



**General Certificate of Secondary Education  
January 2013**

**Health and Social Care**

**48203**

**(Specification 4820)**

**Unit 3: The Nature of Health and Well-Being**

**Final**

***Mark Scheme***

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Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of students' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

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## Question 1

Question	Part	Sub Part	Marking Guidance	Mark	Comments										
1	a		Ref to: <ul style="list-style-type: none"> <li>the holistic definition being <u>a combination of AW</u> (1) plus</li> <li>physical, intellectual, emotional and social (1)</li> </ul> <p style="text-align: right;">max 2</p>	2	All P.I.E.S needed for the mark.										
1	b		Ref to: <ul style="list-style-type: none"> <li>a <b>positive</b> definition of health and well-being (1)</li> <li>as the achievement and maintenance (1)</li> <li>of physical fitness <u>and</u> mental stability (1)</li> </ul> <p style="text-align: center;"><b>OR</b></p> Ref to: <ul style="list-style-type: none"> <li>a <b>negative</b> definition of health and well-being (1)</li> <li>as the absence of (AW) (1)</li> <li>physical illness-disease <u>and</u> mental distress (1)</li> </ul> <p style="text-align: right;">max 3</p>	3											
1	c		1 mark for each macronutrient given plus 1 mark for each of the 2 reason given as to why they are important. <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"><b>Macronutrients</b></th> <th style="width: 50%;"><b>Importance 1 mark each</b></th> </tr> </thead> <tbody> <tr> <td>Proteins (1)</td> <td>maintaining tissues (1) enzymes (1) hormones (1) growth (1)</td> </tr> <tr> <td>Fats (1)</td> <td>for energy (stores) (1) insulation (1) organ protection (1)</td> </tr> <tr> <td>Carbohydrates (Allow sugars/ starches) (1)</td> <td>energy supply (1)</td> </tr> <tr> <td style="text-align: center;">max 2</td> <td style="text-align: center;">max 2</td> </tr> </tbody> </table> <p style="text-align: right;">2+2 max 4</p>	<b>Macronutrients</b>	<b>Importance 1 mark each</b>	Proteins (1)	maintaining tissues (1) enzymes (1) hormones (1) growth (1)	Fats (1)	for energy (stores) (1) insulation (1) organ protection (1)	Carbohydrates (Allow sugars/ starches) (1)	energy supply (1)	max 2	max 2	4	Mark 1 <sup>st</sup> importance point made. No credit for repetitions.
<b>Macronutrients</b>	<b>Importance 1 mark each</b>														
Proteins (1)	maintaining tissues (1) enzymes (1) hormones (1) growth (1)														
Fats (1)	for energy (stores) (1) insulation (1) organ protection (1)														
Carbohydrates (Allow sugars/ starches) (1)	energy supply (1)														
max 2	max 2														

1	d	<p>Accept any two of the following:</p> <ul style="list-style-type: none"> <li>• Vitamin A (1)</li> <li>• Vitamin C (1)</li> <li>• Calcium (1)</li> <li>• Iron (1)</li> </ul> <p style="text-align: right;">max 2</p>	2	<p>Allow other named examples of vitamins or minerals. Allow vitamins and minerals if no names given.</p>
1	e	<p>Ref to regular exercise will help Lucy:</p> <p><b>Physical effects</b></p> <ul style="list-style-type: none"> <li>• to keep fit/gain fitness (1)</li> <li>• develop strength-stamina-suppleness (1)</li> <li>• maintain/lose weight (by using up energy from foods) (1)</li> <li>• lower her risk of heart disease AW (1)</li> <li>• will sleep well (as tired)/reduce stress (1)</li> </ul> <p><b>Social effects</b></p> <ul style="list-style-type: none"> <li>• may meet people AW (1)</li> <li>• developing her social skills (1)</li> </ul> <p><b>Emotional effect</b></p> <ul style="list-style-type: none"> <li>• help her feel good (1)</li> </ul> <p><b>Intellectual effects</b></p> <ul style="list-style-type: none"> <li>• clear her mind (1)</li> <li>• improve her concentration AW (1)</li> </ul> <p style="text-align: right;">max 7</p>	7	

