Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 1B Test Review

1. What is the function of the mitochondrion?

2. The nucleus is the \_\_\_\_\_\_ center of the cell and contains information for making \_\_\_\_\_.

3. What is the term for a cell that contains a nucleus?

4. Give examples of eukaryotic and prokaryotic cells.

5. Draw and label the plasma membrane.

6. List 3 functions of the plasma membrane.

7. What is the purpose of the proteins embedded in the plasma membrane?

8. Passive transport does not require \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. The movement of molecules from high to low concentration is \_\_\_\_\_\_\_\_.

10. Why does diffusion occur?

11. Illustrate the process of diffusion.

12. After equilibrium is reached, what happens to the movement of molecules?

13. What is osmosis?

14. How will water move when a cell is placed in an isotonic solution?

15. How will water move when a cell is placed in a hypotonic solution?

16 How will water move when a cell is placed in a hypertonic solution?

17. What are the three types of passive transport?

18. The movement of molecules from low to high concentration is \_\_\_\_\_\_\_\_.

19. Give two examples of active transport.

20. Compare active transport (endocytosis and exocytosis) and facilitated diffusion.

21. Draw and label an ATP molecule.

22. How is ADP different from ATP?

23. What has to happen to ATP in order for energy to be released?

24. Compare a heterotroph to an autotroph.

25. Write the chemical equation for photosynthesis.

26. Explain the equation for photosynthesis in words.

27. List three factors that increase the rate of photosynthesis

28. In which organelle does photosynthesis occur?

29. Why do most plants appear green?

30. Where is the stroma in a chloroplast?

31. Where do the light dependent and light independent reactions take place?

32. What gas was produced by the elodea plant we used in lab?

33. Write the chemical equation for cellular respiration.

34. Explain the equation for cellular respiration in words.

35. In which organelle does cellular respiration occur?

36. Glycolysis splits glucose into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

37. Where does glycolysis take place?

38. Cellular respiration is called an aerobic process because it requires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

39. List the steps of cellular respiration in order.

40. Where does the citric acid cycle take place?

41. How many ATP are produced per molecule of glucose in aerobic respiration?

42. When there is no oxygen, what process comes after glycolysis in muscle cells?

43. Which anaerobic process is used to produce bread and wine?

44. What are the products of alcoholic fermentation?

45. How are photosynthesis and cellular respiration related?