

## SAMPLE ASSESSMENT MATERIAL

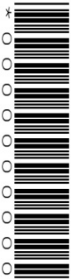
# Level 3 Cambridge Technical in Health and Social Care

05830/ 05831/ 05832/ 05833

Unit 4 Anatomy and physiology for health and social care

## Date – Morning/Afternoon

Time Allowed: 2 hours



**You must have:**

- None

**You may use:**

- None

**Do not use:**

- None



First name

Last name

Centre  
number

Candidate  
number

### INSTRUCTIONS

- Use black ink.
- Complete the boxes above with your name, centre number and candidate number.
- Answer **all** the questions.
- Write your answer to each question in the space provided.
- Do **not** write in the bar codes.

### INFORMATION

- The total mark for this paper is **100**.
- The marks for each question are shown in brackets [ ].
- Quality of extended responses will be assessed in questions marked with an asterisk (\*).
- This document consists of **15** pages.

Answer **all** questions.

1 (a) Describe **two** functions of each part of the digestive system given below.

Buccal cavity

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.....  
..... [2]

Stomach

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..... [2]

(b) Explain how the absorption of nutrients occurs in the small intestine.

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..... [4]

Millie, aged 19, has recently been diagnosed with coeliac disease.

**(c) (i)** Explain the cause of coeliac disease.

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..... [2]

**(ii)\*** Explain the measures Millie could take to live with this condition.

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..... [4]

2 (a) Identify **two** purposes of gaseous exchange.

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..... [2]

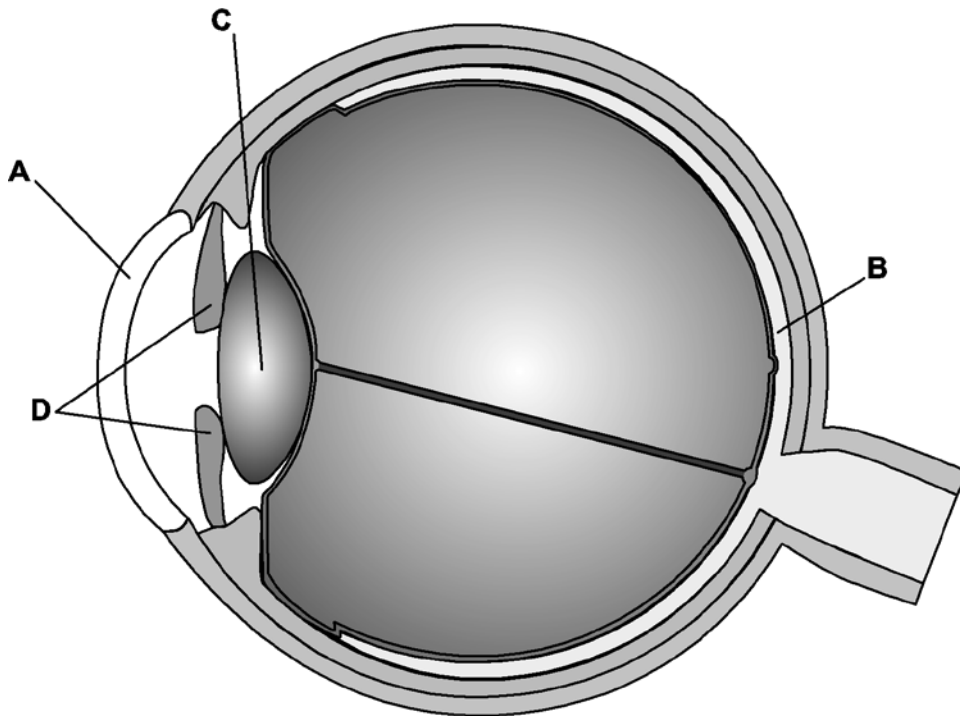
(b)\* Explain how air is moved in and out of the lungs.

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..... [6]



(d) Label the four parts of the eye in the diagram below:



[4]

Bill also has glaucoma.

(e) Explain the cause of glaucoma and the possible effects if it is left untreated.

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..... [4]

3 (a) Identify the structures in the brain that carry out the functions listed below:

Connects and coordinates the two sides of the brain

.....

Controls breathing and heart rate

.....

Modifies muscular responses and stores learnt fine movements

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Receives information from the sense organs

..... [4]

Zahra, aged 80, had a stroke.

(b) (i) Identify **four** possible causes for Zahra's stroke.

