

Multiple Choice Questions

1. What is the most common property of metals?
 - Brittle
 - Malleable
 - Transparent
 - Insulating
2. Which metal is liquid at room temperature?
 - Mercury
 - Gold
 - Silver
 - Copper
3. What is the typical reaction of metals with acids?
 - No reaction
 - Formation of salt and hydrogen gas
 - Formation of water
 - Formation of carbon dioxide
4. Which of the following metals is the most reactive?
 - Gold
 - Platinum
 - Sodium
 - Iron
5. What is the property of metals that allows them to conduct electricity?
 - Ductility
 - Conductivity
 - Malleability
 - Luster
6. What is formed when a metal reacts with water?
 - Metal oxide
 - Hydrogen gas
 - Salt
 - Acid
7. What type of reaction occurs when a metal reacts with a non-metal?
 - Synthesis
 - Decomposition
 - Single displacement
 - Double displacement
8. What is a characteristic reaction of silver nitrate with sodium chloride?
 - Formation of a gas
 - Formation of a precipitate
 - Formation of a liquid
 - No reaction

9. What happens when copper sulfate reacts with sodium carbonate?

- A) Formation of a gas
- B) Formation of a precipitate
- C) Formation of a liquid
- D) No reaction

10. What is the result of heating copper carbonate?

- A) Formation of copper oxide and carbon dioxide
- B) Formation of copper and oxygen
- C) Formation of copper hydroxide
- D) No reaction

11. Which metal is known for its high melting point?

- A) Tungsten
- B) Copper
- C) Silver
- D) Gold

12. What happens when zinc reacts with hydrochloric acid?

- A) Formation of zinc chloride and hydrogen gas
- B) Formation of zinc oxide
- C) No reaction
- D) Formation of water

13. What is the typical color of copper(II) sulfate solution?

- A) Blue
- B) Red
- C) Green
- D) Yellow

14. Which reaction involves the release of gas?

- A) Metal with acid
- B) Metal with water
- C) Metal with non-metal
- D) All of the above

15. What is the result of mixing sodium hydroxide with aluminum sulfate?

- A) Formation of a gas
- B) Formation of a precipitate
- C) Formation of a liquid
- D) No reaction

16. Which metal is often used in jewelry due to its resistance to corrosion?

- A) Gold
- B) Silver
- C) Copper
- D) Iron

17. What happens when magnesium reacts with oxygen?

- A) Formation of magnesium oxide
- B) Formation of magnesium hydroxide
- C) No reaction
- D) Formation of water

18. Which of the following is not a characteristic of metals?

- A) Conductivity
- B) Malleability
- C) Transparency
- D) Ductility

19. What is formed when calcium carbonate is heated?

- A) Calcium oxide and carbon dioxide
- B) Calcium hydroxide
- C) Calcium chloride
- D) No reaction

20. Which metal reacts violently with water?

- A) Sodium
- B) Potassium
- C) Calcium
- D) All of the above

True/False Questions

1. All metals are good conductors of electricity.
2. Gold is the most reactive metal.
3. Metals can form positive ions by losing electrons.
4. Sodium reacts violently with water.
5. Iron does not rust in the presence of water.
6. Copper is more reactive than zinc.
7. Metals are typically brittle.
8. Silver nitrate reacts with sodium chloride to form a precipitate.
9. Heating copper carbonate produces copper oxide and carbon dioxide.
 - Answer: True
10. All metals are malleable.
11. Tungsten has a low melting point.

12. Zinc reacts with hydrochloric acid to produce hydrogen gas.
13. Copper(II) sulfate solution is colorless.
14. Metals do not react with non-metals.
15. Aluminum reacts with oxygen to form aluminum oxide.

Short Answer Questions

1. What is the most common property of metals?
2. Name a metal that is liquid at room temperature.
3. What happens when a metal reacts with an acid?
4. What is the result of heating copper carbonate?
5. Which metal is the most reactive?
6. Describe the reaction between sodium and water.
7. What is formed when magnesium reacts with oxygen?
8. Explain why metals are good conductors of electricity.
9. What happens when zinc reacts with hydrochloric acid?
10. Describe the reaction between silver nitrate and sodium chloride.

Fill-in-the-Blanks Questions

1. _____ is a metal that is liquid at room temperature.
2. The reaction of a metal with an acid produces _____ gas.
3. Metals are typically _____ conductors of electricity.
4. The most reactive metal is _____.
5. Heating copper carbonate produces copper _____ and carbon dioxide.
6. _____ is formed when magnesium reacts with oxygen.
7. The reaction between sodium and water produces _____ gas.
8. _____ is a characteristic property of metals that allows them to be shaped easily.
9. When aluminum reacts with oxygen, it forms _____ oxide.
10. The reaction between silver nitrate and sodium chloride results in the formation of a _____.