications for ultrasound and other imaging studies including MRCP and ERCP and describe the findings in liver Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology	Small group	Radio Surg
49	5.16	Describe and discuss the management of hepatitis, cirrhosis, portal hypertension, ascites spontaneous, bacterial peritonitis and hepatic encephalopathy	Lecture	Pharma Surg
50	5.17 5.18	Enumerate the indications, precautions and counsel patients on vaccination for hepatitis Enumerate the indications for hepatic transplantation	Small group	Micro
51	5. 8	Describe and discuss the pathophysiology, clinical evolution and complications cholelithiasis and cholecystitis	Lecture	Surg
	IM1	Heart Failure		
52	1.1	Epidemiology, pathogenesis clinical evolution and course of common causes of heart disease including: rheumatic/ valvular, ischemic, hypertrophic, inflammatory	Lecture	Path Physio
53	1.2	Describe and discuss the genetic basis of some forms of heart failure	SDL	
54	1.3	Describe and discuss the aetiology microbiology pathogenesis and clinical evolution of rheumatic fever, criteria, degree of rheumatic activity and rheumatic valvular heart disease and its complications including infective endocarditis	Lecture	Patho Physio Micro
55	1.5 1.6 1.4	Describe, discuss, differentiate the processes involved in R Vs L heart failure, systolic vs diastolic failure Describe, discuss the Compensatory mechanisms involved in heart failure including cardiac remodelling and neurohormonal adaptations Stage heart failure	Small group	Patho Physio
56	1.7 1.8	Enumerate, describe, discuss the factors that exacerbate heart failure including ischemia, arrhythmias, anaemia, thyrotoxicosis, dietary factors, drugs etc Describe, discuss the Pathogenesis, development of common arrhythmias involved in heart failure particularly atrial fibrillation	Lecture	Patho Physio
57	1.9	Describe and discuss the clinical presentation and features, diagnosis, recognition and management of acute rheumatic fever	Lecture	Patho Micro
58	1.20	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	Lecture	
59	1.21 1.23	Describe and discuss and identify the clinical features of acute and subacute endocarditis, echocardiographic findings, blood culture and sensitivity and therapy Describe, prescribe and communicate non pharmacologic management of heart failure including sodium restriction, physical activity and limitations	Small group	

60	1.24 1.25	Describe, 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 Enumerate the indications for valvuloplasty, valvotomy, coronary revascularization and cardiac transplantation	Lecture	Pharma
61	1.26 1.27	Develop document and present a management plan for patients with heart failure based on type of failure underlying aetiology Describe and discuss the role of penicillin prophylaxis in the prevention of rheumatic heart disease	Small group	Pharma Micro
62	1.28	Enumerate the causes of adult presentations of congenital heart disease and describe the distinguishing features between cyanotic and acyanotic heart disease	Small group	
	IM11	Diabetes Mellitus		
63	11.1 11.2	Define and classify diabetes Describe and discuss the epidemiology and pathogenesis and risk factors and clinical evolution of type 1 diabetes	Lecture	Patho
64	11.3	Describe and discuss the epidemiology and pathogenesis and risk factors economic impact and clinical evolution of type 2 diabetes	Lecture	Patho
65	11.4	Describe and discuss the genetic background and the influence of environment on diabetes	SDL	
66	11.5	Describe and discuss the pathogenesis and temporal evolution of microvascular and macrovascular complications of diabetes	Lecture	Path
67	11.6 11.9 11.15	Describe and discuss the pathogenesis and precipitating factors, recognition and management of diabetic emergencies Describe and recognise the clinical features of patients who present with a diabetic emergency Recognise the presentation of diabetic emergencies and outline the principles of therapy	Lecture	
68	11.14 11.22	Recognise the presentation of hypoglycaemia and outline the principles on its therapy Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment	Lecture	
69	11.16	Discuss and describe the pharmacologic therapies for diabetes their indications, contraindications, adverse reactions and interactions	Lecture	Pharma
70	11.17	Outline a therapeutic approach to therapy of T2Diabetes based on presentation, severity and complications in a cost-effective manner	Small group	
71	11.18	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	Lecture	Pharma
72	11.23	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of diabetic ketoacidosis	Lecture	
73	11.24	Describe the precipitating causes, pathophysiology, recognition, clinical features, diagnosis, stabilisation and management of Hyperosmolar non ketotic state	Lecture	