## Question 2

2	a		Accept: Paige (1)	1	
2	b		Ref to: <ul style="list-style-type: none"> <li>• vaccinations will introduce weakened forms of disease organisms (1)</li> <li>• or dead forms of disease organisms (1) that you could come into contact with</li> <li>• body <u>makes</u> antibodies AW (1)</li> <li>• specific to these diseases/become immune (1)</li> <li>• so you won't become ill with these diseases (1)</li> </ul> max 5	5	Not just – protects people/individuals (stem of question)

## Question 3

3			Ref to Zena benefiting by: <ul style="list-style-type: none"> <li>• having a sense of achievement/proud AW (1)</li> <li>• raising her (self)-confidence (1)</li> <li>• raising her self-esteem/self-concept (1)</li> <li>• as <b>emotional</b> effects (1) must be qualified for the mark</li> <li>• helping her feel optimistic about her future AW (1)</li> <li>• encouraging her to further develop intellectually (1)</li> </ul> max 5	5	
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## Question 4

4	a		Ref to Diane: <ul style="list-style-type: none"> <li>• using a digital/cuff – arm monitor (1)</li> <li>• the band of which is inflated- tightens (1)</li> <li>• to stop Diane's blood flow (1)</li> <li>• records pressure – heart beat pressure/systolic (1)</li> <li>• releases pressure (1)</li> <li>• records pressure between beats/diastolic (1)</li> </ul> max 5	5	Ignore sphygmomanometry Not strap (Allow – diastolic – systolic as alternatives for pressure marks) If not identifying systolic/diastolic but naming allow 1 mark.
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4	b	<p>Ref to:</p> <ul style="list-style-type: none"> <li>• the results will indicate if her blood pressure is <u>high, normal or low</u> (1)</li> <li>• if normal blood pressure range –Diane’s heart-circulation is good (1)</li> <li>• possible risk of heart attack- may have heart/circulatory disease if high blood pressure AW (1)</li> <li>• low blood pressure AW may cause problems or example (faint-dizzy) may not be life threatening (1) AW</li> </ul> <p style="text-align: right;">max 3</p>	3	Must mention all 3 for the mark.
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### Question 5

5	a	<p>Ref to:</p> <ul style="list-style-type: none"> <li>• Huntington’s disease being a genetic (1)</li> <li>• inherited condition/passed down/from parents AW (1)</li> <li>• caused by a mutation/altered gene/faulty gene (1)</li> <li>• which is a <u>dominant</u> gene (1)</li> </ul> <p style="text-align: right;">max 3</p>	3	If dominant and recessive no mark.
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5	b	<p>Accept any 3 of the following:</p> <ul style="list-style-type: none"> <li>• may have memory loss/forgetful (1)</li> <li>• confusion AW (1)</li> <li>• personality change (1)</li> <li>• may become aggressive-antisocial AW (1)</li> <li>• clumsy (1)</li> <li>• develop uncontrolled muscle movements/tremors (1)</li> <li>• suffer rigidity-seizures (1)</li> <li>• have depression (1)</li> </ul> <p style="text-align: right;">max 3</p>	3	Last rule applies i.e. mark first answer against 1, 2 and 3.
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## Question 6

