

QP CODE: 22001441



Reg No : .....

Name : .....

**M Sc DEGREE (CSS) EXAMINATION, JULY 2022**

**First Semester**

M Sc FOOD TECHNOLOGY AND QUALITY ASSURANCE

**CORE - FQ010102 - BASIC BIOCHEMISTRY**

2019 ADMISSION ONWARDS

DEB8468E

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight 1 each.*

1. Give a common test to determine carbohydrates.
2. Discuss the anaplerotic reactions in glycolysis.
3. Describe OGTT.
4. Distinguish MUFA and PUFA with examples.
5. Write short note on mixed micelles and its involvement in lipid transport.
6. Draw the structure of sulphur containing amino acids.
7. What are allosteric enzymes?
8. What are allosteric modulators?
9. What are heterogeneous mRNAs?
10. What do you mean by photophosphorylation?

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight 2 each.*

11. Write a short note on polysaccharides.
12. Discuss the reactions involved in the synthesis of glucose from pyruvate.
13. Describe the biosynthesis of cholesterol and give its functions.
14. Give a detailed account of oxidative and non-oxidative deamination.
15. Enlist the salient features of  $\alpha$ -helix with a neat diagram.
16. With the help of a neat graph, derive  $K_m$  value and explain single enzyme kinetics.





17. With the help of a neat diagram, elucidate the structure of tRNA.
18. With the help of a neat diagram describe the structure of chloroplast.

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight 5 each.*

19. Outline the reactions involved in glycogenesis and glycogenolysis. Add a note on how glycogen metabolism is regulated.
20. With the help of structure, explain in detail on the biosynthesis of fatty acids and its regulation
21. Enumerate in detail the process of protein biosynthesis with the help of suitable diagrams
22. Illustrate and explain the reactions of Melvin-Calvin cycle. Indicate the control points of the cycle.

(2×5=10 weightage)

