

## Chemistry - 12th Class Chemistry Chapter 7 Short Questions Preparation

Q1. What is Atomic Hybridization?

**Ans 1:** Mixing up of atomic orbitals to form new, generated orbitals of same energy and same shape is called atomic orbital hybridization. For example: in carbon electron from the 2s orbital is promoted to an empty 2p<sub>2</sub> orbital giving electron configuration.

Q2. Describe the natural source of methane in atmosphere.

**Ans 1:** Methane is an important source of energy especially for countries like in Pakistan which are deficient in the production of mineral oil and coal. It is a mixture of low boiling hydrocarbons. Major portion of the natural gas is methane. It is so formed by the decomposition of organic matter.

Q3. Define reforming of petroleum and give one example?

**Ans 1:** The octane number of gasoline is improved by a process called reforming. It involves the conversion of straight chain hydrocarbons into branched chain by heating in the absence of oxygen and in the presence of catalyst.

Q4. Why vital force of theory is rejected?

**Ans 1:** Vital force of theory was rejected by Friedrich Wohler when he synthesized urea an organic compound from ammonium cyanate a substance of known mineral origin. Since the synthesis of urea from ammonium cyanate, millions of organic compounds have been prepared and analyzed.

Q5. Write importance of cracking.

**Ans 1:** Besides increasing the yield of gasoline, cracking has also produced large amounts of useful by-products, such as ethane, propane, butane and benzene. These are used for manufacturing drugs, plastic, detergents, synthetic fibers, fertilizers, weed killer and important chemicals like ethanol, phenol and acetone.

Q6. Give names of four compounds which are homocyclic but are not aromatic?

**Ans 1:** 1. cyclopropane 2. cyclobutane 3. cyclopentane 4. cyclohexane

Q7. Write down the important uses of organic compounds in our daily life?

**Ans 1:**

1. Organic Compounds are used to synthesize proteins, enzymes, carbohydrates, lipids, vitamins and nucleic acid by living bodies.
2. These compounds are used to produce medicine, clothing, chemical food, etc.

Q8. Write a short note on cracking of petroleum?

**Ans 1:** Breaking of higher hydrocarbons having high boiling point into a variety of lower hydrocarbons which are more volatile (low boiling) is called cracking of petroleum.

Q9. Write down any two characteristics feature of organic compound?

**Ans 1: Non Ionic Character of Organic Compound:** Organic Compounds are generally covalent compound ,therefore do not give ionic reaction.

**Isomerism:** Isomerism is a very common phenomena in organic compounds.very often more than one compound are represented by the same molecule formula. However they have different structural formulas.

Q10. What are carbocyclic compound?

**Ans 1:** The compound in which the ring consists only carbon atom is called the carbocyclic compound.