

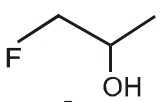
TOPIC : Alcohol, Phenol & Ether

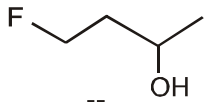
CLASS : 12th (DPP)

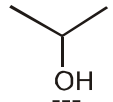
Subject : CHEMISTRY


DPP – 01 : Nucleophilic Substitution Reaction of Alcohol

- Primary, secondary and tertiary alcohols are distinguished by
 (1) Oxidation method (2) Lucas test (3) Victor mayer's test (4) All of the above
- Power alcohol is the mixture of :
 (1) Absolute alcohol + Methyl alcohol (2) Absolute alcohol + Petrol
 (3) Rectified alcohol + Petrol (4) Denatured alcohol + Petrol
- For the reaction, $C_2H_5OH + HX \xrightarrow{ZnX_2} C_2H_5X$, the order of reactivity is :
 (1) HI > HCl > HBr (2) HI > HBr > HCl (3) HCl > HBr > HI (4) HBr > HI > HCl
- The reaction, $Alcohol + HCl \rightleftharpoons Alkyl\ halide + H_2O$ is reversible. For the completion of the reaction..... is used
 (1) Anhydrous $ZnCl_2$ (2) Concentrated H_2SO_4 (3) Excess of water (4) Calcium chloride
- Which of the following major product will be obtained when neopentyl alcohol is treated with conc. HCl in presence of $ZnCl_2$
 (1) t-butyl chloride (2) isobutylene (3) t-pentyl chloride (4) Neo pentyl chloride
- In Lucas test of alcohols, the appearance of cloudiness is due to the formation of-
 (1) Aldehydes (2) Ketones (3) Acid chlorides (4) Alkyl chlorides
- The correct order of reactivity of following alcohols towards conc.HCl/ $ZnCl_2$ is :

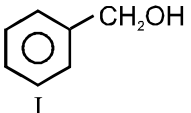

I

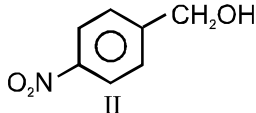

II

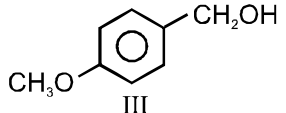

III

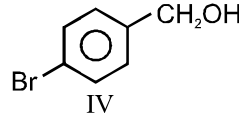

IV

 (1) I > II > III > IV (2) I > III > II > IV (3) IV > III > II > I (4) IV > III > I > II
- Consider the following alcohols :


I

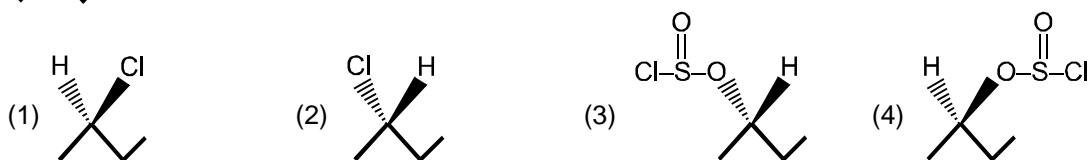
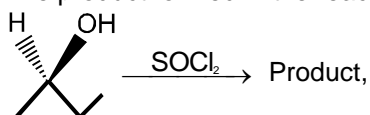

II


III

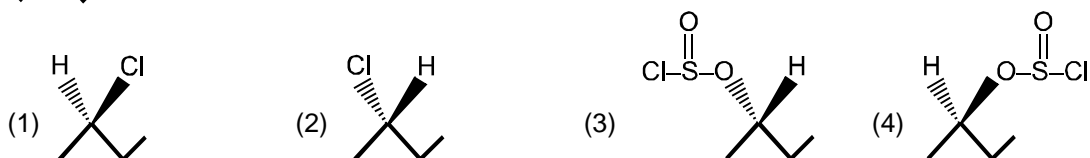
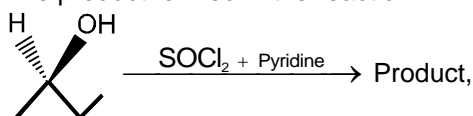

