TB246865V

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2024

2021 ADMISSIONS REGULAR

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. Identify the terpenoid obtained from Lemongrass oil.
2. Define saponification.
3. Identify the chemical nature oils.
4. Sketch the structure of Piperic acid.
5. State the non-protein part of a conjugated protein.
6. Describe the reaction of fructose with excess phenylhydrazine.
7. Differentiate between a reducing and non reducing sugar, with one example each.
8. Explain the action of heat on sucrose.
9. Recall the structure adenine.
10. Recall the role of Rosalind Franklin in the discovery of the structure of DNA.
11. Define internal conversion.
12. Define supramolecular chemistry.

Part B

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

13. Discuss (a)Trans fat and their health effects. (b) Hydrogenation of oil.
14. Comment on artificial hormones .
15. Name the building block of cellulose. Differentiate between amylose and amylo pectin.
16. Discuss the manufacture of viscose rayon and its applications.
17. Explain the various methods used for the activation of carboxyl groups.
18. Explain the following: a) Okazaki fragment b) leading strand
19. Explain with suitable diagram why DNA replication is called semi-conservative.
20. Explain pi-stacking interactions.
21. Describe Norrish Type II reaction.

Part C

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

22. Distinguish between ABS and LAS detergents.
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. Explain (a) Edman method (b) Sanger's method to determine the N-terminal amino acid of a peptide.