THIRD PROFESSIONAL MBBS PART -II

Sl No	Topic Code	Topic	Learning Method	Integration
	IM 2	Acute Myocardial Infarction/ IHD		
1	2.1	Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease	Integration	Patho Physio ComMed
	2.2	Discuss the aetiology of risk factors both modifiable and non-modifiable of atherosclerosis and IHD		
2	2.3	Discuss and describe the lipid cycle and the role of dyslipidemia in the pathogenesis of atherosclerosis	Integration	Biochem Path
3	2.4	Discuss and describe the pathogenesis natural history, evolution and complications of atherosclerosis and IHD	Integration	Path Physio
4	2.5	Define the various acute coronary syndromes and describe their evolution, natural history and outcomes	Lecture	Path
5	2.13	Discuss and enumerate the indications for and findings on echocardiogram, stress testing and coronary angiogram	Small group	
6	2.14	Discuss and describe the indications for admission to a coronary care unit and supportive therapy for a patient with acute coronary syndrome	Small group	
7	2.15	Discuss and describe the medications used in patients with an acute coronary syndrome based on the clinical presentation	Lecture	Pharma
8	2.16	Discuss and describe the indications for acute thrombolysis, PTCA and CABG	Small group	
9	2.17	Discuss and describe the indications and methods of cardiac rehabilitation	Small group	
10	2.18	Discuss and describe the indications, formulations, doses, side effects and monitoring for drugs used in the management of dyslipidaemia	Small group	Pharma Biochem
11	2.19	Discuss and describe the pathogenesis, recognition and management of complications of acute coronary syndromes including arrhythmias, shock, LV dysfunction, papillary muscle rupture and pericarditis	Lecture	
12	2.20	Discuss and describe the assessment and relief of pain in acute coronary syndromes	Small group	Pharma
13	2.23	Describe and discuss the indications for nitrates, anti platelet agents, gpIIb IIIa inhibitors, beta blockers, ACE inhibitors etc in the management of coronary syndromes	Integration	Pharma
	IM10	Acute Kidney Injury and Chronic renal failure		
14	10.1	Define, describe and differentiate between acute and chronic renal failure	Lecture	Path
15	10.2	Classify, describe and differentiate the pathophysiologic causes of acute renal failure	Lecture	Path
16	10.3	Describe the pathophysiology and causes of pre renal ARF, renal and post renal ARF	Lecture	Path
17	10.4	Describe the evolution, natural history and treatment of ARF	Lecture	Path
18	10.5	Describe and discuss the aetiology of CRF	Lecture	Path
	10.6	Stage Chronic Kidney Disease		
19	10.7	Describe and discuss the pathophysiology and clinical findings of uraemia	Lecture	Path

