**Study Guide for Lecture Exam 2**

**(Chapters 6 & 7); Part 1 of 2**

**Biol1406, SP’12**

1. The names of the two types of electronic microscopes and the use of each in studying cells
2. The cell theory
3. The two basic types of cells and the differences between them
4. The functions of the plasma membrane
5. The difference between cytoplasm vs cytosol
6. Recognizing the type of cell given cellular features/components
7. Intracellular organelle(s) physically connected to the nucleus
8. The major lipid component of the plasma membrane
9. The function of the nucleolus
10. The cellular site for protein synthesis
11. How instructions for protein synthesis is transferred from the nucleus to the ribosomes?
12. How is a newly formed protein is delivered from the rER to the Golgi apparatus
13. The cellular organelle(s) in charge of drug detoxification and their organ-abundance
14. The common/nick names of certain cellular organelles
15. The functions of the cytoskeleton
16. The cellular organelle that acts as the digestive system in multicellular organisms
17. The cellular organelle which can cause the death of its own cell
18. Differences and similarities between plant and animal cells
19. Cellular organelle(s) responsible of water supply and production of food in plants
20. The accurate ***(anti-parallel)*** complementary sequence of a piece of a DNA molecules
21. Structural differences between DNA & RNA
22. Cellular structures/organelles present in both plant and animal cells
23. The name and number of bonds in a long chain of known number of amino acids
24. The immediate readily available source of energy for the cell to perform its work/functions