



19101397

QP CODE: 19101397

Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATION, MAY 2019**

**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

3E2336A4

**Maximum Marks: 60**

**Time: 3 Hours**

**Part A**

Answer any **ten** questions.

Each question carries **1** mark.

1. Write two uses of geraniol?
2. How are alkaloids classified based on the plant source?
3. Write any two methods for the extraction of fats and oils?
4. What are soaps chemically?
5. Draw the zwitterionic form of phenyl alanine.
6. What is meant by a peptide bond?
7. Write down Michaelis-Menton equation for enzyme catalysed reactions and explain the terms
8. Draw the structure of adenine and guanine
9. Draw the structure of AMP
10. Write the molecular formula of cellulose
11. Which are the diseases caused by the deficiency of vitamin B12?
12. Draw the structure of vitamin D.

(10×1=10)

**Part B**

Answer any **six** questions.

Each question carries **5** marks.

13. How are terpenoids classified? Give examples for each class?





14. What are different types of soaps?
15. Explain the denaturation of proteins.
16. Explain the structure of DNA
17. Explain translation process in protein synthesis
18. Explain the industrial preparation of fructose
19. How fructose is converted to glucose
20. What are bile acids? What are its functions?
21. Write short notes on amine hormones and artificial hormones.

(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
  - b) Gabriel Phthalimide synthesis of glycine
  - c) synthesis of phenyl alanine
24.
  - a) Write a note on the different classes of enzymes
  - b) Explain Michaelis-Menton theory
25. Elucidate the structure of Glucose

(2×10=20)