20	10.8 10.9	Classify, describe and discuss the significance of proteinuria in CKD Describe and discuss the pathophysiology of anemia and hyperparathyroidism in CKD	Lecture	Path
21	10.10	Describe, discuss the association between CKD glycemia and hypertension	Small group	Path
22	10.11	Describe and discuss the relationship between CAD risk factors and CKD and in dialysis	Small group	Path
23	10.14 10.15	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology Describe the appropriate diagnostic work up based on the presumed aetiology	Small group	
24	10.16	Enumerate the indications for and interpret the results of : renal function tests, calcium, phosphorus, PTH, urine electrolytes, osmolality, Anion gap	Small group	Path
25	10.17	Describe and calculate indices of renal function based on available laboratories including FENa (Fractional Excretion of Sodium) and CrCl (Creatinine Clearance	Small group	Path
26	10.18 10.19	Identify the ECG findings in hyperkalaemia Enumerate the indications and describe the findings in renal ultrasound	Small group	Raddiol
27	10.25	Identify and describe the priorities in the management of ARF including diet, volume management, alteration in doses of drugs, monitoring and indications for dialysis	Lecture	Pharma
28	10.26	Describe and discuss supportive therapy in CKD including diet, anti-hypertensives, glycaemic therapy, dyslipidaemia, anaemia, hyperkalaemia, hyperphosphatemia and secondary hyperparathyroidism	Lecture	
29	10.27	Describe and discuss the indications for renal dialysis	Small group	
30	10.28 10.29	Describe and discuss the indications for renal replacement therapy Describe discuss and communicate the ethical and legal issues involved in renal replacement therapy	Lecture	
31	10.30 10.31	Recognise the impact of CKD on patient's quality of life wellbeing work and family Incorporate patient preferences in to the care of CKD	Small group	
	IM12	Thyroid dysfunction		
32	12.1	Describe the epidemiology and pathogenesis of hypothyroidism and hyperthyroidism including the influence of iodine deficiency and autoimmunity in the pathogenesis of thyroid disease	Seminar	Patho Physio
33	12.2	Describe and discuss the genetic basis of some forms of thyroid dysfunction	SDL	
34	12.3	Describe and discuss the physiology of the hypothalamopituitary - thyroid axis, principles of thyroid function testing and alterations in physiologic function	Integration	Patho Physio
35	12.4	Describe and discuss the principles of radio iodine uptake in the diagnosis of thyroid disorders	Small group	
36	12.8	Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis	Small group	Surg

37	12.13	Describe the pharmacology, indications, adverse reaction, interactions of thyroxine and antithyroid drugs	Lecture	Pharma Surg
38	12.15	Describe and discuss the indications of thionamide therapy, radio iodine therapy and surgery in the management of thyrotoxicosis	Small group	Pharma Surg
		Endocrine disorders		
39		Discuss the causes, clinical features, investigations and management of Cushing's Syndrome	Lecture	
40		Discuss the causes, clinical features, investigations and management of Adrenocortical insufficiency. Discuss the management of adrenal crisis	Lecture	
41		Enumerate and discuss the causes, clinical features, investigations and management of anterior pituitary hormone deficiency	Lecture	
42		Enumerate and discuss the causes, clinical features, investigations and management of Acromegaly	Small group	
	IM17	Headache		
43	17.1	Define and classify headache and describe the presenting features, precipitating factors, aggravating and relieving factors of various kinds of headache	Lecture	Anat
44	17.2	Elicit and document and present an appropriate history including aura, precipitating aggravating and relieving factors, associated symptoms that help identify the cause of headaches	Small group	
45	17.3	Classify migraine and describe the distinguishing features between classical and non-classical forms of migraine	Small group	
46	17.5	Generate document and present a differential diagnosis based on the clinical features and prioritise the diagnosis based on the presentation	Small group	
47	17.6	Choose and interpret diagnostic testing based on the clinical diagnosis including imaging	Small group	
48	17.7 17.9	Enumerate the indications and describe the findings in the CSF in patients with meningitis Interpret the CSF findings when presented with various parameters of CSF fluid analysis	Small group	
49	17.10	Enumerate the indications for emergency care admission and immediate supportive care in patients with headache	Small group	
50	17.11 17.12	Describe indications, pharmacology, dose, side effects of abortive therapy and prophylactic therapy in migraine Describe the indications, pharmacology, dose, side effects of prophylactic therapy in migraine	Lecture	Pharma
51		Discuss the causes, clinical features and investigations of different types of meningitis	Lecture	
52	17.13	Describe the pharmacology, dose, adverse reactions and regimens of drugs used in the treatment of bacterial, tubercular and viral meningitis	Lecture	Pharma
	IM18	Cerebrovascular accident		

