

Name: _____ Block: ___ Date: _____

Chemistry Solutions/ Equilibrium Review

Fill in the blank (2pts each)

1. A homogenous mixture of two or more substances is known as a(n) solution.
2. A solution in which the dissolved and undissolved solutes are coming in and out of solution at the same rate is said to be in equilibrium.
3. The solubility of a solute is defined as the maximum amount of solute that can be dissolved in a given amount of the solvent at a specific temperature.
4. The rapid escape of gas from a liquid in which it is dissolved is called effervescence.
5. A solution where more than the maximum normal amount of solute has been dissolved is called Supersaturated.
6. A solution in which there is very little solute compared to the amount of solvent is called dilute / weak.
7. A solution in which there is a large amount of solute compared to the amount of solvent is called concentrated.
8. A mixture whose visible parts will fall out of solution if not constantly mixed is called a(n) colloid / emulsion.
9. A solution that uses water as its solvent is called aqueous.
10. A solution that is made of two metals is called a(n) alloy.

Matching (2pts each)

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|---|----------------------------------------------------------------------------------------------------|---------------------|
| f | 11. The term used to describe two liquids that will dissolve in each other. | a. amalgam |
| c | 12. A solution in which alcohol is the solvent. | b. immiscible |
| e | 13. Shows how much solute will dissolve in a given amount of solvent over a range of temperatures. | c. tincture |
| d | 14. Is a measure of how fast a substance dissolves. | d. solubility rate |
| b | 15. Liquids that do not dissolve in each other. | e. solubility curve |
| | | f. miscible |

Multiple choice (2pts each)

16. All solutions have the following properties **except** that the:
 - a. dissolved particles are very small.
 - b. particles in solution are evenly distributed.
 - c. solution particles do not separate.
 - d. all solutions are liquid.
17. Solution concentration that is expressed as moles of solute per kilograms of solvent is known as:
 - a. molarity.
 - b. molality.
 - c. mole fraction.
 - d. millimolality.
18. All of the following will dissolve best in warm to hot water except:
 - a. NaCl (s)
 - b. C₆H₁₂O₆ (s)
 - c. NO₂ (g)
 - d. NH₄OH (l)
19. All of the following affect the rate of dissolving **except**:
 - a. stirring
 - b. molarity
 - c. temperature
 - d. surface area
20. Water is considered the universal solvent for polar substances, which would be a "universal" solvent for non-polar substances?
 - a. Ammonia
 - b. Alcohol
 - c. Mercury
 - d. Sodium Chloride