





CLASS : XIIth DATE :



SUBJECT : CHEMISTRY DPP NO. :1







It will exist as enantiomeric pair (*d*-and *l*- forms)

(iv) 
$$CH_3$$
— $CH$ — $CH_2$ — $CH_2$ — $CI$   
 $|$   
 $CH_3$ 

No asymmetric carbon atom

Hence, only two enantiomeric pairs will be obtained by the monochlorination of 2-methylbutane. **(d)** 

```
RX + Ag_2 0 \longrightarrow R \cdot 0 \cdot R + 2AgX
(Ether)
8 \quad (a)
Williamson's synthesis
C_2H_5ONa + ClC_2H_5 \rightarrow C_2H_5OC_2H_5 + NaCl
diethyl ether
9 \quad (c)
CaOCl_2 + H_2O \longrightarrow Ca(OH)_2 + Cl_2(Hydrolysis)
```

 $\begin{array}{l} \text{Cl}_2 + \text{C}_2\text{H}_5\text{OH} \rightarrow \text{CH}_3\text{CHO} \text{ (Oxidation)} \\ \text{CH}_3\text{CHO} + \text{Cl}_2 \rightarrow \text{CCl}_3\text{CHO} \text{ (Substitution)} \\ \text{CCl}_3\text{CHO} + \text{Ca}(\text{OH})_2 \rightarrow \text{CHCl}_3 + (\text{HCOO})_2\text{Ca} \text{ (Hydrolysis)} \\ \text{10} \qquad \textbf{(a)} \\ \text{Iodoform test is given by the compounds containing either} \end{array}$ 

 $CH_3CO - roup \text{ or } CH_3CHOH \text{ group.}$ The structures of the given compounds are as 1.  $CH_3CH_2CH_2CH_2OH$ 

- 2.  $CH_3COC_6H_5$
- 3. CH<sub>3</sub>CHO
- 4.  $CH_3COC_2H_5$

 $\therefore$  *n* butyl alcohol does not give iodoform test because it does not possess the

```
CH_3CO - or CH_3CHOH group.
11
        (c)
It is not a colouring material.
13
        (b)
Alkyl halides are less soluble in water. They are polar but fail to form H-bonds with water.
14
        (b)
Hexachloroethane is also called artificial camphor. Its structure is
     Cl Cl
     Т
         1
CI - C - C - CI
     Ι
     Cl Cl
15
        (d)
(CH_3)_2CHCH_2MgBr + HOC_2H_5 \xrightarrow{Ether}
                         OC_2H_5
(CH<sub>3</sub>)<sub>2</sub>CHCH<sub>3</sub>+Mg
                         Br
17
        (b)
```

Dipole moment of CH<sub>3</sub>Cl is more than CH<sub>3</sub>F due to larger C—X bond. Also electronegativity of Br being less



## Smart DPPs

than F and Cl and thus inspite of larger C - X bond dipole moment of  $CH_3Br$  is lowest. 19 (a)

 $\begin{array}{l} \mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{CH}_{2}-\mathrm{Cl} \xrightarrow{\mathrm{Alc.KOH}}{\Delta} \mathrm{CH}_{3}-\mathrm{CH}_{2}-\mathrm{CH}=\mathrm{CH}_{2}+\mathrm{HCl}\\ 1\text{-chlorobutane} & \text{butene-1}\\ 20 \qquad \textbf{(a)}\\ 2\mathrm{CHCl}_{3}+\mathrm{6Ag} \xrightarrow{\Delta} \mathrm{CH} \equiv \mathrm{CH}+\mathrm{6AgCl} \end{array}$ 

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

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