



General Certificate of Education

**Health and Social Care
8621/8623**

HC05

Mark Scheme

2008 examination – June series

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 meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Quality of written communication

The quality of written communication is assessed in all assessment units where candidates are required to produce extended written material. Candidates will be assessed according to their ability to:

- Select and use a form and style of writing appropriate to purpose and complex subject matter
- Organise relevant information clearly and coherently, using specialist vocabulary when appropriate
- Ensure that text is legible, and that spelling, grammar and punctuation are accurate, so that meaning is clear.

The assessment of quality of written communication must be included in question **1(a)(ii), 2(a)(ii) and 3(c)**.

HCO5 JUNE 2008 MARK SCHEME

- 1ai) Ref to Gage: at risk of arterial problems AW (1) caused by **atherosclerosis** (1) fatty deposits/as plaque forms (1) on inner arterial linings (1) heart disease risk AW (1) hypertension AW (1) strokes/CVA/CVI risk (1). **max 4** 4 marks
- aii) Any 2 of: constituent of body cells (1) involved with hormone production (1) bile salt formation (1) fat transport in blood (1). **max 2** 2 marks
- bi) Any 3 of: bread/fruit/fruit juice/potatoes/pasta/grains – cereals/legumes/pulses or e.g. honey/jam/sugar. **max 3** 3 marks
- bii) Monosaccharides/single sugars/sugar(s)/Disaccharides/double sugars (1) starches/polysaccharides (1). Allow named examples. 2 marks
- biii) Energy supply. 1 mark
- biv) Ref to carbohydrates contain Carbon (1) Hydrogen (1) Oxygen (1).
If symbols only C/H and O – 1 mark.
If N/P/S added – mark disqualified. 3 marks
- Total 15 marks**
- 2ai) Ref to Macey: not having enough protein (1) not having enough calcium (1) having enough Vitamin A. Allow **slightly** AW more than enough Vitamin A (1).
Ignore numerical differences unless qualified. 3 marks
- aii) Ref to not enough protein – Macey's growth affected (1) body will not repair/heal/maintain cells as quickly/well (1) hormone production may be reduced (1) antibody production/immune system reduced (1). **max 2**
Digestive-enzyme production reduced (1) metabolism/cell respiration affected (1).
Ref to not enough Calcium – Macey's bone development slowed/weakened (1) teeth weakened (1) muscle function reduced (1) nerve function impaired (1). **max 2**
Ref to enough Vitamin A – Macey will have effective night vision (1) allow ref to helps bones (1) teeth form/develop (1) maintains healthy skin/hair (1). **max 2** 6 marks
- bi) Any one of: milk/meat or named example/cheese/eggs/fish/soya/nuts/tofu/quorn/pulses-peas-beans **max 1** 1 mark
- bii) Any one of: dairy products/eggs/fish (bones eaten) (some) green leafy vegetables. **max 1** 1 mark
- biii) Any one of: liver/fish liver oils/egg yolk/dairy products/sardines/oily fish/red peppers. **max 1** 1 mark
- c) Ref to Macey needing NSP for: helping digestion AW (1) prevents constipation (1) lowers risk of bowel disease/cancer/diverticulitis (1) (later life) add bulk to the diet/faeces/make Macey feel full (1) prevent overeating (1) ref to soluble fibre (1) lowers (blood) cholesterol (1) absorbs water (1). **max 3** 3 marks
- Total 15 marks**
- 3a) Ref to: appearance/palatability AW (1) cost (1) ease of preparation (1) suitability – individual choice (1) allow time of preparation (1) or e.g. **max 3** 3 marks

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- bi) Ref to Stella: needing to control carbohydrate AW intake (1) as unable to control (blood) sugar levels (1) need to control quantity AW (1) and timings of intake (1) ref to cannot store excess carbohydrate/sugar (1) as glycogen (1) if too much will excrete sugar/coma may result (1). **max 4** 4 marks
- 3bii) Ref to: Age/level of physical activity/exercise/gender/if pregnant/lactating/body mass AW (not body type). **max 3** 3 marks
- 3c) Ref to 2 of nuts/shellfish/strawberries/wheat/eggs. 2 marks
- If food eaten by sufferer abnormal reaction AW (1) causing anaphylaxis (1) swelling/hives/rash (1) asthma symptoms/breathing problems (1). Allow ref to histamine release (1). **max 3** 3 marks
- Total 15 marks
- 4a) Ref to: Species 1 – cases decline 2003/04 (1) rise 2004/05 (1)
 Species 2 – cases decline 2003/04/over the 3 years (1).
 All other species cases decline 2003/04/over the 3 years (1).
 Most cases caused by 'other' species overall/any year (1) least by Species 1 overall/any year (1).
 Species 2 many more cases/4 x plus Species 1 cases (1).
 Allow: food source/practice rarest for Species 1/more common
 Species 2/most common other species AW (1).
 Food hygiene improving overall (over 3 years) (1) overall fewer cases 2005 cf 2004/2004 cf 2003 (1).
 Allow valid points of comparison. Not type 1 mild/Type 3 severe form. **max 7** 7 marks
- bi) Ref to: microbes/mould AW (1) unable to breed/reproduce/multiply/FWW quickly (1) numbers microbes kept low (1). **max 2** 2 marks
- bii) Ref to: preventing cross contamination (1) transfer microbes AW from skin (to food) (1). 2 marks
- biii) Ref to: microbes AW (1) not (had time) to increase in number (if eaten within date) (1). 2 marks
- biv) Ref to: spillages encourage vermin/example (1) carry microbes AW (1) contaminate other areas (1).
 Vermin mark needed to access effect/how mark. **max 2** 2 marks
- Total 15 marks

Paper Total 60 marks