



Jinnah Medical & Dental College

Study Guide

MEDICINE



**MBBS
2025-26**

*A wise man should
consider that
health is the
greatest of human
blessings*

HIPPOCRATES

Team Members of Medicine & Allied 2025-26

Name	Committee	Department
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ABBREVIATIONS

EOM	Exam of Module
WT	Ward Test
R	Rotation
LGIS	Large group Interactive session/Lecture
CBD	Case Based Discussion
OPD	Out Patient Department
K	Knowledge
S	Skill
A	Attitude
BCQ	Best Choice Question
OSCE	Objective Structured Clinical Examination
Mini CEX	Mini Clinical Evaluation Exercises
DOPS	Direct Observation of Procedural Skills



JMDC CURRICULUM SEQUENCE: MBBS 1-5 YEARS

Year	Module 1	EOM	Module 2	EOM	Module 3	EOM	Module 4	EOM	Module 5			EOM*						
1												Exam of Module						
	Foundation-1 8 weeks		Blood-1 4 weeks		Locomotor-1 8 weeks		Respiratory-1 4 weeks		CVS-1 4 weeks									
	PAKISTAN STUDIES & ISLAMIAT																	
2	Module 6	EOM	Module 7	EOM	Module 8	EOM	Module 9	EOM	Module 10	EOM	Module 11	EOM	Module 12	EOM				
	GIT-1 4 weeks		Head & Neck-1 5 weeks		Neurosciences-1 7 weeks		Special Senses 3 weeks		Endocrine-1 5 weeks		Reproductive-1 4 weeks		Urinary-1 5 weeks					
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
3	Module 13	EOM	Module 14	EOM	Module 15	EOM	Module 16	EOM	Module 17	EOM	Module 18	EOM		EOM				
	Foundation 2 10 weeks		Blood-2 5 weeks		Locomotor-2 4 weeks		Respiratory-2 4 weeks		CVS-2 5 weeks		GIT-2 7 weeks							
	Clinical Rotations (Each Batch) WT* = Ward test																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 2 weeks		Psychiatry 2 weeks	WT	Surgery 2 weeks	WT	Orthopedics 2 weeks	WT	OBS/ GYN 2 weeks	WT	Pediatrics 2 weeks	WT	Eye 2 weeks	Ent 3 weeks	WT			
R2	Medicine 2 weeks		Psychiatry 2 weeks		Surgery 2 weeks		Orthopedics 2 weeks		OBS/ GYN 2 weeks		Pediatrics 2 weeks		Eye 2 weeks	Ent 3 weeks				
4	Module 19	EOM	Module 20	EOM	Module 21	EOM	Module 22	EOM	Module 23	EOM	Module 24	EOM	Module 25	EOM	Module 26	EOM	Module 27	EOM
	Nervous Sys & Psychiatry 2 8 weeks		H & N & SP Senses 2 (Eye) 4 weeks		H & N & SP Senses 3 (ENT) 4 weeks		Endocrinology 2 4 weeks		Repro 2 6 weeks		Urinary 2 4 weeks		Derma 2 weeks		Orthopedics 2 weeks		Rehab 2 weeks	
	Lectures Eye/ENT																	
	Clinical Rotations (Each Batch)																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 3 weeks		Psychiatry 3 weeks	WT	Surgery 3 weeks	WT	Orthopedics 3 weeks	WT	OBS/ GYN 3 weeks	WT	Pediatrics 3 weeks	WT	Eye 3 weeks	WT	Ent 3 weeks	WT		
R2	Medicine 3 weeks		WT		Surgery 3 weeks	WT			Eye 3 weeks	WT			Ent 3 weeks			WT		
	LECTURES R***= Rotation																	
5	Medicine				Surgery				OBS/Gynae				Pediatrics					
	Clinical Rotations																	
	Communication Skills Patient Safety & Infection Control Professionalism & Ethics																	
R1	Medicine 4 weeks				Surgery 4 weeks				OBS/ GYN 4 weeks				Pediatrics 4 weeks					
R2	Medicine 5 weeks				Surgery 5 weeks				OBS/ GYN 5 weeks				Pediatrics 5 weeks					

INTRODUCTION

A very warm welcome to medical students in the Medicine posting. Medicine is a combination of both basic and applied under the umbrella of medical science. It is the science and practice of caring for a patient, managing the diagnosis, prognosis, prevention, treatment, palliation of adult diseases. Medical practices vary across the world due to regional differences in culture, resources, technology and community needs. Similarly training in medicine varies considerably across the world according to the community needs. In Jinnah Medical And dental college medicine curriculum is designed over 3 years, comprising of large & small group sessions, skills training, ward duties, case-based learning, clinicopathological conferences, and tutorials.

This study guide had been developed to impart integrated teaching as a part of curriculum in Jinnah Medical and Dental College, Karachi, which will be covered in 3 years. This will benefit the students to understand the basic biomedical information in relation to clinical sciences. This study guide had been designed to introduce new entrants to the MBBS program basic concepts essential for understanding a number of topics in Medicine subject. It encompasses a variety of health care practices evolved to maintain and resolve health by the prevention and treatment of illness. Hence, it provides a framework within which learners are expected to build future competencies.

RATIONALE

The clinical teaching in Medicine specialty is designed to focus on prevention, diagnosis and treatment of adult diseases.

VISION

To set local and global standards for quality patient outcomes – creating a culture of excellence to promote a transformative experience for the 21st century clinicians, educators and researchers to benefit all humanity.

MISSION

We are committed to develop well rounded academics, thinkers, clinicians and researchers by strengthening a global view, broadening intellectual foundation and teaching effective communication. It is our aspiration to cultivate creative and critical thinking skills for problem solving, sensitive to cultural and ethical values and responsibilities. Our graduates will be role models and leaders for society.

GENERAL LEARNING OBJECTIVES

By the end of the Medicine posting, students will be able to:

1. Take proper history and perform Physical examinations of all the systems
2. Perform detail examination of abdomen, respiratory system, cardiovascular system, neurological system and musculoskeletal system.
3. Perform detail examination of Central Nervous system and discuss diseases regarding central nervous system.
4. Discuss the illnesses regarding Psychiatry.
5. Discuss the illnesses related to Dermatology.
6. Discuss the illnesses related to Cardiovascular system.
7. Describe diseases of Gastrointestinal system.
8. Explain the various diseases of Respiratory system.
9. Describe different diseases in Rheumatology.
10. Portray detail of the Blood disorders.
11. Explain the Renal disorders.
12. Discuss the Endocrine disorders & nutritional disorders.
13. Describe common Genetic disorders.
14. Discuss infectious disorders.
15. Discuss Environmental diseases.
16. Discuss the management common cases of toxicology.
17. Discuss basic knowledge of medical oncology.

MAIN CONTENT AREAS

3rd YEAR

1. History taking
2. Clinical examinations; General Physical examination, Gastrointestinal examination, Respiratory examination, Cardiovascular examination)
3. Interpretation of basic findings in CBC. LFT, PFTS
4. Basic findings in chest X ray
5. Basic findings in ECG
6. Common diseases in hematology
7. Common disease in cardiology
8. Common diseases gastroenterology
9. Common diseases in pulmonology)
10. Common diseases in locomotor system
11. Research module
12. Skill labs (1st, 2nd & 3rd year)
13. Clinical ward duties

4th YEAR

1. History taking
2. Clinical examinations;
3. Neurological disorders
4. Psychiatric disorders
5. Dermatological disorders
6. Renal disorders
7. Endocrine disorders
8. Problem Based Learning (PBL)
9. Clinico-pathological conference (CPC)

10. Skill labs
11. Clinical ward duties
12. Research module

5th YEAR

1. History taking
2. Clinical examinations;
3. Neurological disorders
4. Gastrointestinal disorders
5. Rheumatological disorders
6. Pulmonological disorders
7. Hematological disorders
8. Cardiovascular disorders
9. Renal disorders
10. Endocrine disorders & nutritional disorders.
11. Common Genetic disorders
12. Infectious disease
13. Environmental diseases & toxicology
14. Medical Oncology
15. CPC
16. Research module
17. Clinical ward duties
18. Research symposium
19. Tutorials
20. Work place-based assessment; MINICEX & DOPs

Competencies assessed in this module:

- Knowledge
- Skill
- Attitude

TEACHING / LEARNING METHODS

The teaching /learning sessions in medicine from 3rd year to final year will be of diverse types:

- a. Large group interactive sessions (Lecture).
- b. Small group teaching will include tutorials, case – based learning session.
- c. Problem – based learning sessions.
- d. Bedside Teaching in Clinical rotations at STH and MCGH.
- e. Skill laboratories sessions, for learning hands on skills.
- f. Clinico-pathological conference; in which students present unique medical cases.
- g. Clinical ward duties; to observe & assist working in medicine ward/ER/ICU.
- h. MINICEX & DOPs; Innovative teaching strategy, Work place-based assessment
- i. Self-directed learning sessions: students are expected to revise what they have learnt in the class, clear their concepts by consulting different textbooks, reference material and prepare their assignments and projects.

STUDENTS ASSESSMENT:

- For 3rd and 4th year, there will be ward test at the end of each clinical rotation as well as there will be End of module examination comprising of MCQ and 10 OSCE stations.

Summary of marks of each module exam:

Theory (BCQs) = 100 marks

OSCE (10 stations) = 100 marks

Total = 200 marks

- For final year there is continuous assessment of students throughout the year in the form of **Mini CEX** (Mini Clinical Evaluation Exercise) and **DOPS** (Direct Observation of Procedural

Skill). 4-6 sessions for each of the student. In addition, there will be a ward test at the end of each clinical rotation comprising of OSCE examination. The OSCE will have both observed and non-observed stations. Moreover, there will also midterm and pre-professional examination comprising of 100 BCQ and 10-12 OSCE stations (both observed and unobserved).

INTERNAL ASSESSMENT:

- Continuous monitoring of attendance and practical assessment in short groups.
- It may be in the form of MCQs and OSCE.
- Internal assessment carries 20% weightage.

COURSE EVALUATION:

Course evaluation will be obtained through a feedback form which will be posted on the JMDC website.

MANDATORY POLICY:

Eligibility for sitting in Professional Examinations is as follows:

- 75% overall Class Attendance.
- 75% Attendance all Clinical Wards with passing marks in all Clinical Ward Tests.
- Minimum 40% aggregate marks on all Internal Examinations (Module Tests, Midterm, Pre-Professional Examinations).
- MBBS 4th& Final Year: CPC Presentation at least once in a year.
- Skills Labs: Must be completed with passing marks.

Failure to Meet the Eligibility Requirements:

- A Student failing to meet the above listed eligibility for sitting in the professional examination will NOT be allowed to sit in 1st attempt of the Professional Examination.
The college has the right to withhold all students who however, not met the eligibility requirements from sitting in the 1st attempt.
- Such students who have been withheld from sitting in the 1st attempt of the Professional exam because of failure to meet the eligibility requirements will be allowed only to sit in the retake of that examination.
It is expected that deficiency in requirements of Professional communication assignments, Behavioral Sciences & Research Module assessments, journal Club presentations, CPC, Skills Labs must be made up and fulfilled before a student will allowed to sit in the retake exam.

DETAILS OF ATTENDANCE POLICY:

The CR is responsible to bring attendance sheets from Student Affairs Office to each class. At the end of class, the attendance sheet must be signed and returned by the faculty member to the Student Affairs Office. No attendance sheets from students will be accepted.

