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Code No. 8646

FACULTY OF SCIENCE
M. Sc. II – Semester Examination, May / June 2016

Subject : Microbiology

Paper – IV : Enzymology and Biochemical Techniques

Time : 3 Hours

Max. Marks: 80

Note : Answer all questions from Part--A and Part--B. Each question carries 4 marks in Part--A and 12 marks in Part – B.

PART – A (8 x 4 = 32 Marks)
(Short Answer Type)

- 1 Oxidoreductases
- 2 Enzyme inhibitors
- 3 Feedback mechanism
- 4 Allosteric enzymes
- 5 Dialysis
- 6 Flurometry
- 7 Scintillation counter
- 8 Isoelectric pint

PART – B (4 x 12 = 48 Marks)
(Essay Answer Type)

- 9 (a) Describe the effect of pH and temperature on the enzyme kinetics.
OR
(b) Write an account on major classes of enzymes with suitable examples and their significant role in biology.
- 10 (a) Describe the mechanism of thiamine pyrophosphate enzyme activity.
OR
(b) Explain the mechanism of enzyme action of chymotrypsin and trypsin.
- 11 (a) Discuss the chromatographic techniques and their applications in biochemical studies.
OR
(b) Explain the principle of Beer-Lambert law and applications of UV-Visible spectrophotometry in quantitative estimations of biomolecules.
- 12 (a) Describe the methodology of two-dimensional electrophoresis techniques.
OR
(b) Explain how the mutants are used in study of metabolism.
