

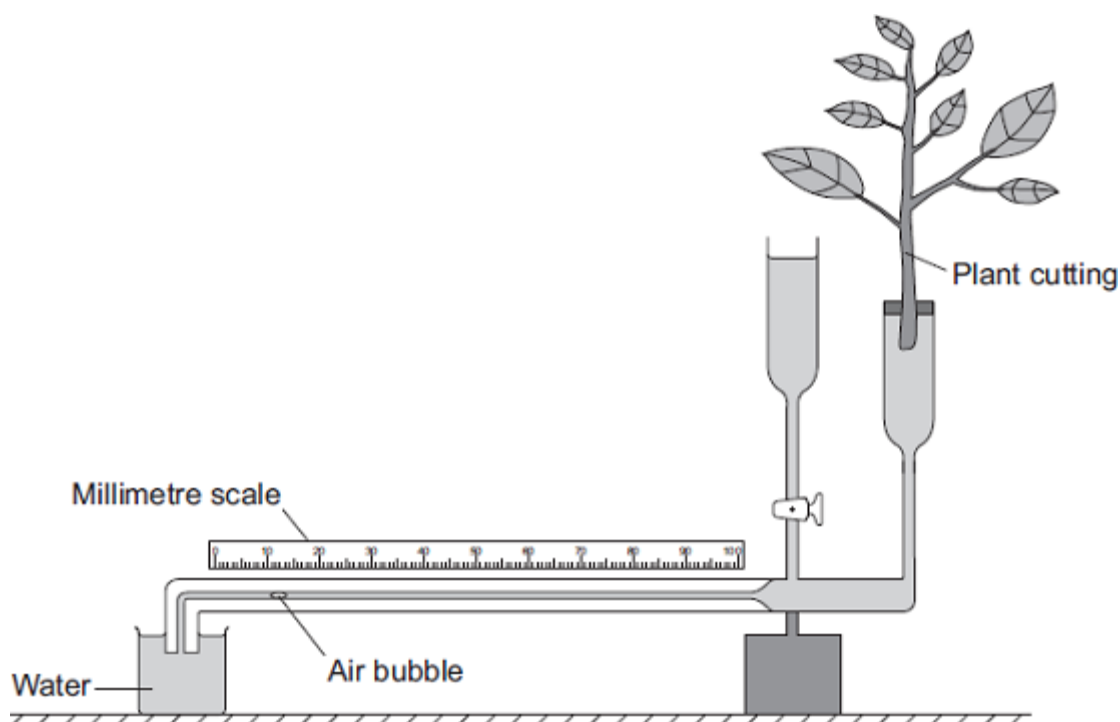
Name of the Student: _____

Max. Marks : 21 Marks

Time : 21 Minutes

Q1.

Some students used the apparatus shown in the diagram to measure the rate of water uptake by a plant cutting.



The students set up the apparatus in three different conditions:

- no wind at 15°C
- no wind at 25°C
- wind at 25°C

For each experiment, the students recorded the movement of the air bubble along the scale.

(a) (i) Name the **two** variables the students chose to change in these experiments.

1. _____
2. _____

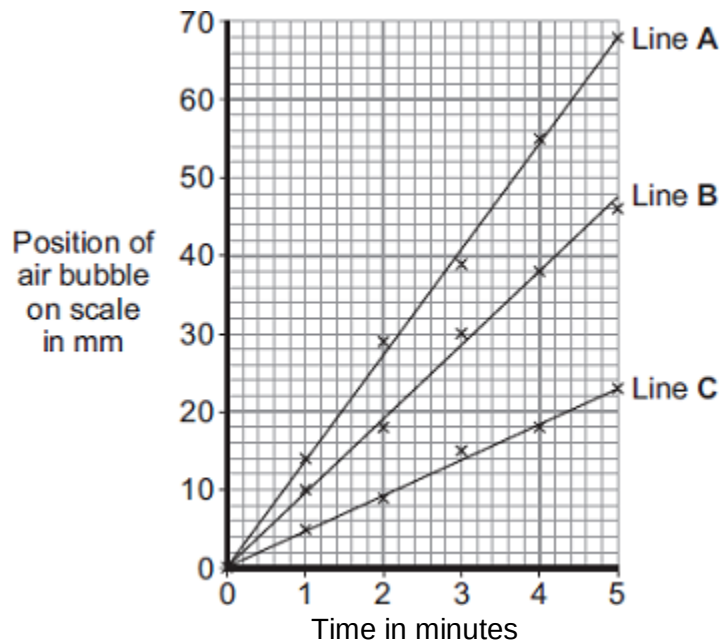
(2)

(ii) It was important to use the same plant cutting each time to make these experiments fair.

