CAMBRIDGE LOWER SECONDARY CHECKPOINT PRACTICE QUESTIONS AND ANSWERS

Topic-Plant and Animal Cells Set-1

1 **(a)** Describe the differences between the *cell membrane* and *cell wall* of a plant cell.

.....

.....

.....

.....[3]

MARK SCHEME:

(a) 1 cell wall is outside cell membrane;
2 cell wall is made of cellulose;
3 cell wall is (fully) permeable;
4 cell membrane is made of, protein/lipids;
5 cell membrane is thinner than cell wall;
6 cell membrane is partially permeable;
7 cell membrane is more flexible than cell wall;
8 cell wall stops cell bursting (when full of water); 3 max

2 Fig. 3.1 is a photograph of part of a leaf, taken using a light microscope.

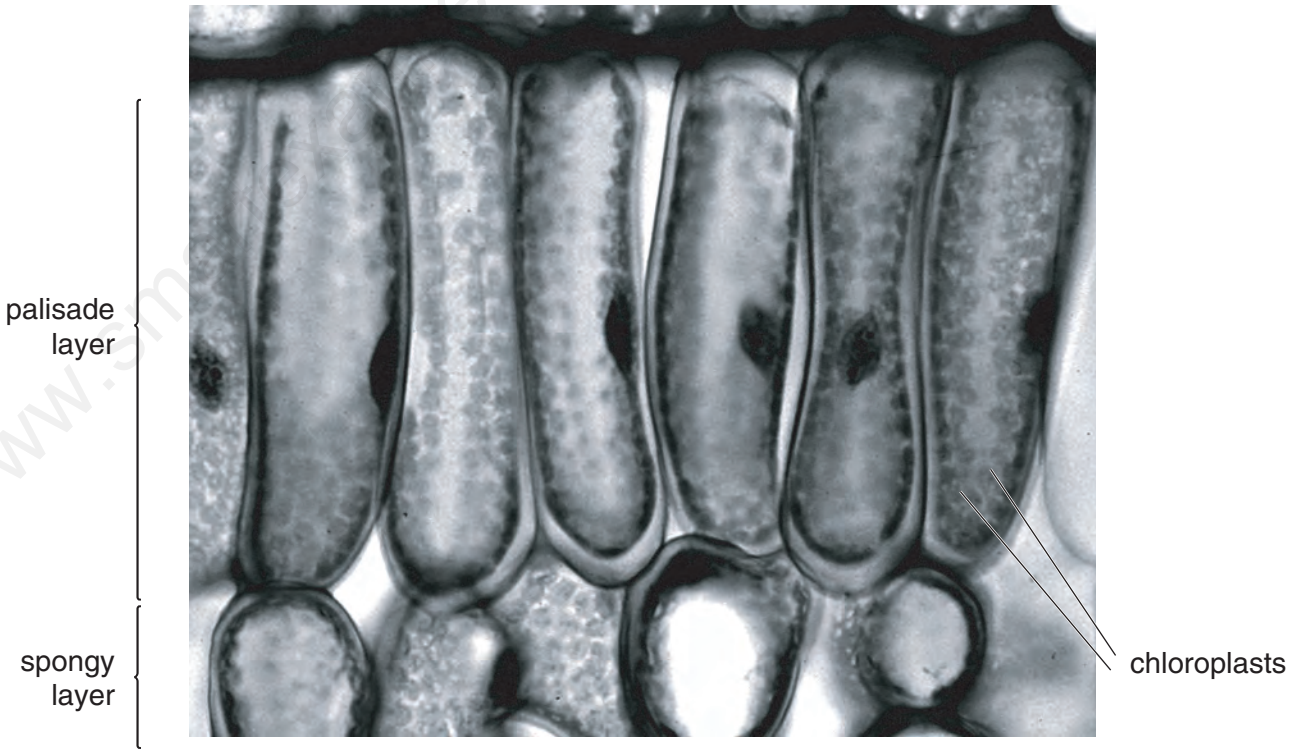


Fig. 3.1

(a) The presence of chloroplasts shows that these are plant cells, and not animal cells.

(i) On the photograph, label **one** feature, other than chloroplasts, which is present in plant cells but **not** in animal cells. [1]

(ii) Describe the function of the feature you have labelled.

.....

.....

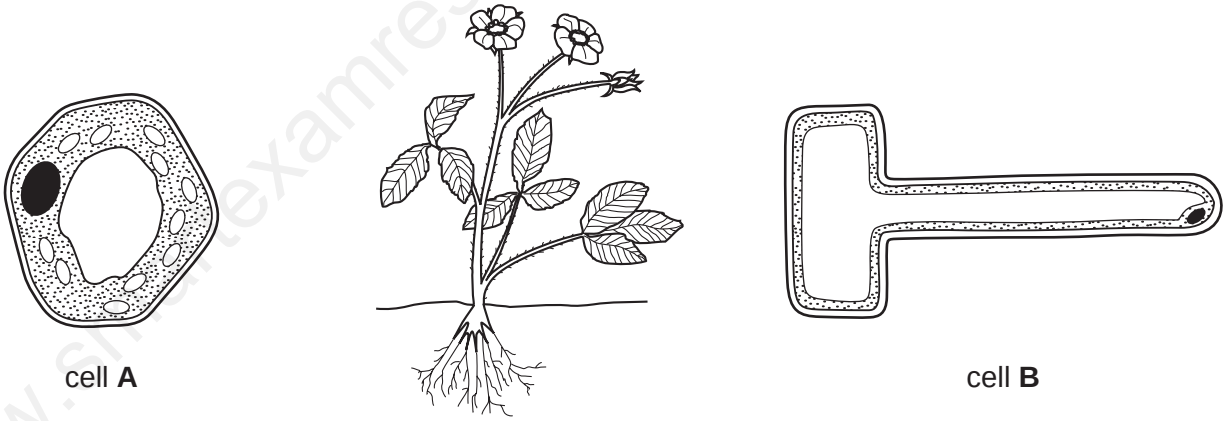
.....[2]

