

## Lecture Questions: Introduction to Water Pollution

1. Where is the water? List the major water reservoirs on Earth (the *hydrosphere*), in order of volume (largest to smallest).
2. What is the *hydrologic cycle*?
3. Define the following terms:
  - a) solution, solute, and solvent
  - b) concentration (and include common units)
  - c) ionic compound, cation and anion
  - d) electrolyte and nonelectrolyte
4. What happens when an ionic compound—like sodium chloride (table salt)—dissolves? How is it different when a molecular compounds—like glucose (sugar)—dissolves?
5. *External research.* What are the seven most concentrated ions—four cations, three anions—in natural surface water bodies?
6. Define the following acronyms, and describe their significance for drinking water safety:
  - a) MCLG
  - b) MCL
  - c) THMs
7.
  - a) List the steps used in treating drinking water; briefly describe the purpose of each step.
  - b) List three disinfection methods, and compare their advantages and disadvantages.
8. What is 'water hardness'?