Anatomy and Physiology Chapter 3  Worksheet 1

1. What is a cell?

2. What are the 4 most common elements found in cells?

3. What are electrolytes and what’s their purpose?

4. What percentage of our bodies is made up of water?

5. What is interstitial fluid and what is its purpose?

6. Name the smallest and largest cell in the body.

7. A cell’s structure reflects its ________.

8. What are the 3 main regions of the cell?

9. What is the primary purpose of the nucleus?

10. What happens to a cell that has lost its nucleus?

11. Describe the nuclear membrane.

12. What are nucleoli and what occurs there?

13. What are ribosomes?
14. What is the difference between chromatin and chromosomes?

15. What is the purpose of the plasma membrane?

16. Describe the structure of the plasma membrane?

17. How is the structure of the membrane ideally suited for its function?

18. What do the suffixes “philic” and “phobic” mean?

19. What does it mean when it says that the membrane is “self-orienting”?

20. What is the purpose of the proteins in the membrane?

21. What is a glycoprotein and what is its function?

22. What are microvilli and what is their purpose?

23. Describe the three types of membrane junctions.

24. Why is the cytoplasm considered the “factory area” of the cell?
25. Name and describe the three major elements of the cytoplasm.

26. What does the term “organelles” mean?

27. Why are many of the cellular organelles bound by a membrane themselves?

28. What is the primary function of mitochondria?

29. Describe the structure of a mitochondrial membrane.

30. What role do enzymes play in the production of energy?

31. Which cells commonly have higher number of mitochondria?

32. A ribosome is composed of what two things?

33. Where are ribosomes found in the cell?

34. What is the purpose of the endoplasmic reticulum?

35. What happens on/in the rough ER?

36. What type of cells contain large amounts of rough ER?

37. What is the function of the smooth ER?

38. What does the golgi apparatus look like?

39. What is its purpose and how is it different from the ER?
40. What is a vesicle?

41. What is a lysosome?

42. What is a peroxisome?

43. What are free radicals?

44. How do peroxisomes form?

45. What is the purpose of the cytoskeleton?

46. Put the 3 elements of the cytoskeleton in order from smallest to largest.

47. What is the purpose of the centrioles?

48. What is the difference between cilia and flagella?