



Bonding, Structure and Properties of Matter

Multiple Choice Questions

Set 1

You may use the periodic table to answer these questions.

Tick **one** box.

1. What type of bond is formed when a metal reacts with a non-metal?

- A. covalent bond
- B. hydrogen bond
- C. ionic bond
- D. metallic bond

2. What name is given to the change of state in which a substance changes from a gas to a liquid?

- A. melting
- B. freezing
- C. evaporation
- D. condensation

3. What is the chemical symbol for a sodium ion?

- A. Na^{2-}
- B. Na^-
- C. Na^+
- D. Na^{2+}

4. Which of the following compounds contains covalent bonds?

- A. magnesium oxide (MgO)
- B. ammonia (NH_3)
- C. potassium bromide (KBr)
- D. calcium chloride (CaCl_2)

5. What name is given to a mixture of metals?

- A. alloy
- B. allotrope
- C. isotope
- D. polymer

6. Which of the following is **not** a property of ionic compounds?

- A. high melting point
- B. low boiling point
- C. conduct electricity when melted
- D. have regular structures

7. Which type of substance has weak intermolecular forces?

- A. giant ionic lattice
- B. metal
- C. polymer
- D. small molecule

8. Which of the following substances has a giant covalent structure?

- A. water
- B. diamond
- C. sodium chloride
- D. chlorine

9. What type of bonding occurs between the atoms in graphite?

- A. covalent bonding
- B. hydrogen bonding
- C. ionic bonding
- D. metallic bonding

10. A cube has a side length of 0.5cm. What is the surface area of the cube?

- A. 0.125cm^2
- B. 0.5cm^2
- C. 1.5cm^2
- D. 3cm^2