



## CHEMISTRY

### CH: 10 ALCOHOLS, PHENOLS & ETHERS

Name: \_\_\_\_\_

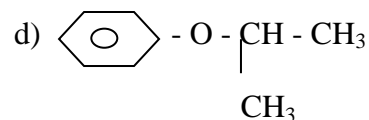
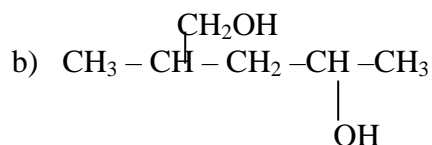
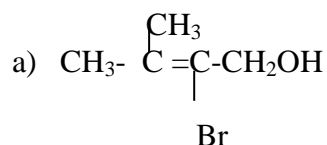
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Class: XII Sec: \_\_\_\_

#### I

Answer the following

1. Write the IUPAC names of



#### II Give reasons for the following.

- O- nitrophenol has lower boiling point than p- nitro phenol.
- Alcohols are more soluble than the hydrocarbons of comparable molecular masses.
- Alcohols and phenols are soluble in water
- Orthonitrophenol is more acidic than orthomethoxy phenol.
- Boiling point of ethanol is higher than that of methanol
- Phenols are more acidic than alcohols.
- Ortho and para isomers of nitrophenol can be separated by steam distillation
- An alkoxide is a stronger base than hydroxide ion.
- When tertiary alkyl halides are treated with primary alkoxide alkenes are formed and not ethers.
- Boiling point of ethers is are lower than isomeric alcohols.

#### III Name the reagents used in the following reactions.

- Butanal to butanol.
- Butan -2 - one to butan -2 -ol.
- Bromination of phenol to 2,4,6 tribromophenol.
- Nitration of phenol to 2,4,6 trinitrophenol
- Oxidation of primary alcohol to carboxylic acid
- Friedel Craft's alkylation of anisole



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7. Oxidation of primary alcohol to aldehyde.

### **IV How will you distinguish the following?**

- 1 Primary, secondary and tertiary alcohols
2. Butan -2-ol , butanol and 2-methyl propan -2-ol
3. Ethanol & phenol
4. Phenol & benzyl alcohol
5. Pentan-2-ol & pentan -3-ol

### **V Arrange the following compounds in the increasing order of acid strength and give the reason.**

1. 4 – nitro phenol, phenol, 2,4,6 trinitro phenol - Acid strength
2. p- cresol, p- nitro phenol, phenol – Acid strength