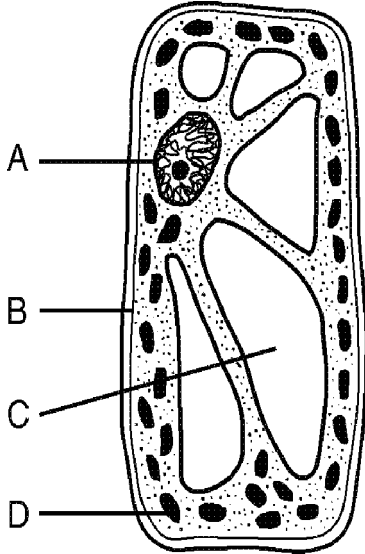


# 1 Star cell membrane

Name: \_\_\_\_\_

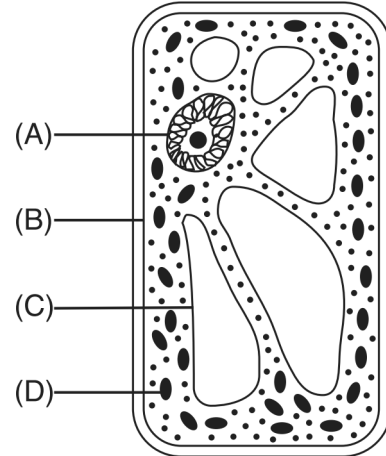
Date: \_\_\_\_\_

1. Which letter indicates a cell structure that directly controls the movement of molecules into and out of the cell?



A. A      B. B      C. C      D. D

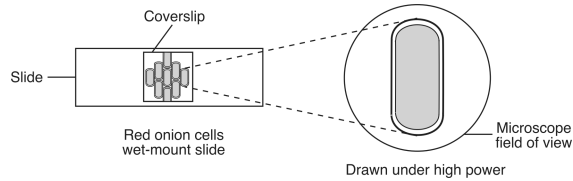
2. In the cell shown below, which lettered structure is responsible for the excretion of most cellular wastes?



A. A      B. B      C. C      D. D

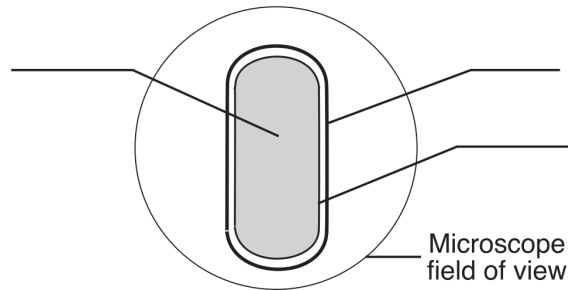
3. Base your answer(s) to the following question(s) on the information below and on your knowledge of biology.

A wet-mount slide of red onion cells is studied using a compound light microscope. A drawing of one of the cells as seen under high power is shown below.

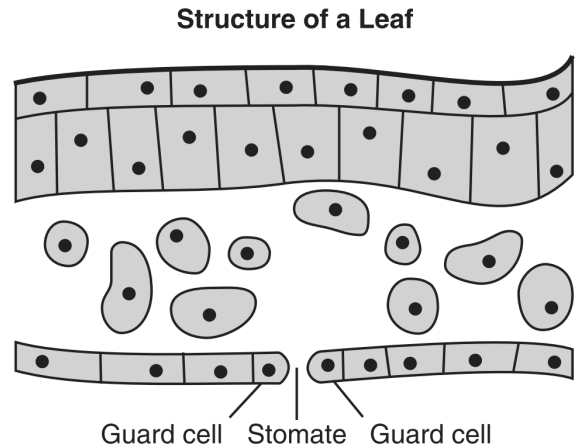


On the diagram below, label the location of each of the cell structures listed.

cell wall  
cytoplasm  
cell membrane



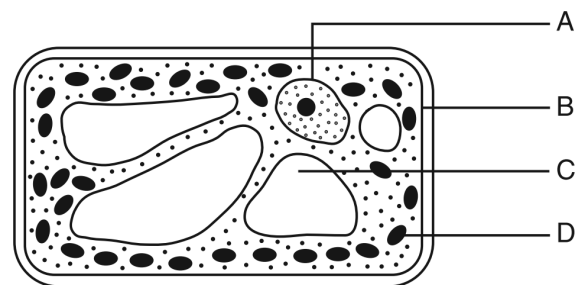
4. The diagram below represents a cross section of a leaf of a green plant, showing an opening (stomate) in the lower surface.



