Review Sheet for Lecture Test #1

- Be able to distinguish between the different disciplines of anatomy and physiology
- Understand the Principle of Complementarity
- Be able to list and describe the levels of structural organization
- Know the functional characteristics for maintaining life
- Know the basic survival needs
- Understand the meaning of homeostasis and its relevance
- Be able to explore the two systems that control homeostasis and the ways they communicate
- Describe positive and negative feedback mechanism and be able to distinguish potential examples
- Describe the proper anatomical position, communicate terms (regional, directional), planes and body cavities
- Describe the types of serous membranes, their location in respect to each other, the cavity and the fluid and the relevance of the fluid.
- Identify the organs that are located in the anatomical regions and quadrants.
- Differentiate between matter and energy
- Know the two forms of energy and the various types, including heat
- Know what an element, atom, and atomic symbol are
- Differentiate the physical and chemical properties
- Be able to acquire such information as atomic number, mass number of most frequent isotope, atomic weight, # of protons, neutrons and electrons
- Know the differences between the subatomic particles as for location, size and charge
- Differentiate between element-atom, compound-molecule
- What is the rule of Eight, valence electrons, the way one can easily accessible the valence electrons from the chart
- Differentiate between ionic, covalent and hydrogen bonding as to which element form each, the strength of the bonds, what happens to them in water and which create electrolytes and which create potential energy for sustaining life
- Compare and contrast synthesis, decomposition and exchange displacement reaction and the agents the influence their rates
- Be able to determine ionic charges and differentiate between cations and anions
- Know the difference between an organic and an inorganic molecule
- Know how to differentiate between solutions with differing pH
- Know the chemical differences between the organic molecules
- Know the types of carbohydrates, lipids, proteins and nucleic acids
- Know the difference between hydrophilic and hydrophobic
- What are coenzymes and cofactors
- What are the structures of proteins
- What are enzymes, globular proteins, fibrous proteins
- What is the importance of water