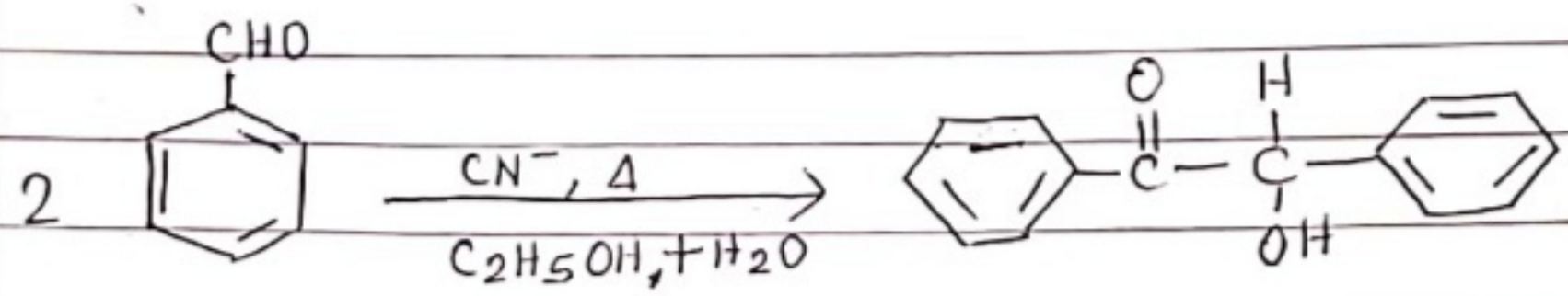
# Benzoin Condensation



* The self condensation of aromatic aldehydes (with no α-hydrogen) in presence of cyanide ions as a catalyst to α-hydroxy ketone (benzoin) is called Benzoin condensation.

* Benzoin belongs to a class of compounds called acyloins.

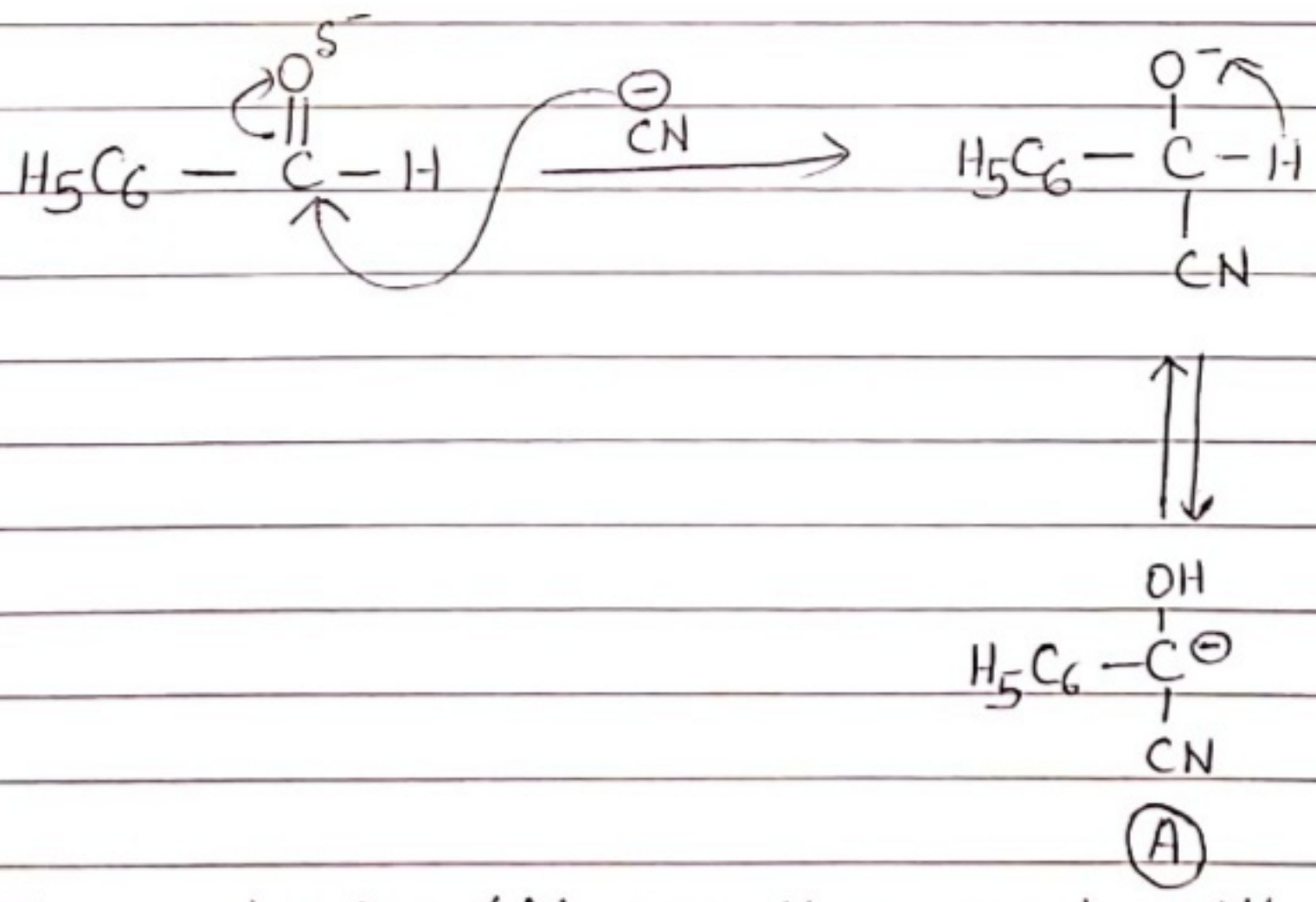
* The reaction is not successful with aliphatic aldehydes under these conditions.




