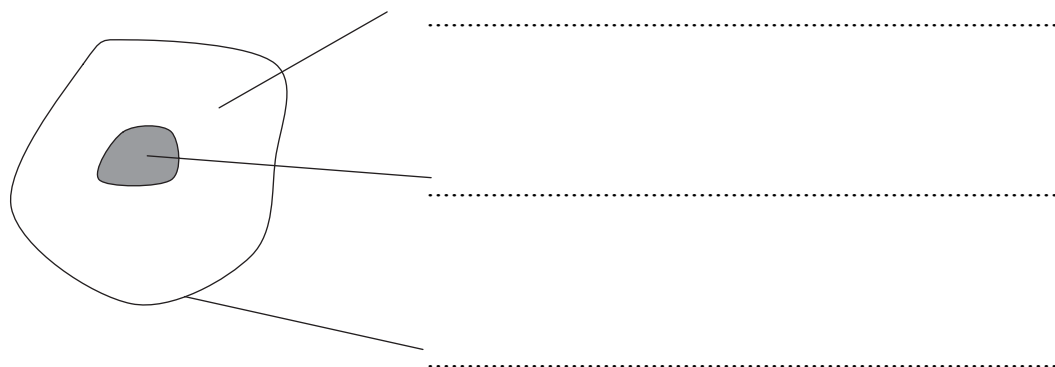


Leave
blank

Answer ALL the questions. Write your answers in the spaces provided.

1. Use words from the box to label the diagram of an animal cell.

cell wall	cell membrane
cytoplasm	nucleus

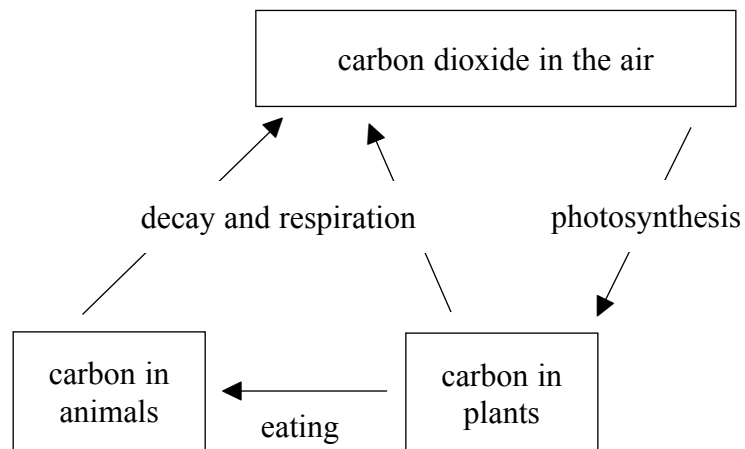


(Total 3 marks)

Q1



2. The diagram shows part of the carbon cycle.



(a) Use this diagram to help you decide which of the following materials will decay. Write the name of each material in the correct column in the table.

apple bread glass stone wood

will decay	will not decay

(2)

(b) Mark a cross (☒) next to the correct word to complete each sentence.

(i) As the number of microorganisms increases, decay **decreases** **increases** **stops**

(1)

(ii) As the temperature increases from 10 to 40°C, decay **decreases** **increases** **stops**

(1)

(iii) If the temperature increases to 100°C, decay **decreases** **increases** **stops**

(1)

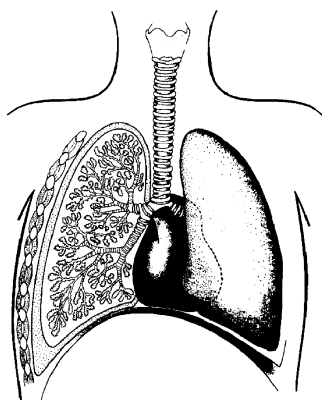
Q2

(Total 5 marks)



3. Paul has been smoking for many years and has been told by his doctor that he has emphysema.

(a)



(i) Emphysema affects the alveoli (air sacs).
Label the position of an alveolus (air sac) on the diagram of the lungs. (1)

(ii) These statements describe the development of emphysema in a smoker. They are not in the correct order.

1. There is less surface area to absorb oxygen.
2. The alveoli walls are damaged.
3. The person becomes 'breathless' and may need an oxygen mask.
4. Smoke from cigarettes is inhaled into the lungs.

Write one number in each of the boxes below to show the correct order. One has been done for you.



(1)

(b) Paul is finding it hard to give up smoking.

Suggest **two** things that Paul can do to help him give up smoking.

1.
.....
.....
2.
.....
.....

