

Plant Tissue Systems

Answer Key

1. Answer: A

Explanation: The **xylem** conveys water and dissolved minerals upward from the roots while the phloem transports sugars and other organic nutrients from leaves or storage tissues to other plant parts.

2. Answer: B

Explanation: Each stoma in a plant's leaf is flanked by two guard cells which are specialized epidermal cells that regulate the opening and closing of the stoma.

3. Answer: C

Explanation: The vascular tissue system is made up of the xylem and phloem tissues which provide support and long-distance transport between the root and shoot systems.

4. Answer: D

Explanation: The ground tissue of the leaf is called the mesophyll, found between the upper and lower epidermis. The mesophyll contains mainly cells specialized for photosynthesis.

5. Answer: C

Explanation: The innermost layer of the cortex is the endodermis, a cylinder one cell thick. The endodermis acts as a selective barrier that regulates the passage of substances between the cortex and the vascular tissue.

