

Name: _____ Date: _____ Period: _____

AP Chemistry Chapter 14 Essentials Part 1

THE DISSOLUTION PROCESS 14.1 to 14.8

1. What are the 2 factors favor the process if dissolution?
2. What are the main interactions that affect the dissolution of a solute in a solvent?
3. Do most solids dissolve in liquids by an exothermic or endothermic process? Give the reason why.
4. Define crystal lattice energy.
5. Define solvation.
6. Define hydration energy (heat of hydration).
7. What does the statement “Like Dissolves Like” mean?
8. What does the term miscible mean?
9. Give an example of two substances that are not miscible.

10. Write the reaction for the dissolution of carbon dioxide in water.

11. Which substance is more soluble in water, CO_2 or O_2 ?

12. How does surface area affect the rate of dissolution?

13. What is the difference between a saturated solution and a supersaturated solution?

14. What effect does temperature have on the solubility in water of most ionic salts and why?

15. What effect does temperature have on the solubility in water of most gases and why?

16. What effect does pressure have on the solubility of solids, liquids and gases?

17. What is the formula for molarity?

18. What is the formula for calculating mole fractions?