Study Guide: Elements, Compounds, and Mixture Test

1. How is a compound different from a mixture?
   Each substance in a compound loses its characteristic properties
2. What is a good statement for describing elements? *Elements have unique sets of properties*
3. How are boiling point, melting point, and density related to an element?
   They are physical properties
4. When is a compound is formed?
   When two or more elements join together chemically
5. A solid is a state of matter that has what? *definite volume and a definite shape*
6. What will NOT break down compounds? *Filtering, centrifuge*
7. Which of the following best describes chicken noodle soup? *Mixture*
8. A colloid has properties of both _____ and _____. *Suspension and solutions*
9. What is formed when particles of two or more substances are distributed evenly among each other? *Solution*
10. How could a sugar cube be dissolved more quickly in water? *Crush the sugar cube*
11. How do elements join to form compounds? *In a specific mass ratio*
12. At room temperature, most metals are ____. *Solids*
13. Metals can be used as wire because they are ____. *Ductile*
14. In which state of matter do the particles spread apart and fill all the space available to them?
    Gas

For the following questions, tell whether the statement is a (E) element, (C) compound, or (M) mixture:

C 15. Can be chemically separated
E 16. A substance in which all atoms are alike
C 17. A substance in which two or more elements are combined in a fixed proportion
M 18. A substance made from elements and compounds not in fixed proportions.
M 19. Can be physically separated

Match each item with the correct statement below.

A. suspension C. element E. colloids
B. compound D. solutions

__D__20. Air
_C__21. Oxygen (O_2)
_E_22. Fog
_C__23. Aluminum pie plate (Al)
__D_24. Well mixed kool-aid
_A__25. Italian Salad Dressing
_B__26. Salt (NaCl)
__A_27. Snow Globe

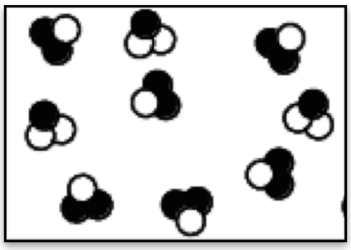
Match each item with the correct statement below.

A. Pure substance C. Metal E. Metalloid
B. Element D. Nonmetal

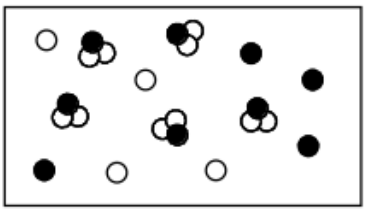
_E__28. an element that has the properties of both metals and nonmetals
__C_29. an element that is shiny and that conducts heat and electric current well
_D__30. an element that conducts heat and electricity poorly and is dull in appearance
_B__31. a pure substance that cannot be separated into simpler substances by physical or chemical means

Identify each as a (E) element, (C) compound, or (M) mixture:

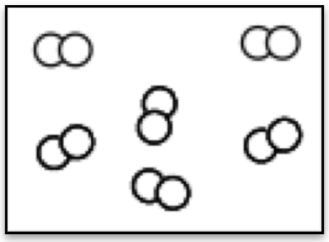
__M_32.



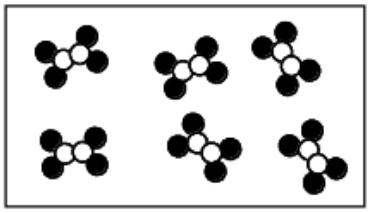
M_33.



__E__34.



__C__35.



36. Evaporation is used to what? separate liquids of different boiling points
37. In the lab, a scientist accidently dropped a steel ball bearing into a beaker of hot water and wanted to get it out as soon as possible as the hot water will be used in an experiment. What can he do?

    use a magnet to attract the ball bearing and get it out of the beaker

38. What is function of a centrifuge? *It is used to separate liquids of different densities*
39. Which of the following descriptions is correct? Ans: A

    A. a solution consists of a solvent dissolved in a solute

    B. a mixture consists of 2 or more pure substances which can only be separated by chemical methods

    C. a colloid is a "cloudy" mixture containing particles which will not easily settle out when the colloid is left standing

    D. a suspension contains particles which will not settle out if the suspension is left standing