

SUBJECT - CHEMISTRY

CLASS - B.Sc (Hons) PART-II

PAPER - IV

TOPIC - Claisen-Schmidt Condensation

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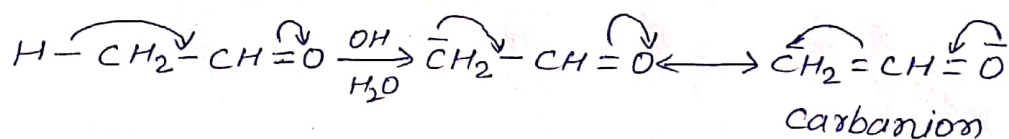
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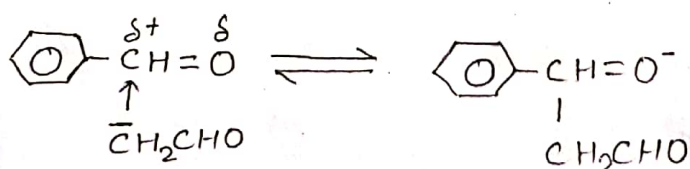
### Claisen-Schmidt Condensation

This is a mixed aldol Condensation reaction in which benzaldehyde Condenses with an aliphatic Carbonyl Compound in presence of dilute alkali at room temperature to form an  $\alpha, \beta$  unsaturated Carbonyl Compound. This Condensation occurs exactly like aldol Condensation, the path of which can therefore be traced as:

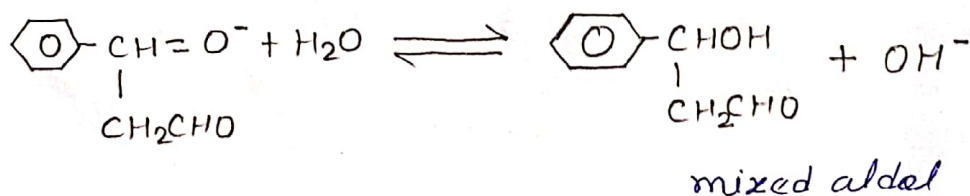
(i) Formation of Carbanion



(ii) Attack of Carbanion on Carbonyl carbon of the another Carbonyl Compound



(iii) Protonation by  $\text{H}_2\text{O}$  -



(iv) Dehydration to yield  $\alpha, \beta$  unsaturated aldehyde

