

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

| Q1. | What do | you mean | by hal | logenations? |
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|     |         |          |        |              |

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

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

H<sub>3</sub>C-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>3</sub> 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

## Q3. What is Rubber industry?

**Ans 1:** Hydrocarbons are used to prepare synthetic rubber, such as acetylene is used to prepare butadiene rubber used for making footwear, tyres and toys. similarly, a good quality rubber neoprene is prepared from chloroprene.

Q4. Give few uses of ethene.

Ans 1: Ethene is used for artificial ripening of fruits Use as a general anaesthetic for manufacture of polythene

### Q5. Why alkanes are called paraffins?

**Ans 1:** Inalkanes all the bonds of carbon atoms are single that means valences electrons of carbon atoms are saturated. There fore they are least reactive that is the reason, alkanes are called parafins.

Q6. Different between saturated and unsaturated hydrocarbons.

**Ans 1:** Saturated hydrocarbon: Thy 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

### Q7. What is plastic industry.

**Ans 1:** Hydrocarbons are used as raw materials for the preparation of a large variety of synthetic polymers Called plastics like polythene, polyester. These can be given any shape when soft and on hardening make a durable article to be sued in electric and sewages items and a lot of other household items in common life.

### Q8. 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.

### 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. Define saturated hydrocarbons with examples .

Ans 1: The hydrocarbons in which all the four valencies of carbon atoms are fully satisfied (saturated) by single bonds with other carbon atoms and hydrogen atoms are called saturated hydrocarbons. Saturated hydrocarbons are also called alkanes. Thus, an alkane is a hydrocarbon in which the carbon atoms are connected by only single covalent bond (there are no double or triple covalent bonds in alkanes

Methane ( $CH_4$ ), Ethane ( $C_2H_6$ ), propane ( $C_3H_8$ ) and butane ( $C_4H_{10}$ ) are all saturated hydrocarbons because they contain only carbon-carbon single bonds