Unit 2 Review

Cells

Part 1 – 25 multiple choice questions

Part 2 – DBQ

* Label images (electron microscope images of cell, phases of the cell cycle, cell membrane, phospholipid
* Cell magnification
* Statistics
* Other DBQ on website

Part 3 – Short Answer

* Pick five of the options provided

Vocabulary

Stem cells

Differentiation

Plasticity

Totipotent

Pluripotent

Multipotent

Cell membrane

Phospholipid

Bilayer

Semipermiable

Nucleus

Nuclear envelope

Nucleolus

Ribosome

Smooth endoplasmic reticulum

Rough endoplasmic reticulum

Vesicles

Golgi

Chloroplast

Mitochondria

Lysosome

Vacuole

Chloroplast

Prokaryotes

Eukaryote

Binary Fission

Compartmentalization

Peptoglycan

Chitin

Glucan

Mannan

Cellulose

Hydrophilic

Hydrophobic

Amphipathic

Glycoprotein

Glycolipid

Peripheral protein

Integral protein

Channel protein

Fluid Mosaic Model

Passive Transport

Active Transport

Omosis

Diffusion

Facilitated diffusion

Simple diffusion

Source and sink

Concentration gradient

Hypertonic

Hypotonic

Isotonic

Cytolysis

Plasmolysis

Endocytosis

Exocytosis

Sodium Potassium pump

Centriole

Spindle fiber

Sister chromatids

Centromere

Mitotic spindle

Interphase

Mitosis

Cytokinesis

G1

S

G2

Asexual reproduction

Concepts

Be able to explain the three parts of cell theory

Be able to order the following from largest to smallest: Membrane, organelle, bacteria, molecule, and virus

Be able to determine the magnification of an image (practice attached on hard copy)

Be able to explain how stem cell differentiate

Be able to identify sources of stem cells and explain their varying levels of plasticity

Be able to compare and contrast eukaryotic and prokaryotic cells

Be able to provide the function of the organelles (organelles listed on vocabulary)

Be able to compare the outermost part of the following cells: bacteria, yeast, fungi, algae, animals, plants

Be able to identify organelles in electron microscope images (practice attached)

Be able to compare and contrast plant and animal cells

Be able to compare and contrast active and passive transport

Be able to identify which way molecules will move given concentration and molecule (oxygen gas, water, potassium, etc)

Be able to identify the types of proteins in a cell membrane

Be able to describe the structure of the cell membrane

Be able to label the structure of a phospholipid

Be able to determine what will happen to a cell as a result of osmosis given the concentrations

Be able to provide two examples of active transport and their importance

Be able to explain why cells divide

Be able to identify pictures or descriptions of the step of the cell cycle, interphase, and mitosis

Be able to describe the steps and results of mitosis