

GCSE Biology A (Gateway)

J247/03 B1-B3 and B7 Higher (Higher Tier)

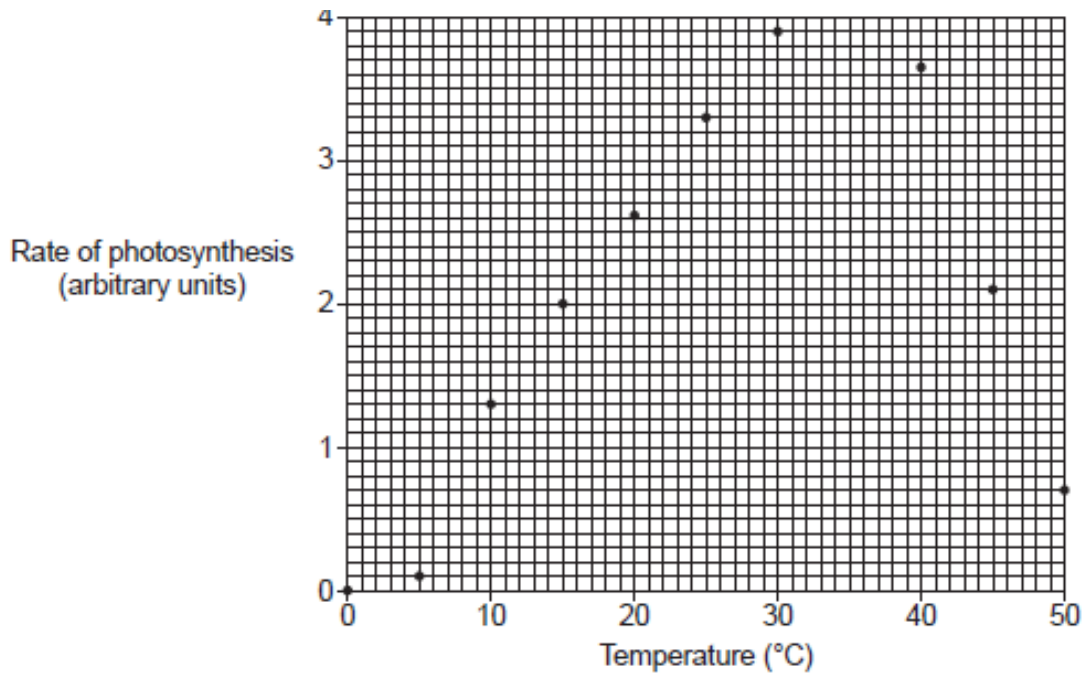
Question Set 13

1 (a) Photosynthesis involves reactions that are endothermic.

What is meant by the term endothermic reaction?

[1]

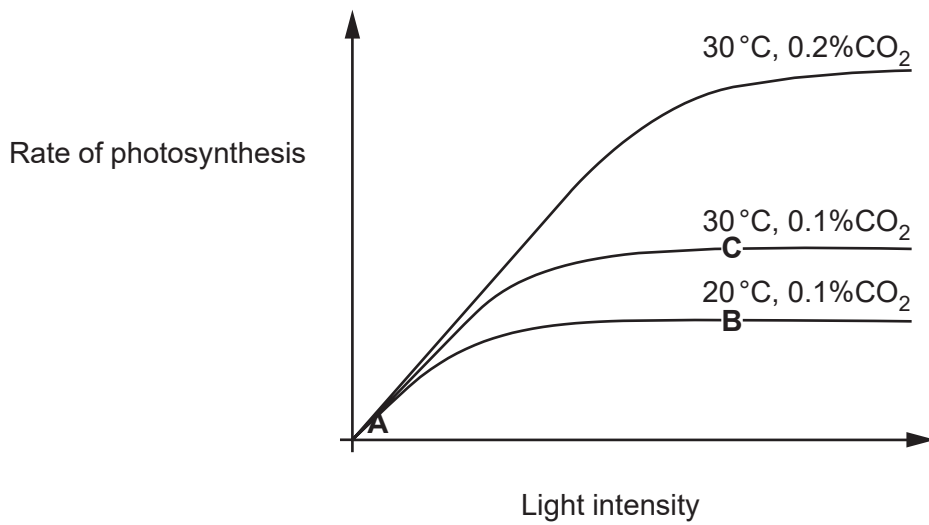
(b) The graph is from an experiment to show the effect of temperature on the rate of photosynthesis.



