



BIOLOGY

BOOKS - CBSE COMPLEMENTARY MATERIAL BIOLOGY (HINGLISH)

TRANSPORT IN PLANT

Very Short Answer Question

1. Which part of the root is related with the absorption of water ?



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2. What makes the raisins to swell up when kept in water ?



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3. Casparian strip is made of a substance which is impervious to water. Name this substance.



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4. What will happen to water potential when a solute is added to water ?



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5. A plant cell when kept in a solution got plasmolysed. What was the nature of the solution.



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6. Mention two ways of absorption of water by root hairs in plants



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7. Which form of sugar is transported through phloem ?



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8. Give one example of imbibition.



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9. A flowering plant is planted in an earthen pot and irrigated. Urea is added to make the plant grow faster, but after some time the plant dies. Give its possible reason.



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10. Why is energy required to develop root pressure ?



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11. (a) Correct the statement : Imbibition is a special type of diffusion when water is absorbed by living cell.

(b) Correct the statement : Most of water flow in the roots occurs via symplast.

(c) Correct the statement : Cells shrink in hypotonic solution and swell in hypertonic solution



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Short Answer Questions I

1. A well watered potted herbaceous plant shows wilting in the afternoon of a dry sunny day. Give reason.



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2. Do different species of plants growing in the same soil show the same rate of transpiration at a particular time ? Justify your answer.



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3. How is transpiration different from guttation ? Give two points.



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4. Suggest two methods to increase the life of cut plants in a vase.



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5. Write the chemical composition of xylem and phloem sap.



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Short Answer Questions Ii

1. (a)When any dry plant material or seeds is/are kept in water, they swell up:-(a) Name the phenomenon involved in this change.

(b)When any dry plant material or seeds is/are

kept in water, they swell up:-(b) Define this phenomenon.

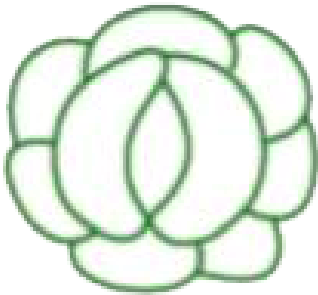
(c)When any dry plant material or seeds is/are kept in water, they swell up:- (c) Give two conditions essential for the phenomenon to occur



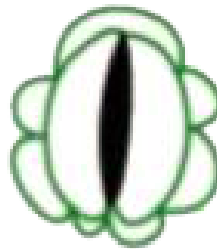
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2. Differentiate between temporary and permanent wilting. Do any of them indicate the water status of the soil ?

3. Observe the diagram and answer the following :



(a)



(b)

(a) Which of these guard cells show a higher water content, A or B ?

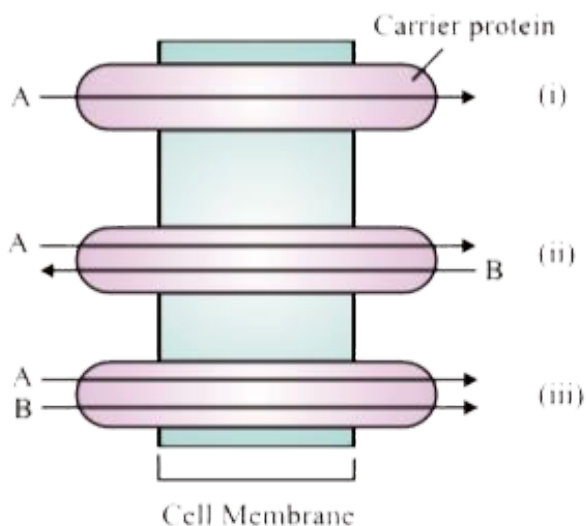
(b) Are these types of guard cells found in monocots or dicots ?

(c) Name the element which play an important role in the opening and closing of stomata.



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4. (a) Observe the given figure and give the answers of the following :-



(a) Identify the process occurring in (I), (II) and (III).

(b) Differentiate between the process II and III.

(c) How many types of aquaporins from the water channels in the cell membrane.



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Long Answer Questions

1. (a) Describe the pressure flow hypothesis of translocation of sugar in plants.

(b) Explain the mechanism of closing and opening of stomata.



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