23104703

QP CODE: 23104703

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

B.Sc Food Technology & Quality Assurance

Core Course - FQ1CRT02 - BIOCHEMISTRY

2017 Admission Onwards

05DDD71F

Time: 3 Hours Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. D and L isomers.
2. Describe the oxidation products of glucose.
3. Hyaluronic acid.
4. Draw the structure of sulphur containing amino acids.
5. All amino acids give purple colour with a reagent X except an amino acid Y which gives yellow colour. (1) Name X and Y (2) Explain the reaction.
6. What is saponification reaction?
7. LDL
8. Discuss the action of statins on HMG Co A reductase.
9. Define Multienzyme complex with PDH as example.
10. Deficiency disease of Riboflavin.
11. What is the end product of anaerobic glycolysis?
12. Transamination.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write note on heteropolysaccharides.
14. Give an account of bonds involved in Protein structure.
15. Write a note on Protein denaturation.
16. Give the classification of Lipids.
17. Enumerate the structure and functions of essential fatty acids.
18. Describe the models of Enzyme-Substrate complex.
19. Compare Competitive, Non-Competitive and UnCompetitive Inhibition.
20. Define gluconeogenesis. Outline the various reactions involved in the formation of glucose from pyruvate.
21. Give an account of Transamination.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Describe in detail the oxidation of fatty acid in the body. Give the energetics and regulation.
23. Describe source, biochemical functions and deficiency disease of Vitamin A.
24. Draw and describe TCA cycle with energetics and regulation. Add a note on amphibolic and anaplerotic reactions of TCA cycle.
25. With help of structure explain Urea cycle with energetics and regulation. Add a note on bicyclic integration.

(2×15=30)