

B.Sc. Semester - 3 (NEP-2020) Examination

OCT/NOV-2025

MIC: Microbial Biotechnology (Theory) (Multidisciplinary Course)

Time: 2:00 Hours

Marks:50

Instructions:

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

Que.1	1) Write the importance of biofertilizer.	(05)
	2) Advantages and disadvantages of genetically engineered microbes.	(05)
	OR	
Que.1	1) Role of microbial biotechnology in human therapeutics.	(05)
	2) Importance of bacteria for industrial applications.	(05)
Que.2	1) Explain the production of sterols by biotransformation.	(05)
	2) Explain bio-catalysis in production of high fructose syrup.	(05)
	OR	
Que.2	1) Write the advantages of microbes-based biotransformation process.	(05)
	2) What is microbial biocatalysis? Explain briefly with one example.	(05)
Que.3	1) Bio-diesel production from algal biomass.	(05)
	2) Importance of methane production using microbes.	(05)
	OR	
Que.3	1) Describe the process of mineral recovery.	(05)
	2) Describe the process of bio-ethanol production.	(05)
Que.4	1) What is down-stream process? Write its importance.	(05)
	2) Development of drug resistance is a risk - justify.	(05)
	OR	
Que.4	1) Ion-exchange chromatography.	(05)
	2) Importance of whole cell immobilization.	(05)
Que.5	1) Yeast – write its industrial importance.	(05)
	2) Write the significance of bio-catalytic processes.	(05)
	OR	
Que.5	1) Importance of oil recovery by microorganisms.	(05)
	2) Affinity chromatography.	(05)
