
❖ Problems

- Q 1. What is the meaning of chirality in chemistry? Explain with necessary historical background.
- Q 2. Define and discuss various symmetry elements.
- Q 3. What is a secondary symmetry element? How is it related to the concept of optical activity?
- Q 4. Discuss and differentiate the phenomenon of diastereomerism from enantiomerism.
- Q 5. Discuss the absolute nomenclature of optically active compounds with suitable examples.
- Q 6. Give various methods of resolution of racemic mixtures.
- Q 7. Define optical purity. How is it calculated?
- Q 8. What do you mean by the term 'prochirality'?
- Q 9. What are enantiotopic groups and faces? How are they different from diastereotopic faces and groups?
- Q 10. State and explain asymmetric synthesis.
- Q 11. Draw and discuss various conformations of cyclohexane.
- Q 12. What is the significance of the twisted boat form of cyclohexane?
- Q 13. Define and discuss decalins.
- Q 14. Discuss the conformational analysis of sugars.
- Q 15. What is the chiral axis? How is it different from the chiral plane?
- Q 16. Discuss the chirality arising from helical structures in detail.
- Q 17. Discuss the geometrical isomerism in alkenes and oximes.

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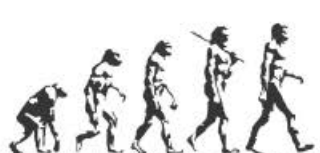
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A TEXTBOOK OF ORGANIC CHEMISTRY

Volume I

MANDEEP DALAL



First Edition

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