

7A Cells

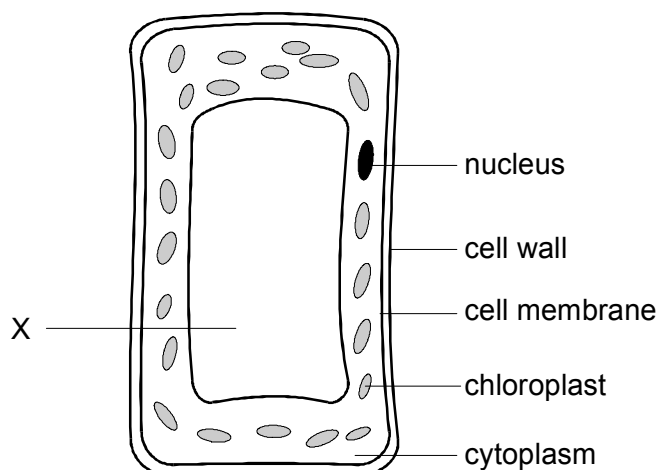
Assessment for learning...year 7 (level 3-6)

Answer all questions:

Total marks	33
Time allowed	25 mins.

Question 1:

The diagram shows a plant cell. Some parts of the cell are named.



(a) Which **two named** parts are present in plant cells but not animal cells?

1.

2.

2 marks

(b) Which **named** part contains the genetic information?

.....

1 mark

(c) Which **named** part absorbs light energy for photosynthesis?

.....

1 mark

(d) Name the part labeled **X** on the drawing.

.....

1 mark

(e) where in a plant would you find a cell like the one in the diagram?

Tick the correct box.

in the centre of a root

in the lower surface of a leaf

near the upper surface of a leaf

near the surface of a root

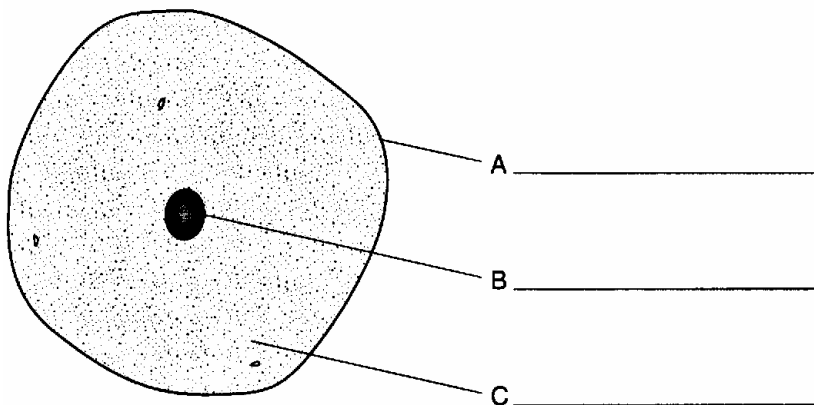
1 mark

Maximum 6 marks

Question 2:

The diagram below shows a cell from the inside of a human cheek.

(a) On the diagram, label parts A, B and C.



3 marks

(b) Plant cells have some parts which animal cells do **not** have. Name **two** of these parts.

