



Biology
Leaving Certificate
Ordinary Level

Past Exam Questions on
Transport in Plants

Q8 Section B 2009

8. (a) (i) Define the term *osmosis*. _____

(ii) Give an example of osmosis in plants. _____

(b) Answer the following questions in relation to practical work you carried out to investigate osmosis.

(i) In the space below draw a labelled diagram of the apparatus you used in the investigation.

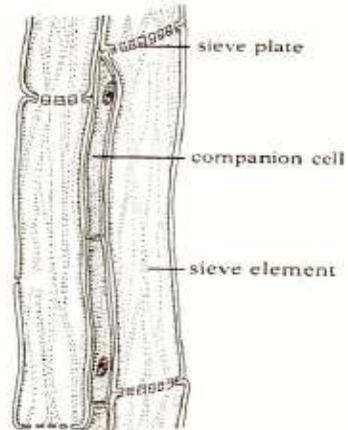
(ii) Describe how you used this apparatus to carry out the investigation.

(iii) State the result(s) of your investigation.

(iv) Briefly explain the result(s) you have given in part (iii).

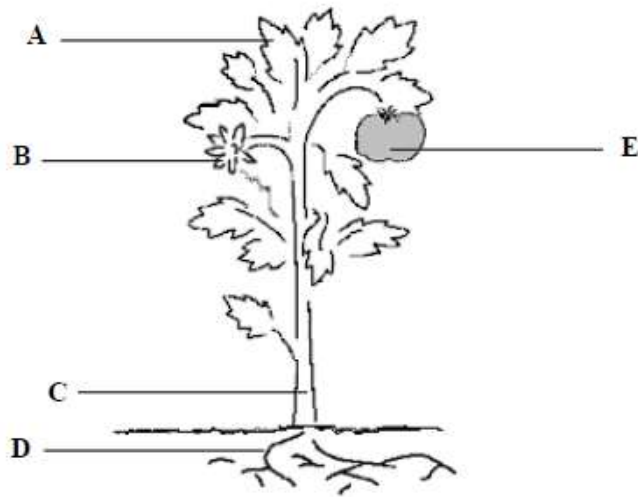
Q15 Part (a) Section C 2008

- (a) (i) Water enters the roots of plants by osmosis. Explain what is meant by osmosis.
(ii) Describe how you demonstrated osmosis as part of your practical activities.
(iii) Name the tissue that transports water from the root to the leaves.
(iv) Mention **one** way in which the tissue you have named in (iii) is adapted for the transport of water.
(v) The diagram below shows another tissue that is involved in transport in plants. Name this tissue and name a substance that is transported in it.



Q5 Section A 2007

5. The diagram represents a tomato plant.



(a) Name the parts labelled B, C, and E.

Name of part B

Name of part C

Name of part E

(b) Give one main function each for the parts labelled A and D:

Function for part A

Function for part D

(c) What is the role of part E?

Role of part E

(d) Name the tube-like tissue found in part C in which water moves through the plant.

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Q15 Part (b) Section C 2007

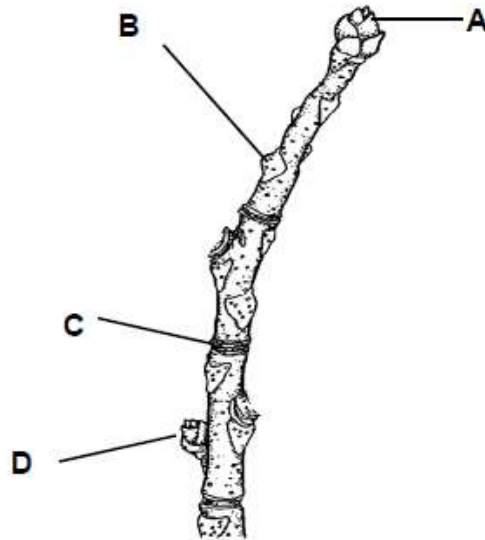
- (b) (i) Draw a diagram of a section through a leaf. Label a stoma and a guard cell.
- (ii) Give a function of the guard cell.
- (iii) Name two gases that enter or leave the leaf.
- (iv) Name the process by which the gases move in or out of the leaf.

Q14 Section C 2006

14. Answer any two of (a), (b), (c).

(30, 30)

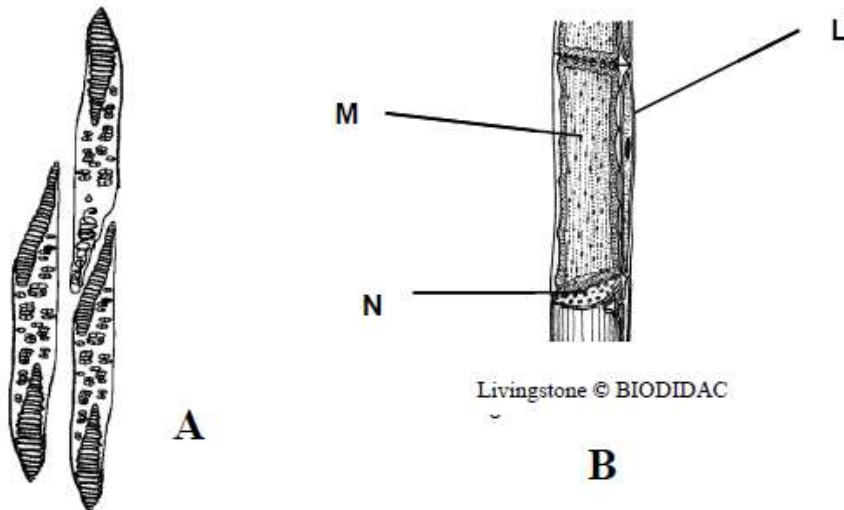
(a) The diagram shows the structure of part of a stem.



[Adapted from Livingstone © BIODIDAC]

- (i) Identify A, B, C and D.
- (ii) What is a meristem?
- (iii) Give a location of a meristem in the diagram.
- (iv) How many years' growth are shown in the diagram? Explain your answer.
- (v) Give two functions of a stem.

(b) The diagrams are of two tissues of a flowering plant.



Livingstone © BIODIDAC

- (i) Identify tissues A and B.
- (ii) To which tissue type do A and B belong?
- (iii) Identify cells L and M and part N in tissue B.
- (iv) Name a substance transported in tissue A.
- (v) Name a substance transported in tissue B.
- (vi) Tissue A has another function in addition to transport. What is this other function?
- (vii) Where in a young root would you find tissues A and B?

Q15 Part (a) Section C 2005

- (a)
- (i) Which of the two diagrams 1 or 2 represents a transverse section of a young root?
 - (ii) State two features of the diagram that indicate it is a root.
 - (iii) The letters A, B, C in the diagram represent three different tissue types. State which tissue type in the following list is represented by each letter;
ground tissue, vascular tissue, dermal tissue.
 - (iv) Name two vascular tissues and give one way in which they differ.
 - (v) State a function of ground tissue.