[1]

Draw a line of best fit.

- (c) Look at the graph. It shows how light intensity affects the rate of photosynthesis. The lines show different carbon dioxide concentrations and temperatures.

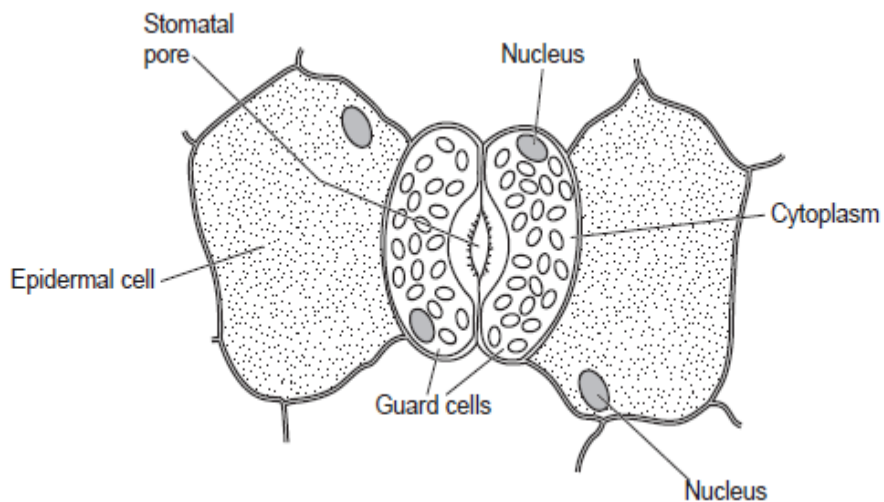


Explain what is limiting the rate of photosynthesis at the three points **A**, **B** and **C** on the graph.

Use evidence from the graph in your answer.

[3]

- (d) (i) The diagram shows structures on the surface of a leaf.



Photosynthesis occurs in the guard cells but not the epidermal cells.

Explain why this is important in the control of the rate of transpiration in the plant.

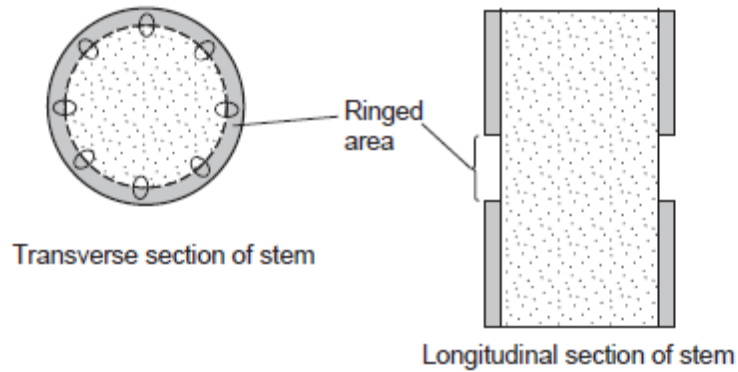
[4]

(ii) Explain why guard cells are an example of specialised cells.

[2]

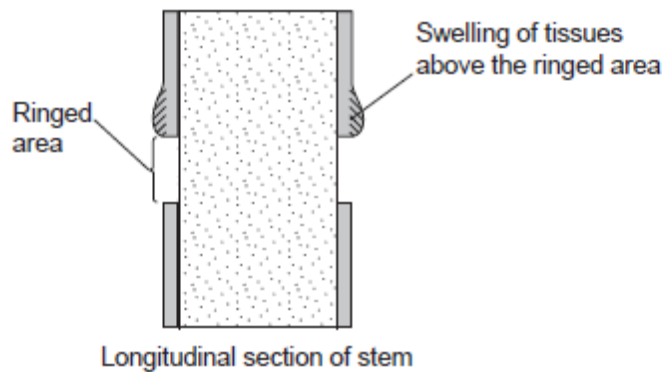
(ii) An experiment was done to look at the effect of 'ringing' on a tree trunk. Ringing removes a strip of plant tissue from around the stem of the tree.

The diagram shows where the stem is ringed.



The results were recorded after one week.

The diagram shows the results.



What conclusions can be made about the results?

[3]

Total Marks for Question Set 13: 14

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