**Biology I Semester Exam Review**

Define the following terms located in Chapters 1, 2, 3, 4, 6, 7, 8 and 9 of your Biology text book. You may also want to use your notes from class for more information.

**Ch. 1**

Biology

Scientific method

Dependent/independent variables

Control

Homeostasis

Stimulus

Response

Qualitative vs quantitative data

**Ch 2**

Characteristics of life

Ecology

Abiotic/biotic factors

Community/population etc

Habitat/niche

Symbiosis- mutualism etc

Energy flow in an ecosystem

**Ch 3**

Succession

Biomes- rainforest, grassland, etc

**Ch 4**

Carrying capacity

r-selected

k-selected

density dependent factors

s-curve; j curve

**Ch. 6 Biomolecules/Water**

Monomers

Polymers

Macromolecule

Carbohydrates

Monosaccharides

Polysaccharides

Lipids

Phospholipids

Proteins

Amino acids

Enzymes

Nucleic acids

DNA (include the nitrogen bases found in DNA)

RNA (include the nitrogen bases found in RNA)

Nucleotide

Peptide bond

Chromosome

“Polar” molecule (ex: Water)

Universal solvent

Capillarity

Hydrogen bonds

**Ch 7 The Cell**

Nucleus

Mitochondria

Lysosome

Golgi apparatus or Golgi body

Plasma membrane / cell membrane

Cell wall

Endoplasmic reticulum- smooth and rough

Ribosome (free ribosomes and bound ribosomes)

**Ch 8 Diffusion/ Osmosis/ Microscope**

Hypertonic

Hypotonic

Isotonic

Selective permeability

Diffusion

Passive transport

Active transport

Brownian motion

Cell reproduction

Mitosis (Prophase, Metaphase, etc)

Cell cycle

Cytokinesis

Diaphragm (on a microscope)

Dynamic equilibrium

Osmosis

Concentration gradient

**Chapter 9 Photosynthesis/ Cellular Respiration**

ATP-

Chlorophyll-

Chloroplast-

Mitochondria-

Reactants-

Products-

Equation for photosynthesis-

Equation for cellular respiration-

Why are these 2 equations considered opposites?

Reactants for photosynthesis? Products?

Reactants for cell respiration? Products?

4 things cells need energy for…

1.

2.

3.

4.

What does the cell use DIRECTLY for energy? (hint- glucose is too big)

What is the formula for glucose?

Organelle where cell respiration occurs?

**Odds and Ends**

Lab Safety Rules

Scientific Method (Including hypothesis, procedure, observations, etc…)