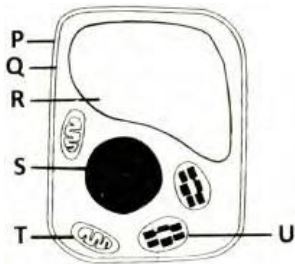


CLASS IX
SUBJECT- BIOLOGY
CHAPTER- FUNDAMENTAL UNIT OF LIFE, TISSUES

1. Which labeled organelles helped a student to conclude that it is a plant cell?



- P and R only (b) P and S only
(c) P, R and T only (d) P, R and U only

2. Find the best definition of 'vacuole'?

- a. A fluid filled structure surrounded by membrane.
- b. A thread like structure containing nuclear material.
- c. A jelly like substance which is present between nucleus and cell membrane.
- d. The basic structural units of an organism.

3. In chloroplasts, light is captured by

- a) thylakoids within grana
- b) grana within cisternae
- c) cisternae within grana
- d) grana within thylakoids

4. **This is not a characteristic feature during mitosis in somatic cells**

- A. disappearance of nucleolus
- B. spindle fibers
- C. synapsis
- D. chromosome movement

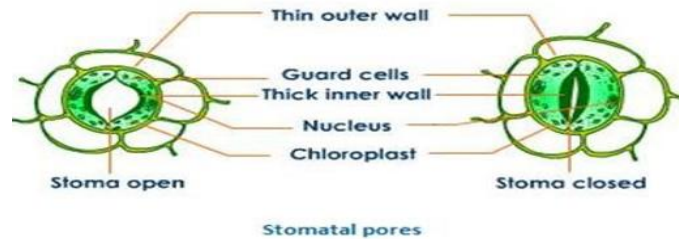
5. Choose the correctly matched pair.

- (1) Inner lining of salivary ducts - Ciliated epithelium
- (2) Moist surface of buccal cavity - Glandular epithelium
- (3) Tubular parts of nephrons - Cuboidal epithelium
- (4) Inner surface of bronchioles - squamous epithelium

6. Why is it crucial for root hair cells to have a long, narrow cytoplasmic extension?

- (a) To speed up the uptake of oxygen
- (b) To speed up the removal of carbon-di-oxide
- (c) To speed up the uptake of ions
- (d) To speed up the uptake of sugars and amino acids

7. Tiny pores are found on the surface of the leaves of plants. These pores are called stomata. These stomata surrounded by the kidney shaped guard cells provide many vital functions to the plants.



Which of the following functions is not served by the stomata for the plants?

- (a) Exchange of gases, particularly CO_2 and O_2 , with atmosphere
- (b) Loss of water in the form of vapours during transpiration
- (c) Helps to create pressure for the water to rise upward, by its process of transpiration
- (d) carry out the process of photosynthesis

8. Aditi observed following observations while looking into a permanent slide.

- I. Cells are long and cylindrical
 - II. Light and dark bands are present.
- It could be a slide of:

- a. striated muscle fibre

- b. smooth muscle fibre
- c. neuron
- d. parenchyma cells

DIRECTION : In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- (b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.
- (e) Both are false.

1. **Assertion:** Surface of skin is impervious to water.

Reason: Surface of skin is covered by stratified cuboidal epithelium

2. Assertion : Cell wall is a non-living part of the cell.

Reason : It offers protection, definite shape and support.

3. Assertion : A cell swells up when present in a hypotonic solution.

Reason : More water molecules enter the cell than they leave.

4. Assertion : Leucoplasts perform photosynthesis.

Reason : Chloroplasts store fats, starch and proteins.

5. Assertion : Mitochondria and chloroplasts are semiautonomous organelles.

Reason : They are formed by division of pre-existing organelles and contain DNA but lack protein synthesizing machinery

6. **Assertion** Cork is a protective tissue present in plants.

Reason It aids in protection against water loss, mechanical injury and microbial infestation.
