

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
 Chromepet, Chennai — 600 044.

B.Sc.(Chemistry) END SEMESTER EXAMINATIONS NOVEMBER -2023

SEMESTER - II

22UCHCT2003 - Basics of Organic Chemistry

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Illustrate the hybridization and shape of benzene molecule.
2. Describe the mechanism of S_Ni reaction.
3. Predict the mechanism of chlorination of methane.
4. Explain the suphonation mechanism of benzene.
5. State Hoffmann nad Saytzeff rules with examples.
6. Predict the formation and the stability of free radicals.
7. Explain Ziegler-Natta catalysed polymerization.
8. Examine the effects of structure and solvent in the elimination and substitution reactions.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the following electron displacement effects
(i) Inductive (ii) Mesomeric.
10. Apply Wurtz and Dieckmann's ring closure reactions to prepare cycloalkanes.
11. Distinguish the mechanisms of S_N1 and S_N2 reactions.
12. Solve the reaction products of propene after the following processes
(i) Hydroboration (ii) Ozonolysis
(iii) Hydroxylation with $KMnO_4$ (iv) Allylic substitution by NBS.
13. Diagnose the following terms with appropriate examples
(i) Aromaticity (ii) Anti-aromaticity (iii) Non-Aromatic.
