

AP Chemistry Multiple Choice Questions - Chapter 14

384 Which of the following substances is a strong electrolyte when dissolved in water?

- a Sucrose
- b Ethanol
- c Sodium nitrate
- d Acetic acid
- e Ammonia

	14.2a
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3 Which of the following statements is/are correct?

1. Solubility is defined as the concentration of solute in equilibrium with undissolved solute in a saturated solution
2. If two liquids mix to an appreciable extent to form a solution, they are miscible
3. If two liquids mix completely in any proportion to form a solution, the resulting solution is supersaturated.

- a 1 only
- b 2 only
- c 3 only
- d 1 and 2 only
- e 2 and 3 only

	14.2a
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3 Which of the following statements concerning solubility is/are correct?

1. Ionic compounds, such as NaCl, are generally insoluble in nonpolar solvents
2. The solubility of nonpolar molecules, such as I₂, in nonpolar solvents is generally greater than their solubility in polar solvents
3. The solubility of polar molecules, such as sugar, in polar solvents is generally greater than their solubility in nonpolar solvents

- a 1 only
- b 2 only
- c 3 only
- d 1 and 3 only
- e 1, 2, and 3

	14.2a
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165 When NaCl dissolves in water

- a Energy is released when NaCl bonds are broken
- b Na⁺ interacts with the positive dipole of water
- c Cl⁻ interacts with the positive dipole of water
- d Na⁺ ions remain independent of water molecules

	14.2a
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166 The solubility of a particular salt in water is 9.8 g/mL at 25°C. If 10.3 g is completely dissolved in one milliliter of water, the solution is

- a Supersaturated
- b Saturated
- c Unsaturated
- d Dilute

	14.2a
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167 An aqueous solution strongly conducts electrical current. The solution contains a(n)

- a Nonelectrolyte
- b Weak electrolyte
- c Strong electrolyte
- d Nonpolar solute

	14.2a
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	14.3a
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	14.3b
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