**2011/2012 Semester 1 Exam Review**

**Ms. Duncan, Biology 1**

**Chapter 1: pages 2 – 28**

Data

Hypothesis

Scientific method

Controlled experiment

Theory

Law

Characteristics of living things

Factors necessary for life

Compound light microscope

Observations

Variables

Dependent variable

Independent variable

Controlled variable

Biology

Homeostasis

Evolution

Metabolism

**Chapter 2: pages 37 – 62**

Molecule of water

Valence electrons

Cohesion

Adhesion

Density of water

Why water is polar

Solute

Solution

Solvent

Suspension

pH scale

Acid

Base

Relative concentration of H+ ions to water

Carbohydrate and functions

Protein and functions

Nucleic acid and functions

Lipid and function

Fatty acids

Glycerol

Amino acids

Nucleotide

Monosaccharide

Polysaccharides

Chemical reaction

Reactant

Product

Enzyme

Activation energy

Catalyst

**Chapter 3: pages 70 – 97**

Schleiden

Schwann

Virchow

Von Leeuwenhoek

Hooke

Cell theory

Organelles

Cytoplasm

Cytoskeleton

Microtubules

Microfilaments

Nucleus

Nucleolus

Chromosome

Chromatin

Genetic material

DNA

Prokaryotes

Eukaryotes

Ribosomes

Golgi apparatus

Mitochondrion

Vacuole

Endoplasmic reticulum

Cell membrane

Diffusion

Osmotic pressure

Osmosis

Chloroplast

Cell wall

**Chapter 4: pages 100 – 131**

Autotroph

Heterotroph

Energy

ATP

ADP

Van Helmont

Priestly

Ingenhousz

Photosynthesis

Granum

Photosystems

Photosystem 1

Photosystem 2

Sunlight

NADPH

Stroma

Calvin Cycle

Light-dependent reactions

Chlorophyll

Thylakoid

Thylakoid membranes

Rate of photosynthesis

Pigments

Adenine

Ribose

Phosphate

Cellular respiration

Glycolysis

Lactic acid fermentation

Alcoholic fermentation

NADH

FADH2

Kreb’s cycle

Electron transport chain

Glucose

Pyruvic acid

Electron carriers

Total ATP from cellular respiration

Net gain of ATP from glycolysis

Aerobic

Anaerobic

**Chapter 5: pages 134 – 161**

Cell cycle

DNA overload

Cell volume to surface area

Interphase

G1 Phase

G2 Phase

S phase

M phase

Cell division

Mitosis

Chromosomes

Centromere

Centrioles

Sister chromatid

Spindles (or spindle fibers)

Prophase

Metaphase

Anaphase

Telophase

Cytokinesis

Cancer

Tumor

Growth factors

Cyclin

p53 gene

identical daughter cells