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..... [4]

(ii) Explain **two** problems that Zahra is now experiencing.

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..... [4]







Raoul, aged 50, has been diagnosed with type II diabetes. He is not taking his condition seriously.

**(b)\*** Explain why Raoul should take his condition seriously and explain actions he could take to avoid developing further health problems.

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..... [12]

5 (a) Identify **two** functions of blood.

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..... [2]



(c) Explain the changes that have occurred in Pamela's bones and their possible consequences.

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..... [4]



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# OCR

Oxford Cambridge and RSA

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**Sample Mark Scheme**

**LEVEL 3 CAMBRIDGE TECHNICALS IN HEALTH AND SOCIAL CARE**

**05830/ 05831/ 05832/ 05833 Unit 4: Anatomy and physiology for health and social care**

**MARK SCHEME**

**Duration: 2 hours**

**MAXIMUM MARK 100**

Question		Answer	Marks	Guidance
1	(a)	<p>Describe <b>two</b> functions of each part of the digestive system given below.</p> <p>Buccal cavity</p> <ul style="list-style-type: none"> <li>• mechanical digestion by chewing</li> <li>• chemical digestion of starch by salivary amylase</li> <li>• dissolving food in saliva to allow tasting</li> </ul> <p>Stomach</p> <ul style="list-style-type: none"> <li>• mechanical digestion by muscular churning</li> <li>• chemical digestion of proteins by pepsin</li> <li>• some denaturing of bacteria by stomach acid</li> </ul>	4x1 4	
	(b)	<p>Explain how absorption of nutrients occurs in the small intestine</p> <ul style="list-style-type: none"> <li>• Villi and microvilli increase surface area of small intestine wall.</li> <li>• Villi contain blood vessels and lacteal/lymph.</li> <li>• Products of fat digestion enter lacteal.</li> <li>• Everything else enters blood.</li> <li>• Nutrients enter by diffusion and pinocytosis.</li> </ul>	4x1 4	One mark for each point made
	(c) (i)	<p>Explain the cause of coeliac disease</p> <ul style="list-style-type: none"> <li>• Gluten in wheat causes auto-immune response and results in body's immune system attacking and destroying villi of small intestine.</li> </ul>	2x1 2	

Question		Answer	Marks	Guidance	
	(c) (ii)	<p>Explain the measures Millie must take to live with this condition</p> <ul style="list-style-type: none"> <li>Remove gluten from diet by excluding wheat products otherwise villi will be damaged</li> <li>Take additional vitamin and mineral supplements – until villi regrow may be a deficiency due to impaired absorption</li> <li>Read food labels very carefully when shopping as flour often used as a thickening agent</li> <li>Take care when eating out –look for gluten free products. Most items on menu likely to contain gluten</li> <li>Take care when eating at family/friends (as above)</li> <li>Avoid using oil that has been used to fry gluten – may be traces of products containing gluten e.g. batter</li> </ul>	4	<p><b>Level 2 checklist</b>  <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 1 checklist</b>  <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p>	<p><b>Level 2 [3-4 marks]</b>                      Candidates will provide a fully developed explanation that includes accurate terminology and follows a logical sequence. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p><b>Level 1 [1-2 marks]</b>                      Candidates will provide an explanation that includes appropriate terminology. The explanation will be generally accurate but may steer towards a description at the lower end of band. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may some errors of grammar, punctuation and spelling.</p> <p><b>0 marks</b> – response not worthy of credit</p>

Question			Answer	Marks	Guidance	
2	(a)	4	Identify two purposes of gaseous exchange Accept two from: <ul style="list-style-type: none"> <li>To obtain oxygen by diffusion from air in alveoli to red blood cells in lung capillaries</li> <li>To obtain oxygen for aerobic respiration and production of energy/ATP from glucose in body cells</li> <li>To remove carbon dioxide by diffusion from plasma of lung capillaries to air in alveoli</li> <li>To prevent acidic carbon dioxide from building up in blood and preventing cell activity</li> </ul>	2x1 2		
	(b)		Explain how air is moved in and out of the lungs <ul style="list-style-type: none"> <li>Double pleural membranes are attached to both elasticated lungs and ribcage/diaphragm</li> <li>Fluid between membranes causes membranes to stick together</li> <li>Thus as during inspiration rib cage is raised by action of intercostal muscles and muscular diaphragm flattens membranes pull lungs out and up</li> <li>This results in an increased volume of lungs</li> <li>Air pressure inside lungs drops and so atmospheric air is drawn/sucked in</li> <li>On expiration muscle contraction ceases</li> <li>Ribcage falls back due to gravity and diaphragm recoils upwards</li> <li>Volume of lungs decreases and air forced out</li> </ul>	6	<b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i>  <b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i>  <b>Level 1 checklist</b> <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i>	<b>Level 3 [5-6 marks]</b> Candidates will provide a fully developed explanation that includes accurate terminology and follows a logical sequence. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.  <b>Level 2 [3-4 marks]</b> Candidates will provide an explanation that includes appropriate terminology. The explanation will be generally accurate but may steer towards a description at the lower end of band. Sentences and paragraphs are generally relevant but may have minor inaccuracies

