

M.Sc. (Micro) Semester - 2 (CBCS) Examination
March/April – 2024 (As Per Syllabus Year-2023)
Biochemistry (Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Q. 1 Answer the following: (Any 7) (14)
1. Explain the term 'Entropy'
 2. Describe in short – the structure of amino acids
 3. Explain the term 'Heteropolysaccharides'.
 4. What is ping pong mechanism of enzyme reaction?
 5. What is the difference between first order and second order reaction?
 6. Which are the two phase of glycolysis?
 7. Explain the importance of Michaelis-Menton theory
 8. What is activation energy?
- Q. 2 Answer the following: (Any Two) (14)
1. Describe in detail the metabolism of fatty acid.
 2. State the types and properties of monosaccharides
 3. Give the classification and properties of Simple lipids with appropriate examples
- Q. 3 Answer the following: (Any Two) (14)
1. Write a note on secondary and tertiary levels of proteins.
 2. Explain in detail 'Zwitter ion' condition in amino acids with example
 3. What are '*Dihedral*' angles in contex to proteins? Explain in detail.
- Q. 4 Answer the following: (Any Two) (14)
1. Discuss the contribution of Briggs and Haldane in enzyme kinetics studies.
 2. Write a detailed note on difference between reversible and irreversible inhibition.
 3. Explain classification and Nomenclature of enzymes
- Q. 5 Answer the following: (Any Two) (14)
1. Write a detailed note on 'Gluconeogenesis'
 2. Describe 'Pentose Phosphate Pathway'.
 3. Describe in detail 'Laws of Thermodynamics'.