These attendances will be compiled together as follows:

LECTURE ATTENDANCE = # Lectures Attended / Total # of Lectures

PRACTICAL ATTENDANCE = # Practicals Attended / Total # of Practicals

TUTORIAL ATTENDANCE = # Tutorials Attended / Total # of Tutorials

FINAL CLASS ATTENDANCE =

%Lecture Attendance + %Tutorial Attendance + %Practical Attendance

RECOMMENDED READING MATERIAL

➤ GENERAL MEDICINE

Text books:

- Davidson's Principles and Practice of Medicine
- Kumar and Clark's Clinical Medicine
- MacLeod's clinical examination 13th edition
- Bedside techniques of clinical examination edition 5

➤ PSYCHIATRY

- Oxford textbook of psychiatry by Michael G. Gelder, 2nd Edition

➤ Additional Learning Resources

- <https://www.medscape.com>
- <https://www.uptodate.com/login>

MEDICINE

Organization

Time requirements:

1st year = 1.5 hours

2nd year = 3 hours

General Medicine

3rd year = 92.5 hour

4th year = 212 hours

5th year = 379 hours

Total = 688 hours Dedicated hours

THIRD YEAR MBBS

THIRD YEAR MBBS

LECTURES, SKILL LABS & CLINICAL ROTATIONS

Sr. No	LEARNING OBJECTIVES At the end of the clinical rotation the students will be able to:	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
FOUNDATION MODULE				
1	<ul style="list-style-type: none"> Take proper history (K) (S) (A) 	History taking	Bedside teaching 2 h	OSCE
2	<ul style="list-style-type: none"> Perform General physical examination (K) (S) (A) 	General physical Examination	Bedside teaching 2 h	OSCE
GIT MODULE				
3	<ul style="list-style-type: none"> Correctly perform abdominal examination (K) (S) (A) 	Abdominal examination	Bedside teaching 2 hours Skill lab=1.5h	OSCE
4	<ul style="list-style-type: none"> Interpret Liver function tests (K) 	Liver function tests	Case base discussion 1 h	OSCE
5	<ul style="list-style-type: none"> Identify, explain indications, contra-indication, and complications of NG tube. Demonstrate the procedure on mannequin. (K) (S) 	Nasogastric tube	Demonstrations/ skill lab 1.5 h	OSCE
6	<ul style="list-style-type: none"> Describe causes, investigation & management of epigastric pain (K) 	Approach to Patient with Epigastric Pain	Lecture-50 min	BCQ

7	<ul style="list-style-type: none"> Elaborate causes, investigation & management of jaundice (K) 	Approach to Patient with Jaundice	Lecture-50min	BCQ
8	<ul style="list-style-type: none"> Explain causes, investigation & management of acute & chronic diarrhea (K) 	Approach to Patient with diarrhea	Lecture-50min	BCQ
RESPIRATORY MODULE				
9	<ul style="list-style-type: none"> Perform all steps of respiratory examination (K) (S) (A) 	Respiratory examination	Bedside Teaching- 2h + Skill lab -1.5h	OSCE
10	<ul style="list-style-type: none"> Interpret basic finding in Chest radiograph (K) (S) 	X ray chest	Demonstrations 1 hour	OSCE
11	<ul style="list-style-type: none"> Depict basic knowledge of Lung function test parameters Differentiate between obstructive & restrictive patterns on PFT report. Demonstrate correct inhaler's techniques (K) (S) 	Pulmonary Function Tests (PFT) and Inhalers	Demonstrations 1 hour	OSCE
12	<ul style="list-style-type: none"> Portray basic parameters in ABGs Differentiate by metabolic & respiratory disorders in ABGs. (K) 	ABG Interpretation	Demonstrations 1 hour	OSCE
13	<ul style="list-style-type: none"> Describe the clinical features, differential diagnosis, complications, grading and investigations for Asthma Elaborate the emergency and long-term treatment of Asthma (K) 	Asthma	Lecture-50 min	BCQ

14	<ul style="list-style-type: none"> Explain the etiology, clinical features, investigations Discuss the treatment plan and prevention of COPD Explain the smoking cessation counseling (K, A) 	COPD	Lecture-50 min	BCQ
15	<ul style="list-style-type: none"> Classify Pneumonia Explain the etiology, clinical features, investigations & treatment plan and vaccination (K) 	Pneumonia	Lecture-50min	BCQ
16	<ul style="list-style-type: none"> Classify Tuberculosis Describe the etiology, transmission clinical features and investigations & treatment prevention of TB. Briefly discuss the first line ATT and their side effects. (K) 	Pulmonary Tuberculosis	Lecture-50 min	BCQ
CVS MODULE				
17	<ul style="list-style-type: none"> Perform Cardiovascular examination (K) (S) (A) 	Cardiovascular examination	Bedside teaching-2h + Skill lab-1 hour	OSCE
18	<ul style="list-style-type: none"> Demonstrate ECG recording on simulator Explain basics of ECG paper, ECG leads & waves. Interpret ECGs related to various common cardiac conditions (MI, tachy & brady Arrhythmias) (K) (S) (A) 	Electrocardiogram	Lecture-50 min Skill lab-1.5h	OSCE
19	<ul style="list-style-type: none"> Define cardiac & non-cardiac chest pain Explain causes, clinical presentations, work up for 	Approach to Patients with chest pain	Lecture-50 min	BCQ

	patients with chest pain- (K)			
LOCOMOTOR MODULE				
20	<ul style="list-style-type: none"> Describe the etiology, pathogenesis, clinical features, investigations management for each of the conditions (K) 	Osteoporosis, Ricketts and Osteomalacia	Lecture-50 min	BCQ
21	<ul style="list-style-type: none"> Describe pathogenesis, clinical features, investigations management plan for Osteoarthritis (K) 	Osteoarthritis	Lecture-50 min	BCQ
22	<ul style="list-style-type: none"> Explain the pathology, clinical features, investigations, management of Rheumatoid Arthritis & Seronegative Spondyloarthropathies (K) 	Inflammatory Arthritis	Lecture-50 min	BCQ
BLOOD MODULE				
23	<ul style="list-style-type: none"> Define anemia Discuss etiology, clinical presentations, work up & management relevant for anemia (K) 	Approach to Patients with Anemia	Lecture-50 min	BCQ
24	<ul style="list-style-type: none"> Enumerate common bleeding disorders (Hemophilia, DIC, VWF) Briefly describe the pathogenesis, clinical features, investigations & management of each. (K) 	Approach to Patients with Bleeding Disorders (Hemophilia, VWFD, DIC)	Lecture-50 min	BCQ
25	<ul style="list-style-type: none"> Describe the indication, contraindications & complications of IM injection Demonstrate IM, SC and IV injection technique on mannequin (K) (S) (A) 	Injection Techniques	Skill lab -1.5h	OSCE

FOURTH YEAR MBBS

FOURTH YEAR MBBS

LECTURES, SKILLS LABS & CLINICAL ROTATION

NEUROLOGY				
Sr. No.	LEARNING OBJECTIVES At the end of this module the students will be able to:	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take concise history of patient with neurological symptoms (headache, fits, syncope, focal neurological deficit) Present the history correctly.	History taking in neurology	Bedside Teaching 1.5 hour	OSCE
2	<ul style="list-style-type: none"> Perform CNS examination with proper steps on simulated patient. (K) (S) (A)	CNS Examination	Bedside teaching-2h + Skills lab-1.5h	OSCE
3	<ul style="list-style-type: none"> Identify Lumber puncture needle Explain uses and contraindications & procedure complications of Lumber puncture Demonstrate the procedure on mannequin. (S)	Lumber puncture	Skills lab-1.5h	OSCE
4	<ul style="list-style-type: none"> Discuss the normal parameters in CT/MRI brain and CSF report Discuss common abnormalities on CT/ MRI & CSF DR. 	Common investigations in neurology	Skills lab-1.5h	OSCE
5	<ul style="list-style-type: none"> List the differentials based on detailed history, clinical presentation and neurological findings. Identify the likely site/s of a lesion in the nervous system based on patient's symptoms and signs. (K) (S)	Lesion localization	Lecture-50mins + Bedside Teaching 1 hour	BCQs/ OSCE

6	<ul style="list-style-type: none"> List the causes of cranial nerve Pathologies Describe the clinical features, causes, investigations and management plan of common cranial nerve lesions (esp. Optic, Oculomotor, Trigeminal, Facial and Glossopharyngeal nerves.) (K), (S)	Lesion of cranial nerve.	Lecture 50mins + Bedside Teaching 1 hour	BCQs/ OSCE
7	<ul style="list-style-type: none"> Define CVA and its types Discuss the risk factors, etiology, pathophysiology, clinical features, investigations & complications. Explain the outline of management plan for CVA (K)	Cerebro-Vascular Accident (CVA)	Lecture 50mins + Bedside Teaching 1 hour	BCQ
8	<ul style="list-style-type: none"> Enumerate various types of headaches Explain history taking technique for a patient with headache Differentiate bw migraine and tension headache. Discuss etiology, triggers, clinical presentations, immediate and long-term management for migraine, tension and cluster headache (K) (S)	Approach to headache	Lecture 50mins + Bedside teaching 1 hour	BCQs/ OSCE
9	<ul style="list-style-type: none"> Define seizures, epilepsy & status epilepticus Classify epilepsy Classify types of seizures clinically List most common causes of seizures 	Epilepsy and status epilepticus	Lecture 50mins + Bedside teaching 1 hour	BCQs/ OSCE

	<ul style="list-style-type: none"> Discuss the work up & management Counsel the patient regarding hazards & risk of injury. Discuss management of status epilepticus (K) (A)			
10	<ul style="list-style-type: none"> Classify Meningitis List the causative organisms Discuss the possible complications of Meningitis Interpret the CSF studies in patients with various types of meningitis Explain clinical presentation, investigation findings and treatment, complications, vaccination for meningitis (K)	Meningitis	Lecture - 50mins + Bedside teaching 1 hour	BCQs/ OSCE
11	<ul style="list-style-type: none"> Define Encephalitis List the causative organisms Explain clinical presentation, investigation findings and treatment & complications for meningitis (K)	Encephalitis	Lecture 50mins	BCQs
12	<ul style="list-style-type: none"> Discuss the clinical features, pathogenesis & differential diagnosis of Parkinson's disease (PD) Explain the investigations, management plan & complications for PD (K)	Parkinson's Disease	Lecture 50mins + Bedside teaching + CBD 1 hour	BCQs/OSCE
13	<ul style="list-style-type: none"> List the common CNS and PNS demyelinating diseases Discuss the epidemiology, pathogenesis, clinical 	Multiple sclerosis (MS) and other demyelinating diseases	Lecture 50mins + CBD 1 hour	BCQ

	<ul style="list-style-type: none"> • presentation, investigations, differential diagnosis and • Management of MS. 			
14	<ul style="list-style-type: none"> • Describe the pathophysiology of Myasthenia Gravis • Explain its clinical features & investigations • Discuss the management of Myasthenia Gravis and its complications (K)	Myasthenia gravis	Lecture 50mins + CBD 1 hour	BCQ
15	<ul style="list-style-type: none"> • Discuss the transmission, incubation period, etiology, clinical features, investigations, • prophylaxis and treatment of each of the conditions (K)	Rabies, Tetanus and Botulism	Lecture 50mins	BCQ
16	<ul style="list-style-type: none"> • Explain level of consciousness & GCS scoring • Demonstrate screening for orientation, behavior, speech, intelligence memory • Screen for primitive reflexes • Identify their abnormalities and impairment 	Higher mental functions	Lecture 50mins + Bedside teaching 1 hour	MCQ/OSCE

