

- D. flex lights
- 6. The organization of units in a living organisms follows this pattern...
- A. cells form organs, tissues, and systems
- B. cells form tissues, organs, and systems
- C. cells form systems, organs, and tissues
- D. cells form organs, systems, and tissues

## **Cells and Systems Section Quiz**





- 7. There are three factors that can affect your ability to see details of the internal parts of cells. The three factors include all of the following EXCEPT, the ....
- A. number of cells
- B. type of microscope
- C. power of the lenses
- D. quality of the prepared slides
- 8. The illustration shown here is an animal cell. The function of the **mitochondria** is to ...



- A. direct all activities in the cell The 'Command Center'
- B. convert energy into useable forms 'The Powerhouse'
- C. control the flow of nutrients 'The Gateway'
- D. Store nutrients the cell needs 'The Storage Room"
- 9. When preparing slides to be used under the objective lens of the microscope you cover the specimen you are going to view with a ...
- A. glass slide
- B. drop of indicator
- C. toothpick
- D. slip cover
- 10. Plant cells are different from animal cells because they contain ...
- A. a cell membrane
- B. a cell wall
- C. vacuoles
- D. cytoplasm
- 11. The 'solar panels' of the plant cell are found in the leaves. The structures that carry out photosynthesis, converting the sun's energy into food for the cell are called the ...
- A. mitochondria
- B. vacuoles
- C. chloroplasts
- D. stomata
- 12. The largest organism in the world is the ...
- A. Baleen whale
- B. Great white shark
- C. Blue whale
- D. Humpback whale



- 13. To calculate the Field of View, you first need to ...
- A. determine the diameter of the field of view for the low power lens
- B. calculate the magnification power of the lens you are using
- C. count the number of cells in the low power field of view
- D. multiply the magnification by the number of cells in the field
- 14. In the sample of pond water you may have studied, the amoeba moves by changing its shape. It pushes its cytoplasm against one part of its cell membrane, causing a bulge. This bulge is called ...
- A. pseudopods
- B. pseudoplasms
- C. false fronts
- D. true feet
- 15. The *excretory system* is connected to other systems, such as the circulatory system and the digestive system. The excretory system's primary function is to ...
- A. get rid of wastes
- B. get nutrients to the cells
- C. exchange gases
- D. to protect the other systems
- 16. The largest unicellular organism is so big that you can see it without using a microscope. It is a member of the plant-like algae family, measures 5-7cm and is called ...
- A. mycoplasma
- B. acetabularia
- C. diatoms
- D. paramecium
- 17. Antony Van Leeuwenhoek was the first person to see tiny unicellular organisms, using a very simple microscope. His occupation, at the time that he discovered these tiny cells, was a ...
- A. lens grinder
- B. doctor
- C. linen merchant
- D. lenscrafter
- 18. Certain materials are allowed to pass through this and others are prevented from passing through. The type of cell membrane that is present in a plant and animal cell is called a ...
- A. selectively impermeable membrane
- B. selectively permeable membrane
- C. permeable membrane
- D. impermeable membrane
- 19. Osmosis is the diffusion of water through a selectively permeable membrane. This process occurs because water will move from an area of ...
- A. low concentration to high concentration
- B. high concentration to low concentration
- C. low concentration to low concentration
- D. high concentration to high concentration
- There are many advantages to being a multi-cellular organism. The following are examples of some of these advantages, EXCEPT for one, which is that they ...
- A. have a specialized environment
- B. can grow to be very large
- C. can obtain food from many sources
- D. have complex bodies



- 21. The transportation of nutrients in plants is the role of the plant's tissue. Specialized tissue connects the roots to the leaves. The Phloem tissue transports ...
- A. water from the leaves to the air in a process called transpiration
- B. water from the roots to the leaves
- C. sugars, manufactured in the leaves to the rest of the plant
- D. energy to the vacuole to utilize the food stored there
- 22. Organs work together to make a system or network that performs a specialized function. Plants have only two main systems. They are the ...
- A. stems and the leaves
- B. roots and the leaves
- C. shoot and the roots
- D. leaves and the shoot
- 23. Different cells have different functions and their structure is different. Identify the cell illustrated.



24. Different cells have different functions and their structure is different. Identify the cell illustrated.



- A. boneB. bloodC. nerve
- D. muscle
- 25. The function of specialized tissues in plants enables the plant to perform many different activities. The transportation of water from the roots to the other parts of the plant is the function of this plant tissue ...
- A. Protective tissue
- B. Root hairs
- C. Phloem tissue
- D. Xylem tissue