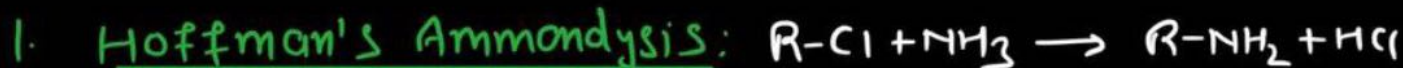
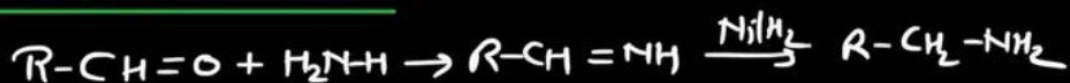


AMINES



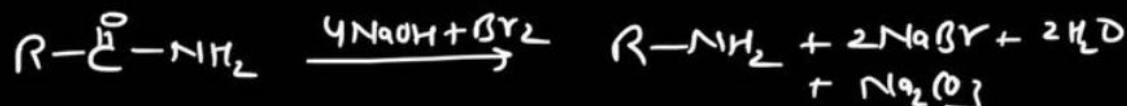
4. From Aldehydes + Ketones:



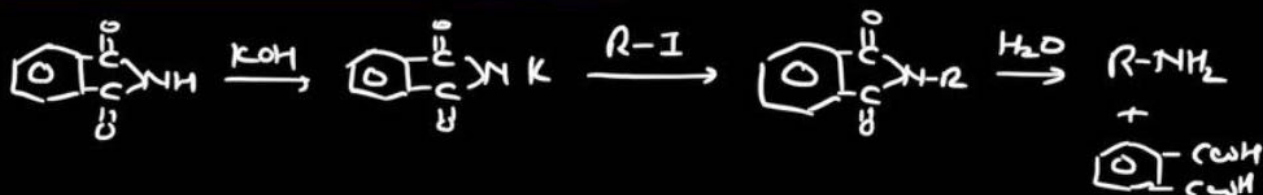
6. From Amide:



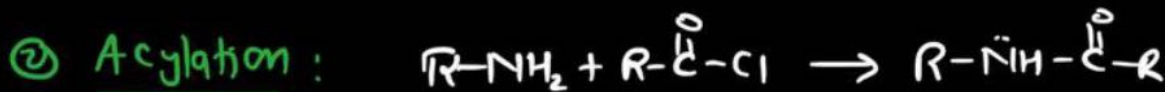
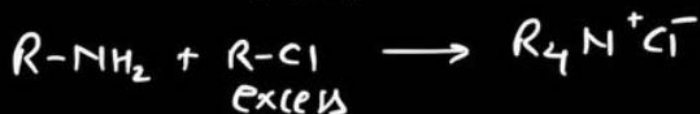
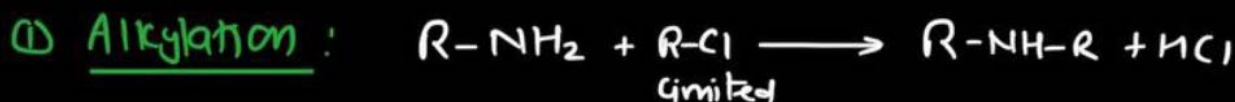
b. Hoffman's Bromamide Rxn:



7. Gabriel Phthalimide synthesis: For pure 1° Aliphatic amine

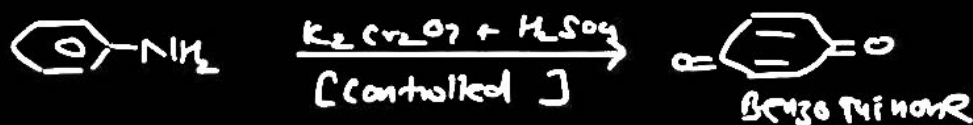
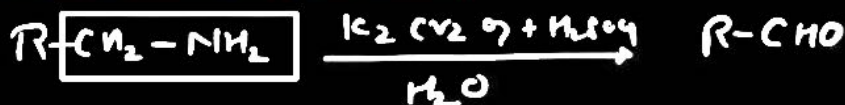
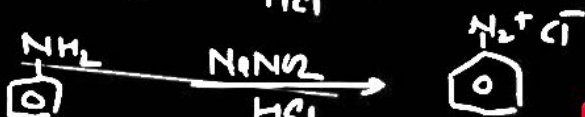