53	18.1	Describe the functional and the vascular anatomy of the brain	Integration	Anatomy
54	18.2	Classify cerebrovascular accidents; describe the aetiology, predisposing genetic and risk factors pathogenesis of haemorrhagic and non-haemorrhagic stroke	Integration	Path
55	18.4	Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness	Small group	
56	18.8	Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease	Small group	Path
57	18.9	Choose, interpret appropriate diagnostic and imaging test for delineating the anatomy, underlying cause of lesion	Small group	
58	18.10	Choose, interpret appropriate diagnostic testing in young patients with a cerebrovascular accident (CVA)	Lecture	
59	18.11	Describe the initial supportive management of a patient presenting with a cerebrovascular accident (CVA)	Lecture	
60	18.12 18.13	Enumerate the indications for and describe acute therapy of non-haemorrhagic stroke including the use of thrombolytic agents Enumerate the indications for and describe the role of anti-platelet agents in non-haemorrhagic stroke	Lecture	
61	18.14 18.15	Describe the initial management of a haemorrhagic stroke Enumerate the indications for surgery in a haemorrhagic stroke	Lecture	
62	18.16	Enumerate the indications describe and observe the multidisciplinary rehabilitation of patients with a CVA	Small group	
	IM19	Movement disorders		
63	19.1 19.2	Describe functional anatomy of locomotor system of brain Classify movement disorders of brain based on distribution, rhythm, repetition, exacerbating and relieving factors	Lecture	Anat Physio
64	19.7	Choose and interpret diagnostic and imaging tests in the diagnosis of movement disorders	Small group	Radiol
65	19.8	Discuss, describe the pharmacology, dose, side effects and interactions of drug therapy of Parkinson's syndrome	Lecture	Pharma
66	19.9	Enumerate indications for use of surgery and botulinum toxin in the treatment of movement disorders	Small group	Pharma
		Nervous System disorders		
67		Enumerate the causes of generalized tonic-clonic seizures. Discuss the investigations and management of Epilepsy	Lecture	
68		Discuss the causes, clinical features, and management of raised intracranial pressure	Lecture	
69		Discuss the management of status epilepticus	Small group	
70		Enumerate the causes of compressive and non-compressive myelopathy. Describe and discuss the clinical features, investigations and management of compressive myelopathy	lecture	
71		Enumerate the causes of polyneuropathy. Describe and discuss the clinical features, investigations and management of Acute Inflammatory Demyelinating Polyneuropathy	Lecture	

72		Discuss the pathophysiology, clinical features, investigations and management of Myasthenia gravis	Small group	
	IM 7	Rheumatologic problems		
73	7.1	Describe the pathophysiology of autoimmune disease	Integration	Path
74	7.2	Describe the genetic basis of autoimmune disease	SDL	
75	7.3	Classify cause of joint pain based on the pathophysiology	Lecture	
76	7.4 7.5	Develop a systematic clinical approach to joint pain based on the pathophysiology Describe and discriminate acute, subacute and chronic causes of joint pain	Lecture	Ortho
77	7.6	Discriminate, describe and discuss arthralgia from arthritis and mechanical from inflammatory causes of joint pain	Lecture	Ortho
78	7.7 7.9	Discriminate, describe and discuss distinguishing articular from periarticular complaints Describe the common signs and symptoms of articular and periarticular diseases	Lecture	Ortho
79	7.8	Determine the potential causes of joint pain based on the presenting features of joint involvement	Lecture	Ortho
80	7.10	Describe systemic manifestations of rheumatologic disease	Lecture	
81	7.13	Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology	Small groups	
82	7.14	Describe the appropriate diagnostic work up based on the presumed aetiology	Small groups	Path
	7.15	Enumerate the indications for and interpret the results of : CBC, anti- CCP, RA, ANA, DNA, other tests of autoimmunity		
83	7.16 7.17	Enumerate the indications for arthrocentesis Enumerate the indications and interpret plain radiographs of joint	Small groups	Ortho Radiol
84	7.19	Develop an appropriate treatment plan for patients with rheumatologic diseases	Small groups	
85		Describe and discuss the pathophysiology, clinical features, investigations and management of Systemic lupus erythematosus	Lecture	
86		Describe and discuss the pathophysiology, clinical features, investigations and management of Systemic sclerosis Discuss Mixed connective tissue disease	Lecture	
87		Describe and discuss the pathophysiology, clinical features, investigations and management of Rheumatoid arthritis	Lecture	
88		Enumerate the different Spondyloarthropathies. Discuss the clinical features, investigations and management of Ankylosing spondylitis	Lecture	
89		Discuss the clinical features, investigations and management of Reactive arthritis	Small group	
	IM13	Common malignancies		
90	13.1	Describe the clinical epidemiology and inherited & modifiable risk factors for common malignancies in India	Lecture	Path
91	13.2	Describe the genetic basis of selected cancer	SDL	

