1: Which of the following elements is monatomic at room temperature and pressure?
   A: Argon.
   B: Chlorine.
   C: Hydrogen.
   D: Nitrogen.
   E: Oxygen.

2: The elements in the periodic table are arranged in order of increasing:
   A: Density.
   B: Isotope number.
   C: Atomic mass.
   D: Neutron number.
   E: Atomic number.

3: What are the forces of attraction holding helium atoms together called?
   A: Hydrogen bonds.
   B: London dispersion forces.
   C: Ionic interaction.
   D: Covalent bonds.
   E: Metallic bonds.

4: Which of the following elements consists of discrete covalent molecules?
   A: Lithium.
   B: Magnesium.
   C: Hydrogen.
   D: Carbon.
   E: Silicon.

5: Which of the following molecules consists of 2 atoms held together by a triple covalent bond?
   A: Oxygen.
   B: Nitrogen.
   C: Hydrogen.
   D: Chlorine.
   E: Sulphur.

6: Which of the following molecules consists of polyatomic \( \text{X}_4 \) molecules?
   A: Nitrogen.
   B: Carbon.
   C: Sulphur.
   D: Magnesium.
   E: Phosphorus.

7: Which of the following statements explains why diamond has such high melting and boiling points?
   A: Diamond molecules are held together by strong London dispersion forces.
   B: The metallic bonds in diamond are very strong.
   C: The carbon atoms in diamond are held together by strong covalent bonds.
   D: The carbon atoms in diamond are held together by strong hydrogen bonds.
   E: The carbon atoms have strong triple covalent bonds holding them together.

8: The layers of carbon atoms in graphite are held together by:
   A: Metallic bonds.
   B: Covalent bonds.
   C: Hydrogen bonds.
   D: London dispersion forces.
   E: Electrostatic attraction between ions of opposite charge.