

Chemistry - 10th Class Chemistry English Medium Chapter 12 Preparation

Q1. Why are alkenes reactive?

Ans 1: Alkenes are reactive compounds because the electrons of the double bond are easily available for reaction

Q2. What is petrochemical industry.

Ans 1: The organic compounds prepared from hydrocarbons are called petrochemicals. some of the important petrochemicals are methyl alcohol, ethyl alcohol, formic acid, chloroform, carbon tetrachloride, ethylene, butadiene, benzene, toluene, etc.

Q3. Give a few uses of ethane.

Ans 1: Ethane is used

- 1: for a artificial ripening of fruits
- 2: as a general anaesthetic
- 3: for manufacture of polythene: Polythene is a plastic material used in packaging, toys, bags etc ethyl alcohol, ethylene, glycol, diethyl ether etc; ethylene oxide is used as a fumigant, ethylene glycol is used as an anti-freeze, diethyl ether and ethyl alcohol are used as solvents and
- 4: for making poisonous mustard gas which is used in chemical warfar

Q4. Identify propane from propane with a test?

Ans 1: Propane and propane can be identified by bromide water test . propane does not give bromine water test because it is saturated hydrocarbons . While propene decolorized the bromine water because propane is unsaturated hydrocarbon having double bond

Q5. Why are hydrocarbons considered as parent organic compounds?

Ans 1: Hydrocarbons are regarded as the parent organic compounds since other organic compounds are considered to be derived from them by the replacement of one or more hydrogen atoms by other atoms or groups of atoms

Q6. Why hydrocarbon used as a fuel

Ans 1: The main constituent of fuels (coal , petroleum and natural gas) are hydrocarbons . When hydrocarbons are burnt in air the reaction is called combustion . It is highly exothermic reaction , i-e it produces a lot of heatThe basic combustion reaction is CH4 + 2O2? CO2 + 2H2O + heat

Ans 2: The heat energy thus produced is used to meet needs of energy in homes, transportation, as well as in industries

Ans 1: Physicsl state: Alkanes form a homologous series of compounds and first four members of the series are gases. the alkanes consisting of C3 to C10 are liquid while the higher members are solids.

Q8. State one important use of each .

Ans 1: Ethene: Ethene is used for artificial ripening of fruits

Acetylene: Acetylene is used to prepare other chemicals, such as alcohols, actaldehyde and acids

 $\textbf{Ans 2:} \quad \textbf{Chloroform: these are used in the manufacture if chemical such as carbon black, alcohol, chloroform, CCL_4, HCHO, CH_3CHO$

Ans 3: Carbon tetrachloride: Carbon tetrachloride is used as an industrial solvent and in dry cleaning

Q9. Give the reduction of alkyl halide.

Ans 1: Reduction means addition of nascent hydrogen. It is a replacement of a halogen atom with hydrogen atom in the presence of Zn metal and HCI

Q10. How can you identify ethene from ethene?

Ans 1: We identify ethene from ethene by bromine water test, ethane does not give bromine water test while ethane decolourized the bromine water because ethene is saturated and ethane is unsaturated hydrocarbon