Questions

Q1.

The diagrams show a root hair cell and a leaf palisade cell.

(i) Complete the sentence by putting a cross (X) in the box next to your answer.

The part labelled X is the

A nucleus
B cell wall
C cytoplasm
D vacuole

(ii) Describe the role of part Y.

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(iii) Draw one straight line from each type of cell to the function of that cell.

<table>
<thead>
<tr>
<th>Type of cell</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>root hair cell</td>
<td>photosynthesis</td>
</tr>
<tr>
<td>leaf palisade cell</td>
<td>transports mineral ions to the leaves</td>
</tr>
<tr>
<td></td>
<td>absorbs water from the soil</td>
</tr>
<tr>
<td></td>
<td>transports sugar to the roots</td>
</tr>
<tr>
<td></td>
<td>prevents transpiration</td>
</tr>
</tbody>
</table>

(Total for question = 5)
Q2.

The diagrams show two cells taken from a plant. 

(a root hair cell) 

(i) Complete the sentence by putting a cross ( X ) in the box next to your answer. Root hair cells take in water by 

A  active transport 
B  osmosis 
C  respiration 
D  transpiration 

(iii) Describe the function of the chloroplasts in a leaf cell. 

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marks)
### Mark Scheme

**Q1.**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Answer</th>
<th>Acceptable answers</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>B cell wall</td>
<td></td>
<td>(1)</td>
</tr>
<tr>
<td>(ii)</td>
<td>contains DNA/chromosomes / genes / genetic information (1)</td>
<td></td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>controls the cell (activities / reactions) / gives cell its characteristics (1)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Q1 (iii)

- **Type of cell**
  - photosynthesis
  - transports mineral salts to the leaves
  - absorbs water from the soil
  - transports sugar to the roots
  - prevents transpiration

Reject more than one line from each type of cell

**Q2.**

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Answer</th>
<th>Acceptable answers</th>
<th>Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i)</td>
<td>B - osmosis</td>
<td></td>
<td>(1)</td>
</tr>
</tbody>
</table>
| (ii)            | A description including two of the following points
  - chloroplasts contain chlorophyll (1)
  - which absorb (sun)light (1)
  - for photosynthesis (1)
  - to produce glucose/sugar (1) | takes in/traps (sun) light Accept: starch Ignore: food | (2) |