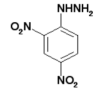
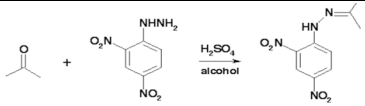
DISTINCTION TEST

Name	Distinction Between	Reagent	Detection	Remarks
Lucas Test	1^o, 2^o, 3^o Alcohols	Conc. HCL Anhyd. $AlCl_3$	3^o- immidiate turbidity 2^o- turbidity after sometime 1^o- no turbidity	*OH Hatao Cl lagao + pani*
$AgNO_2$ Test	Haloalkane & Haloarene	$AgNO_2$	AgCl (white ppt)	*Cl hatao, NO 2 lagao*
Tollen's Reagent	Aldehyde & Ketone	$[Ag(NH_3)_2]^+$ Alakaline medium	Silver Mirror (Ag)	Aldehyde + $[Ag(NH3)2]^+ \rightarrow RCOO^- + Ag\downarrow$ But Ketone + $[Ag(NH3)2]^+ \rightarrow$ X
Fehling's Test	Aldehyde & Ketone (Aromatic Aldehyde also)	$2Cu^{2+} + 4OH^-$	Red-Brown ppt (Cu_2O)	-
Iodoform Test	Aldehyde & Ketone having minimum one CH_3 group	$NaOH + I_2$	Yellow ppt (CHI_3)	$CH_3CO^- + NaOH + I_2 \rightarrow CHI3$ (yellow ppt) $CH_3CHOH + NaOH + I_2 \rightarrow CHI3$ (yellow ppt)
$NaHCO_3$ Test	RCOOH & Phenol RCOOH & Ester	$NaHCO_3$	CO_2	$RCOOH + NaHCO_3 \rightarrow RCOONa + CO_2\uparrow$
2,4 DNP Test	Either RCHO or Ketone		Orange red	
Bayer's Test	Double or triple bond present in straight chain	Br_2 / H_2O	Decolorise	$C^- + Br_2(Red) \rightarrow -C(Br)-C(Br)$ (Colorless)
Azo-Dye Test	Aliphatic and Aromatic 1^o Amines	HNO_2	β-napthol Orange dye (insoluble in water)