Explain why.

(1)

(b) The graph shows the students' results.



Which line on the graph, **A**, **B** or **C**, shows the results for each of the three different experiments?

Write each of the letters, **A**, **B** and **C**, in the correct boxes in the table.

Conditions	Letter
No wind at 15°C	
No wind at 25°C	
Wind at 25°C	

(2)

(c) Water is lost from the leaves of the plant cutting.

Name this process.

Draw a ring around **one** answer.

distillation

respiration

transpiration

(1)

(Total 6 marks)

Q2.

Plants exchange substances with the environment.

(a) Use words from the box to complete each sentence.

alveoli	phloem	root hairs	stomata
storage organs	villi	xylem	

(i) Most water enters a plant through _____

(1)

(ii) The water is transported up the stem to the leaves in the _____

(1)

(iii) Carbon dioxide enters leaves through _____

(1)

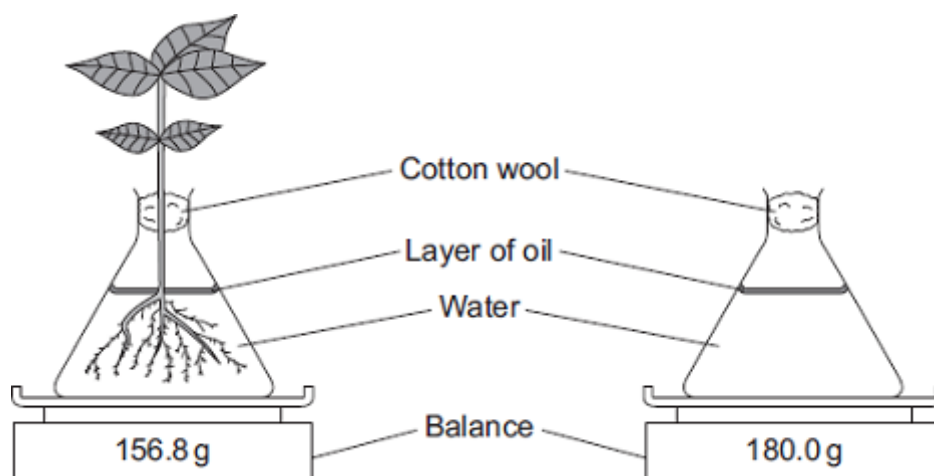
(iv) A leaf uses the carbon dioxide to produce sugars.

Sugars are transported to _____ through
the _____.

(2)

(b) A student set up the apparatus shown in the diagram.

At the start of the experiment both balances showed a mass of 180.0 g.



The diagram shows the reading on each balance 24 hours later.

(i) Look at the mass shown on each balance.

Calculate the difference between the two masses.

Difference in mass = _____ g

(1)

