



24020710

QP CODE: 24020710

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) REGULAR EXAMINATIONS, APRIL 2024****Fourth Semester****Complementary Course - CH4CMT06 - CHEMISTRY - ADVANCED BIO-ORGANIC CHEMISTRY**

(Common for B.Sc Botany Model I, B.Sc Botany Model 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)

2017 Admission Onwards

144C0EE8

Time: 3 Hours

Max. Marks : 60

**Part A***Answer any **ten** questions.**Each question carries **1** mark.*

1. What are terpenes? How are they different from terpenoids?
2. Write down the oxidation and reduction products of citral.
3. What is the general structure of a triglyceride?
4. What are steroids?
5. What is meant by a zwitterion?
6. How a peptide bond is formed between two amino acids?
7. Draw the schematic representation of induced fit model.
8. Draw the structure of thymine and cytosine.
9. Draw the structure of AMP.
10. Which is the simplest hydroxy aldehyde?
11. Which are the diseases caused by the deficiency of vitamin C?
12. What are the functions of adrenalin?

(10×1=10)





### Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Draw the structures of piperine, piperic acid and piperonylic acid.
14. Discuss the cleansing action of soaps.
15. How is glycine prepared by Strecker Synthesis?
16. Explain the uses of enzymes.
17. Write a note on the structure of RNA.
18. Explain mutarotation of Fructose.
19. Explain the structure of Starch.
20. Explain the biological functions and deficiency diseases of vitamin B1 and B2. 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. Explain the environmental aspects of soaps and detergents.
23. Briefly explain
  - a) The biological importance of proteins.
  - b) Effects of denaturation on proteins
  - c) Any three tests for proteins.
24. Explain the biological functions of nucleic acids.
25. Elucidate the structure of Maltose.

(2×10=20)

