

Q5 Differentiate B/w  $S_N1$  &  $S_N2$  type of nucleophilic reaction.

### $S_N1$ Reactions

- 1) Follow first order kinetics
- 2) Electronic factors determine the reaction rate.
- ③ Nucleophile attacks on the carbocation from back sides & dominates the attack from both sides
- ④ The products undergo re-arrangement.

### $S_N2$ Reactions

- Follow second order kinetics
- Steric factors determine the reaction rate.
- Nucleophile attacks the carbocation only from the back side
- The products do not undergo re-arrangement.