PG Even Semester Exam, 2024

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 the principle considerations for the large scale production of enzymes. How can the production of microbial enzymes be regulated? 14
2. a. Write a note on the different sources of enzymes and the advantage of microbial source over them. 7
   b. Describe the chromatographic methods of enzyme purification. 7

UNIT-II

3. What is enzyme immobilization? Discuss advantages, disadvantages, application of enzyme immobilization and factors influencing performance of immobilized enzymes. 14

Turn over

4. Write short notes on: 7x2=14
   a. Kinetics of immobilized enzyme
   b. Biosensors

UNIT-III

5. Write short notes on: 7x2=14
   a. Role of enzymes in food industry
   b. Enzymes in diagnostic assays.
6. Write notes on: 7x2=14
   a. Immuno enzyme techniques
   b. Enzyme electrodes

UNIT-IV

7. Elaborate mode of action and specificity of Bacillus thuringiensis toxins in the control of caterpillars larva. 14
8. Write notes on: 7x2=14
   a. Baculovirus
   b. Bio fuels

UNIT-V

9. Write a note on different types of microbial toxins. Discuss the chemical nature and mode of action of exotoxin and endotoxin. 14
10. Write short notes on : 7+7=14
    a. Antiviral compounds and their mode of action
    b. Anticancer compounds and their mode of action

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2024/SEM/EVEN/09/27/MIB-553/123

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