

M.Sc. (Botany) Semester - 2 (CBCS) Examination
May/June-2021 (NEW COURSE)
Biochemistry (CORE)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figure to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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- Q.1 Answer the following (any 7) 14**
1. Give any four examples of monosaccharides with its formula.
 2. Write two differences of simple lipid and compound lipid
 3. Draw basic structure of Amino acid and write any four name of amino acid
 4. Give two differences of primary and secondary protein
 5. State the significance of enzymes.
 6. What is ping pong mechanism of enzyme reaction?
 7. What is the difference between entropy and enthalpy?
 8. Write importance of Pentose Phosphate pathway
 9. What are high energy rich compounds? State few examples
 10. Give names of any two examples of homopolysaccharides and heteropolysaccharides
- Q.2 Answer the following (any two) 14**
1. State the chemical properties of polysaccharides
 2. Explain in detail the Beta oxidation of fatty acids.
 3. Give the classification of lipids with appropriate examples
- Q.3 Answer the following (any two) 14**
1. Explain classification of amino acids
 2. Write notes on Tertiary and Quaternary structure of protein
 3. Explain Ramachandran plot in detail.
- Q.4 Answer the following (any two) 14**
1. Explain classification of enzymes
 2. Discuss Michaelis-Menten model of kinetic properties of enzymes.
 3. Write note on Mechanism of Enzymes
- Q.5 Answer the following (any two) 14**
1. Write a detailed note on Citric acid cycle
 2. Describe in detail 'Pentose Phosphate Pathway'.
 3. Discuss the pathway of gluconeogenesis in detail
 4. Write a detailed note on Glycolysis