MARK SCHEME:

(a) (i) label to cell wall or position of vacuole, plus appropriate name; 1
(ii) cell wall
supports the cell/holds cell in shape;
stops it bursting when it takes up water;
prevents entry of fungi;

vacuole
contains cell sap;
store of, minerals/sugars/(soluble) nutrients;
reference to turgor; max 2

3 **(a)** Fig. 1.1 shows a flowering plant, and two cells from the plant.



cell **A** cell **B**

Fig. 1.1

(i) On Fig. 1.1, draw a line from each cell to a part of the plant in which it could be found. [2]

(ii) State **one** difference between the **contents** of cell **A** and cell **B**, and explain the reasons for this difference.

difference .....

explanation .....

.....

..... [3]

MARK SCHEME:

a) (i) line from cell A to leaf ;
line from cell B to root ; [2]
(ii) cell A has chloroplasts / chlorophyll ;
for photosynthesis ;
cell B does not because it, is underground/gets no light ; [3

4 Fig. 2.1 shows a plant cell from a leaf.

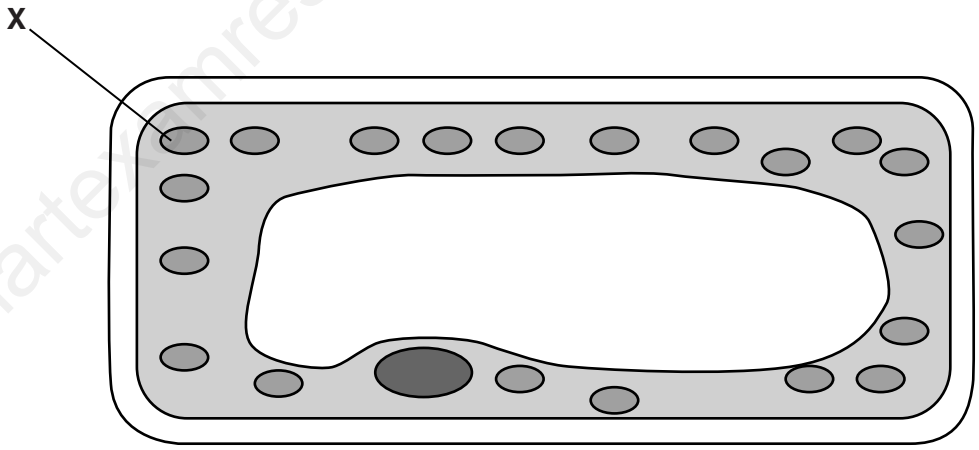


Fig. 2.1

(a) Name the part of the cell labelled **X**.

..... [1]

MARK SCHEME:

a) chloroplast ; [1]

5 **(a)** Fig. 2.1 is a photograph of a plant tissue seen through a light microscope.

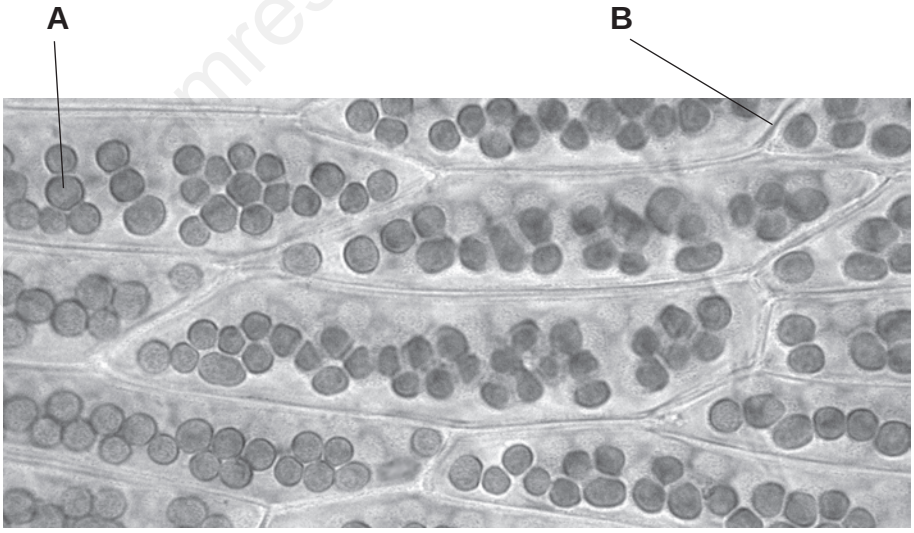


Fig. 2.1

(i) Name the structures labelled **A** and **B**.

A .....

B ..... [2]

(ii) Describe **two** ways in which the cells in Fig. 2.1 differ from animal cells.

1 .....

2 ..... [2]

MARK SCHEME:

(a) (i) A chloroplast ; (accept nucleus)
B cell wall ; (accept cell membrane) [2]
(ii) have cell walls / B ;
have chloroplasts / A ;
(accept) have large vacuoles ; [max 2]