

AP Biology Chapter 7 Worksheet

Part A

1. Explain how the following work:
 - light microscope
 - electron microscope
 - transmission electron microscopes
 - scanning electron microscopes
2. Explain what is meant by cell fractionation
3. Explain what cytology is.

Part B

1. Explain what the plasma membrane is and what the fluid inside it is called.
2. Explain the difference between a prokaryotic and a eukaryotic cell.
3. Explain what cytoplasm is.
4. Explain what limits the size a cell can attain.
5. Explain the function of the plasma membrane.
6. Give the 3 functions of internal membranes in a cell.
7. Give the general structure of a biological membrane.
8. Make sure you can differentiate between a plant and an animal cell diagram and locate each of the organelles within each cell.

Part C

1. Is the nucleus the only place where genes are located? Explain
2. Explain how molecules get in and out of the nucleus.
3. Explain what the nuclear lamina are and what they do.
4. Explain the difference between chromatin and chromosomes.
5. Explain what the nucleolus is and what it does.
6. Explain the function of mRNA.
7. What is contained within a ribosome and what do ribosomes do?
8. Give 3 types and locations for ribosomes in the human body.

Part D

1. Explain what makes up the endomembrane system and what it does.
2. Explain what a vesicle is and what it does.
3. Explain the structure of the endoplasmic reticulum.
4. Differentiate smooth from rough ER structurally.
5. Give the main functions of smooth ER.
6. Give the main function of the enzymes in muscle cells.
7. Give the main function of rough ER.
8. Explain what a glycoprotein is.
9. Explain what a transport vesicle is.