



21100856

QP CODE: 21100856

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATION, MARCH 2021**

**Fourth Semester**

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

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

2017 Admission onwards

40E89F2A

Time: 3 Hours

Max. Marks : 60

**Part A**

*Answer any **ten** questions.*

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

1. What are essential oils?
2. Write the equation for the ozonolysis of geraniol.
3. What are the merits of hydrogenation of oils and fats?
4. What are steroids?
5. Draw the zwitterionic form of phenyl alanine.
6. Give an example for a dipeptide.
7. What are hydrolases?
8. Differentiate between competitive and non-competitive inhibition.
9. What do you mean by genetic code?
10. What is mutarotation?
11. Which are the diseases caused by the deficiency of vitamin B1?
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. Discuss the cleansing action of soaps
15. Explain the classification of proteins based on chemical composition and molecular shape.
16. Write a brief note on the structure of nucleosides.
17. Differentiate the structure of AMP and ADP.
18. Write the Haworth configuration of  $\alpha$ -D-Glucose and  $\alpha$ -D-Fructose.
19. Differentiate Gun cotton and Mercerised Cotton.
20. Explain the biological functions and deficiency diseases of vitamin C. Give its Structure.
21. Discuss the structure and functions of cholesterol.

(6×5=30)

**Part C**

Answer any **two** questions.

Each question carries **10** marks.

22. What are synthetic detergents? How are they classified? What are the differences between soaps and detergents?
23. Explain the a) Stecker Synthesis of alanine ) Gabriel Phthalimide synthesis of glycine c) synthesis of phenyl alanine
24. a) Explain the structure of DNA b) Distinguish between DNA and RNA
25. Explain any five chemical properties of Fructose with equation

(2×10=20)