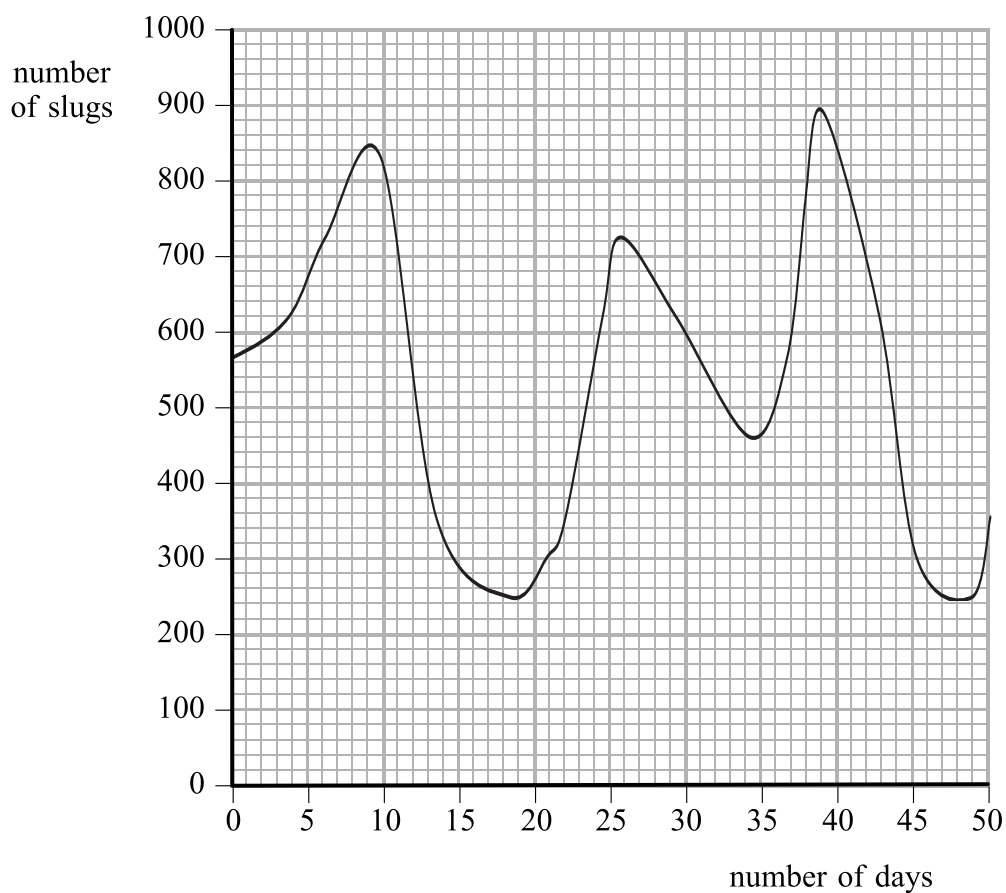
(2)

Q3

(Total 4 marks)



4. Slugs are garden pests.
The graph shows the number of slugs in a garden where pesticides are used.



- (a) Estimate from the graph, the highest number of slugs. (1)
- (b) On which day were pesticides first put on the garden? (1)
- (c) Choose words from the box to complete the following sentences.

biological chemical food predators prey

Useful animals can also be killed if too much pesticide is applied, so some gardeners control the numbers of pests by releasing of these pests.

This is a form of control.

(2)

Q4

(Total 4 marks)



Leave
blank

5. Lesley is recovering from a heart attack.
The heart attack was caused when a blood clot blocked an artery in her heart.
Her doctor told her that the condition of her arteries had increased her chances of a heart attack.

(a) Describe one way that 'the condition of her arteries' may have made the clot more likely to block her artery.

.....
.....

(1)

(b) The doctor advised her to change her lifestyle by improving her diet and going for a walk each day.

(i) Suggest one way that she may improve her diet and explain how this may help to reduce the chance of having another heart attack.

.....
.....
.....
.....

(2)

(ii) How might taking a walk each day help to reduce the chance of having another heart attack?

.....
.....
.....
.....

(2)

(Total 5 marks)

Q5



Leave
blank

6. (a) (i) Complete the word equation for photosynthesis.

carbon dioxide + → + glucose
(1)

(ii) State one reason why the amount of carbon dioxide in the atmosphere is not decreasing even though it is being used up during photosynthesis.

.....
.....
(1)

(b) Some of the glucose made in photosynthesis is used up during respiration in leaves. Describe what happens to the rest of the glucose.

.....
.....
.....
.....
.....
.....
(3)

(Total 5 marks)

Q6



Leave
blank

7. Alex has just finished a race. She is breathing heavily and has cramp.
Explain why Alex is still breathing heavily even though she has stopped running.



.....

.....

.....

.....

.....

.....

.....

.....

.....

(Total 4 marks)

Q7

TOTAL FOR PAPER: 30 MARKS

END

