

B.Sc. Semester - 2 (NEP-2020) Examination**MARCH/APRIL-2025****MIC: Microbial Physiology -1 (Minor-2)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que-1	(1) Explain the classification of carbohydrates in detail.	(05)
	(2) Describe the structure and function of nucleic acids.	(05)
	OR	
Que-1	(1) Discuss the biological functions proteins in brief.	(05)
	(2) Write a short note on lipids and their biological significance.	(05)
Que-2	(1) Explain the characteristics and physical properties of enzymes.	(05)
	(2) Describe the mechanism of enzyme activity in detail.	(05)
	OR	
Que-2	(1) Discuss enzyme inhibition with suitable examples	(05)
	(2) Which are the different classes of enzymes? Explain in detail.	(05)
Que-3	(1) Define sterilization, disinfectant, antiseptic, germicide and bacteriostasis with examples.	(05)
	(2) Explain the selection criteria of an ideal antimicrobial agent.	(05)
	OR	
Que-3	(1) Discuss the types of bacteriological media used in microbial control.	(05)
	(2) Describe the various types of microbial control.	(05)
Que-4	(1) Explain the role temperature in microbial control.	(05)
	(2) Discuss the effects of various radiations on microbial growth	(05)
	OR	
Que-4	(1) Describe the chemical agents used in microbial control, including phenol and phenolic compounds.	(05)
	(2) Discuss the effects of heavy metals in microbial control.	(05)
Que-5	(1) Compare and contrast carbohydrates and lipids in terms of structure and function.	(05)
	(2) Differentiate between prokaryotic and eukaryotic enzyme regulation.	(05)
	OR	
Que-5	(1) Explain the role of agar in bacteriological media.	(05)
	(2) Explain gaseous sterilization and its applications.	(05)
