

CBCS SCHEME

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BBT304

Third Semester B.E./B.Tech. Degree Examination, June/July 2025

Microbiology

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

Module – 1				M	L	C
Q.1	a.	With diagrams distinguish between the cell wall of gram positive and gram negative bacteria.	10	L2	CO2	
	b.	Compare the lytic and lysogenic cycle of viruses.	10	L2	CO3	
OR						
Q.2	a.	Give an account of the contributions of Robert Koch, Alexander Flemming and Lois Pasteur to the field of microbiology.	10	L1	CO1	
	b.	With neat diagrams compare the prokaryotic and eukaryotic cell.	10	L2	CO2	
Module – 2						
Q.3	a.	With ray diagrams, compare the working of Light and Electron microscope.	10	L3	CO3	
	b.	Distinguish between differential and simple staining citing examples.	10	L2	CO2	
OR						
Q.4	a.	Explain the methods used to isolate a pure culture.	10	L2	CO1	
	b.	How do the measurements in stage micrometer differ from those of the ocular micrometer?	10	L4	CO3	
Module – 3						
Q.5	a.	Distinguish between dry heat and moist heat sterilization.	10	L4	CO4	
	b.	Compare the growth curve pattern of a bacterium in a medium containing glucose and in that containing glucose and lactose.	10	L4	CO2	
OR						
Q.6	a.	Give an account of the Warburg Pickens pathway. Add a note on its importance.	10	L2	CO3	
	b.	Explain the fate of pyruvate under anaerobic conditions.	10	L3	CO2	
Module – 4						
Q.7	a.	How does primary TB differ from that of the secondary type?	10	L4	CO3	
	b.	Distinguish between Abortive, Non-paralytic and Paralytic Polio.	10	L2	CO3	
OR						
Q.8	a.	Compare the pathogenesis of Hepatitis A and Hepatitis B virus.	10	L2	CO3	
	b.	Explain the pathogenesis of entamoeba histolytica.	10	L2	CO1	
Module – 5						
Q.9	a.	Distinguish between Ectomycorrhiza and Endomycorrhiza with examples.	10	L2	CO3	
	b.	Explain the role of Rhizobium and Azotobacter as biofertilizers.	10	L2	CO2	
OR						
Q.10	a.	Distinguish between slow sand and rapid sand filters.	10	L2	CO2	
	b.	Explain the process of waste water treatment.	10	L2	CO2	
