

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 APRIL - 2024

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. Explain the hybridization and shape of ethylene.
2. Illustrate the mechanism of E2 elimination reaction.
3. Predict the mechanism of chlorination of methane.
4. Interpret the role of Hoffmann and Saytzeff rules in the preparation of alkenes.
5. Explain the following terms
 - (i) aromaticity
 - (ii) anti-aromaticity
 - (iii) non-aromaticity.
6. Predict the products of ozonolysis of propene and propose suitable mechanism.
7. Describe the role of Dieckmann's ring closure reaction to get cycloalkanes.
8. Explain hyperconjugation with examples.

Section C

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

9. Describe the formation and stability of carbocation and carbanion .
10. Solve the mechanisms of S_N1 and S_N2 reactions.
11. Diagnose Baeyer's strain theory. Explain its drawbacks.
12. Predict the mechanisms of the following
 - (i) free radical addition of HBr on propene.
 - (ii) hydroboration-oxidation of 1-butene.
13. Recommend suitable mechanisms for the nitration and Friedel Crafts acetylation of benzene.
