

Roll.No.

22UCHCT5010

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 2025
SEMESTER - V

22UCHCT5010 - Stereo Chemistry, Reaction Mechanism and Rearrangement

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

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

1. Discuss about the Walden inversion with suitable example.
2. What is atropisomerism? Explain the atropisomerism of biphenyls.
3. What is Geometric Isomerism? How will you assign E and Z Configuration with example.
4. Discuss about the Knoevenagel condensation with mechanism.
5. Give a note on Wittig reaction with mechanism.
6. Write a note on Meerwein-Ponndorf-Verley (MPV) reduction.
7. What is the difference between pinacol and semipinacol rearrangement?
8. Explain with suitable example of Cope and oxy-Cope rearrangement.

Section C

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

9. Explain with relative configuration D and L and absolute configuration of R and S with examples.
10. Discuss the stereochemistry of 1,3 and 1,5 diaxial interactions in mono substituted cyclohexane.
11. Explain mechanism of Aldol and Benzoin condensation.
12. Write a detailed note on Cope elimination and Diels-Alder reaction.
13. Discuss about the mechanism of Beckmann, benzil-benzilic acid rearrangement.
