

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. 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
3. What happens when an ionic compound—like sodium chloride (table salt)—dissolves? How is it different when a molecular compounds—like glucose (sugar)—dissolves?
4. *External research.* What are the six most concentrated ions in the hydrosphere?
5. Define the following acronyms, and describe their significance for drinking water safety:
 - (a) MCLG
 - (b) MCL
 - (c) THMs
6.
 - (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.
7. What is 'water hardness'?