

Question Number	Answer	Acceptable answers	Mark
<b>1(a)(i)</b>	substitution (1) $4.8 - 2.6$ $= 2.2$ (%)  evaluation (1) $2.2 \times 600\,000$ $= 1\,320\,000$	give full marks for correct answer, no working	<b>(2)</b>

Question Number	Answer	Acceptable answers	Mark
<b>1(a)(ii)</b>	Any <b>two</b> of the following points <ul style="list-style-type: none"> <li>• (increase in people who are) overweight / have a high BMI / are obese (1)</li> <li>• (increased number of people) who do not take enough exercise (1)</li> <li>• increased calorie intake (1)</li> <li>• increase in elderly population (1)</li> </ul>	(Increased number of people) who eat too much / eat the wrong types of food / eat too much fat / sugar / carbohydrates	<b>(2)</b>

Question Number	Answer	Acceptable answers	Mark
<b>1(b)</b>	An explanation including <b>two</b> of the following points <ul style="list-style-type: none"> <li>• diet to lose weight (1)</li> <li>• reduce the amount of carbohydrates / glucose (1)</li> <li>• take more exercise so reduce blood glucose levels (1)</li> </ul>	accept sugar for glucose	<b>(2)</b>

Question Number		Indicative Content	Mark
<b>QWC</b>	<b>*1(c)</b>	<p>An explanation linking some of the following points</p> <p><b>When blood glucose is high</b></p> <ul style="list-style-type: none"> <li>• insulin is released from the pancreas</li> <li>• the insulin converts the excess glucose</li> <li>• into glycogen</li> <li>• which is stored in the liver</li> <li>• blood glucose levels are reduced</li> </ul> <p><b>When blood glucose levels are low</b></p> <ul style="list-style-type: none"> <li>• glucagon is released from the pancreas</li> <li>• the glucagon converts glycogen</li> <li>• from the liver</li> <li>• into glucose</li> <li>• blood glucose levels are raised</li> </ul> <p>This is a homeostatic mechanism which maintains the correct glucose levels in the bloodstream</p>	<b>(6)</b>
<b>Level</b>	<b>0</b>	No rewardable content	
<b>1</b>	<b>1 - 2</b>	<ul style="list-style-type: none"> <li>• a limited explanation of blood glucose regulation including the role of hormones, specific hormones do not need to be mentioned</li> <li>• the answer communicates ideas using simple language and uses limited scientific terminology</li> <li>• spelling, punctuation and grammar are used with limited accuracy</li> </ul>	
<b>2</b>	<b>3 - 4</b>	<ul style="list-style-type: none"> <li>• a simple explanation of blood glucose regulation including the role of insulin or glucagon and some of the body organs involved</li> <li>• the answer communicates ideas showing some evidence of clarity and organisation and uses scientific terminology appropriately</li> <li>• spelling, punctuation and grammar are used with some accuracy</li> </ul>	
<b>3</b>	<b>5 - 6</b>	<ul style="list-style-type: none"> <li>• a detailed explanation of blood glucose regulation including the role of the liver and pancreas and the methods of reducing and raising blood glucose concentrations</li> <li>• the answer communicates ideas clearly and coherently uses a range of scientific terminology accurately</li> <li>• spelling, punctuation and grammar are used with few errors</li> </ul>	