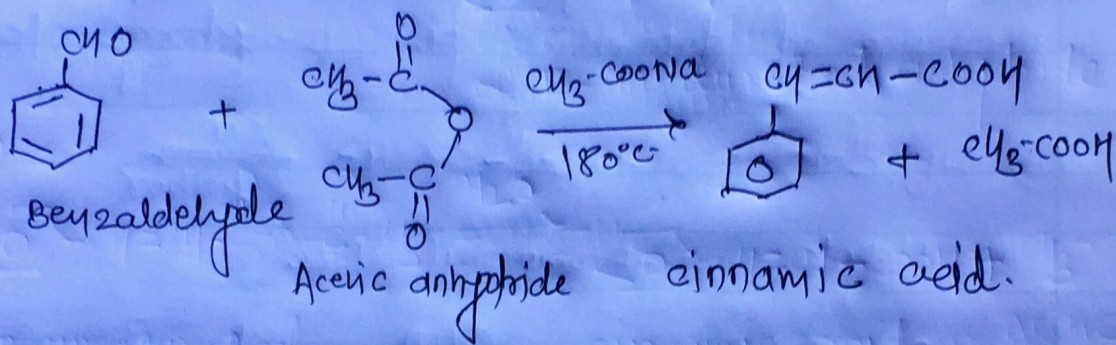
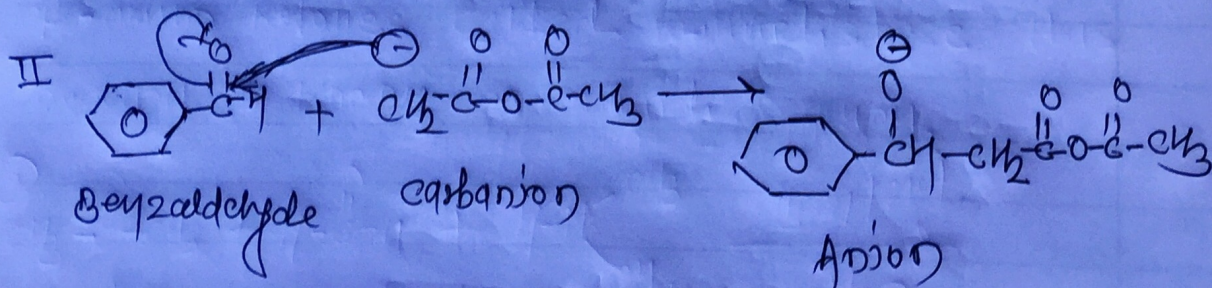
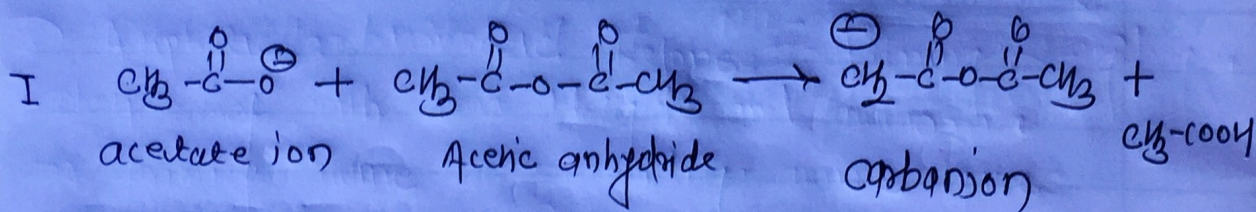
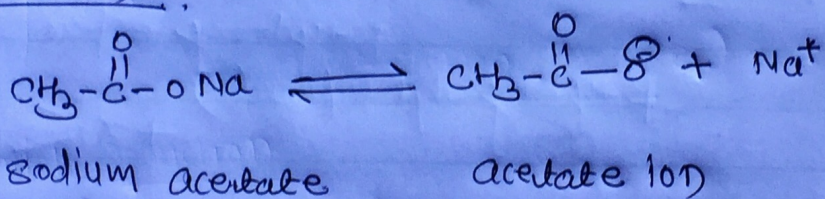


