

M.Sc. (Botany) Semester - 2 (CBCS) Examination
April/May-2023 (OLD COURSE)
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. What are 'Adipocytes'?
2. Which are the important enzymes involved in Glyoxylate cycle.
3. What are the steps involved in beta oxidation?
4. Why glycine and proline are considered to be different from other amino acids?
5. What are aromatic amino acids? Give examples
6. Explain effect of temp and pH on enzyme activity.
7. Which are the important enzymes involved in Glyoxylate cycle.
8. Give the names of Sulphur containing amino acids
9. Write the names of high energy rich compounds
10. What is EC number?

Q.2 Answer the following (any two) (14)

1. Describe metabolism of fatty acid
2. What are Simple lipids? Explain with suitable examples
3. Explain Monosaccharides and Disaccharides in detail

Q.3 Answer the following. (14)

1. State the physical and chemical properties of amino acids.
2. What are Quaternary proteins?

OR

Q.3 Answer the following. (14)

1. Write a note on Ramachandran plot.
2. Explain in detail 'Iso-electric Point'.

Q.4 Answer the following. (any two) (14)

1. Distinguish between reversible and irreversible inhibition.
2. Write a detailed note on Line Weaver Burke equation and its importance.
3. Describe the mechanism of action of anabolic and catabolic enzymes.

Q.5 Answer the following. (any two) (14)

1. Write a detailed note on Glycolysis.
2. Describe in detail 'Pentose Phosphate Pathway'.
3. Discuss the pathway of gluconeogenesis in detail.
4. What are Allosteric enzymes? Explain in detail.
