



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

1. Some students counted the plants in three areas of land, A, B and C. Their results are shown below.

area A	area B	area C

key to plant types

clover		daisy	
dandelion		violet	

- (a) Complete the table to show the results for areas B and C.

area	number of types of plant	number of plants
A	3	9
B		
C		

- (b) Give the name of the plant that is most common in area C. (2)

..... (1)

- (c) Complete the sentence.

Plants use light to make food in a process called ..... (1)

(Total 4 marks)

Q1



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blank

2. (a) Choose words from the box to complete the following sentence.

**cancer      cystic fibrosis      emphysema      measles**

Smoking cigarettes causes diseases such as

.....

and .....

**(2)**

(b) Give the name of **one** part of tobacco smoke that damages lung cells.

.....

**(1)**

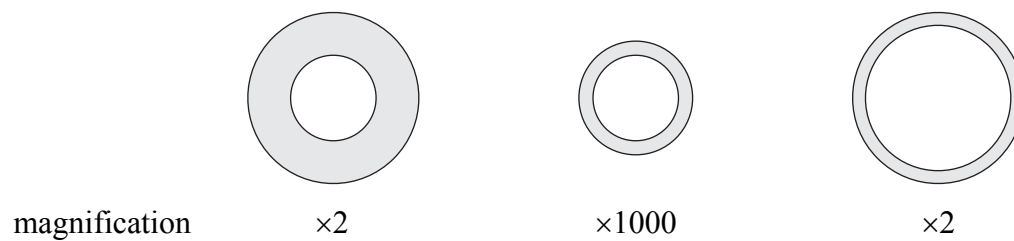
**Q2**

**(Total 3 marks)**



N 2 1 4 0 6 A 0 3 1 2

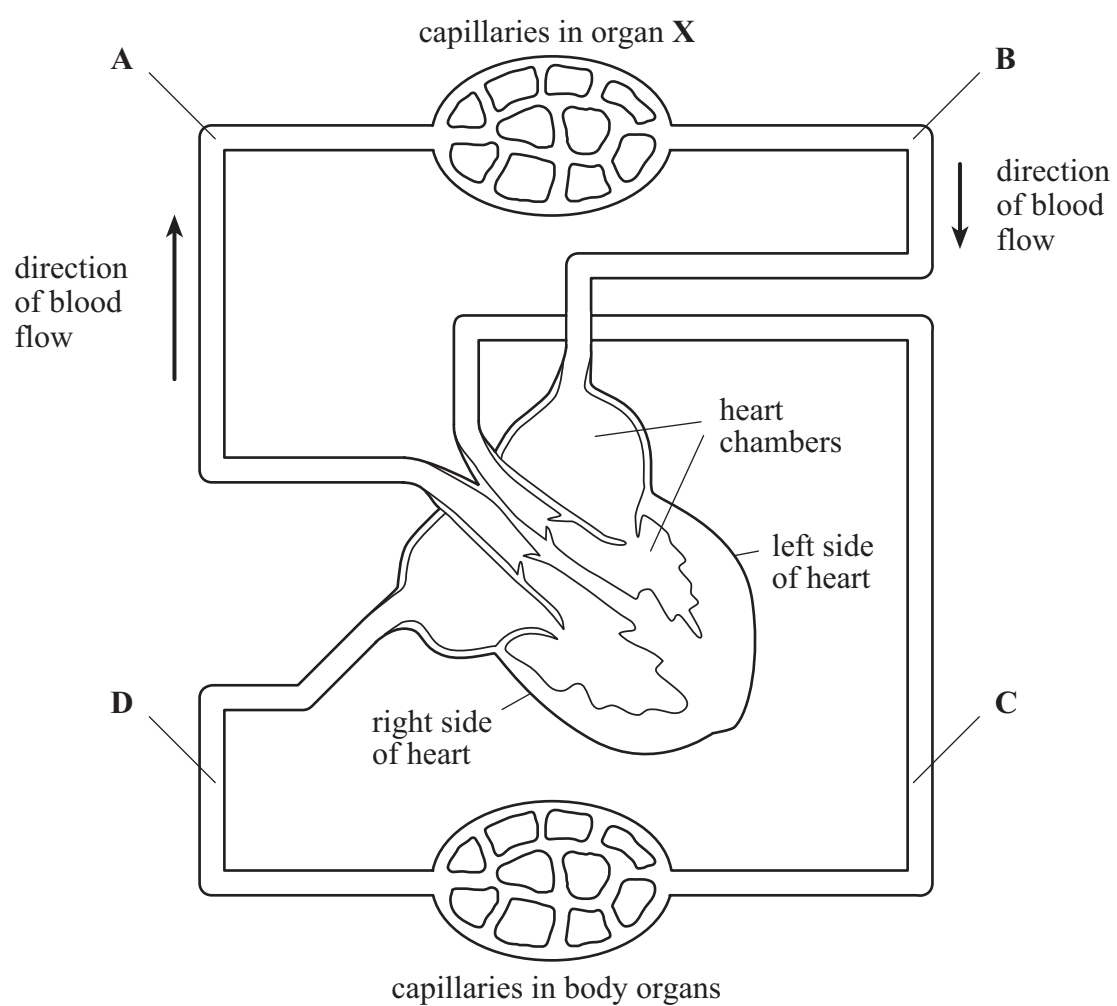
3. (a) The diagram shows cross sections of three types of blood vessel.



