



Class 11 Chemistry | Organic Chemistry: Some Basic Principles And Techniques

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. IUPAC name of $\text{CH}_3\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$ is:

- A. 3-Methylbutane B. 2-Methylbutane
C. Pentane D. 2-Ethylpropane

2. Heterolytic cleavage of a covalent bond produces:

- A. Only molecules B. Two free radicals
C. Only neutral atoms D. Ions

3. Homolytic cleavage produces:

- A. Only carbocations B. Only carbanions
C. Ionic crystals D. Free radicals

4. Which is a nucleophile?

- A. BF_3 B. H^+ C. NO_2^+ D. OH^-

5. Which is an electrophile?

- A. NH_3 B. NO_2^+ C. OH^- D. CN^-

6. Most stable simple alkyl carbocation is:

- A. CH_3^+ B. CH_3CH_2^+ C. $(\text{CH}_3)_3\text{C}^+$ D. $(\text{CH}_3)_2\text{CH}^+$

7. A carbon atom in a $\text{C}\equiv\text{C}$ bond is typically:

- A. Unhybridised B. sp^3 hybridised
C. sp^2 hybridised D. sp hybridised

8. Ethanol and dimethyl ether show:

- A. Geometrical isomerism
B. Functional isomerism
C. Chain isomerism only
D. Optical isomerism

9. Which group generally shows a -I effect?

- A. $-\text{CH}_3$ B. $-\text{C}(\text{CH}_3)_3$ C. $-\text{NO}_2$ D. $-\text{C}_2\text{H}_5$

10. Resonance structures differ in:

- A. Electron arrangement
B. Molecular formula
C. Atomic positions
D. Total charge

11. A sublimable solid can be separated from nonvolatile impurities by:

- A. Decantation alone B. Filtration alone
C. Centrifugation alone D. Sublimation

12. Miscible liquids with close boiling points are separated by:

- A. Sublimation B. Fractional distillation
C. Crystallisation only D. Simple filtration

13. Chromatography separates substances by differences in:

- A. Nuclear charge alone
B. Combustion temperature
C. Distribution between phases
D. Total atom count only

14. In sodium fusion, nitrogen in an organic compound is converted to:

- A. NaNO_3 B. N_2O C. NaCN D. NH_4Cl

15. How many chain isomers does C_5H_{12} have?

- A. 2 B. 3 C. 5 D. 4

ANSWER KEY — check after completing all 15 questions

1.B 2.D 3.D 4.D 5.B 6.C 7.D 8.B 9.C 10.A 11.D 12.B 13.C 14.C 15.B