

Format: 6 multiple choice questions and 4 open ended questions

Concepts to Review:

- Cells (see Homework 7 and 8)
 - Understand the terms *structure* and *function*, as well as how they relate to each other.
 - Know the function (job) of each of the following cell organelles: *cell membrane*, *nucleus*, *ribosome*, *mitochondria*, *cell wall*, *chloroplast*.
 - Be able to label a diagram of a plant cell and an animal cell.
 - Know the differences between a plant cell and an animal cell.
- Transport of Molecules through a Membrane (see Homework 11 and 12)
 - Understand the terms *diffusion*, *concentration*, *equilibrium*, *osmosis*, and *active transport*.
 - Know which cell organelle is responsible for regulating what comes in and out of cells.
 - Be able to predict the way molecules will move naturally across a selectively permeable membrane or into/out of cells.
 - Be able to explain how diffusion is different from active transport (in terms of the direction in which molecules move and the role of energy).
- Diffusion in the Human Body (see Homework 13)
 - Be able to explain the jobs of each of the following organs in the body: *lungs*, *kidneys*, and *small intestine*.
 - Be able to describe how *nutrients*, *oxygen*, *carbon dioxide*, and *wastes* move by diffusion in the human body.
- Enzymes and the Digestive System (see Homework 14)
 - Understand the terms *metabolism* and *homeostasis*.
 - Understand the terms *organic* and *inorganic*.
 - Understand the job of *enzymes* and understand how it relates to the terms *substrate* and *catalyst*.
 - Be able to explain why the shapes of enzymes are important.
 - Understand the term *denature* and be able to explain how a protein can become denatured.
 - Know the basic building blocks and functions of *carbohydrates* and *proteins*.

Practice Quiz Questions:

- Visit the “Practice Exam Questions” page on the course website at www.spraguescience.com.
- Download the “Homeostasis in Humans – Exam” file.
- Try the following practice questions in the file: 18–20, 22–26, 28–33, 36–39, 92–99, and 105.
- Check your work by downloading the answer keys.