### B1.1 Revision questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Marks</th>
<th>AO element</th>
<th>Syllabus ref.</th>
<th>Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>D (1)</td>
<td>1</td>
<td>AO1</td>
<td>B1.1b</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>C (1)</td>
<td>1</td>
<td>AO1</td>
<td>B1.1a</td>
<td>WS1.2c</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 a i</td>
<td>to avoid multiple layers of cells being viewed (1) in order that light can pass through (the specimen) (1)</td>
<td>2</td>
<td>AO2</td>
<td>B1.1a</td>
<td>WS1.2c</td>
</tr>
<tr>
<td>a ii</td>
<td>so that cell structures / organelles can be seen or so that cell wall / nucleus / vacuole can be seen (1) cells are transparent otherwise (1)</td>
<td>2</td>
<td>AO2</td>
<td>B1.1a</td>
<td>WS1.2c</td>
</tr>
<tr>
<td>b i</td>
<td>regular shape / all the same shape / cell wall(s) (1)</td>
<td>1</td>
<td>AO2</td>
<td>B1.1b</td>
<td></td>
</tr>
<tr>
<td>b ii</td>
<td>50 (2)</td>
<td>2</td>
<td>AO2</td>
<td>B1.1a</td>
<td>M2a</td>
</tr>
</tbody>
</table>
| c        | Level 3 (5–6 marks) information is presented in a clear, logical and backed up with evidence or an example at least four comparisons with two examples of use | 6 | AO1 | AO2 | B1.1c | WS1.1e | AO2: apply knowledge to demonstrate an understanding of the application and use of the microscopes for electron microscope:  
- not suitable for remote locations / schools  
- suitable for hospitals / universities |
## B1.1 Cell structures

<table>
<thead>
<tr>
<th>Level 2 (3–4 marks)</th>
<th>Level 1 (1–2 marks)</th>
<th>0 marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>information is presented in a structured and logical way with some link to application. three or four comparisons between light and electron microscopes given in a logical way with one example of use.</td>
<td>information is basic and presented in an unstructured way. the answer gives one or two comparisons between light and electron microscopes.</td>
<td>no response or no response worthy of credit.</td>
</tr>
</tbody>
</table>

- **AO2:** apply knowledge and understanding in making the comparison for electron microscope:
  - higher resolution / can see more details
  - more expensive to buy / operate
  - more difficult to operate
  - more difficult to prepare specimen
  - less portable
  - cannot see in colour
  - cannot see living cells / tissues / specimen
  - always need a power source

- **AO2:** apply knowledge to demonstrate an understanding in making the comparison:
  - one or two comparisons from the points above

| Total | 13 |