

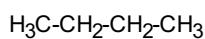
## Chemistry - 10th Class Chemistry English Medium Chapter 12 Preparation

Q1. 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 HCl

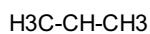
Q2. What is the difference between a straight and a branched chain hydrocarbons ?

**Ans 1:** Straight hydrocarbons : Straight chain compound are those in which carbon atoms are linked with each other through double and triple bonds forming a straight chain



Straight chain (n-butane )

**Ans 2:** Branched chain hydrocarbons : The hydrocarbons in which two carbon branched chain compound are those in which there is a branch along a straight chains



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Q3. Define hydrocarbons.

**Ans 1:** Hydrocarbons are those compounds which are made up of only carbon and hydrogen elements.

Q4. 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.

Q5. What do you mean by halogenations?

**Ans 1:** A reaction in which one or more hydrogen atoms of a saturated compounds are replaced with halogen atom is called halogenations.

Q6. Give some uses of alkynes .

**Ans 1:** 1: It is also used for artificial ripening of fruits

**Ans 2:** 2: Acetylene is used to prepare other chemicals , such as alcohols, acetaldehyde and acids

**Ans 3:** 3: It form oxy-acetylene flame with oxygen , It is highly exothermic reaction . Heat released is used for welding purposes

Q7. Give the physical properties of alkanes .

**Ans 1:** Solubility : They are non-polar , therefore , they are insoluble in water but soluble in organic solvents

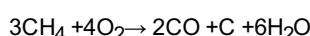
Density : The density of alkanes increases gradually with the increase of molecular size

Q8. Why the burning of alkanes require sufficient supply of oxygen ?

**Ans 1:** Alkanes burn in the presence of excess of air or oxygen to produce a lot of heat , carbon dioxide and water . This reaction takes place in automobile combustion engines , domestic heaters and cooking appliances . It is highly exothermic reaction and because of it alkanes are used as fuel



**Ans 2:** In the limited supply of oxygen , there is incomplete combustion . As a result , carbon monoxide is produced that creates suffocation and cause death . In this limited supply of oxygen , there is incomplete combustion . As a result , carbon monoxide is produced that creates suffocation and cause death



Q9. What is Synthetic fibre industry.

**Ans 1:** Hydrocarbons are used to prepare synthetic fibres like nylon. rayon polyesters these fibres have better qualities like greater strength good elasticity, resistance to wear and tear.

Q10. Different between saturated and unsaturated hydrocarbons.

**Ans 1:** Saturated hydrocarbon: They hydrocarbons in which all four valences electrons of carbon atoms are fully satisfied by single bonds with other carbon atoms and hydrogen atoms are called saturated hydrocarbons.

**Ans 2:** Unsaturated hydrocarbon: The hydrocarbons in which two carbon atoms are linked by a double or a triple bond are called unsaturated hydrocarbons.