PSYCHIATRY

Sr. No.	LEARNING OBJECTIVES At the end of the clinical rotation the students will be able to:	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take concise history of patient with psychiatric symptoms Present the history correctly. 	History taking in Psychiatry	Bedside Teaching 2 hours	OSCE
2	<p>Define:</p> <ul style="list-style-type: none"> The concept of health and mental health The role of biological, psychological and social factors in custom continuation and healing of illness. <p>Describe:</p> <ul style="list-style-type: none"> Positive mental health. The role of personality, attitudes, attributes, impact of family society, social factors and cultures on the etiology, presentation and the management of illness. Discuss the management of illness Differentiate between Psychiatry and Psychology 	Introduction to Mental Health and Biopsychosocial method and Non-pharmacological intervention	Lecture 50mins + CBD/bedside teaching	BCQs + OSCE
3	<ul style="list-style-type: none"> Define counseling. Enumerate some basics dos and don'ts of counseling. Discuss: <ul style="list-style-type: none"> Attending and listening, verbal techniques and role of empathy in healing of illness The role of counseling, informational care and handling difficult patients and their families 	Counseling & Psychotherapy	Lecture 50mins + CBD/bedside teaching	BCQs/ OSCE

	<ul style="list-style-type: none"> • Describe: <ul style="list-style-type: none"> - The prerequisites of counseling/ psychotherapy - The basic rules of counseling - Explain rules and boundaries setting of counseling. • Differentiate among: <ul style="list-style-type: none"> - Counseling, psychotherapy and active listening. - Various types of psychotherapies/counseling. - Boundary and barrier. - Empathy, sympathy and apathy 			
4	<ul style="list-style-type: none"> • List the application of biopsychosocial model in communicating with patient & his family. • Discuss: <ul style="list-style-type: none"> - The methods to address the concerns and emotional reactions of patients. - Disclosure models of breaking bad news and management of the related issues 	Breaking bad news	Lecture 50mins + CBD	BCQs /OSCE
5	<ul style="list-style-type: none"> • Define normal and abnormal anxiety • Describe the presentation of anxiety disorders • Discuss their etiological theories. • Distinguish the essential features of: <ul style="list-style-type: none"> - Generalized anxiety disorder (GAD) - Panic attacks and panic disorder - Phobias (Specific, Agoraphobia and Social Phobia) - Obsessive compulsive disorder (OCD) - Acute stress reaction and - Post-traumatic stress disorder (PTSD) 	Anxiety disorders- I; Introduction, types & etiology	Lecture 50mins + CBD	BCQs & OSCE

6	<ul style="list-style-type: none"> • Discuss the clinical features and etiology of PTSD and Acute stress reaction. • Explain the causes of PTSD, Acute Stress Disorder and Obsessive Compulsive Disorder. • Describe the management of these disorders 	Anxiety disorders- II; differentiating points, diagnosis & management	Lecture 50mins + CBD	BCQs & OSCE
7	<ul style="list-style-type: none"> • List the common risk factors for mood and depressive disorders • Discuss their management • Describe the diagnostic criteria for mood disorders 	Depressive disorders	Lecture 50mins + CBD	BCQs & OSCE
8	<ul style="list-style-type: none"> • Define self-harm and suicide List: • The risk factor of self-harm and suicide • The common causes of self-harm and suicide Discuss suicide risk assessment, prevention and management plan 	Self-harm, and Suicide	Lecture 50mins + CBD	BCQs & OSCE
9	<ul style="list-style-type: none"> • List the common risk factors and co-morbid for bipolar affective disorder. • Discuss the management of bipolar affective disorder. • Describe the diagnostic criteria and types of bipolar affective disorder 	Bipolar Affective disorder	Lecture 50mins + CBD	BCQs & OSCE
10	<ul style="list-style-type: none"> • Discuss: <ul style="list-style-type: none"> - The assessment of medically unexplained symptoms according to their severity - The management of these condition including a stepped approach • Describe the diagnostic approach for patients with 	Somatic and Medically Unexplained Symptoms	Lecture 50mins + CBD	BCQs & OSCE

	fits/attack (Epilepsy vs Convulsion disorder) <ul style="list-style-type: none"> • Explain the approach for establishing an appropriate diagnosis 			
11	<ul style="list-style-type: none"> • Explain the concept of Psychosis and its presentation, and prevalence of various psychotic disorders • Diagnose Acute Psychotic disorders, schizophrenia, and Delusional disorders based on given criteria • Discuss the principles of treatment of schizophrenia and other psychotic disorders. • Describe their etiological factors and prevalence 	Schizophrenia and related disorders	Lecture 50mins + OSCE	BCQs & OSCE
12	<ul style="list-style-type: none"> • Define Addiction. • Classify drugs of addiction • Discuss: <ul style="list-style-type: none"> - The behavioral issues related to addiction ✓ The effects of alcohol and other illicit drugs on the body (cannabis, opioids, cocaine, amphetamines and LSD). • Describe: <ul style="list-style-type: none"> - The modes of action of alcohol and other illicit drugs - Delirium tremens - The impact of suddenly stopping the use of addictive drugs. • Explain the psychological, emotional, physical and social insults of these drugs • Differentiate among: <ul style="list-style-type: none"> - Harm minimization and drug eradication 	Disorders of Addictive Behavior / Alcohol & Other Substance use	Lecture 50mins + CBD	BCQs & OSCE

	<ul style="list-style-type: none"> - Tolerance, excessive use, abuse/misuse, dependence, withdrawal and intoxication 			
13	<ul style="list-style-type: none"> • Discuss different types of psychosexual disorders. • Describe their characteristic features, etiology and prevalence. • Explain principles of management of these conditions 	Psychosexual disorders	Lecture 50mins + CBD	BCQs & OSCE
14	<ul style="list-style-type: none"> • Categorize mental health disorders (such as emotional disorders, behavior disorders) in children and adolescents. • Discuss: <ul style="list-style-type: none"> - The presentation of various childhood psychiatric disorders, i.e. Attention deficit hyperactive disorder (ADHD), Autism Spectrum Disorder, Depressive disorder and Mental Retardation - The factors impacting childhood mental and emotional health. • Describe the use of multimodal treatment 	Introduction to childhood psychiatric disorders	Lecture 50mins + CBD	BCQs & OSCE
15	<ul style="list-style-type: none"> • Name standardized assessment tools. • Describe: <ul style="list-style-type: none"> - The variations in presenting psychiatric symptoms in this age group - The use of multimodal treatment in old age patients • Discuss: <ul style="list-style-type: none"> - The use of assessment tool in measuring cognitive impairment 	Introduction to old age psychiatric disorders, Delirium and Dementia	Lecture 50mins + CBD	BCQs & OSCE

	<ul style="list-style-type: none"> - The clinical assessment and differential diagnosis of an elderly patient with delirium - The differential diagnosis of a patient presenting with cognitive impairment suggestive of dementia. • Explain: <ul style="list-style-type: none"> - The high likelihood of co-morbidity in old age group - The salient features of delirium and dementia. • Diagnose common psychiatric illnesses in the geriatric group. • Compare features of dementia versus delirium 			
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DERMATOLOGY

Sr. No	LEARNING OBJECTIVES	CONTENT AREA	LEARNING ACTIVITIES (Duration)	ASSESSMENT
	At the end of this module students will be able to:			
1	<ul style="list-style-type: none"> • Take concise history of patient with dermatological complains. Present the history correctly.	History taking in dermatology	Bedside Teaching 2 hours	OSCE
2	<ul style="list-style-type: none"> • Classify skin lesions. • Define common terminologies; primary and secondary dermal and epidermal lesions, • Describe Macule, patch, papule, plaque, vesicle, bullae, pustule, nodule, wheal, excoriation, and exfoliation. • Identify erosion, ulcer, erythema, purpura, lichenification, telangiectasia, ecchymosis 	Basics skin terminologies	Lecture 50mins + Bedside teaching 2 hours	BCQ/ OSCE

	<p>granulosis, spongiosis and hyperkeratosis.</p> <ul style="list-style-type: none"> • Diagnose common dermatologic conditions based on information provided in written scenarios, photographs or by simulated patients. (K) 			
3	<ul style="list-style-type: none"> • Enumerate common bacterial infections of skin • Classify Impetigo, Ecthyma, Cellulitis, Folliculitis, Furuncle, Carbuncle, Erysipelas, and necrotizing Fasciitis, according to depth of skin layers and causative organisms. • Briefly discuss their clinical presentation and epidemiology, transmission, etiology, investigations, management, complication of each bacterial infection (K)(S)(A) 	Bacterial infections	<p>Lecture 50mins + Bedside Teaching + CBD (2hour)</p>	BCQ/ OSCE
4	<ul style="list-style-type: none"> • Enumerate common viral infections of skin. • Explain the clinical presentation, etiology, transmission, risk factors of Herpes Simplex and Zoster, Chicken Pox, Viral warts, and Molluscum Contagiosum. • Discuss the relevant investigations & management, complications & prevention/vaccination. (K)(S)(A) 	Viral Infections	<p>Lecture 50mins + Bedside Teaching + CBD (2 hour)</p>	BCQ/ OSCE
5	<ul style="list-style-type: none"> • Classify common fungal skin infections. • Discuss Dermatophyte infections, Candida Albicans, and Pityriasis Versicolor 	Fungal Infections	<p>Lecture 50mins + Bedside Teaching +</p>	BCQ/ OSCE

	<ul style="list-style-type: none"> Explain transmission, risk factors, etiology, clinical presentation, work up, management, complications & prevention. (K)(S)(A)		CBD (1 hour)	
6	<ul style="list-style-type: none"> Discuss the transmission, risk factors, etiology, clinical presentation, treatment & complications of Scabies, Pediculosis and Leishmaniasis (K)(S)(A) 	Parasitic infections	Lecture 50mins + Bedside Teaching + CBD (2hour)	BCQ/ OSCE
7	<ul style="list-style-type: none"> Classify STDs. Discuss the risk factors, etiology, clinical presentation of Gonorrhea, Chancroid, Syphilis, Lymphogranuloma Venerum (LGV) and Granuloma Inguinale. Describe management, complications & prevention. Counselling regarding infection control & transmission. (K) (S) (A)	Sexually transmitted diseases	Lecture 50mins + Bedside Teaching (2hour)	BCQ/ OSCE
8	<ul style="list-style-type: none"> Discuss various types/severity of Acne Explain the causes/pathogenesis and clinical presentations of acne Discuss different treatment modalities in acne (K)(S)(A)	Acne	Lecture 50mins + Bedside Teaching + CBD (2 hour)	BCQ/ OSCE
9	<ul style="list-style-type: none"> Define eczema Discuss various types of eczema Discuss pathogenesis, clinical presentations, and management plan of eczema (K)(S)	Eczema	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE

10	<ul style="list-style-type: none"> Discuss various types, causes/pathogenesis and clinical presentations. associated disorders, complications and treatment modalities in psoriasis. (K)(S) 	Psoriasis	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE
11	<ul style="list-style-type: none"> Describe the lesions, causes/pathogenesis and clinical presentations and different treatment modalities in lichen planus (K)(S) 	Lichen Planus	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE
12	<ul style="list-style-type: none"> Classify various types of leprosy. Explain etiology, transmission, clinical presentation, diagnosis, treatment & complications (K)(S)(A) 	Leprosy	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE
13	<ul style="list-style-type: none"> Discuss various types causes/pathogenesis and trigger factors. Describe clinical presentations, work up and different treatment modalities in urticaria. (K)(S)(A) 	Urticaria	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE
14	<ul style="list-style-type: none"> Define Steven Johnson Syndrome, Toxic Epidermal Necrolysis and Erythema Multiformis. Discuss etiology, clinical presentation treatment & prevention of these lesions (K)(S)(A) 	Cutaneous drugs reactions	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE

