

Organic Chemistry Terms

Organic Chemistry Terms and Definitions: Multiple Choice Questions

- 1. Which of the following is a saturated hydrocarbon?**
 - a) Ethene
 - b) Ethyne
 - c) Ethane
 - d) Benzene
- 2. What is the functional group present in alcohols?**
 - a) -COOH
 - b) -OH
 - c) -CHO
 - d) -NH₂
- 3. Which type of isomerism involves different spatial arrangements around a double bond?**
 - a) Structural Isomerism
 - b) Optical Isomerism
 - c) Geometric Isomerism
 - d) Chain Isomerism
- 4. A species that donates an electron pair to form a chemical bond is called a(n):**
 - a) Electrophile
 - b) Nucleophile
 - c) Free Radical
 - d) Carbocation
- 5. Which of the following compounds contains a carbonyl group within the carbon chain?**
 - a) Alcohol
 - b) Aldehyde
 - c) Ketone
 - d) Carboxylic Acid
- 6. What is the bond angle in an sp² hybridized carbon atom?**
 - a) 90°
 - b) 109.5°
 - c) 120°
 - d) 180°
- 7. Which of the following is a cyclic compound with conjugated π-electron systems that follows Hückel's rule?**
 - a) Alkane
 - b) Alkene
 - c) Aromatic compound
 - d) Alkyne
- 8. In organic chemistry, the polarization of sigma bonds within a molecule due to electronegativity differences is called:**
 - a) Resonance

- b) Hyperconjugation
 - c) Inductive Effect
 - d) Aromaticity
9. **What type of reaction involves the splitting of a single molecule into two or more smaller molecules?**
- a) Addition Reaction
 - b) Elimination Reaction
 - c) Substitution Reaction
 - d) Rearrangement Reaction
10. **Which of the following groups is characteristic of carboxylic acids?**
- a) -COOH
 - b) -CHO
 - c) -OH
 - d) -NH₂
11. **What is the hybridization of the carbon atoms in ethyne (C₂H₂)?**
- a) sp
 - b) sp²
 - c) sp³
 - d) sp³d
12. **Which of the following is not an example of a hydrocarbon?**
- a) Methane
 - b) Ethanol
 - c) Benzene
 - d) Propane
13. **A molecule with non-superimposable mirror images is known as:**
- a) Isotopic
 - b) Geometric
 - c) Chiral
 - d) Achiral
14. **The tendency of an atom to attract electrons towards itself in a chemical bond is called:**
- a) Ionization Energy
 - b) Electronegativity
 - c) Electron Affinity
 - d) Electrophilicity
15. **What is the common name for a species that accepts an electron pair to form a chemical bond?**
- a) Nucleophile
 - b) Electrophile
 - c) Lewis Acid
 - d) Both b and c

5. c) Ketone
6. c) 120°
7. c) Aromatic compound
8. c) Inductive Effect
9. b) Elimination Reaction
10. a) -COOH
11. a) sp
12. b) Ethanol
13. c) Chiral
14. b) Electronegativity
15. d) Both b and c

Answer Key

1. c) Ethane
2. b) -OH
3. c) Geometric Isomerism
4. b) Nucleophile