92	13.3	Describe the relationship between infection and cancer	Lecture	Micro
93	13.4	Describe the natural history, presentation, course, complications and cause of death for common cancers	Lecture	Path
94	13.12	Indications, interpretation of results of Chest X Ray, mammogram, skin and tissue biopsies, tumour markers in common cancers	Small group	Radio Path
95	13.5 13.6	Describe the common issues encountered in patients at the end of life and principles of management Describe and distinguish the difference between curative and palliative care in patients with cancer	Small group	
96	13.13 13.17	Describe and assess pain and suffering objectively in a patient with cancer Describe and enumerate the indications, use, side effects of narcotics in pain alleviation in patients with cancer	Small group	Pharma Anaesth
97	13.14	Describe the indications for surgery, radiation and chemotherapy for common malignancies	Small group	Pharma Surg
98	13.15	Describe the need, tests involved, their utility in the prevention of common malignancies	Small group	
99	13.16	Demonstrate an understanding and needs and preferences of patients when choosing curative and palliative therapy	Small group	
100	13.18	Describe and discuss the ethical and the medico legal issues involved in end of life care	Small group	
101	13.19	Describe the therapies used in alleviating suffering in patients at the end of life	Small group	
	IM24	Geriatrics		
102	24.1	Common diseases: Describe and discuss the epidemiology, pathogenesis, clinical evolution, presentation and course of common diseases in the elderly	Lecture	
103	24.3	Acute confusional states: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of acute confusional states	Lecture	
104	24.4	Vascular events - Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vascular events in the elderly	Lecture	
105	24.5	Depression : Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of depression in the elderly	Lecture	Psychiat
106	24.6	Dementia in the elderly - Describe and discuss the aetiopathogenesis, causes, clinical presentation, difference in discussion, presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of dementia in the elderly	Lecture	
107	24.7	Personality Changes : Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of personality changes in the elderly	Lecture	Psychiat

108	24.9	CVA : Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of CVA in the elderly	Lecture	
109	24.10	COPD- Describe and discuss the aetio-pathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of COPD in the elderly	Lecture	Resp Med
110	24.8	Osteoporosis: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of osteoporosis in the elderly	Lecture	
111	24.12	Degenerative joint disease: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of degenerative joint disease	Lecture	
112	24.13	Falls: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of falls in the elderly	Small group	
113	24.14	Common fractures: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of common fractures in the elderly	Lecture	Ortho
114	24.15	Vision and visual loss: Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of vision and visual loss in the elderly	Lecture	Optha
115	24.17	Hearing loss : Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly	Small group	ENT
116	24.16	Physiotherapy and occupational therapy : Describe and discuss the principles of physical and social rehabilitation, functional assessment, role of physiotherapy and occupational therapy in the management of disability in the elderly	Small group	Ortho
117	24.22	Nutritional disorders: Describe and discuss the aetiopathogenesis, clinical presentation, complications, assessment and management of nutritional disorders in the elderly	Small group	Physio Biochem
118	22.11	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of the elderly undergoing surgery	Lecture	Anaesth Surg
119	24.18	Impact of demographic changes: Describe the impact of the demographic changes in ageing on the population	Lecture	Com Med
120	24.19 24.20	Social problems: Enumerate and describe the social problems in the elderly including isolation, abuse, change in family structure and their impact on health Social interventions: Enumerate and describe social interventions in the care of elderly including domiciliary discussion services, rehabilitation facilities, old age homes and state interventions	Small group	Psychiat

