**Biology 2201 Unit 1 review**

**Study the following terms:**

Cell theory Abiogenesis Biogenesis Prokaryotic

Eukaryotic Organelle Nucleus Ribosome

Endoplasmic Reticulum Golgi apparatus Lysosomes

Cytoskeleton centrosome cilia Flagella

cell wall central vacuole chloroplast

Plastid cellulose lipid

Phospholipid bilayer selectively permeable homeostasis

Extracellular fluid diffusion concentration gradient

Osmosis carrier protein Facilitated diffusion

Resolution channel protein active transport

Vesicle endocytosis pinocytosis

exocytosis photosynthesis pigments

chlorophyll cellular respiration ATP

Aerobic anaerobic phagocytosis

Questions

1. Explain the 4 hypothesis behind the cell theory.
2. What are the contributions of scientists, Redi, Needham, Leeuwenhoek, Spallanzani, and Pasteur to the development of cell theory?
3. What is the difference between biogenesis and abiogenesis?
4. Be able to ; a) label the parts of a microscope, b.) explain how to focus, c.) prepare a wet mount, d.) determine the field of view and e.) do a biological drawing
5. Be able to identify organelles of plant and animals cells and explain their function.
6. Distinguish between prokaryotic and eukaryotic cells
7. Compare passive transport methods: diffusion, facilitated diffusion and osmosis.
8. Compare active transport methods; endocytosis, exocytosis, pinocytosis, and phagocytosis.
9. Explain the difference between hypertonic ,hypotonic, and isotonic solutions.
10. Why is it important for the cell membrane to be selectively permeable?
11. What is photosynthesis? Where does it occur? Give the equation.
12. WHAT IS CELLULAR ERESPIRATION? Where does it occur? Give the equation.
13. Why are energy transformations so important to humans?
14. What are the global implications of photosynthesis and cellular respiration?