

QP CODE: 25050443



Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION, DECEMBER 2025

First Semester

M Sc FOOD TECHNOLOGY AND QUALITY ASSURANCE

Core Courses - FQ010102 - BASIC BIOCHEMISTRY

2019 Admission Onwards

35C6E8FF

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What are enediols? Give its significance
2. Describe OGTT.
3. What are chylomicrons?
4. What are Ketone bodies?
5. Narrate the specificity and action of pancreatic proteases.
6. Give a brief note on different types of substrate specificity.
7. State the importance of RNA primers in DNA replication.
8. Describe the recognition sequences for initiation of transcription in prokaryotes and eukaryotes.
9. Differentiate between cyclic and non-cyclic photophosphorylation.
10. Describe the carboxylation reaction of primary carbon dioxide acceptor in calvin cycle.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Describe the mechanism of digestion and absorption of carbohydrates.
12. Describe the regulation of glycogen metabolism in our body.
13. Discuss the reactions involved in the synthesis of glucose from pyruvate.
14. With the help of structures, explain the different types of phospholipids and its functions.
15. Elaborate on the classification of amino acids based on structure.
16. With the help of a neat graph, derive Km value and explain single enzyme kinetics.
17. Compare and contrast Competitive, Non-competitive and Un-competitive inhibitions with LB plots and suitable examples.
18. With the help of diagrams, narrate the stages of elongation of peptide chain in translation.



Part C (Essay Type Questions)

Answer any **two** questions.

Weight **5** each.

19. Enumerate the reactions of HMP shunt. Give the importance of HMP shunt.
20. Describe in detail on the oxidation of fatty acids with the help of structures.
21. Describe in detail on the metabolism of amino acid.

With the help of diagram, explain the following

22. (1) C2 cycle
- (2) C4 cycle
- (3) CAM cycle

(2×5=10 weightage)