

**HALOALKANES AND HALOARENES PAPER :1**

**ORGANIC REACTIONS**

1	$\text{C}_6\text{H}_5\text{N}_2^+\text{X}^- \xrightarrow{\text{KI}}$
2	$\text{C}_6\text{H}_{11}\text{OH} + \text{SOCl}_2 \rightarrow$
3	$\text{HO-C}_6\text{H}_4\text{CH}_2\text{OH} + \text{HCl} \xrightarrow{\text{heat}}$
4	$\text{C}_6\text{H}_5\text{NH}_2 \xrightarrow[273-278 \text{ K}]{\text{NaNO}_2 + \text{HX}}$
5	$\text{CH}_3\text{CH}_2\text{CH}_2\text{Cl} + \text{NaI} \xrightarrow[\text{heat}]{\text{acetone}}$
6	$\text{CH}_3\text{CH}(\text{Br})\text{CH}_2\text{CH}_3 + \text{NaOH} \xrightarrow{\text{water}}$
7	$\text{C}_6\text{H}_5\text{ONa} + \text{C}_2\text{H}_5\text{Cl} \longrightarrow$
8	$\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{HBr} \xrightarrow{\text{Peroxide}}$
9	$\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3 \xrightarrow[\text{or heat}]{\text{Cl}_2/\text{UV light}}$
10	$\text{C}_6\text{H}_5\text{CH}_3 + \text{HBr} \longrightarrow$
11	$\text{CH}_3-\text{CH}_2-\text{CH}=\text{CH}_2 + \text{HCl} \longrightarrow$
12	$\text{O}_2\text{N-C}_6\text{H}_4\text{CH}_2\text{CH}_3 \xrightarrow[\text{UV light}]{\text{Br}_2, \text{ heat or}}$
13	$\text{Cl-C}_6\text{H}_2(\text{NO}_2)_3 \xrightarrow[\text{H}_2\text{O}]{\text{warm}}$
14	$\text{C}_6\text{H}_{10} + \text{Br}_2 \xrightarrow[\text{UV light}]{\text{heat}}$
15	$\text{C}_6\text{H}_5\text{Cl} + \text{H}_3\text{C-CO-Cl} \xrightarrow{\text{Anhyd. AlCl}_3}$
16	$\text{CH}_3\text{CH}=\text{CH}_2 + \text{H-I} \longrightarrow$

17	$\text{O}_2\text{N}-\text{C}_6\text{H}_4-\text{CH}_2\text{CH}_3 \xrightarrow[\text{UV light}]{\text{Br}_2, \text{ heat or}}$
18	$\text{C}_6\text{H}_5\text{CH}_3 + \text{HI} \longrightarrow$
19	$\text{C}_6\text{H}_{10} + \text{Br}_2 \xrightarrow[\text{UV light}]{\text{heat}}$
20	$(\text{CH}_3)_3\text{CBr} + \text{KOH} \xrightarrow[\text{heat}]{\text{ethanol}}$
21	$\text{CH}_3\text{CH}_2\text{Br} + \text{KCN} \xrightarrow{\text{aq. ethanol}}$
22	$\text{CH}_3\text{CH}_2\text{CH}_2\text{OH} + \text{SOCl}_2 \longrightarrow$
23	$\text{CH}_3\text{CH}=\text{C}(\text{CH}_3)_2 + \text{HBr} \longrightarrow$
24	$\text{CH}_3\text{CH}_2\text{Br} + \text{NaI} \longrightarrow$
25	$\text{C}_6\text{H}_5\text{CH}_2\text{CH}=\text{CH}_2 + \text{HBr} \xrightarrow{\text{Peroxide}}$
26	$\text{CH}_3\text{CH}=\text{CH}_2 + \text{H-I}$
27	$\text{C}_6\text{H}_{11}\text{CH}_3 + \text{HI} \longrightarrow$
28	$\text{Cl}-\text{C}_6\text{H}_3(\text{NO}_2)_2 \xrightarrow[\text{(ii) H}^\oplus]{\text{(i) NaOH, 368K}}$
29	$\text{C}_6\text{H}_5\text{Cl} + \text{CH}_3\text{Cl} \xrightarrow{\text{Anhyd. AlCl}_3}$
30	$\text{C}_6\text{H}_5\text{X} + \text{Na} + \text{RX} \xrightarrow{\text{Ether}}$
31	<p>Identify A, B, C, D, E, R and R<sup>1</sup> in the following:</p> $\text{R-Br} + \text{Mg} \xrightarrow{\text{dry ether}} \text{C} \xrightarrow{\text{D}_2\text{O}} \text{CH}_3\underset{\text{D}}{\text{CH}}\text{CH}_3$ $\text{CH}_3\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_3 \xleftarrow{\text{Na/ether}} \text{R}^1\text{-X} \xrightarrow{\text{Mg}} \text{D} \xrightarrow{\text{H}_2\text{O}} \text{E}$ $\text{C}_6\text{H}_{11}\text{Br} + \text{Mg} \xrightarrow{\text{dry ether}} \text{A} \xrightarrow{\text{H}_2\text{O}} \text{B}$