

QP CODE: 23145311



Reg No : .....

Name : .....

**M Sc DEGREE (CSS) EXAMINATION, DECEMBER 2023**

**First Semester**

M Sc FOOD TECHNOLOGY AND QUALITY ASSURANCE

**CORE - FQ010102 - BASIC BIOCHEMISTRY**

2019 ADMISSION ONWARDS

00436837

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. What do you mean by the term mutarotation?
2. Compare the clinical features of type I and type II diabetes mellitus.
3. What are omega 3 fatty acids and state its importance in human diet?
4. What are cardiolipin?
5. What do you mean by transamination?
6. What are peptide bond?
7. What are the different forms of DNA?
8. Describe the types of termination in transcription.
9. List the photosynthetic pigments involved in photosynthesis?
10. Why is calvin cycle also called C3 cycle?

(8×1=8 weightage)





### Part B (Short Essay/Problems)

Answer any **six** questions.

Weight **2** each.

11. Write a short note on polysaccharides.
12. Enumerate the reactions involved in glycogenolysis.
13. Discuss the reactions involved in the synthesis of glucose from pyruvate.
14. Explain the digestion of dietary fat in small intestine.
15. Describe the classification of amino acids based on polarity and nutrition.
16. Explain in detail on different types of enzyme specificity.
17. Compare and contrast Competitive, Non-competitive and Un-competitive inhibitions with LB plots and suitable examples.
18. Comment in detail on post translational modifications of proteins.

(6×2=12 weightage)

### Part C (Essay Type Questions)

Answer any **two** questions.

Weight **5** each.

19. With the help of structure explain in detail the reactions of glycolysis and its regulation.
20. Describe in detail on the oxidation of fatty acids with the help of structures.
21. Elaborate on the factors affecting enzyme activity with suitable graphs and examples.
22. With the help of diagram, explain the following
  - (1) C2 cycle
  - (2) C4 cycle
  - (3) CAM cycle

(2×5=10 weightage)

