

Practice Question Set For GCSE
Subject : Biology
Paper-1 Topic: B4 Bioenergetics

Name of the Student: _____

Max. Marks : 16 Marks

Time : 16 Minutes

Q1.

Photosynthesis takes place the leaves of green plants.

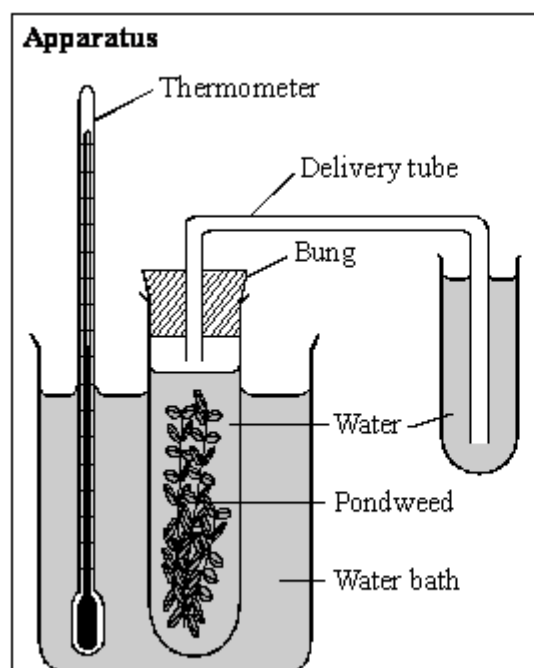
- (a) Write a balanced chemical equation for the formation of glucose by photosynthesis.

(3)

- (b) Describe **two** ways that the rate of photosynthesis can be decreased without lowering the temperature.

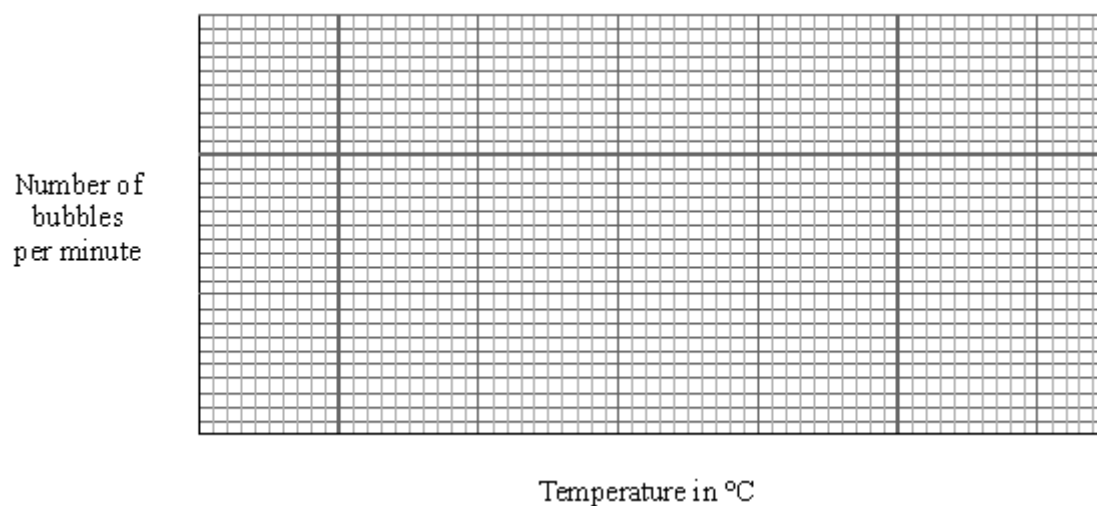
(2)

- (c) Some students decided to investigate the effect of temperature on the rate of photosynthesis in pond weed. They set up the apparatus and altered the temperature using ice and hot water. They counted the number of bubbles given off in a minute at different temperatures. They obtained the following results.



Results	
Temperature in °C	Number of bubbles per minute
10	6
20	15
30	21
40	23
50	19

- (i) Plot the points on the graph.



(3)

- (ii) Use your graph to predict the number of bubbles per minute at 25 °C.

(1)

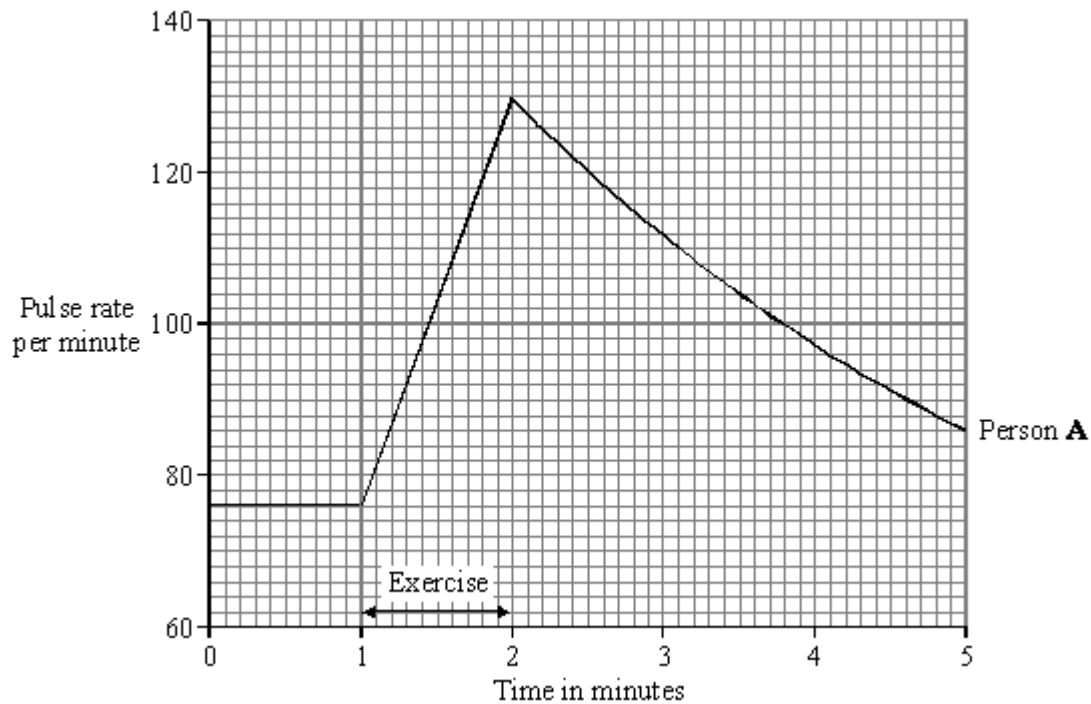
- (iii) Suggest a reason why the rate of photosynthesis seems to decrease in this pondweed after 40 °C.

(1)

(Total 10 marks)

Q2.

Person A and **Person B** measured their pulse rates over a period of five minutes. For one minute of this time they exercised by stepping on and off a box. At other times they sat still. The graph shows the results for **Person A**.



- (i) What does the graph tell you about the changes in the pulse rate of **Person A** within the five minute period?

(3)

- (ii) What was the pulse rate of **Person A** at the end of the five minute period?

(1)

- (iii) The table shows the results obtained for **Person B**.

Time in minutes	Pulse rate per minute
0	68
1	68
2	110
3	96

4	80
5	68

Plot these results on the graph.

(2)
(Total 6 marks)