## **Contents**

SI. No.	Торіс	Competency No.	Page No.	Faculty signature		
SECTION 1: GENERAL MICROBIOLOGY AND IMMUNOLOGY						
1.	Biosafety in Microbiology Laboratory	MI1.1	1			
2.	The Microscope	MI1.1	7			
3.	Sample Collection and Transportation in Microbiology	MI7.3 MI8.9 MI8.10	16			
4.	Staining Techniques including Simple Staining	MI1.1	33			
5.	Gram Staining	MI1.2 MI6.2 MI6.3	39			
6.	Ziehl-Neelsen Staining (Acid-Fast Staining)	MI1.2 MI6.3	59			
7.	Albert Staining	MI1.1	79			
8.	Hanging Drop Preparation	MI1.1	82			
9.	Culture Media	MI1.1	87			
10.	Culture Methods	MI1.1	97			
11.	Common Biochemical Tests used in Bacterial Identification	MI1.1 MI8.15	103			
2.	Antimicrobial Susceptibility Testing	MI1.6	116			
13.	Automation and Molecular Methods in Microbiology	MI1.1	122			
14.	General Principles in the Laboratory Diagnosis of Bacterial Infections	MI1.1	127			
15.	Serological Tests in Microbiology	MI3.4 MI3.8 MI8.15	133			
16.	General Principles in the Laboratory Diagnosis of Viral Infections	MI1.1	154			
17.	General Principles in the Laboratory Diagnosis of Fungal Infections	MI1.1 MI8.10 MI8.15	163			

SI. No.	Topic	Competency No.	Page No.	Faculty signature			
18.	General Principles in the Laboratory Diagnosis of Parasitic Infections	MI1.1	173				
19.	Examination of Hemoparasites in Peripheral Blood Smear	MI2.6	182				
20.	Stool Examination for Detection of Intestinal Parasites	MI1.2 MI3.2	190				
SECTION 2: HOSPITAL INFECTION CONTROL							
21.	Sterilization and Disinfection	MI1.4 MI1.5	207				
22.	Hand Hygiene	MI8.7	214				
23.	Personal Protective Equipment	MI8.7	223				
24.	Biomedical Waste Management	MI8.5	231				
25.	Needle Stick Injury	MI8.6	236				
26.	Spill Management	MI8.6	241				
SECTION 3: CLINICAL EXERCISES INCLUDING AETCOM							
27.	Clinical Exercises		245				
	Block A: Cardiovascular System and Bloodstream Infections	MI3.4 MI8.15	245				
	Block B: Gastrointestinal Infections and Hepatobiliary System Infections	MI3.8 MI8.15	251				
	Block C: Skin, Soft Tissue and Musculoskeletal Infections	MI8.15	257				
	Block D: Respiratory Tract Infections	MI8.15	264				
	Block E: Central Nervous System Infections	MI8.15	268				
	Block F: Urogenital Tract Infections	MI8.15	271				
28.	AETCOM Exercise	MI8.11 MI8.14	274				
Suggested Reading							