

# Term 1 Final Revision

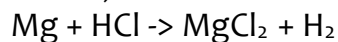
## Chapter 3 Final Questions

### Multiple Choice

1. What is the standard form for a single-replacement reaction?  
**A-**  $AX + BY \rightarrow AY + BX$   
**B-**  $A + B \rightarrow AB$   
**C-**  $AB \rightarrow A + B$   
**D-**  $A + BX \rightarrow AX + B$
2. According to collision theory,\_\_\_\_\_.  
**A-** all collisions result in some sort of chemical reaction  
**B-** a chemical reaction can occur without collisions  
**C-** the amount of energy of the particles determines whether a reaction occurs
3. What is the general relationship between temperature and reaction rate?  
**A-** the higher the temperature, the higher the reaction rate  
**B-** the higher the temperature, the lower the reaction rate  
**C-** temperature and rate vary inversely  
**D-** there is no relationship between the two
4. What factor accounts for the fact that powdered sugar dissolves more quickly than granulated sugar under the same conditions?  
**A-** temperature  
**B-** concentration  
**C-** nature of reactants  
**D-** surface area
5. How does increasing gas pressure increase the rate of reaction?  
**A-** gas particles move faster  
**B-** new gas particles are made  
**C-** gas particles are in a smaller space  
**D-** gas particles are in a larger space

6. A substance that increases the rate of a reaction without itself being used up is called a(n)
- A- intermediate product
  - B- catalyst
  - C- inhibitor
  - D- activated complex
7. In an exothermic reaction:\_\_\_\_\_.
- A- the heat of the products is equal to the heat of the reactants
  - B- the heat of the products is greater than the heat of the reactants
  - C- the heat of the products is less than the heat of the reactants
  - D- it varies depending on the reaction
8. Which of the following statements about bonds and energy is correct?
- A- bond breaking and bond formation both require energy
  - B- bond breaking and bond formation both release energy
  - C- bond breaking requires energy and bond formation releases energy
  - D- bond breaking releases energy and bond formation requires energy
9. Endothermic reactions are reactions that:\_\_\_\_\_.
- A- absorb heat
  - B- release heat
  - C- do not involve heat
  - D- take place instantaneously
10. When the equation,  $\text{Fe} + \text{Cl}_2 \rightarrow 2\text{FeCl}_3$ , is balanced, what is the coefficient for  $\text{Cl}_2$ ?
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- A- 1
  - B- 2
  - C- 3
  - D- 4

11. When the following equation is balanced, what is the coefficient for HCl?



A- 6

B- 3

C- 1

D- 2

12. Chemical reactions\_\_\_\_\_.

A- the ways in which atoms are joined together are changed.

B- new atoms are formed as products.

C- the starting materials are named reactants.

D- the bonds of the reactants are broken and new bonds of the products are formed

13. Chemical equations must be balanced to satisfy the\_\_\_\_\_.

A- law of definite proportions

B- law of multiple proportions

C- law of conservation of mass

D- principle of Avogadro

14. In the chemical equation,  $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$ ,

The  $\text{H}_2\text{O}_2$  is a\_\_\_\_\_.

A- product

B- reactant

C- catalyst

D- solid

15. A catalyst is\_\_\_\_\_.

A- the product of a reaction

B- is a reactant

C- one of the reactants in single-replacement reactions

D- a chemical that speeds up the reaction

16. In every balanced chemical equation, each side of the equation has the same number of \_\_\_\_\_.

- A- atoms
- B- molecules
- C- moles
- D- Coefficients

17. In a combustion reaction, one of the reactants is \_\_\_\_\_.

- A- hydrogen
- B- nitrogen
- C- oxygen
- D- a metal

18. The products of a combustion reaction do NOT include \_\_\_\_\_.

- A- water
- B- carbon dioxide
- C- carbon monoxide

19. Which of these does **NOT** increase the rate of a reaction?

- A- increasing the surface Area
- B- adding a Catalyst
- C- mixing the chemicals vigorously
- D- increasing the Concentrations

20. Most metals are good conductors of \_\_\_\_\_.

- A- a bond between two atoms
- B- one pair of electrons shared between two atoms
- C- two pairs of electrons shared between two atoms
- D- two pairs of electrons shared between four atoms