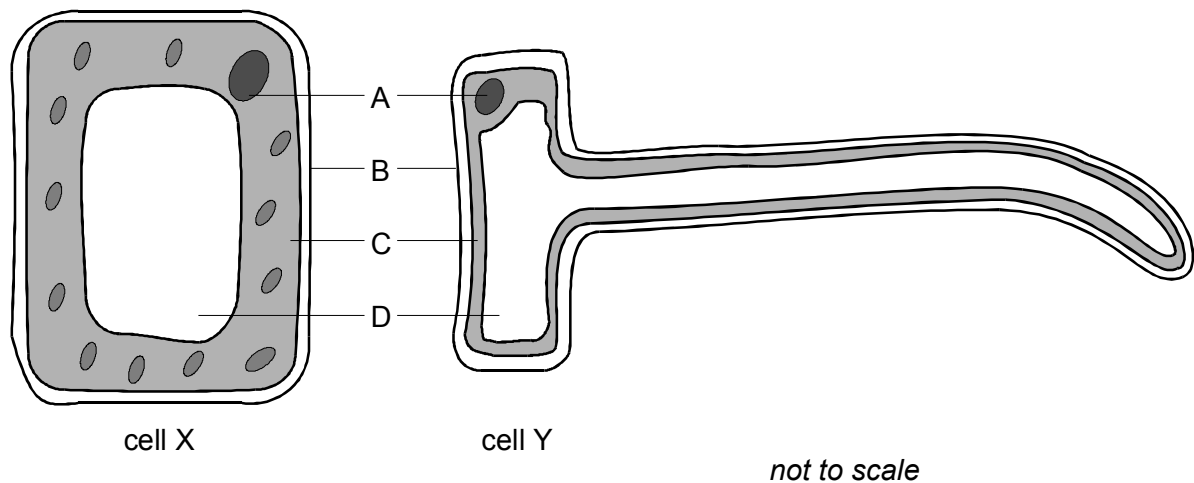
1.

2.

2 marks
Maximum 5 marks

Question 3:

The diagrams show two plant cells.



(a) In which part of a plant would these cells be found?

cell X

1 mark

cell Y

1 mark

(b) Give the name of part B.

.....

1 mark

(c) (i) Give the letter which labels the nucleus.

.....

1 mark

(ii) What is the function of the nucleus?

.....

.....

1 mark

(d) (i) How can you tell from the diagram that photosynthesis **cannot** take place in cell Y?

.....

1 mark

(ii) Which process takes place in **both** cell X and cell Y?
 Tick the correct box.

- egestion
- fertilisation
- pollination
- respiration

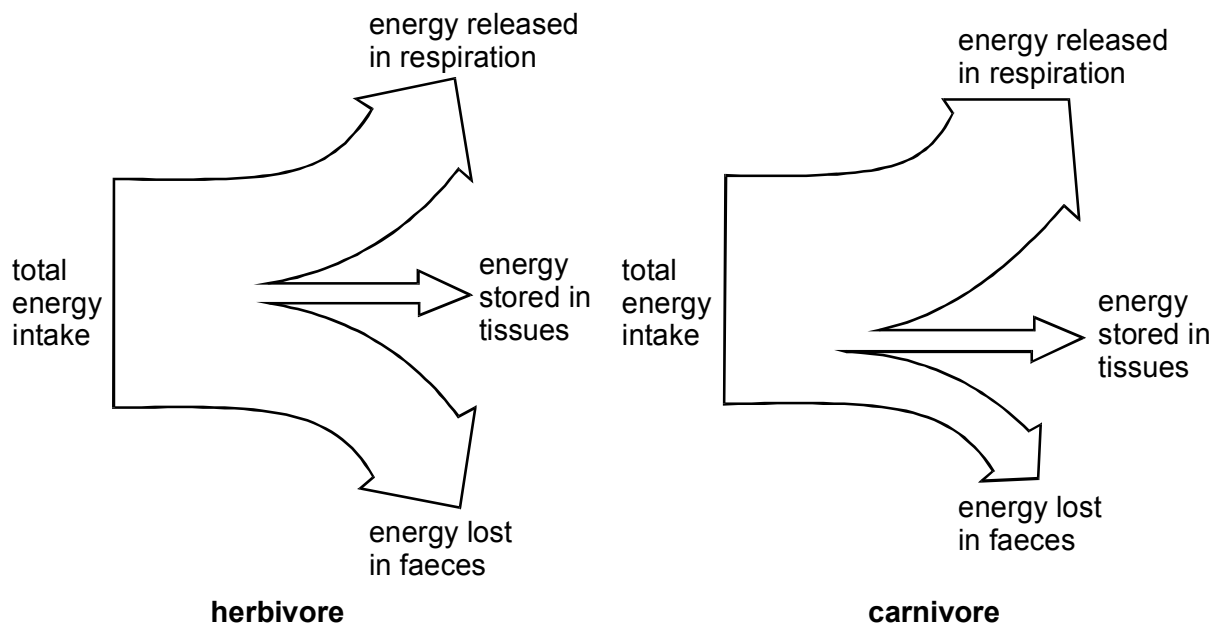
1 mark

Maximum 7 marks

Question 4:

The diagrams below represent what happens to the energy in the food eaten by a herbivore and a carnivore.