121	24.21	Ethical issues: Enumerate and describe ethical issues in the care of the elderly	Lecture	
	IM22	Mineral, Fluid Electrolyte and Acid base Disorder		
122	22.1	Enumerate the causes of hypercalcemia and distinguish the features of PTH vs non PTH mediated	SDL	Patho Physio
123	22.2	Describe the aetiology, clinical manifestations, diagnosis and clinical approach to primary hyperparathyroidism	Small group	Patho
124	22.3	Describe the approach to the management of hypercalcemia	Lecture	Pharm
125	22.4	Enumerate the components and describe the genetic basis of the multiple endocrine neoplasia syndrome	SDL	Path
126	22.5	Enumerate the causes and describe the clinical features and the correct approach to the diagnosis and management of the patient with hyponatremia	Lecture	
127	22.6	Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyponatremia	Lecture	
127	22.7	Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hypokalaemia	Lecture	
128	22.8	Enumerate the causes and describe the clinical and laboratory features and the correct approach to the diagnosis and management of the patient with hyperkalaemia	Lecture	
129	22.9	Enumerate the causes and describe the clinical and laboratory features of metabolic acidosis	Lecture	Physio
130	22.10	Enumerate the causes of describe the clinical and laboratory features of metabolic alkalosis	Lecture	Physio
131	22.11	Enumerate the causes and describe the clinical and laboratory features of respiratory acidosis	Lecture	Physio
132	22.12	Enumerate the causes and describe the clinical and laboratory features of respiratory alkalosis	Lecture	Physio
133	22.13	Identify the underlying acid-based disorder based on an ABG report and clinical situation	Small group	
	IM26	The role of the physician in the community		
134	26.1	Enumerate and describe professional qualities and roles of a physician	Small group	
135	26.2	Describe and discuss the commitment to lifelong learning as an important part of physician growth	Small group	
136	26.3	Describe and discuss the role of non-maleficence as a guiding principle in patient care	Small group	
137	26.4	Describe and discuss the role of autonomy and shared responsibility as a guiding principle in patient care	Small group	
138	26.5	Describe and discuss the role of beneficence of a guiding principle in patient care	Small group	
139	26.6	Describe, discuss the role of physician in health care system	Small group	
140	26.7	Describe and discuss the role of justice as a guiding principle in patient care	Small group	
141	26.17	Identify, discuss physician's role and responsibility to society and the community that she/ he serves	Small group	
142	26.8	Identify discuss medicolegal, socioeconomic and ethical issues as it pertains to organ donation	Small group	

143	26.9	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as it pertains to rights, equity and justice in access to health care	Small group	
144	26.10	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to confidentiality in patient care	Small group	
145	26.11	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to patient autonomy, patient rights and shared responsibility in health care	Small group	
146	26.12	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in health care including advanced directives and surrogate decision making	Small group	
147	26.13	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to decision making in emergency care including situations where patients do not have the capability or capacity to give consent	Small group	
148	26.15	Identify, discuss and defend, medicolegal, socio-cultural and ethical issues as they pertain to consent for surgical procedures	Small group	
149	26.14	Identify, discuss and defend medicolegal, socio-cultural and ethical issues as it pertains to research in human subjects	Small group	
150	26.16	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues as it pertains to the physician patient relationship (including fiduciary duty)	Small group	
151	26.18	Identify, discuss and defend medicolegal, socio-cultural, professional and ethical issues in physician- industry relationships	Small group	
152	26.43	Identify, discuss and defend medicolegal, sociocultural, economic and ethical issues as they pertain to in vitro fertilisation donor insemination and surrogate motherhood	Small group	
153	26.44	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to medical negligence	Small group	
154	26.45	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues pertaining to malpractice	Small group	
155	26.46	Identify, discuss and defend medicolegal, socio-cultural professional and ethical issues in dealing with impaired physicians	Small group	
156	26.47	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	Small group	
157	26.48	Demonstrate altruism	Small group	

Clinical /Bedside Classes

II MBBS	4 weeks
Week 1	History taking
Week 2	History taking
Week 3	General Examination
Week 4	Systemic Examination

III MBBS Part 1	4 weeks	
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Week 1	IM 4	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 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) Generate a differential diagnosis and prioritise based on clinical features that help distinguish between infective, inflammatory, malignant and rheumatologic causes
Week 2	IM 16 IM 15	Perform, document and demonstrate a physical examination based on the history that includes general examination, including an appropriate abdominal examination 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 Perform, demonstrate and document a physical examination based on the history that includes general examination, volume assessment and appropriate abdominal examination
Week 3	IM 9	Elicit document and present a medical history that includes symptoms, risk factors including GI bleeding, prior history, medications, menstrual history, and family history for anemia Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology of anemia Describe the appropriate diagnostic work up based on the presumed aetiology of anemia
Week 4	IM 8	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 for hypertension Perform a systematic examination that includes : an accurate measurement of blood pressure, fundus examination, examination of vasculature and heart
		Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology of hypertension Perform and interpret a 12 lead ECG

