



General Certificate of Education

Health and Social Care

8621/8623/8626/8627/8629

HC14

Mark Scheme

2010 Specimen Paper

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.

Further copies of this Mark Scheme are available to download from the AQA Website: www.aqa.org.uk

Copyright © 2009 AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

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 questions **1(d) and 4 (b)**.

Question 1

- (a)(i) 1. Ref to: using digital/ear/disposable thermometer (1) location: under tongue/armpit/ear/rectum/forehead (1) leave for set time (1) then read temperature (1) ref °C or °F (1)
 3 marks
 No response worthy of credit 0 marks

- (a)(ii) 2. Ref to: using stimulus or example, use hammer/description of test (1) on tendon (1) observing reaction AW (1) allow newborn reflex examples – plantar/startle/moro
 1 mark what test is
 1 mark method of how performed
 1 mark for what is result (1) 3 marks
 No response worthy of credit 0 marks

- (b) Any 3 of: visual examination/percussion/palpating/blood pressure readings/using stethoscope
 max 3 3 marks
 No response worthy of credit 0 marks

- (c) Ref to G.P.: using computer database AW or example CDSS/Isabel (1) possible diagnosis/sets of questions for sets of symptoms (1) for patient records (!)
 3 marks
 No response worthy of credit 0 marks

(d)
 Answers are likely to refer to advantages such as the speed, cheapness, and ease of use of this method. Disadvantages include the relatively poor quality, 2- dimensional image, and health risk owing to radiation.

Useful comparison techniques include:

MRI (clearer image, 3-dimensional images, no harmful radiation, but equipment bulky and expensive).

CT scanning (clearer image, 3-dimensional images, equipment bulky and expensive, but also uses X-rays).

Other imaging methods such as radionuclide/PET scanning and ultrasound should receive only minimal credit because they are not relevant for digestive disorders.

Answers are also likely to include relevant detail of contrast X-ray technique: patient drinks contrast material/barium meal/is given barium enema. Contrast material is opaque to X-rays, shape of gut/stomach outlined in white, on photographic plate, inspected for abnormalities.

Mark ranges

0 marks

No response worthy of credit.

1-3 marks

Answers that show some relevant knowledge of the technique of contrast X-ray imaging and include some basic evaluation. These answers are likely to be brief, or very inaccurate. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

4-6 marks

Answers that contain a reasonably accurate account of contrast X-rays together with appropriate evaluation. These answers may lack detail or be one-sided (i.e. only consider the advantages), or alternatively do not make appropriate reference to an alternative imaging technique. There is some relevant technical terminology.

Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

7-8 marks

Answers that present coherent and well-structured arguments for both the advantages and disadvantages of contrast X-rays, and make effective use of a relevant alternative technique in this evaluation. The argument is presented in the context of the diagnosis of a digestive disorder (e.g. recognises that soft tissues require more than standard X-ray technique).

Relevant technical terminology is correctly used.

Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

Question 2

(a) 11 mark per point (up to 9) as follows:

Cancers most common problem AW/ Diabetes least common problem AW
 Comparison points: for males similar numbers circulatory disease/cancers
 Large difference AW CHD in males/females
 Circulatory disease/CHD more common men c.f. women
 Stroke/cancers more common in women c.f. men
 Similar numbers men and women with diabetes
 Calculated numerical comparators made between illness/disease and disorders e.g.
 stroke more than 2x more common than diabetes (males and/or females); overall gender
 comparisons, reasoned responses to suggest /justify differences e.g. cancers most
 common linked to lifestyle.
 Circulatory disease incidence linked to smoking, diabetes not needing hospital inpatient
 care as it can be regulated through diet or at home care.

Max 9 marks
 No response worthy of credit 0 marks

(b)(i) Ref to Lou having: electrodes (1) gel (1) attached to chest/wrist/ankles (1) records
 heart electrical activity (1) (prior to) heart muscle contraction (1) seen as
 display/wave/PQRST shape/trace AW on monitor/screen (1) max 4 4 marks
 No response worthy of credit 0 marks

(b)(ii) Ref to: normal AW electrical activity (1) produces wave pattern (1) ref
 P, Q, R, S, T parts of wave (!) if pattern different indicates dysfunction (1)
 different patterns for specific problems AW (1) or example
 Not: uses electricity max 4 4 marks
 No response worthy of credit 0 marks

(c) Ref to: cell counts (1) appearance of blood cells (1) example anaemia/
 leukaemia (1) or biochemical tests (1) sugar content (1) diabetes (1)
 Allow other examples: enzymes (1) heart disease (1) haemoglobin content (1)
 anaemia (1) 2 marks for test plus 1 mark for example
 Allow hormones etc.
 Type of test – cantor biochemical (1) what is looked at (1) what the disorder is (1)
 max 3 3 marks
 No response worthy of credit 0 marks

