

2072

B.A./B.Sc. (General) Second Semester  
Industrial Microbiology

## IMB-202: Fundamentals of Microbial Biochemistry

Time allowed: 3 Hours

Max. Marks: 33

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting one question from each Unit.

x-x-x

I. Attempt the following:-

- a) Define Activation energy and Transition state.
- b) What are Polysaccharides? Give example.
- c) What is Glycolysis and where does it take place?
- d) What are Essential Amino acids? Give examples.
- e) Define pKa and pI ?

(5x1)

UNIT - I

II. Discuss different types of enzyme inhibitions.

(7)

III. Write notes on:-

- a) Isozymes
- b) Covalent modification of enzymes

(2x3½)

UNIT - II

IV. Discuss Important Properties of Carbohydrates.

(7)

V. Write a note on:-

- a) Lipid peroxidation
- b) Microbial Lipids

(2x3½)

UNIT - III

VI. Discuss steps and enzymes involved in Gluconeogenesis.

(7)

VII. Discuss regulation of Krebs' s Cycle.

(7)

UNIT - IV

VIII. Discuss classification and important properties of amino Acids.

(7)

IX. Write a note on Peptide synthesis.

(7)

x-x-x