

Introduction to Organic Chemistry

Organic Chemistry · Answer Key · 20 Questions

1. What element is the foundation of all organic compounds?

- A) Oxygen
- B) Nitrogen
- C) Carbon**
- D) Hydrogen

2. Which of the following is a simple organic molecule found in sugar?

- A) Water (H₂O)
- B) Carbon dioxide (CO₂)
- C) Glucose (C₆H₁₂O₆)**
- D) Salt (NaCl)

3. What is the most common element bonded to carbon in organic molecules?

- A) Oxygen
- B) Sulfur
- C) Nitrogen
- D) Hydrogen**

4. A molecule made up of only carbon and hydrogen atoms is called a:

- A) Alcohol
- B) Alkane**
- C) Carboxylic acid
- D) Ketone

5. Which common substance is a natural organic polymer found in plants?

- A) Plastic
- B) Rubber
- C) Cellulose**
- D) Glass

6. What is the primary source of organic compounds on Earth?

- A) Rocks
- B) Minerals
- C) Living organisms**
- D) The Sun

7. Which of these is an example of an organic compound found in living things?

- A) Iron
- B) Aluminum
- C) Proteins**
- D) Silicon

8. What is the process by which plants make their own organic food using sunlight?

- A) Respiration
- B) Fermentation
- C) Photosynthesis**
- D) Combustion

9. A chain of repeating organic units is called a:

- A) Monomer
- B) Polymer**
- C) Element
- D) Compound

10. Which gas, essential for breathing, is produced during photosynthesis from organic compounds?

- A) Carbon dioxide
- B) Nitrogen
- C) Oxygen**
- D) Methane

11. Organic chemistry is the study of compounds containing:

- A) Only oxygen
- B) Only hydrogen
- C) Carbon and its compounds**
- D) Noble gases

12. What makes carbon unique and able to form many different organic molecules?

- A) It is a gas
- B) It has only one electron
- C) It can form four bonds**
- D) It is very light

13. Which of these is a common organic fuel source?

- A) Water
- B) Sand
- C) Natural gas**
- D) Iron ore

14. The simplest alkane molecule has the formula:

- A) CH₄**
- B) C₂H₆
- C) C₃H₈
- D) C₄H₁₀

15. What type of bond is typically formed between carbon atoms in organic molecules?

- A) Ionic bond
- B) Hydrogen bond
- C) Covalent bond**
- D) Metallic bond

16. Organic compounds are generally characterized by their:

- A) High melting points
- B) Solubility in water
- C) Flammability**
- D) Ability to conduct electricity

17. Which part of a plant provides the carbon atoms for many organic compounds?

- A) Roots
- B) Leaves**
- C) Stem
- D) Flower

18. A molecule that contains a ring of carbon atoms is called a:

- A) Straight chain molecule
- B) Branched chain molecule
- C) Cyclic molecule**
- D) Linear molecule

19. Which of these is a naturally occurring organic compound that is a building block for life?

- A) Diamond
- B) Graphite
- C) Amino acid**
- D) Ozone

20. Organic compounds are found in many everyday items, such as:

- A) Batteries
- B) Fertilizers
- C) Soaps**
- D) Glass