A stomate in the lower surface of the leaf has a function most similar to the function of which cell structure?

- A. cell membrane      B. vacuole  
C. ribosome             D. nucleus

5. The cell represented below produces oxygen.



Which structure allows the passage of this oxygen to the environment?

- A. A      B. B      C. C      D. D

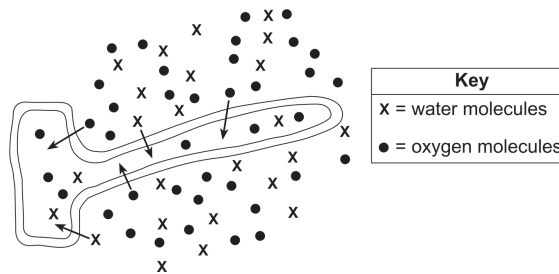
6. Base your answer(s) to the following question(s) on the information below and on your knowledge of biology.

One of the effects of Hurricane Katrina, which devastated New Orleans in 2005, was the death of almost all of the plants in flooded areas. Initially, toxic chemicals and bacteria were suspected as a possible cause. Scientists later determined that the salt concentration in the floodwater caused the plants to die.

The death of the plants was most likely due to

- A. water moving into plant cells from the surrounding environment
- B. water moving out of plant cells into the surrounding environment
- C. both water and salt moving from plant cells into the surrounding environment
- D. both water and salt moving into plant cells from the surrounding environment

7. The diagram below represents a specialized cell located in the root of a plant. The arrows in the diagram indicate the movement of molecules of oxygen and water into the cell.



Which row in the chart below correctly identifies the process responsible for the movement of each type of molecule represented in the diagram?

Row	Water	Oxygen
(1)	diffusion	active transport
(2)	diffusion	diffusion
(3)	active transport	diffusion
(4)	active transport	active transport

- A. (1)      B. (2)      C. (3)      D. (4)

8. Damage to which structure will most directly disrupt water balance within a single-celled organism?

- A. ribosome
- B. cell membrane
- C. nucleus
- D. chloroplast

9. In the human body, oxygen is absorbed by the lungs and nutrients are absorbed by the small intestine. In a single-celled organism, this absorption directly involves the

- A. nucleus
- B. chloroplasts
- C. cell membrane
- D. chromosomes

10. Some human structures and their functions are listed below.

Human	Structures Functions
alveoli	absorption of oxygen, excretion of carbon dioxide
kidney	excretion of salts and nitrogenous wastes
large intestine	absorption of water

In a single-celled organism such as an ameba, all these functions can be performed by the

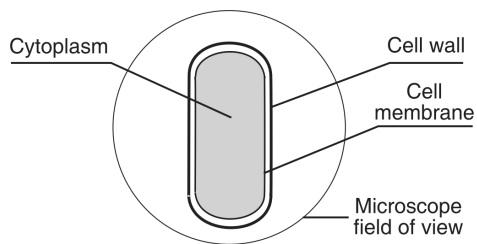
- A. nucleus
- B. ribosomes
- C. mitochondria
- D. cell membrane

1 Star cell membrane 05/26/2015

1.  
Answer: B

2.  
Answer: B

3.  
Answer: Credit for labeling the locations of the cell wall and the cell membrane and cytoplasm on the diagram.



Note: All three must be correctly labeled to receive this credit.

4.  
Answer: A

5.  
Answer: B

6.  
Answer: B

7.  
Answer: B

8.  
Answer: B

9.  
Answer: C

10.  
Answer: D