QP CODE: 21002026

Reg No : .....

Name : .....

M Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2021

First Semester

M Sc FOOD TECHNOLOGY AND QUALITY ASSURANCE

CORE - FQ010102 - BASIC BIOCHEMISTRY

2019 ADMISSION ONWARDS

D4E37A03

Time: 3 Hours Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Draw the structure of (a) Cellulose (b) Glycogen.
2. Comment on intestinal digestion of carbohydrates.
3. Make a note on insulin-dependent diabetes mellitus.
4. Give a brief account of emulsification of lipids in small intestine.
5. What are Ketone bodies?
6. What are Zwitter ions?
7. Compare coenzyme and prosthetic group.
8. How does pH affect enzyme activity?
9. What are heterogeneous mRNAs?
10. Distinguish between C3 plants and C4 plants.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Enumerate the reactions involved in glycogenolysis.
12. Discuss the reactions involved in the synthesis of glucose from pyruvate.
13. Describe the biosynthesis of cholesterol and give its functions.
14. Explain the transport and storage of ammonia in blood.

15. Explain the important characteristics of β-pleated sheets with diagrams.

16. Compare and contrast Competitive, Non-competitive and Un-competitive inhibitions with LB plots and suitable examples.

17. Describe the discontinuous DNA synthesis of lagging strand.

18. Explain the reactions of cyclic photophosphorylation.

(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. 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)