Question	Answer	Marks	Guidance	
			<p>or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling.</p> <p><b>Level 1 [1-2 marks]</b> Candidates' will explain method of breathing in a limited manner. Likely to be a description/identification only. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit</b></p>	
(c)	<p>Explain the physical effects that emphysema is likely to have on Bill and his possible resultant care needs</p> <ul style="list-style-type: none"> <li>• Emphysema results in the destruction of the alveoli of lungs</li> <li>• Less surface area for gaseous exchange</li> <li>• Less oxygen obtained by body</li> <li>• Insufficient for body's demands resulting in laboured breathing</li> <li>• Lack of energy and breathless on any activity</li> <li>• Immobile</li> </ul>	6	<p><b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure.</i></p>	<p><b>Level 3 [5-6 marks]</b> Candidates will provide a fully developed explanation that includes accurate terminology and follows a logical sequence.. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional</p>

Question	Answer	Marks	Guidance	
	<ul style="list-style-type: none"> <li>• Wheelchair</li> <li>• One storey house or stair lift as cannot walk up stairs</li> <li>• Oxygen cylinder to assist breathing</li> <li>• Requires home help</li> </ul>		<p><i>The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b>  <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p>	<p>errors of grammar, punctuation and spelling.</p> <p><b>Level 2 [3-4 marks]</b>            Candidates will provide an explanation that includes appropriate terminology. The explanation will be generally accurate but may steer towards a description at the lower end of band. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may some errors of grammar, punctuation and spelling.</p> <p><b>Level 1 [1-2 marks]</b>            Candidates' will explain effects and needs in a limited manner. Likely to be a description/identification only. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p>

Question		Answer	Marks	Guidance
				0 – response not worthy of credit
	(d)	A. cornea, B. retina, C. lens, D. iris	4x1 4	
	(e)	<p>Explain the cause of glaucoma and the possible effects if it is left untreated.</p> <p>Ducts/tubes in eye drain fluid from eye to outside via tear ducts</p> <p>Ducts become blocked or narrowed with age</p> <p>Fluid cannot escape and so builds up pressure in eye</p> <p>Build-up of pressure causes fluid to press on optic nerve destroying it and causing blindness</p>	4x1 4	One mark for each point made to maximum of 4. Must have points on both cause and effects for full marks
3	(a)	<p>Identify the structures in the brain that carry out the functions listed below:</p> <p>Connects and coordinates the two sides of the brain</p> <ul style="list-style-type: none"> <li>• Corpus callosum.</li> </ul> <p>Controls breathing and heart rate</p> <ul style="list-style-type: none"> <li>• Medulla(oblongata)</li> </ul> <p>Modifies muscular responses and stores learnt fine movements.</p> <ul style="list-style-type: none"> <li>• cerebellum</li> </ul> <p>Receives information from the sense organs</p> <ul style="list-style-type: none"> <li>• Cerebral cortex/cerebral hemispheres</li> </ul>	4x1 4	

