

CLASS: XIIth

DATE:

SOLUTION

SUBJECT: CHEMISTRY

DPP NO.:10

Topic:-HALOALKANES AND HALOARENES

2 **(b)**

Westrosol is formed during addition of Cl_2 on $CH\equiv CH$ followed with action of lime. It is a very good solvent.

$$\mathsf{CH} {\equiv} \mathsf{CH} + 2\mathsf{Cl}_2 {\longrightarrow} \mathsf{CHCl}_2 \mathsf{CHCl}_2 \overset{\mathsf{Lime}}{\longrightarrow} \mathsf{CHCl} = \mathsf{CCl}_2$$

$$\overset{\mathsf{Westron}}{\longrightarrow} \mathsf{Westrosol}$$

3 **(b)**

Elimination reaction.

6 **(a)**

PhS is a strong nucleophile and dimethyl formamide (DMF) is a highly polar aprotic solvent. Condition indicates that nucleophilic substitution (S_N2) takes place at 2° benzylic place, stereochemically, it involves inversion of configuration.

7 **(a**)

 C_2H_5Br gives yellow ppt. of AgBr whereas, $(CH_3)_2CHCl$ gives white ppt. if AgCl.

8 (d)

$$C_2H_5Br \xrightarrow{AgCN} C_2H_5NC \xrightarrow{Reduction} C_2H_5NH.CH_3$$

$$(X) \qquad (Y)$$
Ethyl isocyanide ethyl methyl amine

9 **(d)**

 S_N 1 order is TH > SH > PH.

10 **(c)**

 $C_2H_5Cl + NH_3 \rightarrow (C_2H_5)_4N^+Cl^-$

12 **(b**)

CH₃CHCl₂ gives aldehyde; CH₂ClCH₂Cl₂ gives glycol.

14 **(c)**

Chloroform is oxidised by air in the presence of light to form phosgene or carbonyl chloride which is poisonous gas.

$$\mathsf{CHCl}_3 + \frac{1}{2}\mathsf{O}_2 \xrightarrow{\quad \mathsf{Air} \quad \quad } \mathsf{COCl}_2 + \mathsf{HCl}$$

Chloroform phosgene

15 **(d)**

$$R - X \xrightarrow{\text{KOH(aq.)}} R - \text{OH}$$

16 **(a)**

CH₃CHBrCH₂CH₃CH₃CH=CHCH₂CH₃ α -, β - elimination gives *trans*-isomers as main product.

18 **(c)**

Oxidation of CHCl₃ occurs in air and light.



ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	С	В	В	D	A	A	A	D	D	С
Q.	11	12	13	14	15	16	17	18	19	20
A.	D	В	A	С	D	A	A	С	С	В

