

Chemistry - 12th Class Chemistry Chapter 11 Short Questions Preparation

Q1. How phenol is identified chemically?

Ans 1: An aqueous solution of phenol reacts with bromine water to give white ppt of 2,4,6 tribromophenol, Thus the color of bromine is discharged.

Q2. How will you distinguished between 1-propanol and 2-propanol?

Ans 1: 1-propanol is primary alcohol while 2-propanol is a secondary alcohol.

Primary, Secondary and Tertiary alcohols are identified and distinguished by reacting them with con. HCI is anhydrous ZnCl₂. An oily layer of alkyl halides separates out in these reaction:

- 1. Tertiary alcohol form an oily layer immediately.
- 2. Secondary alcohols for an oily layer in five to ten minutes.
- 3. Primary alcohols form an oily layer only on heating.

Q3. How to convert phenol to an alcohol?

Ans 1: When hydrogen is passed through phenol at 150C in the presence of Ni catalyst ,lt gives cyclogexanol which is an alcohol.

Q4. Explain denaturing of alcohol?

Ans 1: Ethanol is denatured by addition of 10% methanol to avoid its use for drinking purposes, Such as alcohol is called methylated spirit. A small quantity of pyrimidine or acetone may also be added for this purposes.

Q5. How phenol can be converted into benzene?

Ans 1: Benzene is prepared by the reduction of phenol in the presence of Zn.

Q6. Give any three uses of methyl alcohol?

Ans 1:

- 1. It is used as solvent for fats oils, paints, varnishes.
- 2. It is also used as antifreeze in the radiator of automobile.
- 3. It is used for denaturing of alcohol.

Q7. Write the reaction of phenol with methanal.

Ans 1: Phenol reacts with formaldehyde in the presence of acid or alkali to give hydrooxyl benzyl alcohol which on further reaction with other phenol molecules yields a polymer called Bakelite.

Q8. Distinguish between alcohol and a phenol by chemical reaction?

Ans 1: 1. Alcohols does not react with bases but phenol reacts and gives salts.

Alcohols reacts with bromine water and phenol reacts to give white ppy of tribromophenol.

Q9. Write a note on Lucas Test?

Ans 1: Primary, Secondary and Tertiary alcohols are identified and distinguished by reacting them with con. HCl is anhydrous ZnCl₂. An oily layer of alkyl halides separates out in these reaction:

- 1. Tertiary alcohol form an oily layer immediately.
- 2. Secondary alcohols for an oily layer in five to ten minutes.
- 3. Primary alcohols form an oily layer only on heating.

Q10. How does picric acid synthesis take place?

Ans 1: Picric acid is synthesized by the nitration of phenol, Phenol reacts with dil and conc.