Question 3

- (a) Chemical name AW (1) generic/official medical name (1) 2 marks
No response worthy of credit 0 marks
- (b)(i) Any 3 of: applying creams topically/by injection/by spraying/using suppositories/pessaries/eye drops
Allow: inhaling max 3 3 marks
No response worthy of credit 0 marks
- (b)(ii) Ref to: drug may be damaged by digestive juices/enzymes (1) absorption too slow/needed quickly (1) may be needed in localised area AW (1) may damage gut (1) not able to swallow (1) max 2 2 marks
No response worthy of credit 0 marks
- (b)(iii) Ref to: side effects may be too severe/patient may choose not to take it/risks outweigh benefits.
Allow: cost of treatment/reaction with other drugs max 2 2 marks
No response worthy of credit 0 marks
- (c)(i) Ref to: critically ill AW (1) close monitoring (1) high staff ratio (1) specialist staff/equipment (1) max 3
No response worthy of credit 0 marks
- (c)(ii) Ref to everyday living tasks AW (1)
example (1) specialised care (1)
has access to sophisticated equipment AW (1)
range of professionals (1)
fast to respond if Shona's needs change (1)
perform tests (1)
keep records (1)
max 6 9 marks
No response worthy of credit 0 marks
- (d) Ref to: bed rest (1) keep warm (1) steam inhalation (1) exercise (1) taking over the counter/non prescription drugs (1) allow example (1) 2 marks
No response worthy of credit 0 marks

Question 4

- (a)(i) Ref to: small sample (1) of tissue/cells removed (1) by needle/surgery/endoscopic surgery (1) cells examined/cultured (1) for biochemical (1) or genetic investigations (1) visual examination/microscopy (1)

max 5 5 marks

No response worthy of credit

0 marks

- (a)(ii) Ref to radiotherapy: using ionising radiation AW (1) at high intensity (1) to destroy AW cells (1) of localised target cancers AW (1) machine/source produces converging beam (externally) (1) pellets implanted (internally) (1)

max 5 5 marks

No response worthy of credit

0 marks

(b) Answers are likely to refer to advantages such as: patients have a right to refuse treatment; being consulted is likely to mean that the patient is more willing to cooperate in/committed to the treatment; patient is likely to be happier/more confident. Disadvantages include the fact that some patients might make unwise choices, e.g. reject treatment that might prevent greater suffering, and that patients might not want the responsibility of making such a choice. Answers should relate this to the case of Rufus, for example by referring to some of the treatments that might be involved e.g. chemotherapy, surgery, and their side-effects. Factors that might influence Rufus's choice, such as his age and the severity of his condition are also relevant.

Mark ranges

0 marks

No response worthy of credit.

1-3 marks

Answers that show some awareness of the issue of patient choice e.g. the right to refuse treatment, or which include some basic reference to the advantages or disadvantages of this. These answers are likely to be brief, very inaccurate or which do not address the question directly (for example they might focus more on lifestyle choice than choice about treatment). Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

4-6 marks

Answers that address the question directly, and give reasonably coherent arguments. These answers may lack detail or be one-sided (i.e. only consider the advantages), or might make little or no reference to the case of Rufus. There is some relevant technical terminology.

Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

7-8 marks

Answers that present coherent and well-structured arguments for both the advantages and disadvantages of patient choice, illustrated with appropriate reference to the case of Rufus. They will demonstrate some knowledge of relevant treatment options and use relevant technical terminology.

Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band.

Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom of the mark band,

max 8 8 marks

(c) Any 2 of: poor diet/lack of physical exercise/drinking alcohol/smoking tobacco/
drug abuse

No response worthy of credit

0 marks

max 2

2 marks

GCE Health and Social Care

Examination Series: (Jan/June)	June
Year:	2008
Unit:	HC14

Questions	Assessment Objectives				Total
	A01	A02	A03	A04	
1(a)(i)	3				3
1(a)(ii)	3				3
1(b)	3				3
1(c)			3		3
1(d)				8	8
2(a)			9		9
2(b)(i)			4		4
2(b)(ii)			4		4
2(c)		3			3
3(a)(i)	2				2
3(b)(i)	3				3
3(b)(ii)				2	2
3(b)(iii)				2	2
3(c)(i)	3				3
3(c)(ii)		6			6
3(d)		2			2
4(a)(i)	5				5
4(a)(ii)		5			5
4(b)				8	8
4(c)			2		2
Totals	22	16	22	20	80
Percentages	27.50	20.0	27.50	25.00	100