Benzaldehyde  Benzoin

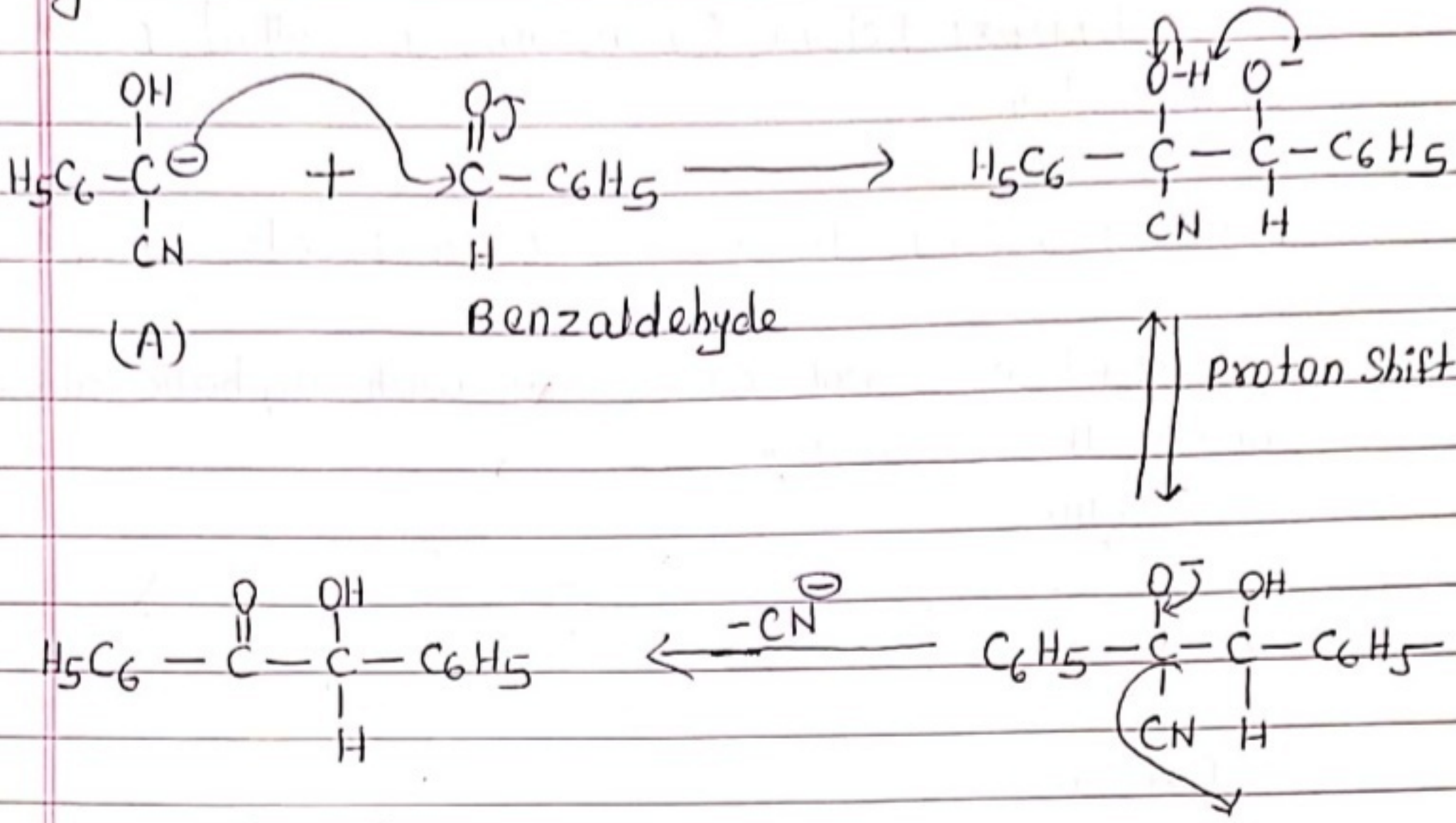
## MECHANISM

The cyanide ion reacts readily with benzaldehyde and enables to formation of carbanion (A).




The carbanion (A) can then react with another benzaldehyde molecule.

Subsequent proton transfer and loss of the cyanide ion gives benzoin.




Benzoin

End

# Name Reactions.
# Chapter - 5.
# Degree-II (Hons.)
# Paper-IV.
# Group-B

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