

Chemistry - 12th Class Chemistry Chapter 11 Short Questions Preparation

Q1. How phenol can be converted into benzene?

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

Q2. 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.

Q3. Write the reaction of phenol with methanal.

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

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. Prepare diethyl ether by Williamson synthesis?

Ans 1: Alcohols are reacted with metallic sodium from alkoxides. This alkoxide ion is a strong nucleophile and readily reacts with alkyl halide to produce an ether.

Q6. Absolute alcohol can not be prepared by fermentation process Why?

Ans 1: Absolute alcohol cannot be prepared by fermentation process because there is moisture in the process, Absolute alcohol can be prepared by the rectified spirit in the presence of CaO which absorbs its moisture.

Q7. How secondary and tertiary alcohols can be distinguished by Lucas Test?

Ans 1: Secondary and tertiary alcohols are identified and distinguished by reacting them with conc. HCl in anhydrous $ZnCl_2$. An oily layer of alkyl halides separates out on these reactions.

Q8. Write formula of carbolic acid and its one use.

Ans 1: Carbolic acid: C_6H_5OH

its is poisonous and used as a disinfectant in hospitals and washrooms.

Q9. 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.

Q10. 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.
