

M.Sc. (Micro) Semester - 2 (CBCS) Examination
MARCH/APRIL - 2024 (Syllabus Year: 2018)
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. 'Polysaccharides – Clarify in brief with example.
 2. What are 'Adipocytes'?
 3. Describe in short – fibrous structure of proteins
 4. Explain the term 'saponifiable lipids'.
 5. Which are the important enzymes involved in Glyoxylate cycle.
 6. What is the role of carnitine in beta oxidation?
 7. Give the names of Sulphur containing amino acids
 8. What is the difference between amylase and amylopectin?
 9. State the salient features of competitive inhibition
 10. Explain the importance of Michaelis-Menton theory
- Q. 2 Answer the following: (Any Two) (14)
1. What is Beta oxidation? Why it is important in cell biology and explain its mechanism for fatty acid.
 2. State the chemical properties of Monosacharides with examples
 3. Give the classification of lipids with appropriate examples
- Q. 3 Answer the following: (14)
1. Explain Titration curve in detail.
 2. State the role of Secondary levels of proteins. Explain its detail structure
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- Q. 3 Answer the following
1. Write a note on the Classification of amino acids.
 2. Explain in detail 'Ramchandran plot' with its significance
 3. Describe various important properties of amino acids.
- Q. 4 Answer the following: (Any Two) (14)
1. Write a detailed note on Line Weaver Burke equation and it's importance.
 2. Discuss the contribution of Briggs and Haldane in enzyme kinetics studies.
 3. Distinguish between reversible and irreversible inhibition
- Q. 5 Answer the following: (Any Two) (14)
1. What are Energy rich compounds and electron carriers?
 2. Write a detailed note on 'Glycolysis'.
 3. What are Allosteric enzymes? Explain in detail
 4. Discuss the pathway of Glyoxylate in detail
