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.

			M	L	C
		Module – 1			
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 Warborg Pickens pathway. Add a note on its importance.	**10**	**L2**	**CO3**
	b.	Explain the fate of pyrovate 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 Ectomycorhiza and Endomycorhiza 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**

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