

## A 1.1 Water MC

**1. What type of bond holds the hydrogen and oxygen atoms together within a water molecule?**

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

**2. How many atoms of hydrogen are present in a single water molecule?**

- A) 1
- B) 2
- C) 3
- D) 4

**3. The polarity of a water molecule is due to:**

- A) Equal sharing of electrons
- B) Unequal sharing of electrons
- C) Hydrogen atoms having a positive charge
- D) Oxygen atom being smaller and negatively charged

**4. What type of bond forms between water molecules?**

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

**5. The movement of water molecules through the xylem is aided by:**

- A) Adhesion
- B) Cohesion
- C) Both cohesion and adhesion
- D) Neither cohesion nor adhesion

**6. What is the name of the effect that allows insects to travel across the top of water?**

- A) Buoyancy
- B) Surface tension
- C) Capillary action
- D) Evaporation

**7. Which property explains why water rises in narrow tubes against gravity?**

- A) Diffusion
- B) Osmosis
- C) Capillary action
- D) Surface tension

**8. Water's ability to dissolve ionic or polar molecules makes it an excellent:**

- A) Solvent
- B) Buffer
- C) Catalyst
- D) Reactant

**9. Fats are not soluble in water because they are:**

- A) Polar
- B) Hydrophilic
- C) Hydrophobic
- D) Ionic

**10. What term describes the water's interaction with other substances, such as plant cell walls or soil?**

- A) Cohesion
- B) Capillary action
- C) Adhesion
- D) Surface tension

**11. In plants, water moves through the xylem due to:**

- A) Gravity
- B) Adhesion and cohesion
- C) Capillary action only
- D) Pressure differences

**12. Which of the following organisms can float on water due to its low viscosity?**

- A) Ringed seal
- B) Black-throated loon
- C) Both A and B
- D) Neither A nor B

**13. Capillary action is strongest in:**

- A) Clay
- B) Sand
- C) Gravel
- D) Water

**14. Water has relatively low \_\_\_\_\_, allowing certain animals to swim easily through it.**

- A) Surface tension
- B) Viscosity
- C) Density
- D) Solubility

**15. Which of the following describes water's ability to support aquatic life?**

- A) High viscosity
- B) Low surface tension
- C) Low viscosity
- D) High density

**Answers:**

1. B) Covalent bond
2. B) 2
3. B) Unequal sharing of electrons
4. C) Hydrogen bond
5. C) Both cohesion and adhesion
6. B) Surface tension
7. C) Capillary action
8. A) Solvent
9. C) Hydrophobic
10. C) Adhesion
11. B) Adhesion and cohesion
12. C) Both A and B
13. A) Clay
14. B) Viscosity
15. C) Low viscosity