6	a	<p>Ref to Max will:</p> <ul style="list-style-type: none"> <li>• take in too much energy-calories (1)</li> <li>• cause him to gain weight- may become obese (1)</li> <li>• lead to <b>physical</b> health problems (1)</li> </ul> <p>example</p> <ul style="list-style-type: none"> <li>• joint problems (1)</li> <li>• heart disease AW (1)</li> <li>• if he can't use up this amount of food <u>through activity-exercise</u> (1)</li> <li>• depending on type of snacks AW- how much he overeats by (1)</li> <li>• (if sugary) may have tooth decay/diabetes problems (1)</li> <li>• (if fatty foods) may have cholesterol/circulation problems (1)</li> </ul> <p style="text-align: right;">max 6</p>	6	Ignore answers referring to effects of regular exercise (not focus of question)
6	b	<p>Ref to Max may:</p> <ul style="list-style-type: none"> <li>• have digestion <u>problems</u> AW (1)</li> <li>• become constipated AW (1)</li> <li>• leading to more serious problems/allow more technical answers e.g. re diverticulitis (1)</li> <li>• possibly bowel cancer (1)</li> </ul> <p style="text-align: right;">max 3</p>	3	
6	c	<p>Ref to Max:</p> <ul style="list-style-type: none"> <li>• getting drunk- losing control (1)</li> <li>• being confused- have difficulty communicating AW (1)</li> <li>• being sick AW (1)</li> <li>• being abused-victim of crime AW/committing a crime (1)</li> <li>• becoming violent- aggressive (1)</li> <li>• having an accident while drunk/unprotected sex AW (1)</li> <li>• suffering a hangover the next day AW (1)</li> <li>• short term memory loss</li> </ul> <p style="text-align: right;">max 6</p>	6	Not just: do what you may regret

## Question 7

7		<p>Positive points may include:</p> <ul style="list-style-type: none"> <li>• Jess has a friend, called Edna,</li> <li>• they occasionally speak on the telephone which will give Jess some support</li> <li>• she enjoys reading</li> <li>• spends a lot of time watching TV</li> <li>• helps her feel good as <b>emotional</b> effect</li> </ul> <p>Negative points may include:</p> <p>Social effects</p> <ul style="list-style-type: none"> <li>• she lives alone and has no living relatives.</li> <li>• her friend lives a long way away</li> <li>• may cause her loneliness AW</li> <li>• only goes out of her house to shop for food and pay her bills</li> <li>• creating <b>social</b> isolation- few <b>social</b> interactions</li> <li>• affects her social skills</li> </ul> <p>Emotional effects</p> <ul style="list-style-type: none"> <li>• she feels constantly stressed as she has very little money to live on and her noisy area will add to her stress</li> <li>• Jess may feel down- depressed because of these factors</li> <li>• may lose her self-confidence</li> <li>• lose self-esteem/lower self-concept</li> </ul> <p>Physical effects</p> <ul style="list-style-type: none"> <li>• her house is dirty</li> <li>• Jess is becoming forgetful and her personal hygiene is poor</li> <li>• making her vulnerable to infection AW</li> </ul> <p>Candidates can demonstrate the “balancing” effects of positive and negative factors (predominately negative), and/or aggregate positive or negative points for enhanced effects.</p>	12	
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			<p><b>Mark Ranges</b></p> <p><b>0 marks</b> No response worthy of credit</p> <p><b>1-4 marks</b> Answers cover 1-6 points mainly statements which are not reasoned, and are vague and/or repetitive. Effects not identified as physical, emotional or social. Likely to be negative effects rather than positive. Effects may be secondary rather than primary. Answers superficial, lack structure and there will be errors in spelling, punctuation and grammar.</p> <p><b>5-8 marks</b> Answers cover 7-10 or more points, positive and negative, with some reasoning as to how they cause their effects. Some effects identified as physical emotional and/or social. Answers are organised but lack precision. There may be some use of appropriate terminology with some errors in spelling, punctuation and grammar.</p> <p><b>9-12 marks</b> Answers cover at least 11 points in good detail identifying physical, emotional and social aspects as appropriate. Attempts made to weigh positive v negative factors. Answers are well structured, logical and demonstrate good spelling, punctuation and grammar. There is good use of appropriate terminology.</p>		
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