III MBBS Part 2	12 weeks	
Week 1	IM 21 IM 3	Elicit and document and present an appropriate history, the circumstance, time, kind of snake, evolution of symptoms in a patient with snake bite Perform a systematic examination, document and present a physical examination that includes general examination, local examination, appropriate cardiac and neurologic examination Perform, document and demonstrate a physical examination including general examination and appropriate examination of the lungs that establishes the diagnosis, complications and severity of pneumonia Generate document and present a differential diagnosis based on the clinical features, and prioritise the diagnosis based on the presentation

Week 2	IM 5	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 Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom of liver disease Choose and interpret appropriate diagnostic tests including: CBC, bilirubin, function tests, Hepatitis serology and ascitic fluid examination in patient with liver diseases Outline a diagnostic approach to liver disease based on hyperbilirubinemia, liver function changes and hepatitis serology
Week 3	IM 6	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 Generate a differential diagnosis and prioritise based on clinical features that suggest a specific aetiology for the presenting symptom of HIV
Week 4	IM 11	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 Perform a systematic examination that establishes the diagnosis and severity of diabetes that includes skin, peripheral pulses, blood pressure measurement, fundus examination, detailed examination of the foot (pulses, nervous and deformities and injuries) 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
Week 5	IM 1	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 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 Demonstrate peripheral pulse, volume, character, quality and variation in various causes of heart failure 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 Identify and describe the timing, pitch quality conduction and significance of precordial murmurs and their variations Order and interpret diagnostic testing based on the clinical diagnosis including 12 lead ECG, Chest radiograph, blood culture Develop document and present a management plan for patients with heart failure based on type of failure, underlying aetiology

Week 6	IM 2	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 Perform, demonstrate and document a physical examination including a vascular and cardiac examination that is appropriate for the clinical presentation Distinguish and differentiate between stable and unstable angina and AMI based on the clinical presentation Order and interpret a Chest X-ray and markers of acute myocardial infarction Choose and interpret a lipid profile and identify the desirable lipid profile in the clinical context
Week 7	IM 10	Elicit document and present a medical history that will differentiate the aetiologies of disease, distinguish acute and chronic disease, identify predisposing conditions, nephrotoxic drugs and systemic causes Perform a systematic examination that establishes the diagnosis and severity including determination of volume status, presence of edema and heart failure, features of uraemia and associated systemic disease Describe and discuss the indications to perform arterial blood gas analysis: interpret the data
Week 8	IM 12	Elicit document and present an appropriate history that will establish the diagnosis cause of thyroid dysfunction and its severity 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 Demonstrate the correct technique to palpate the thyroid Generate a differential diagnosis based on the clinical presentation and prioritise it based on the most likely diagnosis Order and interpret diagnostic testing based on the clinical diagnosis including CBC, thyroid function tests and ECG and radio iodine uptake and scan Identify atrial fibrillation, pericardial effusion and bradycardia on ECG Interpret thyroid function tests in hypo and hyperthyroidism
Week 9	IM 18	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 Identify the nature of the cerebrovascular accident based on the temporal evolution and resolution of the illness Perform, demonstrate & document physical examination that includes general and a detailed neurologic examination as appropriate, based on the history Distinguish the lesion based on upper vs lower motor neuron, side, site and most probable nature of the lesion Describe the clinical features and distinguish, based on clinical examination, the various disorders of speech Describe and distinguish, based on the clinical presentation, the types of bladder dysfunction seen in CNS disease Choose and interpret the appropriate diagnostic and imaging test that will delineate the anatomy and underlying cause of the lesion

Model Question

MBBS 3rd PROF. (PART-II)9th SEMESTAR EXAMINATION-2020

MEDICINE-1

Full Marks: 100

Time: 3hrs

Answer all Questions.

Maintain the sequence of answers as per the questions.