15	<ul style="list-style-type: none"> Define bullous disorders Classify bullous disorders Discuss clinical presentation and treatment of Pemphigus Vulgaris, Bullous Pemphigoid, Dermatitis Herpetiformis and Epidermolysis Bullosa (K)(S)(A) 	Bullous disorder	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE
16	<ul style="list-style-type: none"> Discuss skin changes associated with SLE, Thyroid disorders, Diabetes Mellitus, Hepatic disorders, Kidney disorders, and Malignancies (e.g. Para-Neoplastic Syndrome) (K)(S)(A) 	Cutaneous Manifestations of Systemic Diseases	Lecture 50mins + Bedside Teaching + CBD (1hour)	BCQ/ OSCE

ENDOCRINE DISORDERS

S. No.	LEARNING OBJECTIVES At the end of this UNIT, students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take concise history of patient with endocrine symptoms Present the history correctly.	History taking in endocrinology	Bedside Teaching 1 hour	OSCE
2	<ul style="list-style-type: none"> Perform endocrine examination of patient with diabetes and thyroid dysfunction. (K, S) 	Endocrine Examination	Bedside Teaching 1. hour	OSCE
3	<ul style="list-style-type: none"> Discuss normal pituitary functions. Describe causes, clinical features, investigation, management of pan-hypopituitarism (K)(S) 	Hypo-pituitarism,	Lecture 50mins + CBD -1 hour	BCQs/ OSCE

4	<ul style="list-style-type: none"> Explain the causes, clinical features, investigation, management of Hyperpituitarism, acromegaly (K)(S) 	Hyperpituitarism & acromegaly	Lecture 50mins + CBD -1 hour	BCQs/ OSCE
5	<ul style="list-style-type: none"> Define Diabetes Mellitus Discuss types, risk factors, pathogenesis, clinical features, investigation, and diagnostic criteria. Explain the details of management & complications of diabetes. Discuss the oral medications & types of insulin therapy and their side effects. (K)(S)(A) 	Diabetes Mellitus	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
6	<ul style="list-style-type: none"> Discuss normal function of thyroid hormones. Explain the causes, clinical features, investigation, management of hyperthyroidism (K)(S) 	Hyperthyroidism	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
7	<ul style="list-style-type: none"> Discuss normal function of thyroid hormones. Explain the causes, clinical features, investigation, management of hypo-thyroidism (K)(S) 	Hypo-thyroidism	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
8	<ul style="list-style-type: none"> Discuss normal adrenal functions Describe etiology, clinical features, investigation, management of Cushing's syndrome (K)(S) 	Cushing syndrome	Lecture 50mins + CBD-1h	BCQs / OSCE
9	<ul style="list-style-type: none"> Describe etiology, pathogenesis, clinical features, investigation, management of Addison's disease Discuss the management acute adrenal crises. (K) 	Addison's Disease	Lecture 50mins + CBD-1h	BCQs /OSCE

URINARY MODULE

S. No	LEARNING OBJECTIVES At the completion of this unit the students will be able to:	CONTENT	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take concise history of patient with nephrology symptoms. Present the history correctly. 	History taking in nephrology	Bedside Teaching 1. hour + tutorial	OSCE
2	<ul style="list-style-type: none"> Explain basic parameters in urine detailed report Identify proteinuria, hematuria & infection from urine report (S) 	Interpretations of urine D/R	Bedside teaching 1 hour	OSCE
3	<ul style="list-style-type: none"> Define acute kidney injury Explain the etiology, pathogenesis, clinical features, investigation, management, indication of dialysis, complications and prognosis of Acute Kidney injury (K)(S) 	Acute kidney injury	Lecture 50mins + CBD/ Bedside teaching 1 hour	BCQs/ OSCE
4	<ul style="list-style-type: none"> Define staging of CKD Explain the etiology, pathogenesis, clinical feature, investigation, management, renal replacement therapies, complications and management of complications prognosis of chronic kidney disease (K)(S) 	Chronic Kidney disease (CKD)	Lecture 50mins + CBD/ Bedside teaching 1 hour	BCQs/ OSCE
5	<ul style="list-style-type: none"> Define Cystic kidney diseases Explain the types, etiology, pathogenesis, clinical features, investigation, management, complications and prognosis of cystic kidney diseases (K) 	Cystic diseases of kidney	Lecture-50mins	BCQs

6	<ul style="list-style-type: none"> Explain the types, etiology/risk factors pathogenesis, clinical features, investigation, management, complications and prevention of recurrent UTI (K)(S)	Urinary Tract Infection	Lecture 50mins + CBD 1 hour	BCQs/ OSCE
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FINAL YEAR

FINAL YEAR MBBS

LECTURES, CLINICAL ROTATIONS, TUTORIALS, WARD DUTIES

NEUROLOGY

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING Activities (Duration)	ASSESSMENT
	At the end of this unit, the students will be able to:			
1	<ul style="list-style-type: none"> Take concise history of patient with neurological symptoms (headache, fits, syncope, focal neurological deficit) Present the history correctly. 	History taking in neurology	Bedside Teaching 1.5 hour	OSCE
2	<ul style="list-style-type: none"> Perform all components of CNS examination with proper steps on simulated patient (K, S) 	CNS Examination	Bedside Teaching 1.5 hour	OSCE
3	<ul style="list-style-type: none"> Enumerate common acute & chronic CNS infections Describe the causes, clinical features & investigations of CNS infections. Interpret the CSF studies in a patient with CNS infection Describe the possible complications Explain the treatment plan (K) 	Acute & Chronic CNS infections	Lecture =50 min + Bedside Teaching/CBD	BCQ/ OSCE
4	<ul style="list-style-type: none"> Define stupor,coma & vegetative state Explain MMS& GCS scales Describe various causes, work up, investigations & management of Coma. Discuss the complications and long-term management 	Coma	Lecture= 50mins + Bedside Teaching/ CBD	BCQs

	of a patient in persistent coma. (K, S, A)			
5	<ul style="list-style-type: none"> Describe clinical presentation of a patient with extra-pyramidal conditions. Elaborate the pathogenesis investigations, treatment & complications of tremors, Huntington's disease, Wilson's disease. Discuss approach to a patient with PD (K) (S) (A)	Diseases of Extra - pyramidal conditions: PD, Tremors, Huntington's disease, Wilson's disease	Lecture= 50mins + Bedside Teaching/ CBD	BCQs / OSCE
6	<ul style="list-style-type: none"> Define the terms stroke Describe various types, causes of stroke Discuss the investigations, treatment & complication of Cerebrovascular Accidents Discuss the long-term management plan & prevention of Cerebrovascular Accidents (K) (S) (A)	Cerebrovascular Accidents -stroke	Lecture 50mins + Bedside teaching + CBD	BCQs / OSCE
7	<ul style="list-style-type: none"> Define motor neuron diseases Discuss various types, clinical presentations, investigations, management & complication of motor neuron disease. Describe various types, clinical features, work up, management & complications of Myasthenia gravis. (K, S)	Motor Neuron Disease & Myasthenia Gravis	Lecture 50mins + Bedside teaching	BCQs
8	<ul style="list-style-type: none"> Describe various types, pathogenesis, clinical features, investigations, management, complications of myopathies & muscle dystrophies. (K, S, A)	Myopathies and Muscle Dystrophies	Lecture 50mins + Bedside teaching	BCQs
9	<ul style="list-style-type: none"> Describe, etiology types, pathogenesis, diagnostic criteria, clinical features, investigations, management, complications and 	Polyneuropathies/, GBS & Polio	Lecture 50mins +	BCQ/ OSCE

	<p>recent advances of polyneuropathies/GBS</p> <ul style="list-style-type: none"> • Elaborate the clinical differentiation in between GBS & polio • Discuss the types, transmission, clinical features, investigations, treatment, complications & prevention of poliomyelitis (K) (S) 		Bedside Teaching	
10	<ul style="list-style-type: none"> • Describe Term paraparesis, types of paraparesis, causes of spastic and flaccid paraparesis, • Discuss workup, management for common causes of paraparesis; transverse myelitis, Pott's disease, Disc disease & periodic paralysis (K, S) 	Para paresis: Transverse Myelitis, Pott's disease, Disc diseases, Periodic paralysis	Lecture 50mins + Bedside teaching / CBD	BCQ/ OSCE
11	<ul style="list-style-type: none"> • Define primary and secondary headache • Describe causes of primary and secondary headaches • Discuss trigger, investigations, management plans for migraine, tension headache and cluster headache • Discuss the etiology, clinical presentation, investigations & management of trigeminal neuralgia 	Primary and secondary Headaches & Trigeminal Neuralgia	Lecture-50mins + Bedside teaching / CBD	BCQ/OSCE

GASTROINTESTINAL TRACT

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit, students will be able to:			
1	<ul style="list-style-type: none"> Take proper history related to GI symptoms (diarrhea, vomiting, abdominal pain, jaundice) Present the history correctly. 	History taking in gastroenterology	Bedside Teaching-1h	OSCE
2	<ul style="list-style-type: none"> Perform complete abdominal examination (K) (S) (A) 	Abdominal examination	Bedside Teaching-1h	OSCE
3	<ul style="list-style-type: none"> Interpret LFTs/ Ascitic fluid report (K) (S) 	LFTs/Ascitic fluid report	Bedside teaching + CBD (Tutorials) 1 hour	OSCE
4	<ul style="list-style-type: none"> Identify the Nasogastric tube Discuss the use, contraindications and complications of Nasogastric tube Observe or assist the procedure to pass NG tube in ward. (K) (S) (A) 	Nasogastric tube	Bedside Teaching	OSCE
5	<ul style="list-style-type: none"> Define acute diarrhea Discuss the causes of acute diarrhea Specify the investigation, management and complications of acute diarrhea 	Acute Diarrhea	Lecture 50mins + Bedside teaching	BCQs / OSCE

	<ul style="list-style-type: none"> Prevention of acute gastroenteritis/cholera (K)(S)(A) 			
6	<ul style="list-style-type: none"> Define chronic diarrhea, Discuss types of chronic diarrhea Elaborate causes of malabsorption syndrome Explain the work up, management and complications of common causes of chronic diarrhea e.g.; coeliac disease, tropical sprue, intestinal Tuberculosis, intestinal lymphoma) etc. (K)(S)(A) 	Chronic diarrhea/ malabsorption syndromes	Lecture 50mins + Bedside teaching + CBD 1 hour (Tutorials)	BCQs / OSCE
7	<ul style="list-style-type: none"> Define hematemesis, melena & hematochezia Enlist the possible causes of Upper and lower G.I bleeding Specify investigations for a patient with upper and lower G.I bleeding Elaborate emergency management of upper and lower GI bleeding (K) (S) (A) 	Upper and lower G.I Bleed	Lecture 50mins + Bedside teaching + CBD 1 hour (Tutorials)	BCQs / OSCE
8	<ul style="list-style-type: none"> Define the term dysphagia and odynophagia & achalasia Discuss different causes of dysphagia & achalasia Describe the investigation, management, treatment & complications of dysphagia & achalasia (K) 	Dysphagia & Achalasia	Lecture 50mins + Bedside teaching 1 h	BCQs

9	<ul style="list-style-type: none"> • Define GERD • Explain etiology/risk factors, clinical features, investigation, management, • Discuss serious complication of GERD e.g.; esophageal stricture, Barret esophagus and esophageal carcinoma (K) (A) 	Gastroesophageal reflux disease (GERD)	Lecture 50mins + Bedside teaching 1 hour	BCQs / OSCE
10	<ul style="list-style-type: none"> • Define dyspepsia, Gastritis & acid peptic disease • Describe etiology, clinical features, investigation, management & complications of dyspepsia, gastritis and peptic ulcer. • Discuss H.Pylori gastritis, its work up and eradication therapies • Discuss serious complication of Gastritis/peptic ulcer e.g. pyloric stenosis, perforation, gastric carcinoma (K, A) 	Dyspepsia/ Gastritis/peptic ulcer disease	Lecture 50mins + Bedside teaching 1 hour	BCQs / OSCE
11	<ul style="list-style-type: none"> • Describe various types of IBD • Specify etiology, clinical presentation, investigations, Histopathological findings treatment & complications of ulcerative colitis & Crohn's disease (K) (S) (A) 	Inflammatory bowel diseases-IBD	Lecture 50mins + Bedside teaching 1 hour	BCQ/ OSCE

