

❖ Problems

- Q 1. What is the reaction mechanism? How it can be used as a basis to classify different types of organic reactions?
- Q 2. What are the thermodynamic and kinetic requirements of an organic reaction to occur? Explain with a suitable example.
- Q 3. What do you mean by kinetically controlled product? How is it different from a thermodynamically controlled reaction?
- Q 4. State and explain Hammond's postulate.
- Q 5. Derive the mathematical formulation of the Curtin-Hammett principle.
- Q 6. Draw and explain the potential energy diagrams of different kinds of organic reactions.
- Q 7. Discuss the methods of determining the reaction mechanism with special reference to the detection of reaction intermediates.
- Q 8. Define isotope effect.
- Q 9. State and explain Pearson's hard-soft-acid-base principle.
- Q 10. What are the differences and similarities in carbocations and carbanions?
- Q 11. How does the structure of the substrate affect the reaction rate?
- Q 12. Give Hammett equation. How it can be used to prove the linear free energy relationship?
- Q 13. Write down the Taft equation. Discuss its scope and physical significance.

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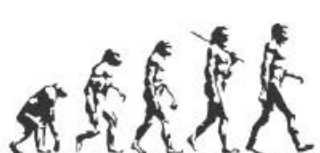
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A TEXTBOOK OF ORGANIC CHEMISTRY

Volume I

MANDEEP DALAL



First Edition

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