

## Reasoning questions of alcohol

- ①  $\text{LiAlH}_4$  is used for preparing special chemicals only. Why?
- ② Phenol is k/a carboxic acid.  $\rightarrow$  Fact ✓.
- ③ Alcohols & Phenols have higher boiling point in comparison to hydrocarbon, ethers, haloalkanes, halogenes of comparable molecular mass. Why?
- ④ Alcohols & Phenols are soluble in water. Why?
- ⑤ As mass of alcohol increases, B.P solubility in water decreases. Why?
- ⑥ Pentane-1-ol, Butane-1-ol, Butane-2-ol, ethanol, propane-1-ol, methanol (arrange B.P).
- ⑦ Pentane-1-ol, n-butane, Pentane, ethoxy ethane (arrange B.P).
- ⑧ Alcohols react both as nucleophile and electrophile. Explain with example.
- ⑨ Proof for the acidic nature of alcohol and phenol.



- (10) Alcohols and Phenols are Bronsted acid. Explain with example.
- (11) methanol, ethanol, propanol (acidic strength).
- (12)  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$  alcohol (acidic strength).
- (13) Alcohol is less acidic than water. explain.
- (14) Alcohol is Bronsted Base as well. Why?
- (15) Phenol is more acidic than alcohol. Why?
- (16) o-nitrophenol, m-nitrophenol, p-nitrophenol, phenol, o-cresol, m-cresol, p-cresol (Acidic Strength)
- (17) Propan-1-ol, 2,4,6-trinitrophenol, 3-nitrophenol, 3,5-dinitrophenol, phenol, 4-methylphenol (acidic strength)
- (18) ester or water is removed as soon as they formed during esterification of carboxylic acid and Alcohol.
- (19) Why Pyridine is used in esterification of acid halide and Alcohol.
- (20) reactivity of \_\_\_\_\_ of alcohol ( $1^\circ$ ,  $2^\circ$ ,  $3^\circ$ )



21. *o*-nitrophenol is steam volatile why?
23. What is Limitations of Williamson synthesis?
24. *n*-pentane, ethoxyethane, Butan-1-ol  
(B.P)
25. ethers are soluble in water why?
26.  $H-Cl$ ,  $H-Br$ ,  $H-I$  reacting with ether,
27.  $-OR$  is  $o$ - and activating group  
towards electrophilic substitution why?
28. Explain why is *ortho* nitrophenol more acidic than *ortho*-methoxyphenol?
29. Preparation of ethers by acid dehydration of secondary or tertiary alcohols is not a suitable method. Give reason.