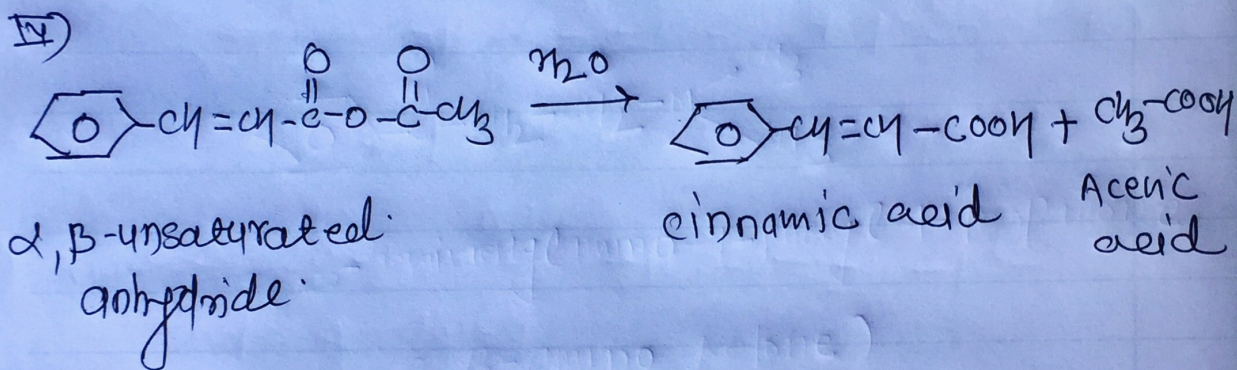
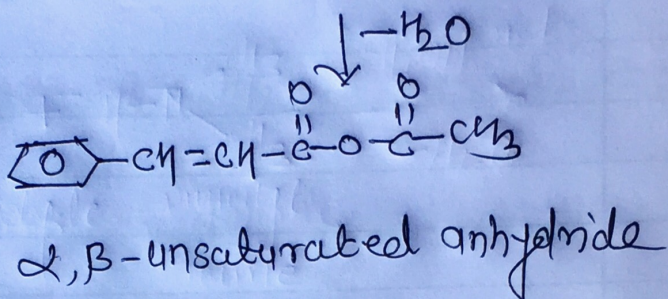
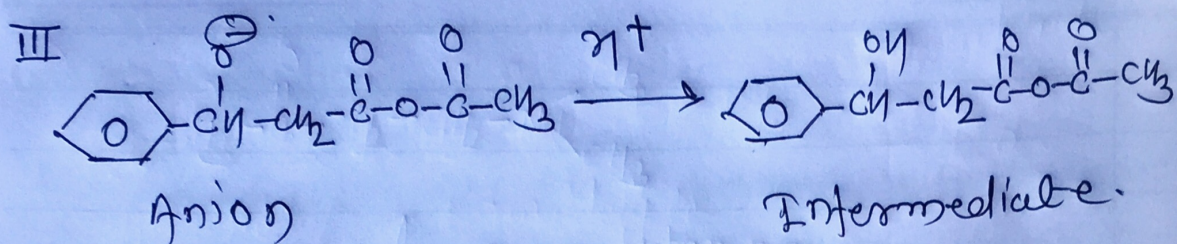
Perkin reaction

Aromatic aldehydes when heated with anhydride of aliphatic acid (containing at least two α -hydrogens) and sodium salt of acid (catalyst) condensation take place to form α, β -unsaturated acid.



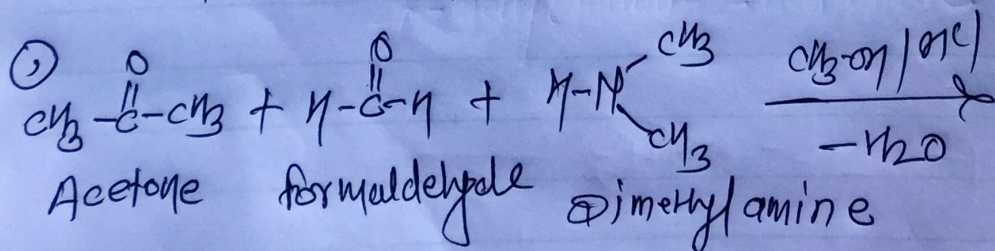
Mechanism :

