**BIO 11 – TEST REVIEW – Section 7-2: Eukaryotic Cell Structure**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: March 24, 2017**

**COMPLETE BY MONDAY, MARCH 27/17 - TEST ON TUESDAY, MARCH 28, 2017**

Fill in the Blanks

1. Cells fall into two broad categories, depending on whether they have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or not.
2. The portion outside the nucleus is called the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. What are the specialized structures of a eukaryotic cell called? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The nucleus is composed of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Where are proteins assembled? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Plant and animal cells are examples of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells.
7. DNA is mainly stored in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the cell.
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are part of the cytoskeleton.
9. The two major parts of eukaryotic cells are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. The control center of the cell is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. What structures carry out cell movement? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. During cell division chromatin condenses to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. The rough endoplasmic reticulum has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ attached to it.
14. This organelle breaks down lipids, carbohydrates, and proteins into small molecules that the cell can use. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

True or False

1. ( T / F ) Proteins are assembled on ribosomes.
2. ( T / F ) When a cell divides, chromatin condenses to form into chromosomes.
3. ( T / F ) The smooth ER produces a large amount of protein.
4. ( T / F ) Vacuoles help maintain homeostasis in the cell.
5. ( T / F ) Chloroplast contains the green pigment chlorophyll.
6. ( T / F ) The function of the Golgi apparatus is to synthesize proteins.
7. ( T / F ) Chromatin consist of DNA bond to proteins.
8. ( T / F ) The organelles found in plant cells are vacuoles, the cell membrane, and centrioles.
9. ( T / F ) The rough ER contains enzymes.
10. ( T / F ) The vacuole modifies, sorts, and packages materials from the endoplasmic reticulum.
11. ( T / F ) Centrioles are found in plant cells.
12. ( T / F ) The nucleus contains nearly all of the cell’s DNA.
13. ( T / F ) Lysosomes are organelles filled with enzymes.
14. ( T / F ) Chloroplast are organelles that convert the chemical energy stored in food into compounds that are more convenient for the cell to use.
15. ( T / F ) Centrioles are located near the nucleus and help to organize cell division.
16. ( T / F ) Lysosomes and centrioles are organelles found only in plant cells.
17. ( T / F ) Cell wall, chloroplast, and vacuoles are organelles found only in animal cells.
18. ( T / F ) Chloroplast is made mostly of cellulose.
19. \*( T / F ) Cell wall protects and regulates what materials enter and leave the cells in both plant and animal cells.
20. ( T / F ) Both the chloroplast and mitochondrion are enclosed by two membranes.
21. ( T / F ) Microtubules are hollow structures made up of proteins known as tubulins,
22. ( T / F ) Microfilaments are threadlike structures made up of the protein actin**.**
23. \*( T / F ) A rigid structure that surrounds the cell membrane and protects, supports, and allows materials to pass into and out of the cell through pores is called the cell wall.
24. ( T / F ) The site where lipid components of the cell membrane are assembled, along with proteins and other materials that are exported from the cell is the endoplasmic reticulum.

Short Answer Questions

1. What is the nucleus composed of? Give a brief description of each part.
2. What is the name of the dense region in the nucleus? What occurs in this structure?
3. State the difference (composition/function) between microfilaments and microtubules (two types of cytoskeleton).
4. Indicate the organelles that animal cells do not contain.
5. What are vacuoles? Function?
6. What is the role of the central vacuole in a plant cell?
7. What organelle could be compared to a factory’s main office?
8. What is the role of ribosomes? Where are they assembled?
9. Where (type of cell) are chloroplast found?
10. Indicate the difference between a plant and an animal cell.
11. Why are plants green?
12. What are differences between rough and smooth ER?
13. How is the cell like a factory?
14. What is the function of the nucleus? Composed of?
15. What type of cells do human’s possess?
16. What makes a cell specialized? Give an example.
17. What types of cell would you expect to possess a high number of mitochondria? Explain.
18. Do skin cells (human cells) contain a high number of mitochondria? Explain

Review diagram of plant and animal cell for test.