2.7.21

Movement of water, minerals, food and gases

Fill in the blanks:

1. Active absorption needs energy in the form of ATP.
2. The direction of movement of food in phloem is bidirectional while mavement of water in xylem is unidirectional.
3. The transport of food is called translocation.
4. A non-nucleated phloem element is sieve tube.
5. The fluid present within the cell is known as cell sap.
6. The process by which the solvent molecules from outside enter into the cell is known as endosmosis.

Write 'true' or 'false'

1. Passive absorption process requires energy. False
2. The transport of food is called translocation. True
3. The pressure created by diffusion of molecules is known as turgor pressure. False
4. The hydrostatic pressure which develops during osmosis is known as osmotic pressure. True

Answer the following questions

1. Mention the chief medium of transport in the plants.

A: The chief medium of transport in the plants is water.

2. Can water pass through imperneable membrane?

A: No, water cannot pass through impermeable membrane.

3. Does active transport needs energy?
A: Yes, active transport needs energy in the form of ATP to carry molecules from lower to higher concentration.

4. Name the associated elements of phloem tissue through which food matters are translocated.
A: The associated elements of phloem tissue through which food matters are translocated are companion cells and sieve tubes.

5. What is endosmosis?
A: The process by which the solvent molecules from outside enter into the cell is known as endosmosis.

6. What is exosmosis?
A: The reverse process of endosmosis which involves the exit of solvent molecules from the cell is known as exosmosis.

7. What is turgor pressure?
A: When a plant cell is fully saturated with water it is called turgid condition

and the maximum hydrostatic pressure in turgid condition is called turgor pressure.

8. What is diffusion pressure deficit?

A: The difference of Diffusion Pressure of two solutions having different concentration is called Diffusion Pressure Deficit of lower concentrated solution.