TB252226I

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S) EXAMINATION, MARCH 2025

2018, 2019, 2020, 2021, 2022 ADMISSIONS SUPPLEMENTARY

HOME SCIENCE SEMESTER II - COMPLEMENTARY COURSE 1 (CHEMISTRY)

CH2C01B18 - Basic Organic Chemistry

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

Part A

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

1. Define Position isomerism.
2. Memorize two examples of positive electrophiles.
3. Write the IUPAC name of CH_3-CH(OH)-CH_2-CHO.
4. State Saytzeff rule.
5. Describe Walden inversion.
6. Predict the product that will be formed by electrophilic addition HBr to Propene in the absence of peroxide.
7. Reproduce cis and trans forms of but-2-ene.
8. Define the term enantiomer.
9. Describe the classification of stereoisomerism.
10. Represent different types of copolymers.
11. Recall the names of trees which are sources of latex.
12. Define the term plastic recycling.

Part B

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

13. Predict and explain the type of structural isomerism present in the following pair of compounds: a)Pentane and 2,2-dimethyl propane b)Ethanol and Methoxymethane.
14. Determine and explain the type of structural isomerism present in the following pair of compounds: a)1-Chloropropane and 2-Chloropropane b)Ethoxy Ethane and Methoxy Propane.
15. Compare the electron density of Phenol and Nitrobenzene with the aid of resonance structures.
16. List the following on the decreasing order of acid strength: Acetic acid, Formic acid, Propanoic acid and Butanoic acid. Explain the reason for the varying acid strength.
17. Discuss mesomeric effect. Explain +M and –M effect with suitable examples.
18. Describe briefly about geometrical isomerism in cyclic compounds.
19. Discuss the optical isomerism in tartaric acid.
20. Discuss preparation and uses of phenol formaldehyde resin and melamine formaldehyde resin.
21. Explain biodegradability of polymers.

Part C

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

22. Describe the following a)substitution reactions b) elimination reactions c)Addition reactions d)Rearrangement reactions.
23. Explain the mechanism of E1 and E2 type elimination with suitable example.
24. Explain different physical and chemical methods to distinguish cis and trans isomers with suitable examples.
25. Discuss about various environmental hazards due to plastics.