Question			Answer	Marks	Guidance	
3	(b)	(i)	Identify <b>four</b> possible causes for Zahra's stroke. Possible Causes: <ul style="list-style-type: none"> <li>• too much stress in life</li> <li>• Degeneration of blood vessels resulting in loss of elasticity with age</li> <li>• Over weight</li> <li>• Too much fat/cholesterol in diet</li> <li>• Too much salt in diet</li> <li>• All these result in an increase of blood pressure – blood vessel in brain bursts</li> <li>• Raised cholesterol/fat results in blood clot in brain</li> </ul>	1x4		
3	b	(ii)	Explain two problems that Zahra is now experiencing. <p>Problems:</p> <ul style="list-style-type: none"> <li>• Speech, swallowing and movement of limbs all controlled by cerebral cortex of brain</li> <li>• If burst blood vessel pressure of escaping blood presses on nerve tissue killing it</li> <li>• If clot oxygen supply to relevant brain areas cut off – cell death</li> </ul>	4 2x2		
	(c)		Explain the direct cause of multiple sclerosis and the possible consequences for Assad's lifestyle. <p>Cause:</p>	8	<b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The</i>	<b>Level 3 [7 – 8 marks]</b> Candidates will provide a fully developed explanation of both cause and



Question	Answer	Marks	Guidance	
	<ul style="list-style-type: none"> <li>• Auto-immune response</li> <li>• Genetic/environmental/viral factor triggers body's immune system to attack nerve cells especially in CNS</li> <li>• Myelin sheath eroded and replaced by scar tissue</li> </ul> <p>Consequences:</p> <ul style="list-style-type: none"> <li>• Eyesight may deteriorate -unable to drive</li> <li>• Unable to concentrate/memory/cognitive problems – may have to give up work</li> <li>• Be unable to stand/walk –wheelchair</li> <li>• May be unable to grip, grasp, carry –home help</li> <li>• May become bed bound –home help</li> <li>• May lose bladder and bowel control –embarrassed to socialise or venture out</li> </ul> <p>Or any other appropriate answer. IES to be related to physical effects such as those above.</p>		<p><i>information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b> <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p>	<p>consequences that includes accurate terminology and follows a logical sequence. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p><b>Level 2 (4 - 6 marks]</b> Candidates will provide a sound explanation of both cause and consequences that includes accurate terminology. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling.</p> <p><b>Level 1 [1 - 3 marks]</b> Candidates' will explain the causes and consequences in a limited manner. Their use of appropriate terminology will be limited. Likely to be vague or over dramatic references to PIES. Sentences and paragraphs are not always relevant, with</p>

Question		Answer	Marks	Guidance	
					<p>the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit</b></p>
4	(a)	<p>Analyse the importance of homeostatic mechanisms in the body, with reference to a named example.</p> <p>Importance:</p> <ul style="list-style-type: none"> <li>• Cell activities only work within a narrow range of conditions</li> <li>• Optimum conditions</li> <li>• If this range is exceeded then cells will cease to function and death will occur</li> <li>• Any deviations from the norm must be detected and then restored to the norm by some effector</li> <li>• Negative feedback mechanism</li> </ul> <p>Example 1:</p> <ul style="list-style-type: none"> <li>• Promotes uptake of glucose by body cells Glucose levels drop due to activity</li> <li>• Drop detected by pancreas</li> <li>• Islets of Langerhans release hormone glucagon</li> <li>• Activates release of glucose from stores within the body e.g. glycogen</li> <li>• If glucose level too high e.g. after a meal</li> <li>• Pancreas detects rise</li> </ul>	8	<p><b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b> <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p>	<p><b>Level 3 [7 – 8 marks]</b> Candidates will provide a fully developed analysis that includes accurate terminology and follows a logical sequence. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p><b>Level 2 (4 - 6 marks).</b> Candidates will provide a sound analysis that includes accurate terminology. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling.</p>

Question	Answer	Marks	Guidance	
	<ul style="list-style-type: none"> <li>• Islets of Langerhans release insulin</li> </ul> <p>Example 2</p> <ul style="list-style-type: none"> <li>• Concentration of blood increases due to water loss through sweating</li> <li>• Increase detected by hypothalamus</li> <li>• Instructs pituitary to release hormone ADH</li> <li>• ADH causes kidney tubule to remove extra water from urine.</li> <li>• Water returns to blood.</li> <li>• Decreases concentration again</li> <li>• Hypothalamus stops sending signals to pituitary</li> <li>• ADH levels drop</li> </ul>			<p><b>Level 1 [1 - 3 marks]</b> Candidates' will analyse the importance in a limited manner. Their use of appropriate terminology will be limited. Likely to be vague or over dramatic references to PIES. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit</b></p>
(b)	<p>Explain why Raoul should take this condition seriously and the actions he will need to take to avoid developing further health problems.</p> <p>Reasons for taking diabetes seriously:</p> <ul style="list-style-type: none"> <li>• Sudden uncontrolled drop of glucose results in coma</li> <li>• Varying levels of glucose beyond normal limits results in damage to blood vessels</li> <li>• This damage leads to nerve damage which can lead to blindness, skin damage due to cuts –leads to gangrene –this leads to amputations as does blood vessel damage –especially lower limbs but can be all.</li> <li>• Blood vessel damage leads to kidney failure,</li> </ul>	12	<p><b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b></p>	<p><b>Level 3 [9 - 12 marks]</b> Candidates will provide a fully developed explanation that includes accurate terminology and follows a logical sequence. Both reasons and steps must be covered. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p>

