

Question Number	Answer	Additional guidance	Mark
<b>2(a)(i)</b>	<ul style="list-style-type: none"> <li>9477</li> </ul>	<u>Example of calculation</u>  Gross productivity – net productivity 14092 - 4615	<b>(1)</b>

Question Number	Answer	Additional guidance	Mark
<b>2(a)(ii)</b>	<ul style="list-style-type: none"> <li>calculation of energy fixed as biomass by secondary consumers as a percentage of the energy fixed by primary consumers</li> </ul>	<u>Example of calculation</u>  $(464 \div 4615) \times 100 =$  10.1 (same number of decimal places as other values in table)	<b>(1)</b>

Question Number	Answer	Mark
<b>2(a)(iii)</b>	<p><b>The only correct answer is A - 1.2%</b></p> <p><i>B is incorrect because 12% has the decimal point in the incorrect place</i></p> <p><i>C is incorrect because 36.6% is NPP divided by GPP</i></p> <p><i>D is incorrect because 55.8% is (NPP of producers-energy intake of primary consumers) divided by NPP</i></p>	<b>(1)</b>

Question Number	Answer	Additional guidance	Mark
<b>2(b)</b>	<p>An explanation that makes reference to three of the following</p> <ul style="list-style-type: none"> <li>• not all of the light falls on the { leaves / plants / producers } (1)</li> <li>• some of the light is reflected (from the surface of the leaf) (1)</li> <li>• some of the light misses the chloroplasts (and passes through leaf) (1)</li> <li>• some of the light is { the wrong wavelength / not absorbed by the chlorophyll } (1)</li> </ul>	<p>ALLOW energy instead of light</p> <p>ALLOW some of the light falls on { bark/parts of the plant that do not photosynthesise}</p> <p>ALLOW chlorophyll / photosystem</p> <p>ALLOW description of not all light wavelengths being absorbed</p>	<b>(3)</b>