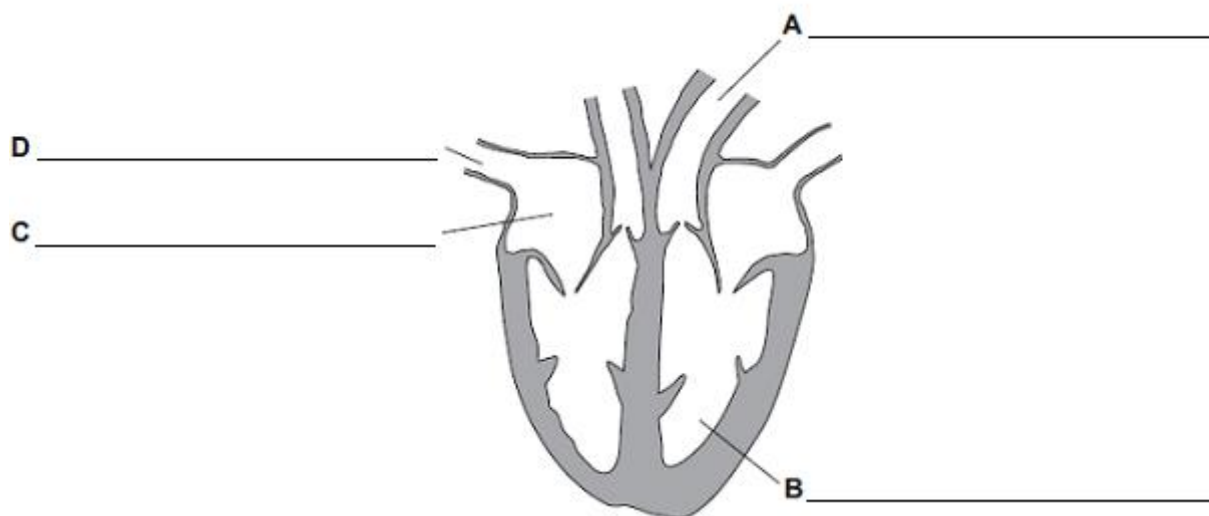
(ii) Suggest an explanation for the difference between the two masses.

(2)
(Total 8 marks)

Q3.

Diagram 1 shows a section through the heart.

Diagram 1



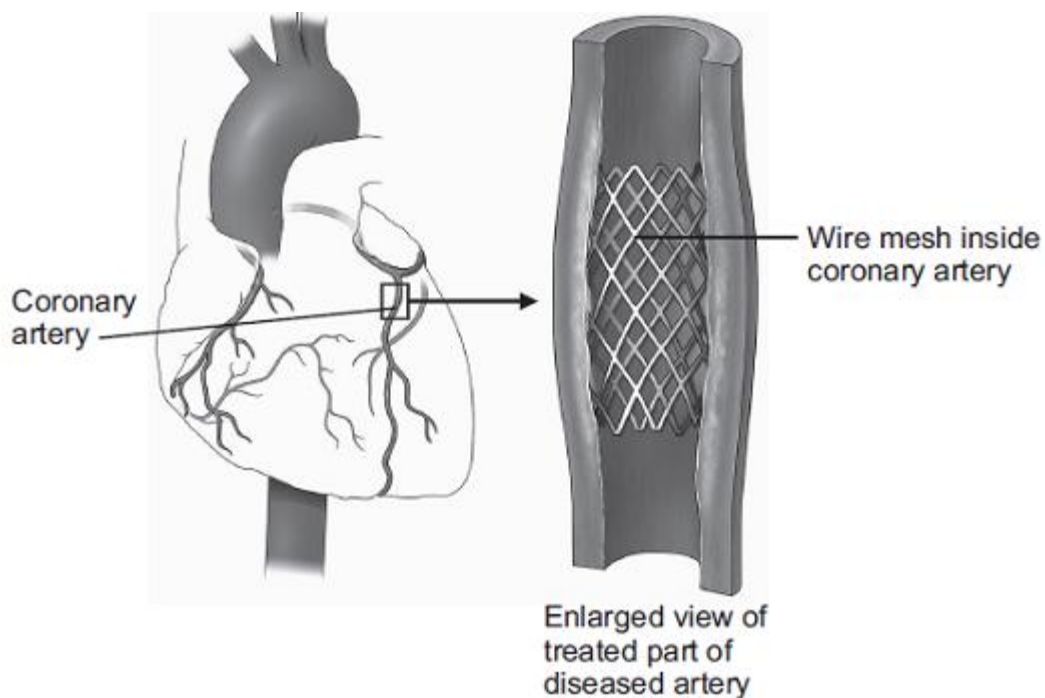
- (a) Use words from the box to label parts **A**, **B**, **C** and **D**.

artery	atrium	capillary	platelet	vein	ventricle
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(4)

- (b) **Diagram 2** shows one treatment for a diseased coronary artery.

Diagram 2



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- (i) Name the treatment shown in **Diagram 2**.

(ii) Explain how the treatment works.

(2)

(Total 7 marks)