TB206190W **Reg. No :.....**

Name :.....

B. Sc. DEGREE (C.B.C.S.) EXAMINATION, MARCH 2023

(2020 Admission Regular, 2019, 2018 Admissions Supplementary)

SEMESTER VI - CORE COURSE (CHEMISTRY)

CH6B10B18 - ORGANIC CHEMISTRY - IV

Time : 3 Hours **Maximum Marks : 60**

Part A

I. Answer any Ten questions. Each question carries 1 mark **(10x1=10)**

1. Predict an example for a conjugated protein.
2. Define detergent additives.
3. Give an example of a water soluble Vitamin.
4. Name the heterocyclic residue present in Nicotine.
5. Differentiate between a reducing and non reducing sugar, with one example each.
6. Define essential amino acids.
7. Define isoelectric point.
8. Name the amino acid which is not optically active.
9. Describe ribozymes.
10. Recall the role of Rosalind Franklin in the discovery of the structure of DNA.
11. Describe a photosensitised reaction.
12. Define the concept of molecular recognition.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Comment on artificial hormones .
14. Compare between soaps and detergents.
15. Show the classification of carbohydrates with example for each type. .
16. Explain the different classes of proteins on the basis of their biological functions.
17. Discuss DCC method of peptide synthesis.
18. Distinguish between RNA and DNA.
19. Discuss the general structure of double stranded DNA.
20. Explain pi-stacking interactions.
21. Explain Jablonski diagram.

Part C

III. Answer any Two questions. Each question carries 10 marks **(2x10=20)**

22. Elucidate the structure of Citral.
23. Identify the functions of Cholesterol? Distinguish between HDL and LDL.
24. Explain the following reactions: a) Epimerisation reaction b) fructose with Tollen's reagent c) inversion of cane sugar d) sucrose with Con. HNO_3
25. Discuss reactions of amino and carboxyl groups of amino acids.