Cell Worksheet # 2 Name _____

Correctly complete each of the following statements or answer the following questions. Place the number corresponding to that correct selection before the number of the question.

1. The rigidity (support) of a plant cell is due primarily to the presence of the
(1.) mitochondria (2.) centrosomes (3.) cell membrane (4.) cell wall (5.) lysosomes

2. Which structure permits the entry and exit of dissolved materials in an animal cell?
(1.) lysosome (2.) chromosome (3.) vacuole (4.) cell wall (5.) cell membrane

3. Which is found in the nucleus? (1.) ribosome (2.) centrosome (3.) vacuole (4.) chromosome

4. Which structure composed mainly of proteins and lipids, aids in maintaining homeostasis in the cell? (1.) chromosome (2.) centrosome (3.) nucleolus (4.) cell membrane (5.) cell wall

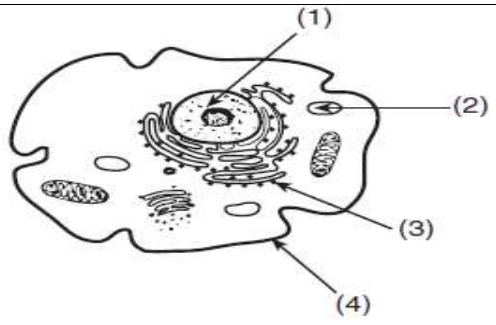
5. The organelle most directly involved in cellular aerobic respiration (making of ATP) is the (1.) ribosome (2.) mitochondrion (3.) nucleus (4.) lysosome (5.) golgi apparatus

6. The organelle most closely associated with the manufacture of proteins within the cell is the (1.) ribosome (2.) lysosome (3.) nucleolus (4.) cell wall (5.) cell membrane

7. A student views cells using a light microscope. In his observations, he views a nucleus and a cell wall. Which additional organelle is he most likely to observe using the light microscope in this observation? (1.) ribosome (2.) mitochondrion (3.) lysosome (4.) chloroplast (5.) endoplasmic reticulum

8. Certain poisons are toxic to organisms because they interfere with the function of enzymes in mitochondria. This results directly in the inability of the cell to (1) store information (2) build proteins (3) release energy from nutrients (4) dispose of metabolic wastes

Use the diagram below and your knowledge of biology to answer questions 9 to 11.



9. Which structure performs a function similar to a function of the human lungs? (1) 1 (2) 2 (3) 3 (4) 4

10. Which structure has a function most similar to the human stomach? (1) 1 (2) 2 (3) 3 (4) 4

11. Which structure synthesizes proteins for the cell? (1) 1 (2) 2 (3) 3 (4) 4

12. A student observes a cell under the microscope. She identifies it as a green plant cell and not a human cheek cell because of the presence of a (1.) nucleus (2.) cell membrane (3.) lysosome (4.) cell wall (5.) mitochondrion

13. An organelle that releases energy for metabolic activity in a nerve cell is the
(1) chloroplast (2) mitochondrion (3) ribosome (4) vacuole

14. Damage to which structure will most directly disrupt water balance within a single-celled organism? (1) ribosome (2) nucleus (3) cell membrane (4) chloroplast

Correctly complete the following statements.

15. The _____ is responsible for carrying on photosynthesis within plants.

16. The _____ selectively regulates the flow of materials to and from the cell.

17. The _____ is directly responsible for protein synthesis in the cell.

18. The _____ contains DNA and provides the code used by the ribosomes for protein making.

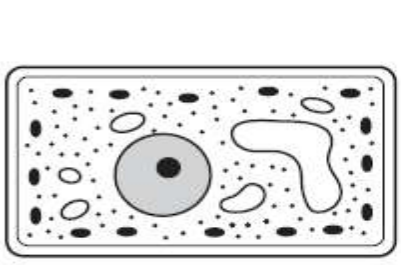
19. The organelle other than the lysosome, which stores and digests most food in the cell is called the _____.

20. The _____ is found only in plants. It is composed mostly of cellulose and gives the plant cell support.

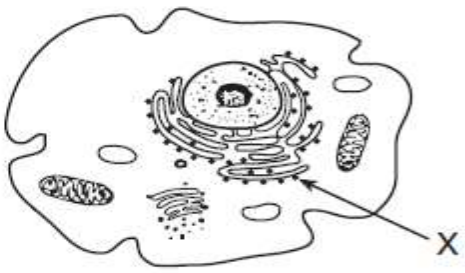
21. The _____ pumps excess water from the cell helping to maintain homeostasis.

22. These cell organelles carry on aerobic respiration within the cell. These organelles are the _____.

Use the diagrams below and your knowledge of biology to answer questions 23 through 25.



Cell A



Cell B

23. Identify an organelle in cell *A* that is the site of autotrophic nutrition. _____

24. Identify the organelle labeled *X* in cell *B.* _____

25. Identify two organelles found in cell A that are not found in cell B.

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