12	<ul style="list-style-type: none"> Define IBS Specify types of IBS List the possible causes, Diagnostic criteria and treatment options of IBS (K, A) 	Irritable bowel Syndrome-IBS	Lecture 50mins+ Bedside teaching 1 hour	BCQs/ OSCE
13	<ul style="list-style-type: none"> Define acute hepatitis Elaborate causes, mode of transmission, clinical features, investigations, management, prevention & vaccination and complications like fulminant hepatic failure Define fulminant hepatic failure Discuss etiology, clinical features, investigations, management and role of liver transplant in fulminant hepatic failure (K) (A) 	Acute hepatitis & Fulminant hepatic failure	Lecture 50mins + Bedside teaching 1h	BCQs/ OSCE
14	<ul style="list-style-type: none"> Define chronic hepatitis Explain mode of transmission clinical features, investigations, diagnostic antigen, antibodies, management of hepatitis B and C and treatment options. Specify preventive measures to control spread of infection. (K) (A) 	Chronic Hepatitis B & C	Lecture 50mins + Bedside Teaching/CBD 1h	BCQs/ OSCE
15	<ul style="list-style-type: none"> Define compensated and uncompensated liver cirrhosis Enlist all the possible causes of CLD including viral hepatitis, alcoholism, autoimmune hepatitis, genetic diseases 	Liver Cirrhosis/Chronic liver disease (CLD) and its complications	Lecture 50mins + Bedside teaching + CBD 1 hour (Tutorials)	BCQs / OSCE

	<ul style="list-style-type: none"> Discuss clinical features, investigations in liver cirrhosis Elaborate the complications of Chronic liver disease including: <ol style="list-style-type: none"> Hepatic Encephalopathy along with its stages and precipitating factors. Portal hypertension/ ascites Secondary bacterial peritonitis, Hepatorenal syndrome Hepatocellular carcinoma Discuss work up, the management of all CLD complications Illustrate the prognosis of CLD (Child Pugh score) (K) (S) (A) 			
16	<ul style="list-style-type: none"> Discuss the genetic defects in Wilson disease & hemochromatosis Elaborate the clinical presentations, diagnostic investigations and treatment, complications Counsel the family about genetic transmission (K) (A) 	Wilson's disease & Hemochromatosis	Lecture- 50mins + Bedside teaching + CBD 1 hour (Tutorials)	BCQs / OSCE
17	<ul style="list-style-type: none"> Define alcoholic & non-Alcoholic liver diseases & Nonalcoholic steatohepatitis Explain the stages, clinical presentations, investigations, toxic alcohol dose, management, complications & prevention for fatty liver. 	Alcoholic liver disease & non-alcoholic fatty liver disease	Lecture- 50mins + Bedside teaching	BCQs / OSCE

	<ul style="list-style-type: none"> • Counsel regarding alcohol abuse (K) (A) 			
18	<ul style="list-style-type: none"> • Define auto-immune hepatitis, Drug induced hepatitis & A-1 anti-trypsin deficiency • Specify the etiology, pathogenesis clinical presentations, investigations, management, complications • Enlist common hepatotoxic medicines (K) 	Autoimmune hepatitis, Alpha-1 Anti-trypsin Deficiency, Drug Induced Hepatitis	Lecture-50mins + Bedside teaching	BCQs / OSCE
19	<ul style="list-style-type: none"> • Describe etiology, risk factors, mode of transmission, clinical presentations, investigations, management, complications & prevention. (K) 	Liver abscess	Lecture-50mins + Bedside teaching	BCQs / OSCE
20	<ul style="list-style-type: none"> • Define acute & Chronic pancreatitis • Explain etiology, risk factors, clinical presentations, investigations, management, complications of acute & chronic pancreatitis (K) 	Acute & Chronic pancreatitis	Lecture-50mins + Bedside teaching	BCQs / OSCE
21	<ul style="list-style-type: none"> • Define acute & Chronic pancreatitis • Explain etiology, risk factors, clinical presentations, investigations, management, complications of acute & chronic pancreatitis (K) 	Primary Biliary cirrhosis/ PSC	Lecture-50mins + Bedside teaching	BCQs / OSCE

22	<ul style="list-style-type: none"> • Classify common helminthic infections • Describe etiology, mode of transmission, life cycle, clinical presentations, investigations, management, complications of helminthic infections • (K) 	Helminthic infections	Lecture-50mins	BCQs
23	<ul style="list-style-type: none"> • Describe the etiology, risk factors, clinical presentations of common GI tumors • Explain the investigations, histological types, staging, medical /surgical/ radio-management and palliative care. • (K, S, A) 	Common Gut malignancies (esophagus, stomach, colon ca, HCC)	Lecture-50mins + Bedside teaching	BCQs / OSCE

RHEUMATOLOGY

S. NO	LEARNING OBJECTIVES At the end of this unit the students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take proper history of joint pain, neck pain & back pain Present the history accurately 	History taking in rheumatology	Bedside Teaching-1h	OSCE
2	<ul style="list-style-type: none"> Perform all steps musculoskeletal examination Identify positive finding in joint examination. (K)(S)(A)	Examination of joints	Bedside Teaching-1h	OSCE
3	<ul style="list-style-type: none"> Define degenerative arthritis Identify the pathogenesis, risk factors, joint distribution and clinical findings/deformities. Discuss X-ray and synovial fluid findings in degenerative arthritis Discuss pharmacological and non-pharmacological treatment modalities. K, S	Degenerative Arthritis	Lecture-50mins + Bedside teaching	BCQs / OSCE
4	<ul style="list-style-type: none"> Define Rheumatoid arthritis Explain genetic association, risk factors, pathogenesis Identify the articular and extra-articular clinical findings Report the diagnostic criteria, X-ray findings and other investigations. 	Rheumatoid arthritis (R.A)	Lecture 50mins Bedside teaching + CBD 1 hour (Tutorials)	BCQs/OSCE

	<ul style="list-style-type: none"> Specify different treatment options modalities in RA (K)(S)(A) 			
5	<ul style="list-style-type: none"> Enlist causes of sero-negative spondyloarthropathies Identify the pathology and genetic association. Describe the deformities and extra articular manifestations. Report investigations including HLA B27 and Xray/MRI joint. Specify treatment options for Sero-negative spondyloarthropathies (K) 	Sero-negative spondyloarthropathies	Lecture 50mins+ Bedside teaching 1h	BCQs/OSCE
6	<ul style="list-style-type: none"> Enlist the causative organisms for septic & gonococcal arthritis Potray the clinical findings Report the xary joint and synovial fluid analysis. Relate the treatment options in septic & gonococcal arthritis Discuss the complications (K)	Septic Arthritis & Gonococcal arthritis	Lecture 50mins	BCQs/ OSCE
7	<ul style="list-style-type: none"> Define gout and pseudo gout Specify causes of gout Explain the types of gouty arthritis, clinical presentation, investigations of a patient suffering with gout Relate the management of acute and chronic gouty arthritis Discuss the role of prophylaxis in repeated gouty arthritis (K) (S) 	Crystal induced arthropathy	Lecture 50mins + CBD	BCQs / OSCE

8	<ul style="list-style-type: none"> Define the terms Dermatomyositis and Polymyositis Discuss etiology, clinical presentations. Describe the diagnostic investigations and specific antibodies Enlist the treatment options of Dermatomyositis & Myositis. (K)	Dermatomyositis & Polymyositis	Lecture 50min	BCQ
9	<ul style="list-style-type: none"> Define Systemic Lupus Erythematosus Explain the etiology, Clinical presentation and diagnostic criteria. Specify the Serology and other investigations of SLE Discuss the treatment options and complications. Discuss primary and secondary APLA Explain the clinical complications & antibodies associated with APLA. Relate the treatment options and role of anticoagulation (K)(A)	Systemic Lupus Erythematosus (SLE)& Anti phospholipid antibody syndrome (APLA)	Lecture 50mins + Bedside teaching 1 hour + CBD 1 hour	BCQs/ OSCE
10	<ul style="list-style-type: none"> Define fibromyalgia & Sjogren's syndrome Explain risk factors, pathogenesis Identify the clinical findings, investigations & treatment options modalities in fibromyalgia and Sjogren's syndrome (K)(A)	Fibromyalgia & Sjogren's syndrome	Lecture 50mins	BCQs

11	<ul style="list-style-type: none"> • Discuss the different types, presentation, complications and prognosis of systemic sclerosis (Diffuse and CREST syndrome). • Enlist the investigations and specific antibodies to the type of systemic sclerosis • Specify treatment options available of systemic sclerosis • Define Raynaud's phenomenon • Differentiate between primary and secondary Raynaud diseases, investigations and treatment options associated with secondary Raynaud (K)(A)	Systemic sclerosis, Mixed connective tissue disease (MCTD) & Raynaud's disease	Lecture 50mins + Bedside teaching 1 hour	BCQs/ OSCE
12	<ul style="list-style-type: none"> • Classify different types of vasculitis according to the size of the vessel • Explain the clinical presentation of various forms of vasculitis including Giant cell arteritis, Takayasu arteritis, Polyarteritis nodosa, Wegener's granulomatosis and Churg Strauss syndrome • Describe the clinical presentation, investigations, management and complications of specific type of vasculitis (K)	Vasculitis	Lecture 50mins + CBD 1 hour	BCQs/ OSCE

PULMONOLOGY

S. NO.	LEARNING OBJECTIVES At the completion of this unit the students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take accurate history of chest symptoms like cough, chest pain & dyspnea Present the history correctly. (S) 	History taking in pulmonology	Bedside teaching	OSCE
2	<ul style="list-style-type: none"> Perform complete respiratory examination (K)(S) 	Respiratory examination	Bedside teaching 1 hour	OSCE
3	<ul style="list-style-type: none"> Portray the findings of normal chest x-ray Interpret the findings of pathological chest X-ray (K)(S) 	Chest X-Ray	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
4	<ul style="list-style-type: none"> Counsel the patients with asthma control. Demonstrate correct use of inhalers (K)(S)(A) 	Counselling in asthma/Inhaler techniques	Bedside teaching 1 hour	OSCE
5	<ul style="list-style-type: none"> Identify normal parameters on PFTs & ABGs Interpret obstructive and restrictive patterns on PFTs Identify respiratory and metabolic disorders on ABGs (S) 	PFTs & ABGs interpretation	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
6	<ul style="list-style-type: none"> Identify endotracheal tube, along with indications, contraindications, complications of Endotracheal tube (K)(S) 	Endotracheal tube	Bedside teaching + CBD 1 hour (Tutorials)	OSCE
7	<ul style="list-style-type: none"> Define the terms of obstructive and restrictive lung disease 	Bronchial asthma	Lecture 50mins	BCQs/ OSCE

