

Name. _____

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Student Admn. No.: _____

**School of Biomedical Sciences
Back Paper Examination, August 2024**

[Programme: B. Sc. Medical Biotechnology] [Semester: Sem III][Batch: 2020-21]

Course Title: Industrial Microbiology

Max Marks: 100

Course Code: BBBMBT3005

Time: 3 Hrs.

Instructions:

1. All questions are compulsory.
2. Assume missing data suitably, if any.

	K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each	
1. Explain enzyme immobilization.	K2	CO3	5
2. Discuss parasitism with examples.	K2	CO3	5
3. Explain fermentation and its applications.	K2	CO2	5
SECTION-B (40 Marks)		10 Marks each	
4. Comment on the characteristics of mutualism and synergism.	K4	CO4	10
5. Identify various types of bioinoculants with examples.	K4	CO1	10
6. Discuss the technique to produce monoclonal antibodies.	K3	CO3	10
7. Discuss the advancements and challenges of bioremediation.	K4	CO2	10
SECTION-C (45 Marks)		15 Marks each	
8. Discuss the various techniques of downstream processes.	K5	CO2	15
9. Evaluate the mechanism of nitrogen fixation and give examples of nitrogen fixing bacteria.	K4	CO4	15
10. Justify the role and application of biotransformation in therapeutics.	K6	CO3	15