

SEMESTER–ONE**CHEMISTRY****Class XII****Student Name:****Date:****Period–I : Topic 1****INTRODUCTION TO ORGANIC CHEMISTRY****Multiple Choice Questions**

Select and write one most appropriate option out of the four options given for each of the questions 1 – 5.

1. The property which serves as a criterion of purity of an organic compound is
 - (a) solubility in water
 - (b) melting point
 - (c) density
 - (d) crystalline nature.
2. Fractional distillation is used to separate substance, of different
 - (a) melting points
 - (b) boiling points
 - (c) molar masses
 - (d) melting and boiling points.
3. A mixture of iodine can be separated from table salt by the method of
 - (a) sublimation
 - (b) fractional distillation
 - (c) fractional crystallisation
 - (d) steam distillation.
4. Separation of crude oil into various fractions is possible because the fractions have different
 - (a) melting points
 - (b) densities
 - (c) boiling points
 - (d) viscosity.
5. Which of the following fractions of petroleum has the highest boiling range?
 - (a) Kerosene
 - (b) Fuel oil
 - (c) Gasoline
 - (d) Petroleum ether.

Fill in the Blanks

Fill in the blanks with a suitable word for each of the questions 1 – 5.

1. is a process of solidification of a pure substance from its dissolved state.
2. is a process of conversion of liquid into vapours by heating followed by condensation of vapours so produced by cooling.
3. is the technique of separating the constituents of a mixture by the differential movement of individual components through the stationary phase under the influence of mobile phase.
4. is the phenomenon by virtue of which two or more compounds having same molecular formula can be assigned different molecular structures.
5. Alkanes are hydrocarbons.

True or False

State whether the following statements are true or false for each of the questions 1–5.

1. Benzene is highly non-toxic in nature.
2. Benzene is easily absorbed by skin the inhalation of vapours of benzene may cause giddiness and nausea.
3. The replacement of hydrogen atom of benzene by a sulphonic acid group ($-\text{SO}_3\text{H}$) is known as halogenation.
4. Crystallisation is a process of solidification of a pure substance from its dissolved state.
5. Natural gas is a complex mixture of alkanes and other hydrocarbons.

Theoretical Questions

Answer each of the questions 1 – 5.

1. Write the chemical properties of Benzene.

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2. What are the important uses of benzene?

3. List at least five characteristics of organic compounds.

4. Write at least one method of separation of organic compound.

5. What do you mean by functional groups?

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