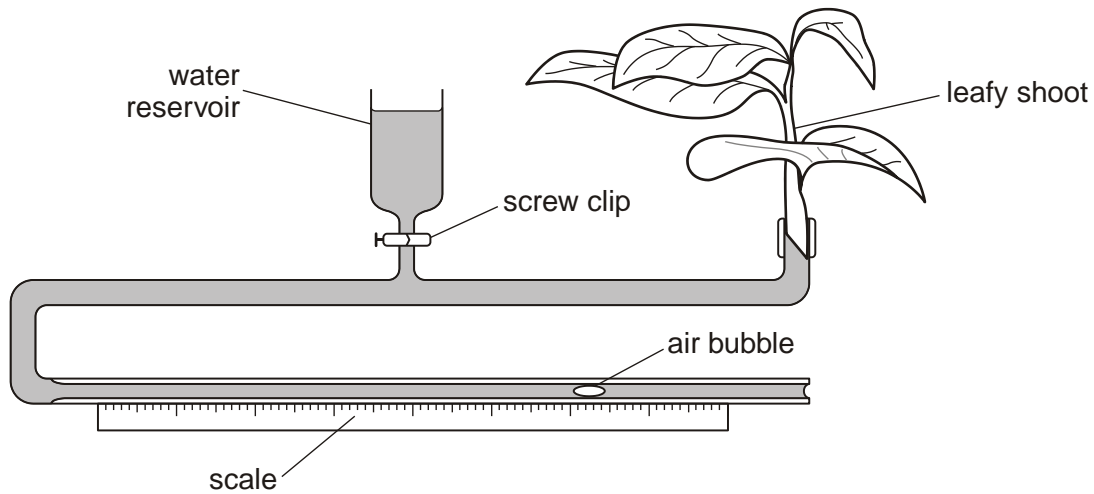


1. Transpiration is the loss of water from plants by evaporation. The diagram below shows a potometer, an apparatus used to **estimate** transpiration rates.



- (i) Describe how the apparatus should be set up to ensure that valid measurements can be obtained.

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[4]

- (ii) Transpiration itself is not measured by the potometer. State **precisely** what is measured by using the apparatus.

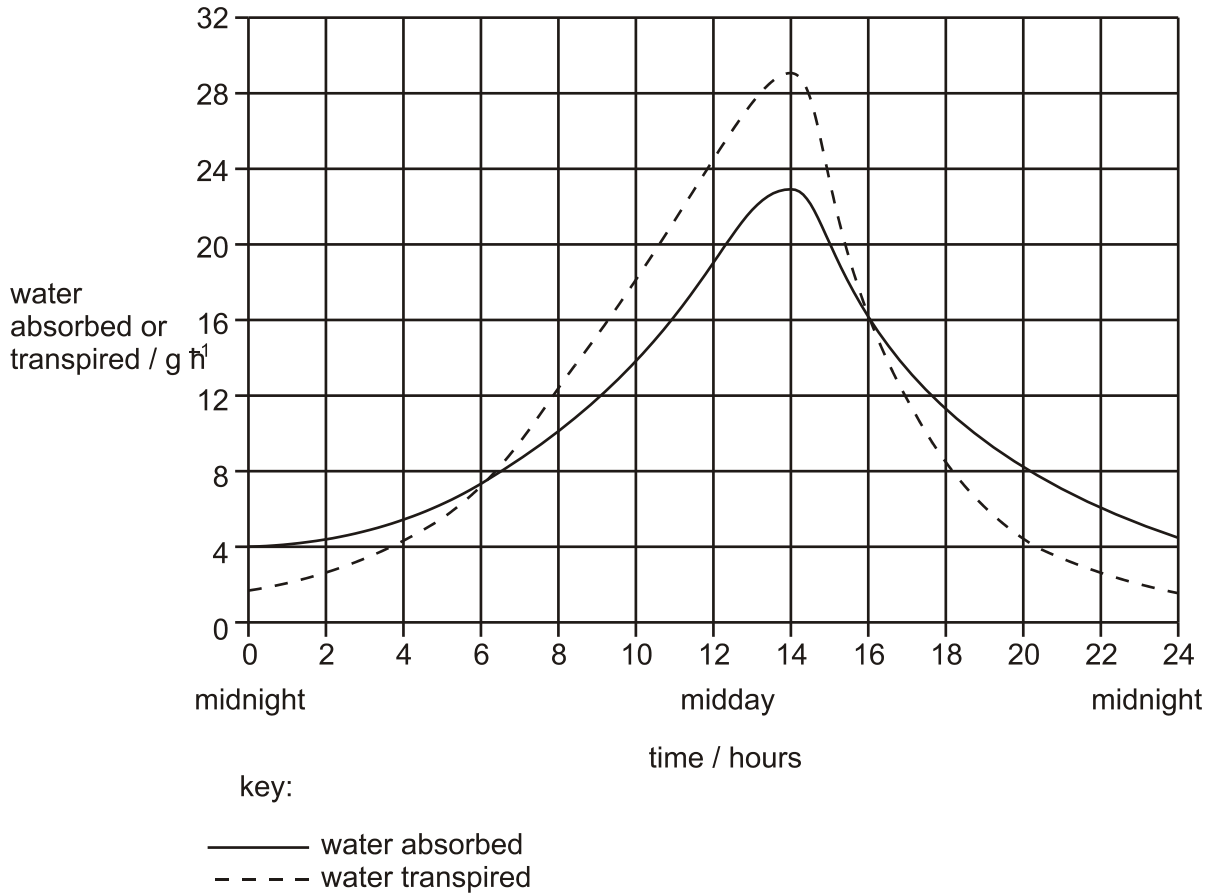
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[1]

[Total 5 marks]

2. The graph below shows the results of an investigation to compare rates of transpiration and water absorption by a plant during a hot day in summer. There was no shortage of soil water available to the plant throughout the investigation, which was carried out over 24 hours starting at midnight.



- (i) Define the term *transpiration*.

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[2]

- (ii) Using the graph above, describe how the rate of transpiration varied over the 24 hour period **and** compare it with the rate of water absorption.

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[4]

- (iii) Calculate the percentage of the 24 hour day in which the rate of water absorption exceeds the rate of transpiration.

Show your working and **give your answer to the nearest whole number.**

Answer %

[2]

[Total 8 marks]