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

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Name of the Student:_____
Max. Marks : 16 Marks **Time : 16 Minutes**

Q1.

A scientist investigated the effect of oxygen concentration and temperature on the rate of decay of leaves in a container.

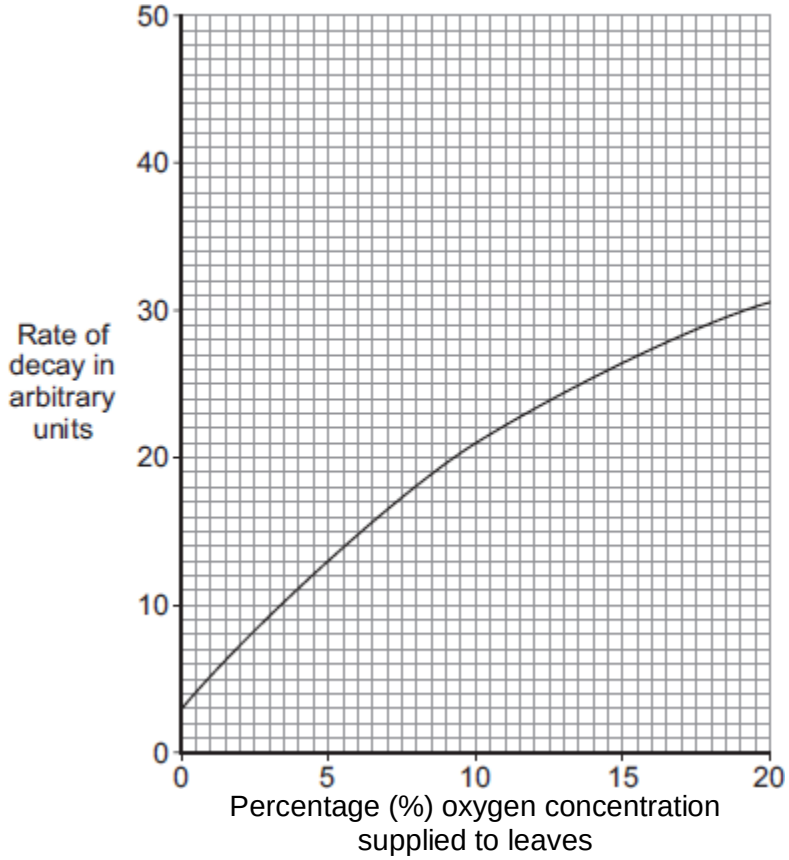
(a) Name equipment that could be used to measure the temperature and the concentration of oxygen in the container of leaves.

Temperature: _____

Concentration of oxygen: _____

(2)

(b) The results for oxygen concentration are shown in the graph.



(i) What was the rate of decay at an oxygen concentration of 5%?

_____ arbitrary units

(1)

(ii) What conclusion can be made from the results shown in the graph?

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_____

_____

(1)

(c) Temperature can affect the rate of decay.

The graph shows the rate of decay at different oxygen concentrations when the temperature was 20 °C.

Draw a line on the graph to show the results you would expect at a temperature of 15 °C.

(1)

(d) Complete the following sentences about decay processes.

Materials are constantly cycled.

Dead organisms decay because they are broken down and digested by

_____

The decay process releases substances. These substances help the growth of

_____

Carbon dioxide is also released when dead organisms decay. Carbon dioxide

is a waste product of _____ .