(Draw the diagram where ever necessary)

Section- A

1. Define heart failure. Discuss the common causes, clinical feature and management of Heart Failure.
[2+3+3+2]
2. Discuss the aetiology, classification, clinical features and general management of anaemia. [3+2+2+3]
3. Write short note on: [4 x 5]
 - a) Haemochromatosis.
 - b) Nephrotic syndrome.
 - c) Gastroesophageal reflux disease.
 - d) Hypervitaminosis D.
4. Explain with reasons: [5 x 2]
 - a) Myocardial infarction is more common in early mornings in winter season
 - b) Pain in epigastrium and left shoulder could be due to myocardial ischemia
 - c) Statins to be taken preferably after dinner
 - d) Osteoporosis is common in post-menopausal women
 - e) Opportunistic infections are common in immunocompromised patients

Section – B

1. Enumerate the causes of Jaundice. How will you arrive at the aetiology of jaundice? Discuss the points of differentiation in clinical feature and investigation. [2+2+3+3]
2. Describe the pathogenesis, evolution and clinical features of common HIV related opportunistic infections. [3+3+4]
3. Write short note on: [4 x 5]
 - a) Management of Organophosphorus poisoning
 - b) Aetiopathogenesis of ascitis.
 - c) Sepsis.
 - d) Cardiac tamponade.
4. Explain with reasons: [5 x 2]
 - a) Venous thromboembolism can occur in pregnancy or puerperium
 - b) Melena occurs in upper gastrointestinal bleeding
 - c) Atropine should be given along with neostigmine in neurotoxic snake bite
 - d) Iron therapy is not helpful in sickle cell anaemia
 - e) Fever may not be a manifestation of infection in the elderly patients

MEDICINE-II

Full Marks: 100

Time: 3hrs

Answer all Questions.

Maintain the sequence of answers as per the questions.

(Draw the diagram where ever necessary)

Section - A

1. Classify epilepsy. Discuss the aetiology, clinical features, diagnosis of idiopathic epilepsy. Describe the aetiology and management of Status Epilepticus. [2+4+4]
2. Discuss the aetiology, clinical feature, investigation of bronchial asthma. Write the clinical feature and management of Status Asthmaticus. [5+5]
3. Write short note on: [4 x 5]
 - a) Disease Modifying Anti-Rheumatic Drugs
 - b) Paraneoplastic syndrome.
 - c) Norwegian Scabies.
 - d) Anxiety
4. Explain with reasons: [5 x 2]
 - a) Insulin is the drug of choice in Type 1 diabetes patients
 - b) Tuberculosis is more common in upper lobes of the lung
 - c) Antiplatelet agents should be used carefully in a patient of cerebrovascular agent
 - d) Rheumatoid arthritis is a systemic disease
 - e) An elderly patient presenting with an acute confusional state does not necessarily indicate cerebrovascular accident

Section – B

1. Discuss the aetiopathogenesis, clinical features, investigations and management of Graves' disease. Describe the thyrotoxic crisis. [2+2+2+2+2]
2. Enumerate the causes of hypoglycaemia and describe the counter hormone response and the initial approach and treatment [5+5]
3. Write short note on any three: [4 x 5]
 - a) Chronic complications of diabetes mellitus.
 - b) Miliary tuberculosis
 - c) Granulomatosis with polyangitis
 - d) Parkinson-plus syndrome
4. Explain with reasons: [5 x 2]
 - a) Hypertension is a side effect of long-term steroid therapy
 - b) Foot infections are common presentations in diabetic patients
 - c) Aspiration pneumonia is commonly seen in unconscious patients
 - d) Pruritus can be an important presentation of liver disease
 - e) Lepromatous leprosy is a progressive condition with high morbidity if untreated

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Reference Book

- Davidsion's Principles and Practice of Medicine, ELBS-Livingstone publications
- Kumar & Clark' Clinical Medicine – A textbook for medical students and doctors, ELBS publications
- Harrison's Principles of Internal Medicine, McGraw Hill publications (Reference book)
- Oxford Textbook of Medicine Vol I & II, ELBS publication (Reference book)
- Hutchison's Clinical Methods, ELBS publications
- Macleod's Clinical Examination, ELBS publications
- API textbook of Medicine