

Unit 2 - The Cell Review

33 Multiple Choice Questions, 1 long free response, and 1 short free response question

LEVELS OF QUESTION: 1 = knowledge & comprehension, 2 = synthesis & evaluation, 3 = analyze & apply

6.2

Level of Question	Content
1	Prokaryotes vs Eukaryotes
1	Cause of size limits for certain types of cells
	<i>Be able to calculate surface area, volume and SA:V. Relationship between these values and the diffusion of materials. Adaptations using these ratios.</i>

6.3

Level of Question	Content
1	Ribosomes
3	Free Ribosomes

6.4

Level of Question	Content
1	The polarity of the Golgi apparatus structure and function
1	Smooth ER

6.5

Level of Question	Content
1	Chloroplasts

7.1

Level of Question	Content
1	Identify all components of the cell membrane
1	Types of molecules that are major structural components of the cell membrane

7.2

Level of Question	Content
1	Types of molecules that pass through a cell membrane most easily
1	aquaporins

7.3

Level of Question	Content
3	Will be given a scenario of two different solutions put into a U-tube and must determine which side is hypertonic and which is hypotonic
3	Analyze what would occur to the solutions in the U-tube after several days
	<i>Tonicity and water potential - consult your lab investigation</i>

7.4

Level of Question	Content
1	Movement of potassium into an animal cell

7.5

Level of Question	Content
1	Phagocytosis
1	Difference between pinocytosis and receptor-mediated endocytosis

8.1

Level of Question	Content
2	Second law of thermodynamics and growth of living organisms
1	Energy transformation and entropy

8.2

Level of Question	Content
1	Know what each component of the free energy equation represents
3	When a polymer is formed what happens to each component of the free energy equation?

8.3

Level of Question	Content
1	ATP and metabolism
3	ATP and cellular work

8.4

Level of Question	Content
1	Identify activation energy on a graph
1	Enzyme-catalyzed reactions

8.5

Level of Question	Content
3	Identify the substrate, enzyme and produce in a feedback inhibition example
3	Identify allosteric inhibitor in a feedback inhibition example

11.1

Level of Question	Content
3	Role of neurotransmitters in a signal pathway
1	Lipid-soluble signaling molecules and target cells

11.2

Level of Question	Content
1	Receptor tyrosine kinases

11.3

Level of Question	Content
2	Transduction pathways

12.1

Level of Question	Content
3	Chromatid and Centromere relationship

12.2

Level of Question	Content
3	Microtubule Formation

12.3

Level of Question	Content
1	Cdk