	<ul style="list-style-type: none"> Enlist the causes of Obstructive lung diseases, Classify Asthma, Discuss triggers and severity of asthma Explain the clinical features, investigations, treatment options (controllers/relivers), side effects of therapy, Management of acute exacerbation of Asthma Relate the Complications and Prognosis of Bronchial Asthma (K)(S)(A) 		+ Bedside teaching + CBD 1 hour (Tutorials)	
8	<ul style="list-style-type: none"> Define the Chronic bronchitis and Emphysema, Discuss the risk factors, clinical features, investigations, severity, acute and long-term management, complications, prevention of Chronic Obstructive Airway Disease/smoking cessation (K)(S)(A) 	Chronic Obstructive Lung Disease (COPD)	Lecture 50mins + Bedside teaching + CBD 1 hour (Tutorials)	BCQs/ OSCE
9	<ul style="list-style-type: none"> Classify Interstitial/lung parenchymal diseases. Discuss the etiology, classification & clinical features. Report radiological & histopathological findings in parenchymal diseases. Elaborate type specific management Mention complications, (K)(S) 	Diffuse Parenchymal lung disease	Lecture 50mins + Bedside teaching 1 hour	BCQs/ OSCE
10	<ul style="list-style-type: none"> Define the terms pleural effusion and pneumothorax Enlist the causes of pleural effusion (Exudative and transudative) and Pneumothorax Interpret Chest x-ray findings of Pleural effusion and Pneumothorax Relate the diagnosis and investigation and treatment 	Pleural effusion & Pneumothorax	Bedside teaching + CBD 1 hour (Tutorials)	BCQ/ OSCE

	<p>options of Pleural effusion and Pneumothorax</p> <ul style="list-style-type: none"> • Explain the Light's criteria for pleural effusion • Describe the Thoracentesis • Interpret the analysis of pleural fluid • Enlist the Indications for tube thoracostomy <p>(K)(S)</p>			
11	<ul style="list-style-type: none"> • Define CAP, HAP, atypical pneumonia & aspiration pneumonia • Discuss etiology, mode of transmission & risk factors. • Explain pathogenesis, clinical features, radiological findings, sputum analysis in pneumonia • Specify treatment according to severity of pneumonia • Explain CURB-65 score • Enlist the Complications of Pneumonia <p>(K)(S)(A)</p>	Pneumonia	<p>Lecture 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)</p>	BCQs/ OSCE
12	<ul style="list-style-type: none"> • Discuss etiology, TB transmission, risk factors & sites for TB. • Define various types primary/reactivation of TB, miliary TB MDR, XDR • Explain pathology clinical features, radiological findings sputum analysis • Discuss the first line and second line anti tuberculous drugs • Specify treatment of TB according to National guidelines. • Explain the Adverse effects of ATT • Enlist the Complications of Pulmonary tuberculosis <p>(K)(S)(A)</p>	Pulmonary Tuberculosis	<p>Lecture 50mins + Bedside teaching 1 hour + CBD 1 hour (Tutorials)</p>	BCQs/ OSCE

13	<ul style="list-style-type: none"> Define Bronchiectasis Enlist the causes, clinical presentation and commonly involved organisms Discuss the investigations, treatment and complications of Bronchiectasis Explain the pathogenesis of cystic fibrosis Relate clinical feature and complications Discuss the treatment modalities available for cystic fibrosis. (K)	Bronchiectasis & Cystic fibrosis	Lecture 50mins	BCQs
14	<ul style="list-style-type: none"> Explain pathogenesis of Sarcoidosis Describe clinical presentation, Radiological classification and Specific investigations of Sarcoidosis Relate the treatment options and complications of Sarcoidosis (K)	Sarcoidosis	Lecture 50mins	BCQs
15	<ul style="list-style-type: none"> Define pulmonary embolism Enlist the risk factors, clinical presentation Report radiological, D-dimer, ECG and CT angiogram findings in pulmonary embolism Specify the treatment according to severity Mention complications of embolism Define pulmonary hypertension Enlist the stages, types & clinical features. Report the xary, CT scan, Echo findings to diagnose pulmonary hypertension Mention treatment options for primary & secondary pulmonary hypertension 	Pulmonary embolism & Pulmonary hypertension	Lecture 50mins	BCQs

	<ul style="list-style-type: none"> • Mention complications & prognosis of pulmonary hypertension (K) 			
16	<ul style="list-style-type: none"> • Differentiate between type 1 and type 2 respiratory failure • Enlist the causes of type 1 and 2 respiratory failure. • Define ARDS • Explain the Etiology, Investigations and treatment options (K) 	Respiratory failure/ARDS	Lecture 50mins	BCQs
17	<ul style="list-style-type: none"> • Define hypo& hyperventilation syndromes • Enlist causes of hypoventilation & OSA • Identify the risk factors, clinical features, investigations, treatment options & complications of hypoventilation syndrome/OSA • Discuss causes, clinical features, investigations, treatment options & complications of hyperventilation syndrome. 	Hyperventilation /hypoventilation syndrome & OSA	Lecture 50mins	BCQs
18	<ul style="list-style-type: none"> • Identify the risk factors, types, clinical features, investigations, staging, treatment options, complications, paraneoplastic syndromes and prognosis of Bronchogenic carcinoma (K)(S)(A) 	Bronchogenic Carcinoma	Lecture 50mins + CBD 1 hour	BCQs/ OSCE

BLOOD DISORDERS

S. No.	LEARNING OBJECTIVES At the end of this unit, students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Define Anemia with values Classify Anemia, Specify metabolism of iron in the body Explain recommended dose of iron & dietary sources of iron Discuss causes, clinical features, work up & management of Iron Deficiency Anemia. Enlist the side effects of oral/parenteral iron therapy (K) (A)	Introduction to anemia & Iron Deficiency Anemia	Lecture 50mins + CBD 1 hour (Tutorials)	BCQs/ OSCE
2	<ul style="list-style-type: none"> Determine normal parameters in CBC report Identify anemia, leucopenia & thrombocytopenia in the report Interpret CBC report Observe & assist IV blood sampling in ward. (K)(S)	Interpretation of CBC	Bedside teaching-1h + CBD 1 hour	BCQs/ OSCE
3	<ul style="list-style-type: none"> Discuss the metabolism of B12/folate in the body. Explain the daily recommended dose and dietary sources of B12/folate Depict the causes, clinical features, investigations and treatment of megaloblastic anemia (K) (A)	Megaloblastic anemia	Lecture 50mins + CBD 1 hour	BCQs/ OSCE
4	<ul style="list-style-type: none"> Classify hemolytic anemia Define Thalassemia, Discuss the types, pathogenesis, clinical presentation, investigations and treatment of thalassemia minor/intermedia/major. 	Introduction to hemolytic anemia & Thalassemia	Lecture 50mins + CBD 1 hour	BCQs/ OSCE

	<ul style="list-style-type: none"> Discuss the complications; Iron over load and iron chelators Discuss the role of bone marrow transplant Elaborate prevention of thalassemia & Genetic counselling (K) (A)			
5	<ul style="list-style-type: none"> Discuss the Epidemiology, pathogenesis, clinical features, investigations, treatment, complications and prognosis of: <ol style="list-style-type: none"> Sickle cell disease G6PD deficiency Hereditary spherocytosis & PNH Describe prevention & in need of genetic counselling, related with these hemoglobinopathies (K) (A)	Hemoglobinopathies (Sickle cell disease, G6PD deficiency, PNH, Hereditary spherocytosis)	Lecture 50mins	BCQs /OSCE
6	<ul style="list-style-type: none"> Discuss the etiology, Pathogenesis, clinical features, investigations, treatment complications and prognosis <ol style="list-style-type: none"> Autoimmune hemolytic anemia Anemia of chronic disease (K)	Autoimmune hemolytic anemia/anemia of chronic disease	Lecture 50mins	BCQ
7	<ul style="list-style-type: none"> Define aplastic anemia Explain various causes, clinical presentation, work up, management & complications of aplastic anemia Elaborate the types, indications, procedure, contraindications related to bone marrow transplant. K	Aplastic anemia & bone marrow transplant	Lecture 50mins	BCQ
8	<ul style="list-style-type: none"> Define leukemia Describe different types of Leukemia Explain the risk factors, clinical presentation of a patient with specific form of leukemia 	Leukemia	Lecture 50mins + CBD 1 hour	BCQs/ OSCE

	<ul style="list-style-type: none"> • Portray Examination findings, Investigations, staging, complications of Leukemia • Relate the treatment (Chemotherapy, radiotherapy and stem cell transplant) for Leukemia (K, S)			
9	<ul style="list-style-type: none"> • Define lymphoma • Classify Hodgkin and Non-Hodgkin lymphoma • Discuss the risk factors clinical presentation, staging and examination findings of a patient with lymphoma • Describe investigation, treatment options and chemotherapy of Lymphoma (K)(S)	Lymphoma	Lecture 50mins + Bedside teaching	BCQs/ OSCE
10	<ul style="list-style-type: none"> • Classify myeloproliferative disorders. • Explain the risk factors, clinical presentations, work up, management & complications of myeloproliferative disorders. • Define myelofibrosis • Describe the risk factors, clinical presentations, bone marrow findings, investigations, management & complications of myelofibrosis (K)(S)	Myeloproliferative disorders & myelofibrosis	Lecture 50mins + CBD 1 hour	BCQs/ OSCE
11	<ul style="list-style-type: none"> • Define Multiple myeloma • Describe the sub-types, risk factors, clinical presentations, bone marrow findings, investigations, management & complications of multiple myeloma • Define Cryoglobulinemia • Describe types, etiology, clinical presentations, investigations, management & complications of Cryoglobulinemia (K)	Multiple myeloma & cryoglobulinemia	Lecture 50mins	BCQs

12	<ul style="list-style-type: none"> Define thrombocytopenia Discuss the causes of Thrombocytopenia Explain the etiology, clinical presentation and treatment of Idiopathic thrombocytopenic purpura Describe the process of Counselling before surgical procedure/safe range of platelets for patient with thrombocytopenia Discuss and differentiate between TTP and HUS Discuss causes, Clinical presentation, Investigations, Treatment and complications in TTP/HUS <p>(K) (A)</p>	<p>Platelet disorders;</p> <ol style="list-style-type: none"> Idiopathic thrombocytopenic purpura, (ITP) Thrombotic thrombocytopenic purpura, (TTP) Hemolytic uremic syndrome (HUS) 	<p>Lecture 50mins + Bedside teaching/ CBD</p>	<p>BCQs/ OSCE</p>
13	<ul style="list-style-type: none"> Explain the etiology, pathology, types, clinical presentation, investigations, management of active bleeding, long-term management, complications of Hemophilia & DIC Portray genetic counselling and counselling before surgical procedures of Hemophilia & Willebrand disease <p>(K)(A)</p>	<p>Bleeding Disorders; Hemophilia, Von Willebrand disease (VWD) & disseminated intravascular coagulation (DIC)</p>	<p>Lecture 50mins + CBD 1 hour</p>	<p>BCQs/ OSCE</p>
14	<ul style="list-style-type: none"> Enlist various blood products and their indications of use. Describe the protocol for blood transfusion Discuss immediate & delayed transfusion reactions Describe the management of transfusion reactions <p>(K)</p>	<p>Blood transfusion reactions</p>	<p>Lecture 50mins</p>	<p>BCQs</p>

