QP CODE: 21102836

21102836

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021

Fourth Semester

Complementary Course - CH4CMT06 - CHEMISTRY - ADVANCED BIO-ORGANIC CHEMISTRY

(Common for B.Sc Botany Model I, B.Sc Botany Mdel II Environmental Monitoring and Management , B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management, B.Sc Botany Model II Plant Biotechnology, B.Sc Family & Community Science Model I, B.Sc Food Science & Quality Control Model III, B.Sc Food Technology & Quality Assurance, B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology)

2019 Admission only

9EDB7027

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Mention two uses of lemongrass oil.
2. Write down the oxidation and reduction products of citral.
3. What are soaps chemically?
4. Which are the three classes of synthetic detergents?
5. What is meant by isoelectric point?
6. How a peptide bond is formed between two amino acids?
7. Write the name of an enzyme that include their source.
8. Draw the structure of deoxyribose sugar in DNA.
9. What are the nitrogenous bases present in DNA?
10. Write the molecular formula of cellulose.
11. What causes Scurvey?
12. Which are the steroid hormones?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. What are the properties of alkaloids?
14. What are the important methods to analyse the quality of fats and oils?
15. Explain the classification of proteins based on chemical composition and molecular shape.
16. Explain the uses of enzymes.
17. Explain the formation of ATP from adenine.
18. What are oligosaccharides? What are the three main classifications? Give examples.
19. How glucose is converted to fructose?
20. Explain the biological functions and deficiency diseases of vitamin A. Give its structure.
21. Write short notes on LDL and HDL.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Briefly explain the classification of lipids with suitable examples.
23. Explain the a) Stecker Synthesis of alanine b) Gabriel Phthalimide synthesis of glycine c) synthesis of phenyl alanine
24. a) Explain protein synthesis. b) Write a note on the structure of ATP.
25. Elucidate the structure of Maltose.

(2×10=20)