The **width of each pathway** indicates the amount of energy gained or used in a particular way.



(a) (i) What percentage of the total energy, taken in by a herbivore, is stored in its tissues? Use the diagram to help you answer.

..... %

1 mark

(ii) The energy stored in an animal's tissues is passed on to the next animal in the food chain.

Use information in the diagrams above to explain why there are usually no more than four or five stages in a food chain.

.....
.....

1 mark

(b) Respiration takes place in cells, in structures called mitochondria. Why do muscle cells contain large numbers of mitochondria?

.....
.....

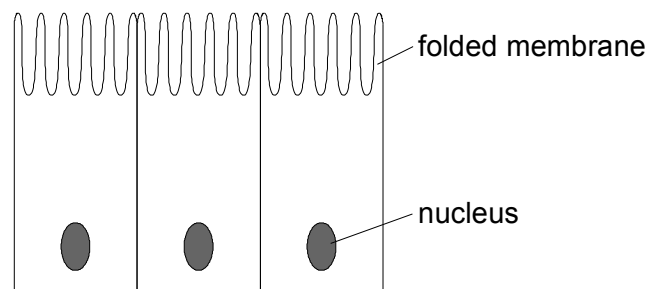
1 mark

(c) Cows eat plants, but **cannot** digest the cellulose cell walls. Micro-organisms in the cow's stomach are able to digest the plant cell walls. Suggest why cows **cannot** digest the cell walls but micro-organisms can.

.....
.....

1 mark

(d) The diagram below shows cells from the inner lining of a mammal's intestine.



The cell membranes in contact with the food are folded. Explain why it is an advantage that these cells are adapted in this way.

.....
.....

.....

2 marks

Maximum 6 marks

Question 5:

The drawing shows part of a blackberry plant.



(a) Photosynthesis takes place in the leaves of the blackberry plant. Complete the word equation for photosynthesis.

water + carbon dioxide → + oxygen

1 mark

(b) Jonathan studied a blackberry plant growing in a shady place and a blackberry plant growing in a sunny place.

(i) Jonathan found that the plant in the shady place had larger leaves. Why is it an advantage for plants in the shade to have leaves with a large surface area?

.....
.....

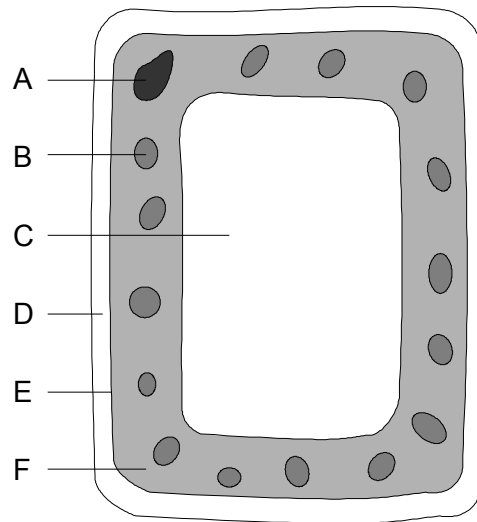
1 mark

(ii) Both blackberry plants had green leaves. What part of the leaf cells makes the leaf green?

.....

1 mark

(c) The diagram below shows a cell from a leaf of a blackberry plant.



The names of four parts of the cell are listed in the table below.

(i) Match the name of each part with a letter from the diagram. Write your answers in the table.

part	letter of part
cell wall	
cytoplasm	
nucleus	
vacuole	

4 marks

(ii) Which **two** of the labeled parts are also present in an animal cell? Give the correct letters from the diagram.

..... and

2 marks

Maximum 9 marks