DPP
DAILY PRACTICE PROBLEMS

Class : XIIth
Date :

Solutions

Subject : CHEMISTRY
DPP No. : 4

Topic :- Alcohols, Phenols & Ethers

3 **(c)**

Williamson's synthesis is used for the preparation of ethers.

$$R\text{Cl} + \text{NaO}R' \xrightarrow{\text{Williamson's synthesis}} R - \text{O} - R' + \text{NaCl}$$

ether

4 **(b)**

$$\text{Starch} \xrightarrow{\text{Diastase}} \text{Maltose} \xrightarrow{\text{Maltase}} \text{Glucose} \xrightarrow{\text{Zymase}} \text{Alcohol}$$

5 **(a)**

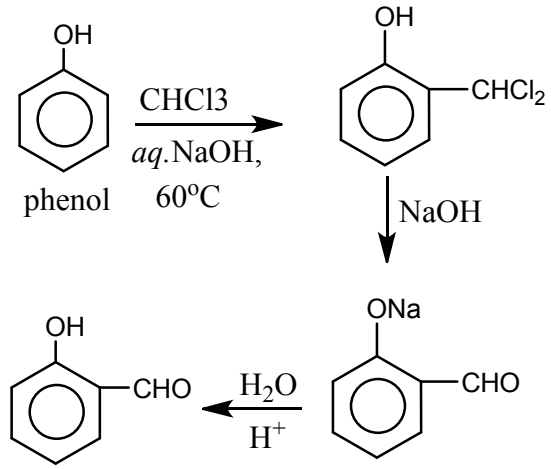
Destructive distillation of wood gives Pyroligneous acid from which CH_3OH is obtained by fractional distillation.

6 **(c)**

$$\text{—COOH} \xrightarrow{LiAlH_4} \text{—}CH_2OH$$

7 **(b)**

Reimer-Tiemann Reaction In this reaction phenol reacts with chloroform and alkali to form salicyladehyde.

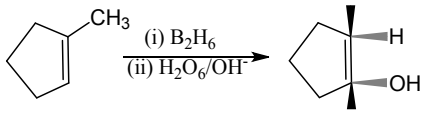


salicyladehyde

8 **(d)**

During hydroboration-oxidation, addition of H_2O across the double bond occurs anti to Markownikoff's rule and since the stereochemistry of addition *cis*, therefore *trans*-2-

methylcyclopentanol is formed



trans-2-methyl cyclopentanol

9 **(c)**

CH_3OH is carbinol; CH_3CH_2OH is methyl carbinol and so on.

11 **(c)**

Both possess antiseptic nature.

12 **(a)**

The percentage of alcohol is expressed as proof spirit for tax lavy. It contains 57.1 % (by vol.) or 48% (by wt.) of alcohol.

13 **(a)**

Ether peroxide oxidises KI into I_2 and itself gets reduced to ether. Therefore, KI is added to remove peroxides from ethers.

$2I^- \rightarrow I_2 + 2e^-$

Ether peroxide$+2e^- \rightarrow$ether $+ O_2$

14 **(a)**

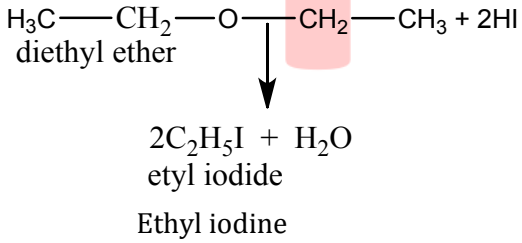
$CH_3CH_2CH_2OH$ and $CH_3CHOHCH_3$

15 **(d)**

Lower members are soluble in water due to H-bonding and solubility decreases with increasing hydrophobic character.

18 **(c)**

Ether on reaction with excess of HI produce two molecules of alkyl halide.



Ethyl iodine

When equimolar quantities of ether and HI are present, then one molecule of alkyl halide and one molecule of alcohol are formed.

19 **(a)**

It is a substitute of petrol.

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