Chemical properties





10pt → Distinguishing test

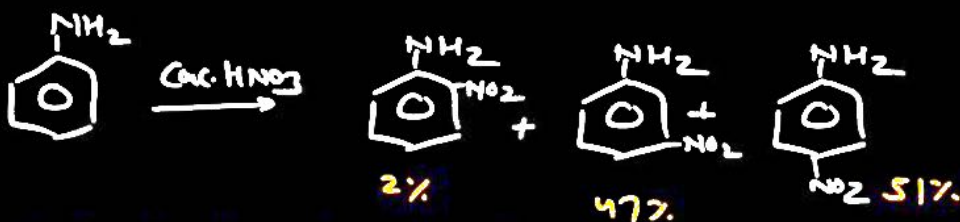
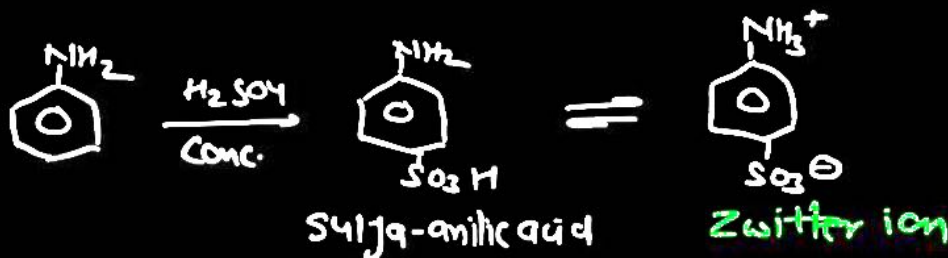


uncontrolled → Aniline black

9th



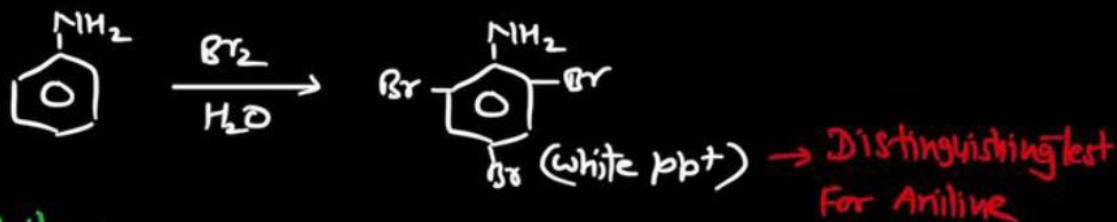
OFFENSIVE SMELL → Test for 1° amine
[Alkyl carbonyl]



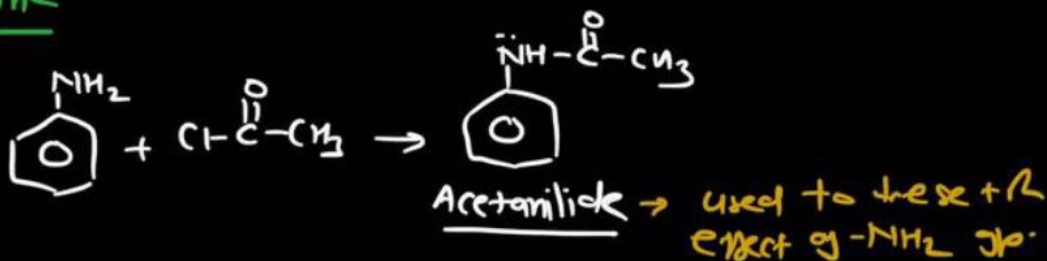
* meta product due to quinolinium ion formation.

10th 11th

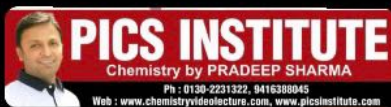
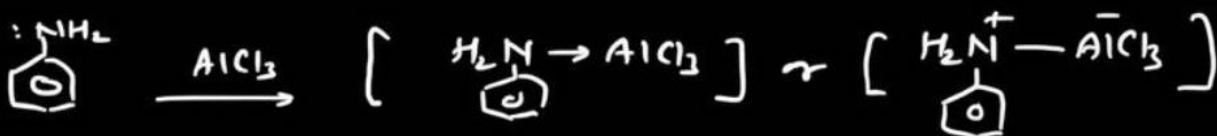
⑧ $\text{Br}_2 + \text{H}_2\text{O}$:



⑨ Acetylation of Aniline



⑩ Friedel craft R_x^n : Aniline does not undergo Friedel craft R_x^n , due to formation of complex with AlCl_3 .



PHYSICAL PROPERTIES

① B.pt + m.pt: High, due to H-bond.

② Solubility: Soluble due to H-bond | Solubility of Aniline is Less due to Large Hydrophobic Hydrocarbon part.

③ Basic character $\propto +I \propto \frac{1}{-I}$

a. Aniline $<$ R-NH_2

b. In Gas or Liquid state: $3^\circ > 2^\circ > 1^\circ$

c. In aq. state: (i) For methyl amines: $2^\circ > 1^\circ > 3^\circ$
 (ii) For other amines: $2^\circ > 3^\circ > 1^\circ$

Note: Basic strength $\propto \frac{1}{\text{Conjugation}}$

