

CLASS: XIIth

DATE:

**SOLUTION** 

**SUBJECT: CHEMISTRY** 

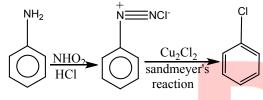
**DPP NO. :6** 

## **Topic:-**HALOALKANES AND HALOARENES

1 (d)

CCl<sub>4</sub> is used as medicine in this form.

2 **(c)** 



(Diazotization)

4

(c)

 $C_2H_5I + Mg \rightarrow C_2H_5MgI$ 

5

(a)

$$C_2H_5Cl \xrightarrow{Aq.KOH} C_2H_5OH \xrightarrow{AgOH} C_2H_5 Cl$$

6

(b)

Due to less stable nature of CHI<sub>3</sub>.

7 **(c)** 

$$C_2H_5Br + C_2H_5ONa \rightarrow C_2H_5OC_2H_5$$
; also in

- (a)  $C_2H_4$  is formed; in (b)  $C_4H_{10}$  is formed, in
- (d)  $C_2H_5NC$  is formed.
- 8 **(c)**

Phosgene is COCl<sub>2</sub>.

10 **(c)** 

 $R - X + NH_3 \rightarrow RNH_2$ 

12 **(**b

 $CH_3X + KCN \rightarrow CH_3CN \xrightarrow{HOH} CH_3COOH$ ; —CN group hydrolyses to —COOH.

13 **(c)** 

 $MgCl_2 \rightarrow Mg^{2+} + 2Cl^-$ 

$$Mg^{2+} + 2e^{-} \rightarrow Mg$$
 (at cathode)  
 $2F$  1 mol

: 2F(2 × 96500 C)deposits Mg = 1 mol

∴ 9.65 C charge will deposit Mg = 
$$\frac{1 \times 9.65}{2 \times 96500}$$
  
=  $5 \times 10^{-5}$  mol

$$RBr + Mg \xrightarrow{Dry \text{ ether}} RMgBr$$
Grignard reagent

In order to prepare Grignard reagent, one mole of Mg is used per mole of reagent obtained. Thus, by  $5 \times 10^{-5}$  mol mg ,  $5 \times 10^{-5}$  mole of Grignard reagent is obtained.

15 **(c)** 

C<sub>2</sub>H<sub>5</sub>CN(A) on hydrolysis gives C<sub>2</sub>H<sub>5</sub>COOH.

$$2Nal + Cl_2 \rightarrow NaCl_2 + I_2$$

$$I_2 + CHCl_3 \rightarrow Violet$$

$$CH \equiv CH \xrightarrow{2HCl} CH_3CHCl_2$$

Allyl carbonium shows resonance and thus, allyl chloride is more reactive. Vinyl chloride shows resonance and thus, less reactive.

20 **(b)** 

Since, the alkyl halide RX gives 4, 5-diethyloctane, when reacts with Na, it must be  $CH_3$  ( $CH_2$ ) $_2$  CH (Br) $CH_2CH_3$ .

$$2CH_{3}CH_{2}CH_{2}CH - Br \xrightarrow{Na}$$

$$CH_{2}CH_{3}$$

$$CH_{2}CH_{3}$$

$$CH_{2}CH_{3}$$

$$CH_{2}CH_{3}$$

$$CH_{2}CH_{3}$$

$$CH_{2}CH_{3}$$

$$CH_{3}(CH_{2})_{2}CH - CH - (CH_{2})_{2} - CH_{3}$$

The reaction is known as Wurtz reaction.

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

