PG Even Semester (CBCS) Exam., May—2017

MICROBIOLOGY

(2nd Semester)

Course No. : MIBCC–204

(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, taking **one** from each Unit

UNIT—I

1. Enumerate commercially important microbial enzymes used in medicine and discuss large-scale production of any one of them. 14

2. Describe purification of enzymes by chromatographic technique and discuss the criteria of purity. 14

UNIT—II

3. Describe chemical methods for immobilization of enzymes using suitable example. 14

4. Explain the following : 7+7=14

(a) Reverse micellar entrapment

(b) Properties of immobilized enzymes

UNIT—III

5. Describe the applications of enzyme in food and drinks industries. 14

6. Write descriptive notes on any *two* of the following : 7×2=14

(a) Immunoassay methods

(b) Enzymes as reagent in clinical chemistry

(c) Constitutive and inducible enzymes

UNIT—IV

7. What are biopolymers? Describe the production and applications of any two industrially important biopolymers. 14

8. Describe the following : 7+7=14

(a) Broad spectrum antibiotics

(b) Industrial applications of biosensors

UNIT—V

9. Differentiate between exotoxin and endotoxin. Discuss their chemical natures and mechanisms of action. 14

10. Write notes on any *two* of the following : 7×2=14

(a) Anti-HIV compounds and their mode of action

(b) Microbial toxins as cancer therapeutics

(c) Anti-inflammatory compounds

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