IV

 The order of decreasing reactivities of these alcohols towards nucleophilic substitution with HBr is
 (1) III > I > IV > II (2) III > I > II > IV (3) I > III > IV > II (4) I > III > II > IV
- Thionyl chloride method is preferred over phosphorus pentachloride method for the preparation of alkyl chloride because-
 (1) The reaction goes to completion.
 (2) The by-products being gases escape into the atmosphere leaving behind almost pure alkyl chloride.
 (3) Thionyl chloride is cheap while phosphorus pentachloride is costly.
 (4) None of the above.

10. The product formed in the reaction ?



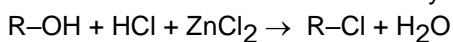
11. The product formed in the reaction ?



12. Which of the following give fastest reaction with Lucas reagent ?



13. What is the correct order of reactivity of alcohols in the following reaction?



- (1) Ethanol > Propan-1-ol > Butan-1-ol
 (2) Butan-1-ol > Propan-1-ol > Butan-2-ol
 (3) Neopentyl alcohol > t-Butyl alcohol > Methanol
 (4) t-Butyl alcohol > Butan-2-ol > Propan-1-ol

DPP - 02 : Elimination Reaction of Alcohol

1. Dehydration of alcohol is an example of :

- (1) addition reaction (2) substitution reaction (3) elimination reaction (4) rearrangement

2. Which of the following can work as dehydrating agent for alcohols ?

- (1) H_2SO_4 (2) Al_2O_3 (3) H_3PO_4 (4) All of these

3. Which of the following step is involved in the acid catalysed dehydration of alcohols ?

- (1) Expulsion of a OH^- ion (2) A free radical intermediate formation
 (3) A carbocation intermediate formation (4) A carbanion intermediate formation

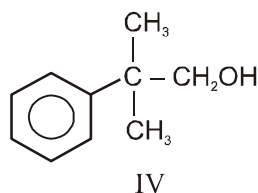
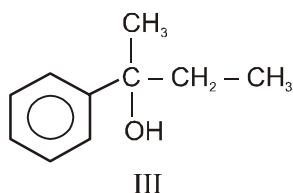
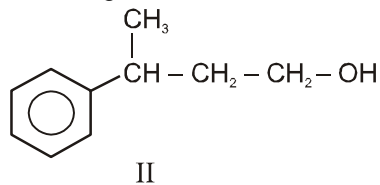
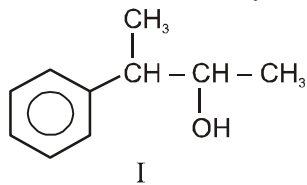
4. on dehydration with conc. H_2SO_4 predominantly forms



5. $\xrightarrow{\text{Conc. } H_2SO_4}$ Major product is :



6. The relative rate of acid catalysed dehydration of following alcohols would be :



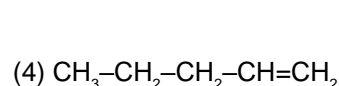
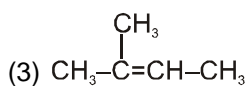
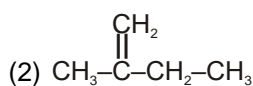
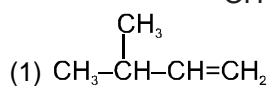
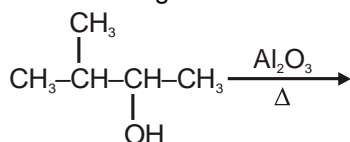
(1) III > I > IV > II

(2) III > IV > I > II

(3) I > III > IV > II

(4) III > IV > I > II

7. Major product of the given reaction is :



8. Pinacol –Pinacolone reaction is an example of -

(1) Elimination

(2) Substitution

(3) Addition

(4) isomerisation

9. The correct order of migratory aptitude in pinacole-pinacolone rearrangement is :

