## CHEMISTRY XII

## ASSIGNMENT NO. 9 ORGANIC CHEMISTRY AMINES

Complete the following sequence of reactions:-Q.

(a) 
$$CH_3COOH \xrightarrow{NH_3} A \xrightarrow{D} B \xrightarrow{Br_2/KOH} C \xrightarrow{HONO} D$$

(b) 
$$CH_3NH_2$$
 OHNO Pcls KCN Na/Ak
$$\longrightarrow A \longrightarrow B \longrightarrow C \longrightarrow D$$

(c) 
$$C_2H_5NH_2$$
  $\xrightarrow{3CH_3I}$   $Ag_2O/H_2O$   $\xrightarrow{}$   $A$ 

(e) 
$$CH_2Cl$$
O  $AgNO_2$  A  $Sn/HCl$  B  $alckoh/$  C  $CHCl_3$ 

(f) NO<sub>2</sub> 
$$O$$
 Sn/Hcl A Br<sub>2</sub>/Excess B NoNo<sub>2</sub>/HCl C H<sub>3</sub>PO<sub>2</sub>HCl D  $O = 5^{\circ}$ C

(g) 
$$CONH_2$$

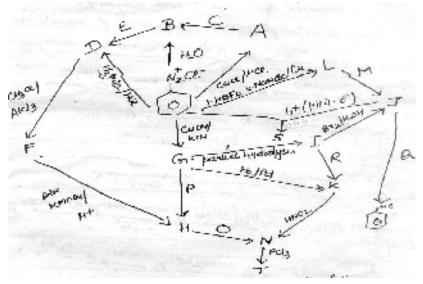
$$O \longrightarrow NaOH/Br_2 \longrightarrow A \xrightarrow{NaNo_2/HCl} B \xrightarrow{KCN} C \xrightarrow{H_2/Pt} D$$

(i) 
$$NH_2$$
  $O$   $CH_3COCl$   $A$   $Br_2(aq)$   $B$   $H_2O/H^+$   $C$ 

(j) 
$$RX$$
  $\longrightarrow$   $A$   $\longrightarrow$   $B$   $\longrightarrow$   $C$   $C_2H_5Cl$ 

(k) 
$$NH_2$$
O
 $H_2SO_4$ 
A
 $A \longrightarrow A \longrightarrow C$ 
D

2. Identify the unknown products / Reagents in the following sequence:-



Based on the sequence answer the following:-

- How would distinguish between 'Α' and 'T'?
- Give one chemical test (b) to distinguish between 'J' and 'Κ'.