On the diagram above, label the artery.

(1)

(b) The circulation of blood round part of the body is shown below. The arrows next to blood vessels **A** and **B** show the direction of the blood flow.



(i) On the diagram, draw arrows to show the direction of blood flow in vessels **C** and **D**.

(1)



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- (ii) Each labelled blood vessel is either an artery or a vein.  
Tick the correct box for each blood vessel.

One has been done for you.

blood vessel	artery	vein
A	✓	
B		
C		
D		

(2)

- (iii) Give the name of organ X .....

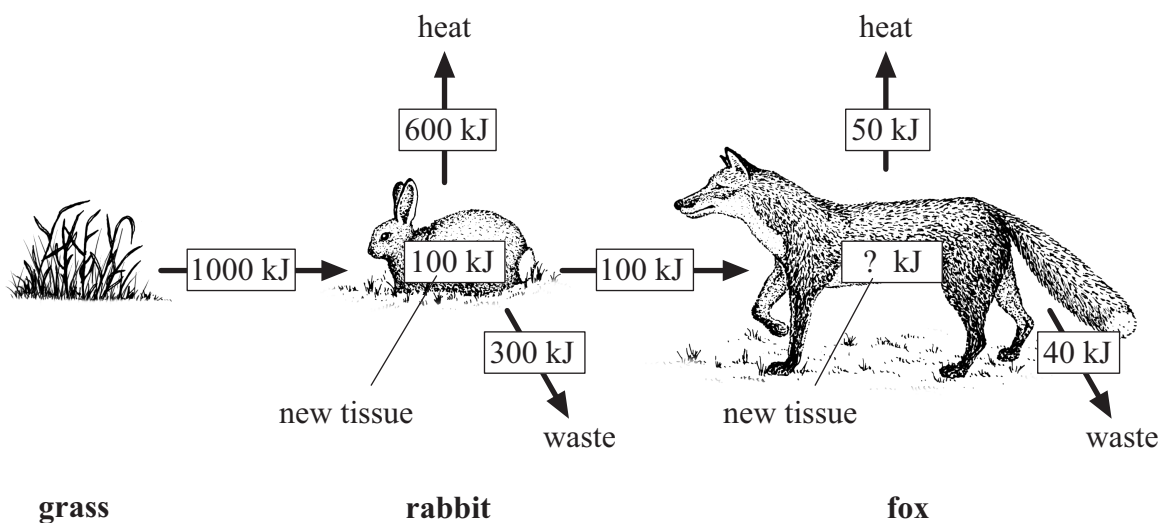
(1)

Q3

(Total 5 marks)



4. The diagram shows how energy is used in a food chain.



(a) Calculate the energy in new tissue in the fox.

..... kJ  
(1)

(b) Choose words from the box to complete the following sentence.

