

Organelles Concept Questions

1. What are the three points in the Cell Theory?
2. List some difference between prokaryotic and eukaryotic cells.
3. What is the endosymbiont theory?
4. What is some of the evidence for the endosymbiont theory?
5. Why is surface area:volume ratio important for cells?
6. What is the difference between cytoplasm and cytosol?
7. Organelle means “little organ.” How are organelles similar to organs?
8. All large organisms have cells with organelles. What advantage do organelles give the cell?
9. Describe the current model of the cell membrane.
10. The cell requires instructions in order to function correctly; where are these instructions found?
11. Describe the characteristic of mitochondria that makes them well suited to their role in the cell.
12. How are the functions of mitochondria and chloroplasts similar?
13. By comparing a bee’s body mass to its wing span, it has been calculated that a bee should not be able to fly. Cell biologists have since found that the muscles which control the wings of the bee have a huge number of mitochondria. Explain why this discovery may help explain why bees are able to fly.
14. What is the function of the ER?
15. Describe the function of the Golgi apparatus.
16. What is the function of the ribosome?
17. Cells of the stomach lining have large numbers of ribosomes and Golgi. Explain.
18. What are the functions of lysosomes?
19. A Biology 11 student has observed an amoeba and made a drawing. You are marking the drawing and notice that he has drawn in a chloroplast. Do you take marks off or not? Explain.
20. Name some types of organisms that have cell walls and state what the walls are made of.
21. How does a cell membrane differ from a cell wall?
22. The ER is called “rough” if it has what organelle attached to it?
23. List the organelles that are only found in plants. List those found only in animals.