Question	Answer	Marks	Guidance
	<p>strokes, cognitive impairment</p> <p>Steps to be taken:</p> <ul style="list-style-type: none"> <li>• Change diet to low fat, reduce sugars, replace with complex carbohydrates –will regulate sugar levels</li> <li>• Monitor blood glucose levels regularly</li> <li>• Avoid alcohol as empty calories</li> <li>• Regular eye examinations to reduce risk of retinal damage</li> <li>• Increase exercise –reduces weight and blood pressure –reduces risk of damage</li> <li>• Use chiropodist if have lost sensation in feet to reduce skin damage</li> <li>• Wear suitable footwear for same reason</li> </ul> <p>Any other appropriate examples</p>		<p><i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p><b>Level 2 [5 - 8marks]</b> Candidates will provide an explanation that includes accurate terminology. Both reasons and steps should be covered. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling. Sub-max of 6 if only reasons or steps covered.</p> <p><b>Level 1 [1 - 4 marks]</b> Candidates will provide a limited explanation. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit.</b></p>

Question		Answer	Marks	Guidance	
5	(a)	<p>Any two from:</p> <ul style="list-style-type: none"> <li>• transport</li> <li>• temperature regulation</li> <li>• exchange of materials with body tissues</li> <li>• preventing infection</li> <li>• blood clotting</li> </ul>	2x1 2		
	(b)	<p>Evaluate how a person's lifestyle can influence their risk of developing coronary heart disease.</p> <p>The following lifestyle issues can cause heart disease:</p> <ul style="list-style-type: none"> <li>• lack of regular exercise of at least 30 minutes a day, five times a week,</li> <li>• not moderating your alcohol intake to recommended levels (less than 21 units per week for men; and less than 14 units per week for women),</li> <li>• not eating a low-fat, balanced, healthy diet,</li> <li>• not restricting your consumption of salt to less than 6g (0.2oz) a day,</li> <li>• not losing weight, if you are overweight, or obese,</li> <li>• not restricting caffeine consumption to less than five cups of coffee, or tea, a day, and</li> <li>• Too much stress and not relaxing.</li> <li>• smoking,</li> <li>• treatable risk factors, such as high blood pressure (hypertension) and diabetes</li> </ul> <p>References should be made to reasons e.g. high fat diet, excess alcohol leads to build up of atheroma in artery walls Lack of exercise, high salt, smoking, stress, overweight all lead to high blood pressure with resultant blood</p>	10	<p><b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b> <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p> <p>Sub-max of 5 marks if only either positives or negatives done well.</p>	<p><b>Level 3 [8 - 10 marks]</b> Candidates will provide a fully developed evaluation of lifestyle that includes accurate terminology and follows a logical sequence. Both positives and negatives will be given. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p><b>Level 2 [4 - 7 marks]</b> Candidates will provide an evaluation of lifestyle that includes accurate terminology. Some positives and negatives will be given. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may be some errors of grammar, punctuation and spelling.</p>

Question	Answer	Marks	Guidance
	<p>vessel damage Smoking makes blood stickier and more likely to clot</p> <p><b>Changes that help reduce cardiac disease</b></p> <ul style="list-style-type: none"> <li>• stop smoking</li> <li>• lose weight</li> <li>• exercise regularly</li> <li>• cut down on alcohol</li> <li>• eat a varied diet</li> <li>• reduce stress by trying different relaxation techniques, or by avoiding stressful situations.</li> <li>• reduce tea and coffee</li> <li>• avoid recreational drugs.</li> <li>• control blood pressure</li> <li>• exercise. regular exercise can make the heart stronger and reduce the risk of heart disease</li> <li>• exercise can also help high blood pressure. exercise at least 4 to 6 times a week for at least 30 minutes each time</li> <li>• low dose of aspirin each day. aspirin helps prevent CHD by thinning the blood</li> <li>• vitamin supplements. some studies have shown that vitamin E may lower a person's risk of having a heart attack</li> <li>• other vitamins may also help protect against CHD. eat a healthy diet. add foods to the diet that are low in cholesterol and saturated fats, because the body turns saturated fats into cholesterol.</li> <li>• oily fish eaten regularly</li> <li>• Soluble NSPs in diet</li> </ul> <p>Healthy diet/exercise reduces risk of weight gain, atheroma build up and high blood pressure Fatty acids in oily fish and chemicals in some NSPs</p>		<p><b>Level 1 [1 - 3 marks]</b> Candidates' will evaluate lifestyle in a limited manner. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit.</b></p>