**excretion      osmosis      photosynthesis      respiration**

At each stage, energy is lost from the food chain by .....  
and .....

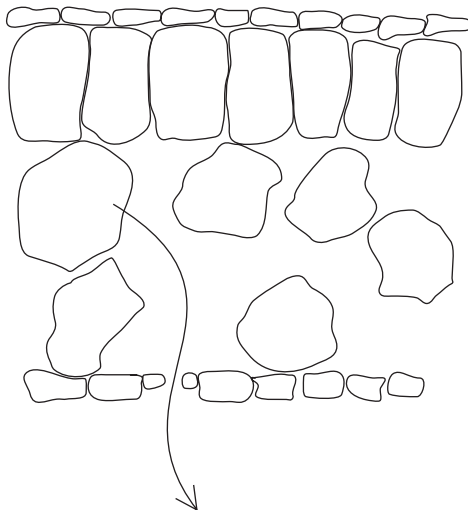
(2)

Q4

(Total 3 marks)



5. The diagram shows the passage of water from a cell in a leaf to the outside air.



(a) State the process by which water passes through stomata.

..... (1)

(b) Give **two** functions of water in the cells of a leaf.

1 .....

2 .....

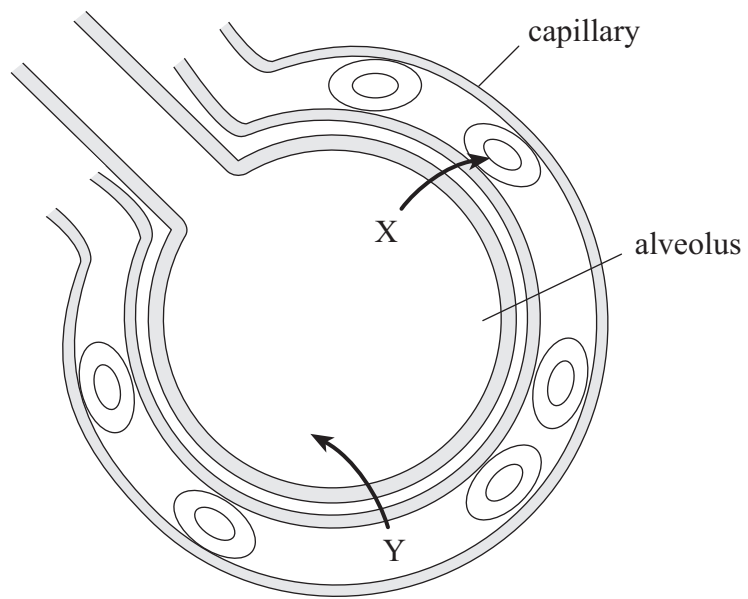
(2)

Q5

(Total 3 marks)



6. Gas exchange takes place in an alveolus.



(a) Name

(i) gas X ..... **(1)**

(ii) gas Y ..... **(1)**

(b) Gas Y is the product of respiration. Another product of respiration is also breathed out.

Name this substance.

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





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(c) After sprinting 100 metres Faisa is breathing heavily. Also, she has cramp in her leg muscles.



Explain why Faisa has cramp.



.....

.....

.....

.....

.....

.....

.....

.....

.....

(4)

Q6

(Total 7 marks)



N 2 1 4 0 6 A 0 9 1 2

7. Read the following article.

**Widespread deforestation continues to threaten the global environment.**  
There are no reliable figures for the extent of global deforestation. However deforestation is probably the most important cause of increased carbon dioxide in the atmosphere.

(a) Give **two** reasons for increased deforestation in recent years.

- 1 .....
- 2 ..... **(2)**

(b) Suggest **one** reason why there are no reliable figures for the extent of global deforestation.

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

(c) During deforestation tree roots are often left in the soil.  
Carbon dioxide is released from the dead roots over several months.  
What causes the release of carbon dioxide?

.....  
.....  
.....  
..... **(2)**

**(Total 5 marks)**

Q7

**TOTAL FOR PAPER: 30 MARKS**

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N 2 1 4 0 6 A 0 1 1 1 2

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