PG Even Semester Exam, May 2025

Microbiology

2nd Semester

COURSE NO. MBCC- 553

[Microbial Enzyme Technology]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, selecting one from each unit.

UNIT-I

1. Discuss in detail the large scale production of enzymes from microbial sources. Explain the process of enzyme recovery. 14

2. Write short notes on the following: 7x2=14

   a. Ion-Exchange chromatography

   b. Enzyme precipitation methods

UNIT-II

3. Explain various physical and chemical methods used for immobilization of enzymes. 14

4. Write short notes on the following : 7x2=14

   a. Kinetics of Immobilized enzymes.

Turn over

   b. Advantages and disadvantages of enzyme immobilization.

UNIT-III

5. Elaborate on various industrial and medical applications of enzymes. 14

6. Write short notes on the following: 7x2=14

   a. Enzyme in food technology

   b. Immuno enzyme techniques

UNIT-IV

7. Write short notes on the following: 7x2=14

   a. Biopolymers

   b. Biofuels

8. Discuss the types of microbial pesticides, their mode of action, application and advantages over chemical pesticides. 14

UNIT-V

9. Write short notes on the following: 7x2=14

   a. Anticancer agents

   b. Anti-inflammatory components

10. Write short notes on the following: 7x2=14

   a. Anti-HIV compound

   b. Anti-malarial compounds

★★★

2025/SEM/EVEN/09/27/MIB-553/315

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