

FACULTY OF SCIENCE

M.Sc. I-Semester Examination, January 2018

Subject : MICROBIOLOGY

Paper : IV

Microbial Biochemistry

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 Redox potentials
- 2 Biological membranes,
- 3 Prostaglandins
- 4 Structure of Nucleosides and Nucleotides
- 5 Enzyme inhibitors,
- 6 Significance of K_m and V_{max}
- 7 Oxidases and Hydrolases
- 8 Feedback inhibition

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

- 9 a) Explain EMP with energetics and significance.
OR
b) Explain free energy, free energy changes and high energy compounds.
- 10 a) Write the structure and properties of purines.
OR
b) Classification of lipids with examples.
- 11 a) Classification methods for determination of enzyme activity.
OR
b) Write an essay on enzyme inhibitors.
- 12 a) Allosteric enzymes and feedback mechanism.
OR
b) Enzymes and secondary metabolites. Its biological significance.

