TB174115S

Reg. No: .....

Name: .....

B. Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MARCH 2024

(2015, 2016 & 2017Admissions Supplementary)

SEMESTER IV – COMPLEMENTARY COURSE (CHEMISTRY)

CH4C04TB - ADVANCED ORGANIC CHEMISTRY

(Common for Botany, Zoology, Home science)

Time: Three Hours **Maximum Marks: 60**

PART A

I Answer all questions. Each question carries 1 mark

1. Give an example for taste enhancer.
2. List any two examples for reducing sugar.
3. Give one example each of water soluble and fat-soluble vitamin.
4. Give example for a complex lipid.
5. Write the structure of glycine.

(5x1=5)

PART B

II Answer any five questions. Each question carries 2 marks

6. What are zwitter ions? Give one example
7. What is meant by epimerisation?
8. Explain denaturation of protein.
9. Discuss briefly any four reactions of fructose.
10. DefineSaponification value.
11. Outline Haworth configuration of β-D-Glucose.
12. Differentiate between soaps and detergents.
13. List two important additives used as food flavors.

(5x2=10)

PART C

III Answer any five questions. Each question carries 5 marks

14. Explain the structure of protein.
15. Explain cleansing action of detergent.
16. Give a brief account of the biological functions and deficiency diseases of vitamin C.
17. Give an account of the industrial applications of cellulose.
18. Explain toxic effects of heavy metals.
19. Outline the chemical composition of nucleic acid.

20. Give an account of the industrial manufacture of sucrose.
21. Discuss the analysis of fats and oils using (a) acid value (b)iodine value.

(5x5=25)

PART D

IV Answer any two questions. Each question carries 10 marks

22. Convert a) glucose to fructose(b) fructose to glucose.
23. Discuss the following (a) artificial sweeteners (b) emulsifiers (c) Food colours.
24. Discuss the characteristics of enzymes and explain the mechanism of enzyme action.
25. (a) Explain mutarotation (b)Differentiate between DNA and RNA.

(2x10=20)