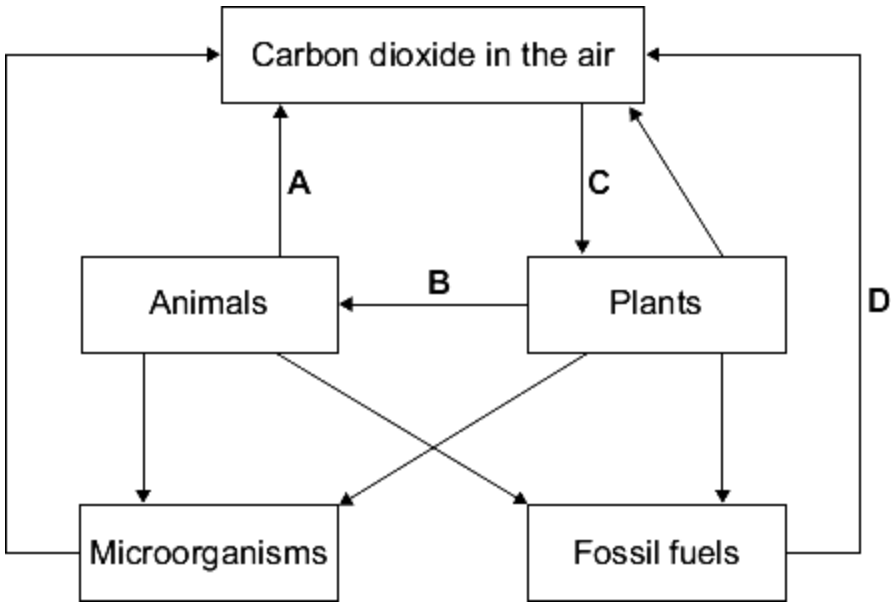
(3)

(Total 8 marks)

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Q2.

The diagram shows part of the carbon cycle.



Name the processes labelled **A**, **B**, **C** and **D**, on the diagram.

A _____

B _____

C _____

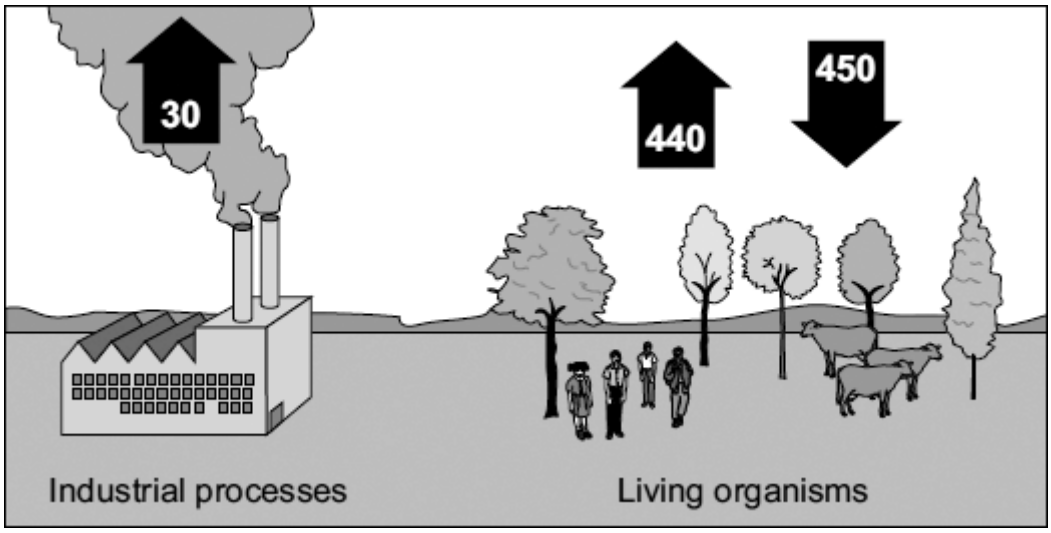
D _____

(Total 4 marks)

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Q3.

The diagram shows the mass of carbon dioxide released into and removed from the air each year in billions of tonnes.



(a) Complete the following sentences.

(i) Plants remove carbon dioxide from the air by a process

called _____

(1)

(ii) All organisms produce carbon dioxide during a process

called _____

(1)

(b) Too much carbon dioxide in the atmosphere can harm the environment.

Suggest **two different** ways of reducing the amount of carbon dioxide in the atmosphere.

_____

_____

_____

_____

(2)

(Total 4 marks)

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