

Name: _____

Date: _____

TOPIC: MOLECULES

Instructions: Choose the correct answer for each question by circling the appropriate letter.

1. What is a molecule?

- A) The smallest unit of matter
- B) A group of atoms bonded together
- C) A type of atom
- D) An individual proton

2. What holds the atoms in a molecule together?

- A) Neutrons
- B) Protons
- C) Chemical bonds
- D) Electrons floating freely

3. Which of the following is a diatomic molecule?

- A) H_2O
- B) CO_2
- C) O_2
- D) $C_6H_{12}O_6$

4. Water (H_2O) is an example of a molecule because it is made up of:

- A) Two hydrogen atoms and one oxygen atom
- B) Two oxygen atoms and one hydrogen atom
- C) Three oxygen atoms
- D) Only hydrogen atoms

5. Which type of molecule is made of only one type of atom?

- A) Compound
- B) Element
- C) Mixture
- D) Ionic compound

6. What type of bond forms when atoms share electrons?

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

7. In which molecule is carbon present?

- A) O_2
- B) H_2O
- C) CO_2
- D) $NaCl$

8. What is a compound?

- A) A single atom
- B) A molecule made of two or more different elements
- C) A type of ion
- D) A group of protons and neutrons

9. Which of the following statements is true about molecules?

- A) All molecules must contain carbon atoms
- B) Molecules are always larger than individual atoms
- C) Molecules can consist of the same or different types of atoms
- D) Molecules can be broken into atoms without any chemical reaction

10. Which molecule is commonly referred to as the "universal solvent"?

- A) $NaCl$
- B) H_2O
- C) CO_2
- D) CH_4

Answer Key

(For teachers' use only)

1. B

2. C

3. C

4. A

5. B

6. D

7. C

8. B

9. C

10. B