

## “We’re Halfway!” Biology Test – Study Guide

*Note: There are 50 questions on this test. Each question is ½ point, so 25 points total. These questions are multiple choice, and very basic! (I’ll give some examples in class.) Test is on Jan. 25-26.*

- I. Biochemistry
  - a. Atomic number, protons, electrons, neutrons
  - b. Covalent and Ionic Bonding
  - c. Macromolecules: Carbohydrates, proteins, nucleic acids, lipids
  - d. Enzymes
- II. Water
  - a. Hydrogen bonding
  - b. Surface tension, cohesion, adhesion
- III. Cells
  - a. Difference between eukaryotic and prokaryotic
  - b. Differences between plant and animal cells
  - c. Name and function of the organelles
  - d. Movement across the cell membrane: osmosis, diffusion, facilitated diffusion, active transport
  - e. Cell theory: 3 parts of the cell theory and who are the major contributors?
  - f. Tonicity: isotonic, hypotonic, hypertonic
- IV. Cell Cycle
  - a. Stages of the cell cycle: G1, S, G2, M phase and what happens in each phase
  - b. DNA: replication, pairing rules, structure, history
  - c. Phases of mitosis: prophase, metaphase, anaphase, telophase
  - d. cytokinesis

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