



General Certificate of Education

**Health and Social Care
8621/8623**

HC14

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 questions **1(c)**, **2(a)** and **4(b)**.

HC14 Mark Scheme

1

- ai) 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
- aii) 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) 1 mark method of how performed (1) 1 mark for what is result (1) 3 marks
- b) Any 3 of: visual examination/percussion/palpating/blood pressure readings/using stethoscope max 3 3 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
- d) Take a barium drink/meal (1) as a contrast opaque dye AW (1) which X-rays cannot penetrate AW (1) gives clear/white outline (gut filled with substance) (1) when (electromagnetic) radiation emitted (1) from machine (1) into body tissue (1) X-rays detected sensitive film/image intensifies (1) turns black where X-rays reach (1) 'contrast' shows up abnormalities AW (1) max 8 8 marks
- Total 20 marks

2

- a) Ref to: Cancers most common problem AW (1)
Diabetes least common problem AW (1) – 2 most/least marks
- | | | |
|--|-------------|---------|
| Circulatory disease/CHD more common men cf women | 1 mark each | 2 marks |
| Stroke/cancers more common in women cf men | 1 mark each | 2 marks |
| Similar numbers men and women with diabetes (1) - 3 cf parts | | |
| For males similar numbers circulatory disease/cancers (1) | | |
| Large difference AW CHD in males/females (1) | max 9 | 9 marks |
| 2 marks for reasons | | |
- Allow numerical comparators between illness/disease and disorders e.g.
stroke more than 2x more common than diabetes (males and/or females) (1) – 2 numerical %/x consideration
- b) 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
- bii) 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
- 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
- Total 20 marks

3

- a) Chemical name AW (1) generic/official medical name (1) 2 marks
- b) Any 3 of: applying creams topically/by injection/by spraying/using suppositories/pessaries/eye drops Allow: inhaling max 3 3 marks
- bii) 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
- biii) 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
- c) Ref to: critically ill AW (1) close monitoring (1) high staff ratio (1) specialist staff/equipment (1) max 3

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

- 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

Total 20 marks

4

- ai) 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
- aii) 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
- b) Ref to Rufus's: right to know AW (1) benefits v risks AW (1) side effects (1) allow example: fatigue/hair loss/vomiting (1) patient's right to choose to have treatment or not (1) ref to quality of life (1) to know consequences of delayed treatment (1) co-operation for recovery (1) max 6 6 marks
- c) Any 4 of: poor diet/lack of physical exercise/drinking alcohol/smoking tobacco/drug abuse max 4 4 marks

Total 20 marks

Paper Total 80 marks