



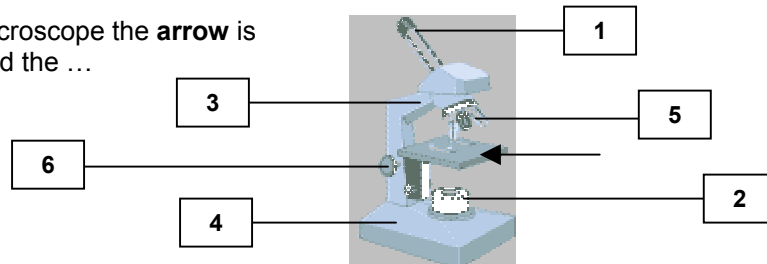
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Student Name _____

Class _____

1. Any microscope that has two or more lenses is a ...
A. multi-dimensional microscope
B. multi-functional microscope
C. complex microscope
D. compound microscope

2. The part of the microscope the **arrow** is pointing to is called the ...



- A. condenser lens
B. diaphragm
C. stage
D. base

3. This part of the microscope provides different powers of magnification. It is identified by the number ...

- A. 6
B. 5
C. 2
D. 1

4. When you carry your microscope from place to place, you should hold it by this number and place your hand under this part - identified by this number ...

- A. 3, 5
B. 1, 6
C. 2, 3
D. 3, 4

5. The technology that allows light to travel down a flexible tube – enabling surgeons to create microscopes that can be used inside the body – is called ...

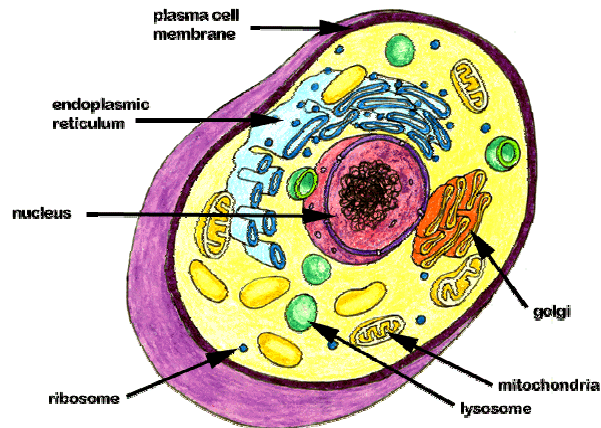
- A. fiber optics
B. flex fibers
C. optical lens
D. flex lights

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



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



Cells and Systems Section Quiz

Unit 2

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

20. 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



Cells and Systems Section Quiz

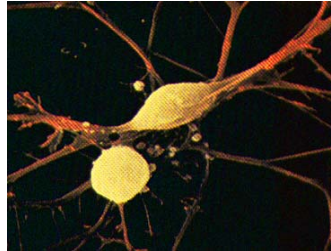
Unit 2

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.



- A. bone
- B. blood
- C. nerve
- D. muscle

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



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- B. blood
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- 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