Chemical Reactions, A1;Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\*\_\_\_\_\_\_Score\_\_\_\_\_\_

1. A change in which one or more substances are converted to \_\_\_\_\_\_\_\_\_substances.
2. In a chemical reaction , matter is not \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. Atoms can only be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
4. Q1: The chemical reaction, AgNO3 + NaCl → AgCl + NaNO3

is a:

A- Synthesis reaction  
B- Decomposition reaction  
C- Single-Displacement reaction  
D- Double-Displacement reaction  
E- Combustion reaction

1. Name the 5 main types of chemical reactions  
     
   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ,\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. The chemical reaction, 2 CO + O2 → 2 CO2, is a

A- Synthesis reaction  
B- Decomposition reaction  
C- Single-Displacement reaction  
D- Double-Displacement reaction  
E- Combustion reaction

1. What is CCl4
2. Carbon Tetrachloride
3. Barium Nitrite
4. Aluminum Periodate
5. Potassium Dichromate

8. What is N20

1. Iron Hydroxide
2. Dinitrogen Monoxide
3. Gold Oxide
4. Lithium Sulfite

9. What is SF6

1. Phosphorus Pentafluoride
2. Diboron Tetrahydride
3. Dinitrogen Trioxide
4. Sulfur Hexafluoride

10. What is the substance that speeds up a chemical reaction without being permanently changed?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. When heat is needed for a chemical reaction, it is called an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction.

A.  endergonic

B.  endothermic

C.  exergonic

D.  exothermic

12. What is the difference between exergonic and endergonic?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. Which of the following is a double replacement

          A.  2NaNO3 + PbO → NO3 + Na2O

          B.  6Ag + Fe2(CO3)3 → 2Fe+ 3Ag2CO3

          C. K2Cr2O7

          D. lithium sulfide

14. What are five main types of chemical reactions?

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. What kind of chemical bond exists by attraction between 2 oppositely charged ions?

1. Ionic
2. Covalent
3. Polar
4. nonpolar

16. What is the correct name of CCl4?

          A. Carbon Tetrachloride

          B. Carbon Monochloride

          C .Carbon Chloride

          D. Carbon Pentachloride

17. What is the correct formula for phosphorus trichloride?

       A. ClP2

       B. PCl3

       C. Ptl4

       D. H2O

 18. What is the proper formula for a compound made of Mg+2 and N-3 ions?

      A.Mg2N3

      B. N3Mg2

      C.N2Mg3

      D.Mg3N2

19. A cation is a \_\_\_\_\_ charged ion

a. positively

b. negatively

c. neutrally

d. None of the above

20. An anion is a \_\_\_\_ charged ion

a. positively

b. negatively

c. neutrally

d. None of the above

21. What is formed by an atom losing a valence electron? A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ charged ion.

a. positively

b. negatively

c. neutrally

d. None of the above

22. In a chemical formula, how is the number of atoms of an element indicated?

By use of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the formula.

23. Lavoisier’s mercury(II) oxide reaction can also be written as;

1. 2HgO(s) → 2Hg(l) + O2(g)
2. H2(l)+ O2(l) → H2O(g)
3. Pb(NO3)2(aq) + 2KI(aq) → PbI2(s) + 2KNO3(aq)
4. 2H2O2 → 2H2O + O2

24. \_\_\_\_ AgI + \_\_\_\_ Na2S → \_\_\_\_ Ag2S + \_\_\_\_ NaI

25. The chemical formula shows the ratio of their \_\_\_\_\_\_\_\_\_\_?

1. elements
2. valence
3. number of atoms
4. outer shell

26. Valence electrons are identified by \_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ electrons.

27. What is ionic bonding?

1. A chemical bond formed when one atom gains an electron and a second atom loses one.
2. The chemical bond formed when both atoms gain 1 electron.
3. A chemical bond is formed when both atoms lose electrons.
4. A chemical bond is formed when both atoms do nothing.

28. Electrons are shared unequally between 2 different \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ atoms.

29. The results of a polar covalent bond are partial opposite \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

30. When there are two hydrogen and one oxygen bond together you get a \_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bond.