**Chemistry 0 Unit 2 Review Test**
**Assigned on 02/13/2022 Due date: 02/27/2022**

1. Freezing is a physical change.
   True or false: _____.

2. Are fireworks chemical change or physical change?

3. An example of a chemical change is: _____.
   A. chocolate syrup mixed in milk
   B. breaking glass
   C. melting ice
   D. burning coal

4. What is the naming for LiBr? _____.
   A. Lithium(II) Bromide
   B. Lithium Bromide
   C. Lithium Boron
   D. Lithium(II) Boron

5. What is the name of the compound with the formula $PCl_3$? _____.
   A. Monopotassium Trichloride
   B. Monophosphorus Trichloride
   C. Phosphorus Trichloride
   D. Potassium Trichloride

6. Number of total atoms in $Ca(OH)_2$: _____.

7. Number of total atoms in $Al_2(Cr_2O_7)_3$: _____.

8. What is the correct balancing for this equation?_____.
   A. $2CH_4 + 4O_2 \rightarrow 2CO_2 + 5H_2O$
   B. $5CH_4 + 3O_2 \rightarrow CO_2 + 2H_2O$
   C. $CH4 + 2O2 \rightarrow CO2 + 2H2O$
   D. $CH_4 + O_2 \rightarrow CO_2 + H_2O$

9. Please balance the following chemical equation:
   $H_2 + O_2 \rightarrow H_2O$

10. Please balance the following chemical equation:

    $Fe_2O_3 + C \text{ ---> } Fe + CO_2$

11. What kind of chemical reaction is this?

    $A+B \rightarrow AB$

    A. Double Replacement
    B. Synthesis
    C. Decomposition
    D. Combustion

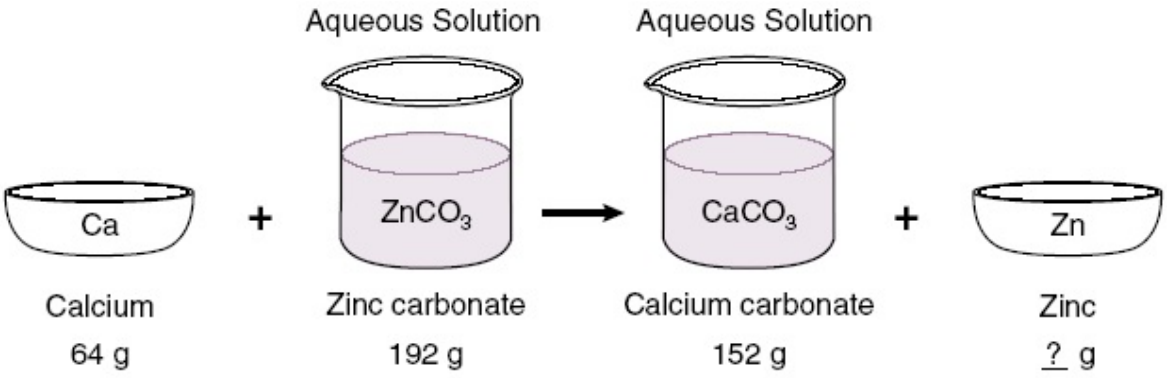
12. What kind of chemical reaction is this?

    $AB+CD \rightarrow AC+BD$

    A. Double Replacement
    B. Synthesis
    C. Decomposition
    D. Combustion

13. The Law of Conservation of Mass states:
    A. Matter can be created and destroyed.
    B. Matter can not be created but it can be destroyed.
    C. Matter cannot be created and it cannot be destroyed.
    D. Matter is not real.

14. Find the missing mass: _____.




    A. 104 g
    B. 256 g
    C. 40 g
    D. 88 g

15. If the temperature of a reaction is decreased, what effect will it have on the rate of reaction? _____.
    A. It will have no effect.
    B. The reaction will stop.
    C. The rate of reaction will decrease.
    D. The rate of reaction will increase.

16. During the glow stick experiment, what did we keep as our control?_____.
    A. The glow stick in hot water.
    B. The glow stick in the dry ice.
    C. The glow stick at room temperature.
    D. There was no control.

17. Why does a catalyst increase the rate of reaction?
    A. It increases the activation energy the particles have.
    B. It makes more collisions happen.
    C. It adds more particles.
    D. It provides an alternative route of lower activation energy.

18. A catalyst _____ the energy needed for a chemical reaction and _____ the rate of the reaction.
    A. decreases, increases
    B. increases, decreases
    C. balances, increases
    D. balances, decreases

19. Endothermic or exothermic?_____.

    A. Endothermic
    B. Exothermic

20. An endothermic reaction feels_____.
    A. hot
    B. cold
    C. neither hot nor cold

21. When an acid and a base are mixed they_____.
    A. explode
    B. dissolve
    C. bubble
    D. neutralize each other

22. Is sodium hydroxide an acid or base?
    A. Acid
    B. Base

23. A pH of 3 is less acidic than a pH of 5?
    A. True
    B. False

24. What is the end point of a titration?
    A. When an indicator changes color
    B. When a acid fully ionizes
    C. when a base fully ionizes
    D. when an indicator is added to a solution

25. Define molarity: _____.
    A. a substance that changes color inside of an acid or base
    B. a substance whose particles are dissolved in a solution
    C. the # of moles of a dissolved solute per liter of solution
    D. none of the above