**Q1.**

The diagram below shows a plant cell.



(a)     In which part of a plant would you find this type of cell?

........................................................ 1 mark

(b)     (i)      Give the function of the nucleus.

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

............................................................................................................... 1 mark

(ii)     Give the function of the chloroplasts.

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

............................................................................................................... 1 mark

(iii)     Give the function of the cell wall.

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

............................................................................................................... 1 mark

(c)     Give the names of **two** labelled parts that are **not** present in animal cells.

1. .............................................................

2. ............................................................. 2 marks

(d)     Tick **one** box in each row to show whether the statement is true for
photosynthesis **or** for respiration.

|  |  |  |
| --- | --- | --- |
| **statement** | **photosynthesis** | **respiration** |
| carbon dioxide is produced |   |   |
| light is needed |   |   |
| it occurs in plants and animals |   |   |
| oxygen is produced |   |   |

2 marks

 maximum 8 marks

**Q2.**

The drawing shows an experiment to investigate photosynthesis in weed from a pond.



          Bubbles of gas produced during photosynthesis were given off from the pond weed and collected in the test tube.

(a)     Name the gas given off in photosynthesis

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

1 mark

(b)     What **two** substances are taken in by the plant and used for photosynthesis?

1. ..................................................................................................................

2. ..................................................................................................................

2 marks

          Light of different intensities was shone onto the pond weed. The number of gas bubbles given off in one minute at each light intensity was counted. The results are shown in the graph.



(c)     Which letter on the horizontal axis shows the light intensity at which the rate of photosynthesis first reaches its maximum?

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

1 mark

   Blue, green and red light were then shone, in turn, onto the pond weed. The number of bubbles of the gas given off in one minute was counted. The results are shown in the table.

          

          The leaves of the pond weed contain a green pigment which absorbs light for photosynthesis

(d)     (i)      Name this pigment.

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

1 mark

(ii)     Using the information in the table, tick a box by **one** colour of light which is strongly absorbed by the pigment.

blue            

green          

red              

1 mark

(e)     Sugar is also produced during photosynthesis.

          Give **two** ways in which the plant uses sugar.

1. ..................................................................................................................

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

2. ..................................................................................................................

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

2 marks

Maximum 8 marks