CARDIOVASCULAR SYSTEM

S.NO	LEARNING OBJECTIVES At the completion of this unit the students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Take accurate history of cardiovascular symptoms like chest pain & dyspnea, edema, palpitations & syncope. Present the history in a systemic manner. (K, S)	History taking in Cardiology	Bedside teaching	OSCE
2	<ul style="list-style-type: none"> Perform complete Cardiovascular examination Identify and present the findings of examination (K)(S)	Cardiovascular examination	Bedside teaching 1 hour	OSCE
3	<ul style="list-style-type: none"> Record ECG of patient under supervision Describe basics of ECG and identify normal leads & waves on ECG Identify tachy and brady arrhythmias Identify heart blocks and MI on ECG Explain the causes and management of common arrhythmias & blocks. Describe immediate management of MI. (K)(S)(A)	ECG	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
4	<ul style="list-style-type: none"> Define Systemic hypertension Describe staging of hypertension. Discuss the primary/sec HTN, risk factors, pathogenesis, clinical features investigations, 	Systemic Hypertension & hypertensive emergencies	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE

	management, complications and prevention of systemic hypertension <ul style="list-style-type: none"> Elaborate the acute management of hypertensive emergencies. (K)(S)(A)			
5	<ul style="list-style-type: none"> Define ischemic heart diseases & typical cardiac pain, Discuss various types of ischemic heart disease Discuss the risk factors, pathogenesis, clinical features, differential diagnosis, investigation, management, complications and Prognosis, prevention of angina and MI Enumerate the immediate steps of management after MI (K)(S)(A)	Ischemic Heart Disease (Angina & MI)	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
6	<ul style="list-style-type: none"> Define Congestive Heart failure Discuss the etiology, staging, pathogenesis, clinical features, investigation, management and complications of congestive heart failure Discuss causes, clinical presentations, work up & management of acute pulmonary edema (K)(S)	Congestive heart failure & Acute pulmonary edema	Lecture 50mins + CBD/ Bedside teaching 1 hour	BCQs/ OSCE
7	<ul style="list-style-type: none"> Enlist common atrial & ventricular arrhythmias Describe various causes, ECG findings, work up, management & complications Define cardiac arrest 	Arrhythmias, Heart Block & cardiac arrest	Lecture 50mins + CBD + Skill lab	BCQs/ OSCE

	<ul style="list-style-type: none"> Explain various causes, work up, immediate steps of Basic life support & CPR 			
8	<ul style="list-style-type: none"> Classify right and left heart valvular anomalies Explain the etiology, pathogenesis, clinical features, investigation, management, complications Right & left Valvular Heart diseases. (K)(S)(A)	Valvular Heart Diseases	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
9	<ul style="list-style-type: none"> Enlist cyanotic & acyanotic congenital heart diseases Discuss etiology, pathogenesis, clinical features, investigation, management, and complications of congenital heart diseases (K)(S)	Congenital Heart Diseases: <ul style="list-style-type: none"> Atrial Septal defect (ASD) Ventral Septal Defect (VSD) Patent Ductus Arteriosus (PDA) Tetralogy of Fallot (TOF) Coarctation of Aorta (COA) 	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
10	<ul style="list-style-type: none"> Define Rheumatic fever Discuss etiology, pathogenesis, clinical features, diagnostic features, investigation, management, complications of Rheumatic fever Discuss the rheumatic fever prophylaxis (K)(S)	Rheumatic Fever	Lecture 50mins	BCQs
11	<ul style="list-style-type: none"> Define Infective Endocarditis Name etiological pathogens & risk factors Describe clinical features, investigation, 	Infective Endocarditis	Lecture 50mins + CBD / Bedside teaching	BCQs/ OSCE

	management and complications <ul style="list-style-type: none"> Describe pre-procedure prophylaxis to prevent endocarditis (K)(S)		1 hour	
12	<ul style="list-style-type: none"> Classify cardiomyopathies Explain the etiology, clinical features, investigation, management, and complications of cardiomyopathies and myositis (K) 	Cardiomyopathies & myocarditis	Lecture 50mins	BCQs
13	<ul style="list-style-type: none"> Define Pericarditis & pericardial effusion. Discuss the etiology, clinical features, investigation, management, and complications of Pericardial Effusion & pericarditis (K) 	Pericarditis & Pericardial Effusion	Lecture 50mins	BCQs
14	<ul style="list-style-type: none"> Define Peripheral vascular disease. Discuss the etiology, staging, clinical features, investigation, management, and complications of peripheral vascular disease Discuss the etiology, clinical presentation and, management of acute limb ischemia 	Peripheral vascular disease & acute limb ischemia	Lecture 50mins	BCQs

RENAL DISORDERS

S. NO	LEARNING OBJECTIVES	CONTENT	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit the students will be able to:			
1	<ul style="list-style-type: none"> Explain basic parameters in urine detailed report Identify proteinuria, hematuria & infection from urine report (K), (S) 	Interpretations of urine D/R	Lecture 50mins + Bedside teaching 1 hour	BCQs/ OSCE
2	<ul style="list-style-type: none"> Identify the foleys catheter Discuss the use, contraindications and complications of urinary catheter. Observe or assist the urinary catheterization in ward. (K), (S), (A) 	Urinary catheterization	Bedside teaching 1 hour	OSCE
3	<ul style="list-style-type: none"> Define nephrotic syndrome Explain the causes, pathogenesis, clinical features, investigation, management, complications and prognosis of Nephrotic syndrome (K)(S) 	Nephrotic syndrome	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
4	<ul style="list-style-type: none"> Define nephritic syndrome & glomerulonephritis. Explain the types, etiology, pathogenesis, clinical features, investigation, management, complications of glomerulonephritis & nephritis syndromes (K)(S) 	Nephritic syndrome & glomerulonephritis	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
5	<ul style="list-style-type: none"> Define acute kidney injury Explain the etiology, pathogenesis, clinical features, investigation, management, indication of dialysis, complications and prognosis of Acute Kidney injury (K)(S) 	Acute kidney injury	Lecture 50mins + CBD/ Bedside teaching 1 hour	BCQs/ OSCE

6	<ul style="list-style-type: none"> Define staging of CKD Explain the etiology, pathogenesis, clinical feature, investigation, management, renal replacement therapies, complications and management of complications prognosis of chronic kidney disease (K)(S) 	Chronic Kidney disease (CKD)	Lecture 50mins + CBD/ Bedside teaching 1 hour	BCQs/ OSCE
7	<ul style="list-style-type: none"> Describe basic Acid- base disorders on the basis of ABG report Discuss etiology & management of metabolic acidosis & alkalosis. Define Renal tubular acidosis Describe the types, etiology, pathogenesis, clinical features, investigation, management, complications and prognosis of Renal tubular acidosis (K) 	Acid base disorders & Renal tubular acidosis	Lecture-50mins	BCQs
8	<ul style="list-style-type: none"> Define Cystic kidney diseases Explain the types, etiology, pathogenesis, clinical features, investigation, management, complications and prognosis of cystic kidney diseases (K) 	Cystic diseases of kidney	Lecture-50mins	BCQs
9	<ul style="list-style-type: none"> Discuss different options in renal replacement therapies. Describe the types, Indications & complications of hemodialysis. Observe the process of hemodialysis in medicine ICU. Describe the Indications, Pretransplant work up, post-transplant complications after renal transplant. (K) 	Renal replacement therapies; Renal Dialysis & renal transplant	Lecture-50mins	BCQs
10	<ul style="list-style-type: none"> Define interstitial, tubulointerstitial nephritis, lupus nephritis. Explain the types, etiology, pathogenesis, clinical features, investigation, management, 	Interstitial nephritis, lupus nephritis &	Lecture 50mins	BCQs

	Complications and prognosis. (K)	tubulointerstitial nephritis		
11	<ul style="list-style-type: none"> Explain the types, etiology/risk factors pathogenesis, clinical features, investigation, management, complications and prevention of recurrent UTI (K)(S) 	Urinary Tract Infection	Lecture 50mins + CBD 1 hour	BCQs/ OSCE
12	<ul style="list-style-type: none"> Describe the Etiology, clinical features, Investigation/ECG findings, management and Complications of common electrolytes Imbalances (K) 	Electrolytes Imbalances; Na, K, Ca, Po4	Lecture 50mins	BCQs
13	<ul style="list-style-type: none"> Describe the etiology, clinical features, Investigation, management and complications of pregnancy related renal diseases. (K) 	Pregnancy related kidney diseases; pre- eclampsia, UTI, HUS,	Lecture 50mins	BCQs
14	<ul style="list-style-type: none"> Describe the etiology, clinical features, Investigation, management and complications of renal artery stenosis & renal vein thrombosis. (K) 	Renal Artery Stenosis & Renal Vein Thrombosis	Lecture 50mins	BCQs

ENDOCRINE, GENETIC AND NUTRITION DISORDERS

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the end of this UNIT, students will be able to:			
1	<ul style="list-style-type: none"> Discuss pituitary dysfunctions Describe etiology, pathogenesis, clinical features, investigation, management of Sheehan syndrome, Kallman's syndrome, Acromegaly, Diabetes Insipidus & SIADH (K)(S) 	Pituitary dysfunctions: Pan-hypo-pituitarism, Sheehan syndrome, Kallman's syndrome, Acromegaly, Diabetes Insipidus, SIADH	Lecture 50mins + CBD -1 hour	BCQs/ OSCE
2	<ul style="list-style-type: none"> Define Diabetes Mellitus Discuss types, risk factors, pathogenesis, clinical features, investigation, and diagnostic criteria. Explain the details of management & complications of diabetes. Discuss the oral medications & types of insulin therapy and their side effects. Observe/assist the capillary glucose monitoring in ward Observe /assist insulin delivery technique in ward. (K)(S)(A) 	Diabetes Mellitus	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
3	<ul style="list-style-type: none"> Discuss adrenal dysfunctions Describe etiology, pathogenesis, clinical features, investigation, management of Congenital adrenal hyperplasia & pheochromocytoma (K) 	Adrenal dysfunctions: Congenital Adrenal Hyperplasia, Pheochromocytoma	Lecture 50mins + CBD	BCQs

4	<ul style="list-style-type: none"> Discuss carcinoid tumors of endocrine system Describe etiology, pathogenesis, clinical features, investigation, management of Insulinoma, Gluconoma, MEN syndrome (K) 	Carcinoid tumors of Endocrine system: Insulinoma, Gluconoma, MEN syndrome	Lecture 50mins + CBD	BCQs
5	<ul style="list-style-type: none"> Classify thyroid carcinoma Describe etiology, pathogenesis, clinical features, investigation, and management/surgery/chemotherapy of thyroid carcinoma. (K) 	Thyroid carcinoma	Lecture 50mins + CBD	BCQs
6	<ul style="list-style-type: none"> Explain the etiology, pathogenesis, clinical features, Investigations, management of parathyroid diseases (K) 	Hypo & hyperparathyroidism	Lecture 50mins	BCQs
7	<ul style="list-style-type: none"> Discuss genetic disorders of endocrine /genital system Describe etiology, pathogenesis, clinical features, investigation, management of Down's syndrome, Turner & Klinefelter syndromes (K) 	Genetic disorders; Down's syndrome, Turner & Klinefelter syndromes	Lecture 50mins + CBD	BCQs
8	<ul style="list-style-type: none"> Define metabolic syndrome Describe etiology, pathogenesis, clinical features, investigation, management of metabolic syndrome, obesity & hyperlipidemia (K) 	Metabolic syndrome, obesity & Hyperlipidemia	Lecture 50mins + CBD	BCQs
9	<p>Enlist fat soluble & water-soluble vitamins</p> <p>Discuss the normal functions, RDI, clinical deficiency and its causes and treatment of fat-soluble vitamins (A, D, E, K)</p> <p>Discuss the normal functions, RDI, clinical deficiency and its causes and treatment of Water-soluble vitamins (B-complex & C)</p>	Vitamin deficiencies	Lecture 50mins	BCQ

INFECTIOUS DISEASES

S.NO	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the end of this unit, students will be able to:			
1	<ul style="list-style-type: none"> Define & classify Pyrexia of unknown origin. Discuss the etiology, clinical features, differential diagnosis, Investigation, diagnosis management, complications and of Pyrexia of Unknown origin (PUO) (K)(S)	Pyrexia of unknown origin (PUO)	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs
2	<ul style="list-style-type: none"> Discuss the etiology, mode of transmission & pathogenesis. Explain the clinical presentations Investigation, management. Discuss AIDs defining diseases & their management. Discuss groups of HAART therapy & prevention of HIV. (K, S, A)	HIV	Lecture- 50mins + CBD - 1 hour	BCQs/ OSCE
3	<ul style="list-style-type: none"> Discuss life cycle & mode of transmission. Explain the types, etiology, clinical features, Investigation, diagnosis, management, complications and prevention of Malaria (K)(S)	Malaria	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE

4	<ul style="list-style-type: none"> Describe the etiology, transmission, clinical features, differential diagnosis investigation, diagnosis, management, complications <p>Prevention & vaccination of Enteric Fever</p> <ul style="list-style-type: none"> Discuss Drug resistant typhoid <p>(K)(S)(A)</p>	Enteric fever	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
5	<ul style="list-style-type: none"> Describe the etiology, transmission, clinical features, investigation, management, complications Prevention of Brucella Fever <p>(K)</p>	Brucella	Lecture 50mins	BCQs
6	<ul style="list-style-type: none"> Describe the etiology, clinical features, differential diagnosis, investigation, diagnosis, management, complications and prevention of common viral fever <p>(K)(S)</p>	Viral fever with rash; Herpes, Chicken Pox, EBV, CMV, Measles)	Lecture 50mins + CBD-1h	BCQs/ OSCE
7	<ul style="list-style-type: none"> Classify common VHF Explain etiology, clinical features Investigation, diagnosis, management, complications and prevention. Discuss vector/ mosquito control <p>(K)(S)(A)</p>	Viral hemorrhagic fever (VHF); Dengue, Crimean-Congo Fever & Chikungunya	Lecture 50mins + CBD / Bedside teaching 1 hour	BCQs/ OSCE
8	<ul style="list-style-type: none"> Classify types of influenza Explain transmission, clinical features, investigation, management, complications and prevention & vaccination of influenza Discuss the etiology, transmission, clinical presentations, severity, investigations and management and vaccination of corona virus. 	Influenza, COVID	Lecture 50mins + CBD-1h	BCQs/ OSCE

	<ul style="list-style-type: none"> Discuss the complications of COVID-19 pandemic. (K)(S)(A)			
9	<ul style="list-style-type: none"> Discuss etiology, vector, life cycle & mode of transmission. Explain the clinical features, Investigation, management, complications and prevention of parasitic infections. K	Parasitic infection:(Leishmaniosis, Toxoplasmosis, Amoebiasis, Giardiasis)	Lecture 50mins	BCQs
10	<ul style="list-style-type: none"> Discuss etiology, life cycle & mode of transmission. Explain the clinical features, Investigation, management, complications and prevention of common helminthic infections. K	Common Helminthic infections	Lecture 50mins	BCQs

ONCOLOGY

S.NO	LEARNING OBJECTIVES At the completion of this unit students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Enlist causes/risk factors. Discuss history taking, examination finding and staging Describe investigations and early screening in oncology. Elaborate MDT approach, patient communication and discussing prognosis (K) (A)	Introduction to oncology (Causes & Screening)	Lecture + CBD	BCQs
2	<ul style="list-style-type: none"> Differentiate between curative and palliative approach Explain modalities of treatment in medical oncology (Cytotoxic Chemotherapy, Endocrine therapy, Biological agents and Immunotherapy) Discuss the toxicities of above treatment modalities (K) 	Principles of Medical Oncology	Lecture 50mins	BCQs
3	<ul style="list-style-type: none"> Enlist common oncological emergencies. Discuss the causes, clinical presentations and management of oncological emergencies. (Neutropenic sepsis, Spinal cord compression, Tumor lysis syndrome, SVC obstruction & Hypercalcemia (K)) 	Oncological Emergencies	Lecture 50mins	BCQs
4	<ul style="list-style-type: none"> Enlist modalities in chemotherapy. Discuss indications, mode of actions and adverse effects of chemotherapy. 	Principles of chemotherapy	Lecture- 50min	BCQ
5	<ul style="list-style-type: none"> Discuss mechanism of action of radiation oncology. Differentiate between Curative and Palliative approach. Enlist modalities (External Beam, Brachytherapy) 	Principles of Radiation Oncology:	Lecture- 50min	BCQ

	<ul style="list-style-type: none"> • 3DCRT, IMRT, SRS) • Discuss indications, mode of actions and adverse effects of chemotherapy. 			
6	<ul style="list-style-type: none"> • Discuss Follow up management of oncology patients. • Describe patient & family counseling. • Elaborate important palliative care measures. (Pain management, Anti-emesis, Counseling of patient & families), End-of-Life management 	Follow-up & Palliative care(Pain management, Anti-emesis, Counseling of patient & families), End-of-Life management	Lecture-50min	BCQ

ENVIROMENTAL DISEASES

S.NO.	LEARNING OBJECTIVES	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
	At the completion of this unit students will be able to:			
1	<ul style="list-style-type: none"> Define heat stroke & heat exhaustion. Discuss the risk factors, clinical features, differential diagnosis, investigation, management and complications Explain the measure to prevent of Heat stroke (K) 	Heat stroke and heat exhaustion	Lecture 50mins	BCQs
2	<ul style="list-style-type: none"> Define hypothermia & frost bite. Explain the etiology, clinical features, Investigation, management and complications of Hypothermia & frost bite (K) 	Hypothermia & Frost bite	Lecture 50mins	BCQs
3	<ul style="list-style-type: none"> Define near drowning & decompression sickness. Elaborate the risk factors, clinical presentation, investigation, management and complications. Discuss the safety measure to prevent near drowning and decompressive sickness. (K) 	Near drowning & Decompression sickness	Lecture 50mins	BCQs
4	<ul style="list-style-type: none"> Discuss AC & DC injuries and their complications. 	Electric burns & shock	Lecture 50mins	BCQs

	<ul style="list-style-type: none"> • Describe the risk factors, presentation, investigation, • Management and complications of electric shock. • Discuss the safety measures in work place/house hold to prevent electric shock injury. • Discuss the complications, prevention of lightening injuries <p>(K)</p>			
5	<ul style="list-style-type: none"> • Discuss the types of venomous snakes in Pakistan. • Discuss the clinical features, investigations , management of neurotoxin, mayotoxin, cardiotoxin & hemotoxin envenomation. • Explain the allergic reaction with anti-toxin and its management. <p>(K)</p>	Snake bite management	Lecture 50mins	BCQs

TOXICOLOGY

S.NO.	LEARNING OBJECTIVES At the completion of this unit students will be able to:	CONTENT AREAS	TEACHING ACTIVITIES (Duration)	ASSESSMENT
1	<ul style="list-style-type: none"> Explain how to approach to a patient of poisoning, clinical features, investigation, common drugs and antidotes, emergency management (K) 	Approach to a patient of poisoning	Lecture 50mins	BCQs
2	<ul style="list-style-type: none"> Portray the clinical presentation, toxic dose, investigation, management and antidotes of paracetamol and opiate poisoning (K) 	Paracetamol & opiate poisoning.	Lecture 50mins	BCQs
3	<ul style="list-style-type: none"> Relate the clinical features, investigation management, antidotes and complications of Organophosphate poisoning (K) 	Organophosphate poisoning	Lecture 50mins	BCQs
4	<ul style="list-style-type: none"> Depict the clinical features, toxic dose, Investigation, Management/antidote and complications of Benzodiazepine & Barbiturate poisoning (K) 	Benzodiazepine & Barbiturate poisoning	Lecture 50mins	BCQs
5	<ul style="list-style-type: none"> Describe the clinical presentation, complications and management and of 	Corrosives & kerosene ingestion	Lecture 50mins	BCQs

	Corrosives & kerosene ingestion. (K)			
6	<ul style="list-style-type: none"> Explain the toxic levels, clinical features, investigation management/ antidotes and complications of Ethanol and methanol poisoning. (K) 	Ethanol & Methanol poisoning	Lecture 50mins	BCQs

MEDICAL EDUCATION**LECTURES/ WORKSHOP**

S.NO	Learning Objectives (domain) At the end of session, student will be able to:	Content Areas	Teaching Activity (Duration)	Assessment
1.	How to do Educational Planning (S)	Educational Planning	Workshop 3 Hours	–
2.	Writing Educational Objectives (How, What, Why) (S)	Educational Objectives	Workshop 3 Hours	
3.	Develop OSPE/OSCE stations (S)	OSPE/OSCE Development	Workshop 3 h	–
4.	How to do students engagement and Teaching methodologies (S)	Student Engagement & Teaching Methodologies	Workshop 3h	
5.	Prepare TOS and Assessment Planning (S)	TOS and Assessment planning	Workshop 3 h	

CASE BASE LEARNING (CBL)

Session will be conducted in 4th year MBBS in Neuropsychiatry module & Endocrine module.

Example:

Learning Tool	Theme	Case Scenario
CBL 1	Epilepsy	A 30 years old male NKCM, presented in ER with Alter consciousness secondary to 3 episodes of jerking movements in all 4 limbs with clenching of teeth and up rolling of eyes since morning.
CBL 2	Parkinson's Disease	A 65 years old male K/C DM, HTN comes in Neuro OPD with the complains of tremor of right hands for one month.
CBL 3	Cushing's Syndrome	A 55 years old male, chronic smoker taking homeopathic drugs (for cough) for long time, obese presented in medicine OPD with the complains of easy fatigability and increasing weight. He said his father was known case of DM, HTN and died at the age of 65 years.
CBL 4	Hyperthyroidism	30 years old female presents with H/O weight loss, diarrhea, heat intolerance for five weeks along with palpitations, and excessive sweating. O/E she had swelling in front of neck, fine tremors at both out stretched hands. Palms are sweaty and warm, BP 140/ 60 mm Hg. Pulse is 140 irregularly irregular.

CBL 5	Cerebrovascular Accident (CVA)	A 55 years old male smoker, K/C DM, HTN for 10 years. Taking amlodipine 5 mg and Glucophage 500mg. He comes in ER with right sided weakness and difficulty in speech since morning. O/E Patient is confused.
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Learning Resources:

The students will be guided to look for the relevant study material from the books, internet guided by each discipline in the study guide in their relevant section in addition to other reference books from the college library.

TIME TABLE

Jinnah Medical & Dental College
MBBS Final Year 2025 – Batch 24

Starting Date: February 03, 2025 (Revised April 14, 2025)
Lecture Venue: Dr. Mumtazuddin Haider Auditorium

	9:00-9:50	9:55-10:45			2:00-3:00	3:30 pm – 9:00 am
MON	MEDICINE	SURGERY		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	2:00-3:00 CLINICAL TUTORIAL	NIGHT DUTY As Per Department Schedule
TUES	PEDIATRICS	SURGERY		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	2:00-3:00 CLINICAL TUTORIAL	3:00-4:30 CLINICAL WARD DUTIES
WED	GYNECOLOGY	MEDICINE		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	2:00-3:00 CLINICAL TUTORIAL	3:00-4:30 CLINICAL WARD DUTIES
THUR	CLINICAL PATHOLOGY CONFERENCE	PEDIATRICS		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	2:00-3:00 CLINICAL TUTORIAL	3:00-4:30 CLINICAL WARD DUTIES
FRI	OBSTETRICS	SURGERY		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	SELF STUDY PRAYER	2:00-4:00 CLINICAL WARD DUTIES
SAT	MEDICINE	DEPARTMENT JOURNAL CLUB		CLINICS 11:00-1:30 (Medicare 11:30-2:00)	SELF STUDY	NIGHT DUTY As Per Department Schedule

BUS FOR MEDICARE CLINICAL ROTATIONS LEAVES KORANGI 11:00 AM SHARP
NIGHT DUTY AT MEDICARE WILL START AT 3:30 PM
HALF AN HOUR LUNCH BREAK WILL BE GIVEN FROM 3:00PM TO 3:30PM BEFORE STARTING OF NIGHT DUTY
FOR ASR PRAYERS 15:00 MINUTES TIME WILL BE ALLOWED FOR NIGHT DUTY STUDENTS

END of Academic Session

Medicine Theory BCQs

Medicine Practical OSCE