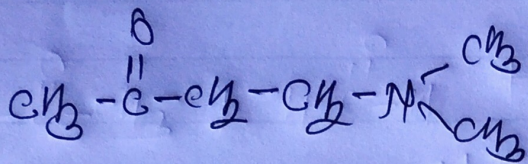




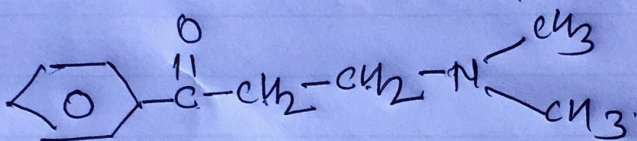
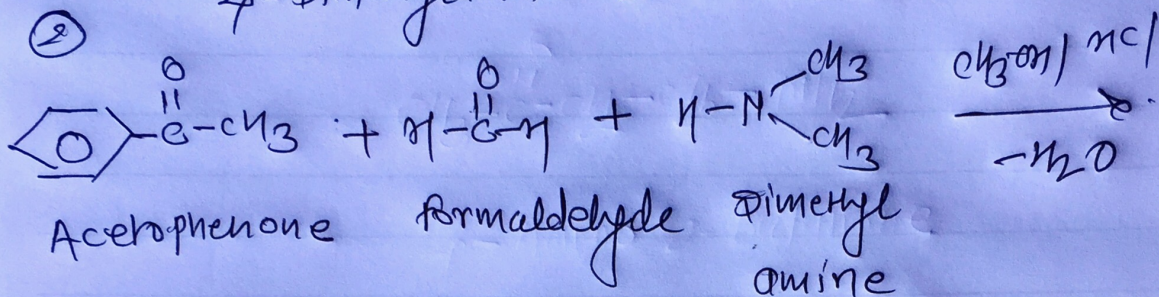
Mannich reaction

Aliphatic or aromatic ketones containing α -hydrogen when react with formaldehyde and ammonia or primary amine or secondary amine gives β -amino ketones called mannich base. This reaction is known as mannich reaction.



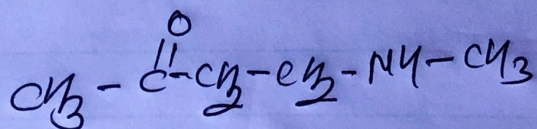
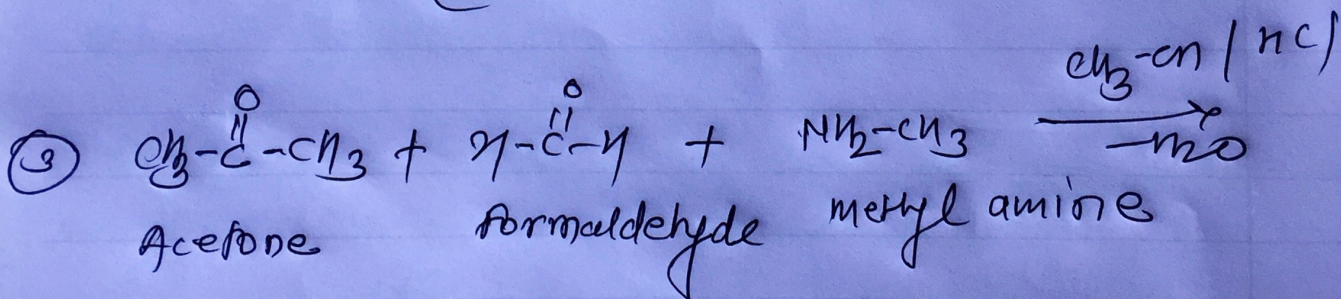


4-Dimethylamino-2-butanone

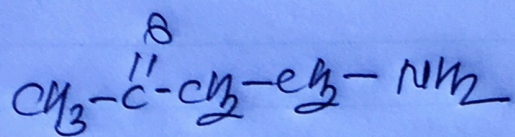
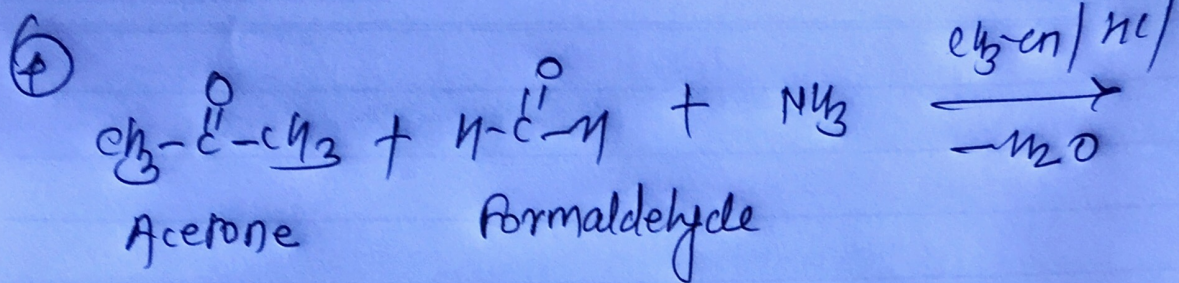


3-Dimethylamino-1-phenyl-1-propanone

(β-amino ketone)



4-methylamino-2-butanone



4-Amino-2-butanone