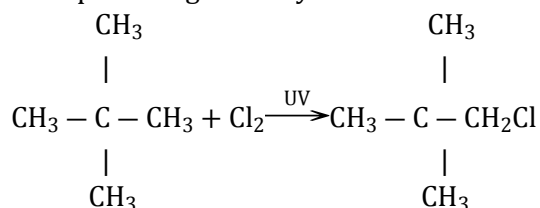


Topic :-HALOALKANES AND HALOARENES

1 (d)

Neo-pentane gives only one monochloro derivative.



2 (d)

$R-X + \text{Zn} \rightarrow R-R + \text{ZnX}_2$ ; if Zn is used in place of Na, the reaction is called Frankland's reaction.

4 (a)

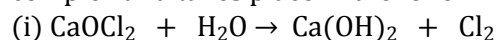
A gem dihalide possesses two halogens on same carbon atom.

5 (b)

$R-MgX$  are obtained as ethereal solution.

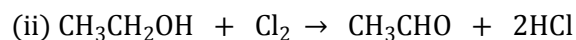
6 (a)

Chloroform ( $\text{CHCl}_3$ ) is formed on reaction of ethyl alcohol with bleaching powder. The reaction is complex and takes place in the following steps

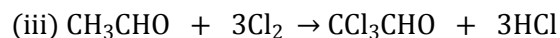


bleaching

powder

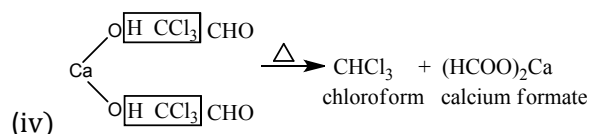


oxidation step



chloral

chlorination step



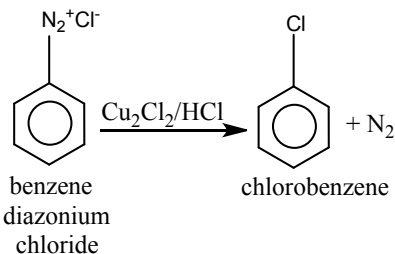
7 (a)

Chloral is commercial name of  $\text{CCl}_3\text{CHO}$ .

8 (d)

C—I bond is broken easily as well as ease of reaction is  $t$ -alkyl halide >  $s$ -alkyl halide >  $p$ -alkyl halide.

9 (b)



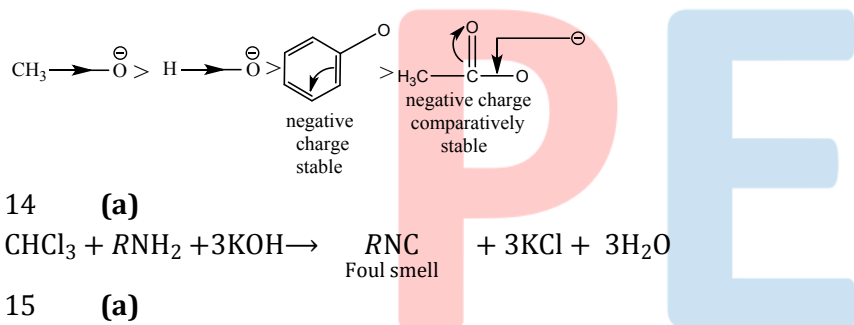
This reaction is known as Sandmeyer's reaction.

10 (b)

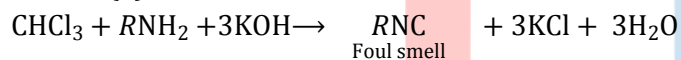
$(\text{CH}_3)_2\text{CHCH}_2\text{Cl}$  and  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{Cl}$ ; only chain is different.

11 (a)

Nucleophilicity order is ;



14 (a)



15 (a)

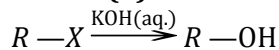
Zn dust removes  $\text{X}_2$  from molecule.

17 (d)

Order of reactivity of alkyl halide

iodide > bromide > chloride > fluoride and tertiary > secondary > primary

18 (b)



19 (d)

Reactivity of  $t$ -alkyl halides to show  $\text{S}_{\text{N}}2$  mechanism

**ANSWER-KEY**

Q.	1	2	3	4	5	6	7	8	9	10
A.	D	D	C	A	B	C	C	D	B	B
Q.	11	12	13	14	15	16	17	18	19	20
A.	A	B	B	A	A	C	D	B	D	A

PE