

B. Sc. DEGREEE (C.B.C.S.S.) EXAMINATION, MARCH 2017
(Supplementary – 2014 Admission)
SEMESTER IV – COMPLEMENTARY COURSE (CHEMISTRY)
CHE4ABC - ADVANCED BIO ORGANIC CHEMISTRY
(For Botany, Zoology and Home Science)

Time: Three Hours

Maximum Marks: 60

PART A**I Answer all questions. Each question carries 1 mark**

1. An example of a neutral amino acid is.....
2. Urease catalyses the hydrolysis of.....
3. is an example for a monosaccharide
4. Vitamin B5 is also called as.....
5. Rancidity of oils and fats can be prevented by adding.....

(5×1=5)

PART B**II Answer any five of the following. Each question carries 2 marks**

6. What is fibrous protein? Give two examples.
7. Describe Gabriel phthalimide synthesis
8. What are cofactors?
9. Give four important applications of cellulose.
10. Name two peptide hormones and two amine hormones.
11. Explain how iodine value is determined.
12. Discuss about hardening of oils.
13. State the isoprene rule.

(5×2=10)

PART C**III Answer any five of the following. Each question carries 5 marks**

14. How do amino acids act as building blocks of proteins?
15. How does replication of DNA occur?
16. Give the functions of nucleic acids.
17. Write a short note on mutarotation. Explain using glucose as an example.
18. How is fructose converted to glucose? Explain.
19. Discuss the biological importance of cholesterol.
20. How alkaloids are isolated?
21. Explain the chemical properties of Geraniol.

(5×5=25)

PART D**IV Answer any two of the following. Each question carries 10 marks**

22. (a) Discuss the structure of aminoacids.
(b) Explain denaturation of proteins.
23. (a) How is energy stored in ATP?
(b) What are artificial hormones? Explain their preparation.
24. (a) Give the preparation and properties of glucose.
(b) Give the reactions of glucose with (i) phenylhydrazine (ii) HCN and (iii) semicarbazide.
25. (a) Discuss the isolation, properties and structure of piperine.
(b) Explain the cleansing action of soaps.

(2×10=20)