Question	Answer	Marks	Guidance
	<p>remove fatty deposits/atheroma Antioxidants reduce cell damage</p> <p><b>Social Activities</b> Drinking</p> <ul style="list-style-type: none"> <li>• reduce intake to an acceptable level 14/21 units per week</li> <li>• avoid binge drinking</li> <li>• drink products with antioxidants in them e.g. red wine.</li> </ul> <p>Smoking/Passive</p> <ul style="list-style-type: none"> <li>• reduce/give up</li> <li>• avoid smoky confined places</li> <li>• Regular health checks.</li> </ul> <p>Any other valid discussion point</p>		
(c)	<p>Explain the changes that have occurred in Pamela's bones and their possible consequences</p> <p>Changes:</p> <ul style="list-style-type: none"> <li>• As a result of dropping levels of oestrogen post menopause Pamela's bone forming cells have reduced their activity whilst the bone removing cells have increased theirs</li> <li>• Bone is therefore eroded at a faster rate than deposited and so the bones become more porous, less dense and weaker</li> </ul> <p>Consequences:</p> <ul style="list-style-type: none"> <li>• Bones ache more and can restrict level of exercise and mobility</li> </ul>	<p>2x1 2x1 4</p>	<p>Four points to be made overall. Two each section</p>

Question	Answer	Marks	Guidance	
	<ul style="list-style-type: none"> <li>• Increased chance of fractures especially limbs and hip</li> <li>• Extreme loss of bone density can result in fractures from everyday activities rather than falls</li> </ul>			
(d)	<p>Analyse strategies that Pamela may wish to follow in order to minimise the effects of her osteoporosis</p> <p>Healthy diet including sources of calcium and vitamin D – builds up bone Spend time outdoors –Vitamin D synthesised in skin, needed for bone formation Medication – various types –some promote bone formation, some reduce rate of bone removal Painkillers –reduce aches CAMs –reduce aches and stress of condition Reduce trip hazards in home –prevent falls and resulting possible fractures Check eyesight –reduce tripping risk Hearing tests –reduce likelihood of not hearing a car when crossing road Reducing smoking –components in cigarettes can weaken bone further Reduce alcohol intake – reduces weight gain Reduce weight –less strain on bones Regular weight bearing exercise e.g. walking, aerobic classes, dancing, tennis –strengthens bone and muscle Resistance exercises –strengthens muscle which will help support fragile bones</p>	8	<p><b>Level 3 checklist</b> <i>There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</i></p> <p><b>Level 2 checklist</b> <i>There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</i></p> <p><b>Level 1 checklist</b> <i>The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</i></p>	<p><b>Level 3 [7-8 marks]</b> Candidates will provide a fully developed explanation of strategies that includes accurate terminology and follows a logical sequence. Sentences and paragraphs are relevant with accurate use of appropriate terminology. There may be occasional errors of grammar, punctuation and spelling.</p> <p><b>Level 2 [4-6 marks]</b> Candidates will provide an explanation that includes appropriate terminology. The explanation of the strategies will be generally accurate but may steer towards a description at the lower end of band. Sentences and paragraphs are generally relevant but may have minor inaccuracies or lack clarity and depth of understanding. There may some errors of grammar, punctuation and spelling.</p>



Question	Answer	Marks	Guidance
			<p><b>Level 1 [1-3 marks]</b>                      Candidates' will explain the strategies in a limited manner. Likely to be a description/identification only. Their use of appropriate terminology will be limited. Sentences and paragraphs are not always relevant, with the material presented in a way that does not always address the question. There may be noticeable errors of grammar, punctuation and spelling and answers may be list like.</p> <p><b>0 – response not worthy of credit.</b></p>