



ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Education

Health & Social Care 8621/8623/8626/8629

HC14 Diagnosis and Treatment

Mark Scheme

2007 examination - January 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.

Diagnosis and Treatment**HC14****Question 1**

- 1a) Any 4 of – using a stethoscope/palpation/reflex testing/taking temperature/
taking blood pressure/percussion max 4 4 marks
- b) Ref to computers – computers hold large amount of relevant data AW (1)
contains all possible diagnoses for a set of symptoms (1) Max's medical
history on record (1) confirm GP diagnosis (1) max 3 3 marks
- ci) Ref to: cell counts (1) counting red/white cells/platelets (1) biochemical
tests (1) for glucose/sodium/potassium/enzymes/digested foods/drugs (1)
automatic analyser (1) for haemoglobin content (1)
max 2 – 2 marks each blood gas analyses (1) ref O₂/CO₂ content (1) 4 marks
- ii) Electrocardiography – electrodes (1) attached to chest/wrist/ankles (1)
records electrical impulses (1) which immediately precede heart muscle
contractions (1) electrical activity displayed as waves on screen/moving graph
(1) called P, Q, R,S, T (1) form a pattern (1) deviations from pattern abnormal/
caused by heart disease (1) different patterns characteristic of different heart
problems (1) max 9 9 marks

Question 2

- a) Ref to: More self treatment without drug use in older 2 groups AW or vice
versa (1) most people self treated latest cold (1)/ little difference in self treatment with over the
counter drug use in all age groups (1) self treatment with over the counter drug use most common
treatment for all ages (1) more than/twice as much professional treatment without drug
use in youngest 2 groups cf older age groups – vice versa (1)
Little difference between professional treatment with prescribed drugs at
all ages (1)
Professional treatment with prescribed drugs least common at all age groups AW (1)
Little difference between 1st 2 age groups for any treatment (1)
Little difference between older 2 age groups for any treatment (1)
1st 2 age groups – self treatment with over the counter drug use approx 2 x
more common than self treatment without drug use (1) professional treatment
without drug use (1) Older 2 age groups – little difference professional
treatment with/without prescribed drugs (1) max 10 10 marks
- bi) self treatment without drug use – (bed) rest (1) drinking plenty of fluids (1)
keeping warm (1) max 2 2 marks
- ii) Over the counter drugs are – available for purchase from chemists/outlets (1)
without prescription AW (1) 2 marks
- ci) Janine's drug will have – a (detailed description) chemical name (1) a
(shorter) generic/official medical name (1) specific brand name (1) 3 marks
- ii) Other methods – injection (1) creams (1) suppositories (1) sprays (1) inhalers (1)
max 3 3 marks

Question 3

- ai) Ref to X-rays being sent as an invisible beam (1) from X-ray machine into her elbow (1) rays of very short wavelength (1) electromagnetic radiation (1) which can penetrate the soft tissue of Maria’s elbow AW (1) cannot pass through the bones of her elbow (1) photographic paper/film (1) underneath elbow blackens differently (1) bone shows as lighter shadow AW (1) paper/film can be examined if left in front of illuminated panel (1) max 8 8 marks
- ii) Advantages – quick (1) easy to use (1) painless (1) inexpensive (1) max 2
 Disadvantages – soft tissue not imaged by X-rays alone AW (1) relatively poor quality (1) radiation a health risk (1) max 2 4 marks
- bi) Ref to: absence of infective organisms AW (1) bacteria (1) viruses (1) allow 1 method mark e.g. steam/washing which can enter body through incisions AW (1) cause problems for individual with weakened immune systems (1) max 5 5 marks
- ii) Any 3 of – further blood loss (1) infection (1) delayed healing (1) reaction to anaesthetic (1) may not survive stress of anaesthesia (1) max 3 3 marks

Question 4

- ai) Ref to lithotripsy uses a lithotripter (1) sends (very) high frequency/ultra sound (1) via liquid filled cushion (1) placed above liver AW/ targeted on Gerherd’s gallstone/gall bladder (1) energy absorbed by stone (1) stone will break AW (1) passed out in bile (1) may require anaesthetic (1) max 6 6 marks
- ii) Advantage – no need for surgery/invasive technique (1)
 Disadvantage – not very effective/gallstones recur (1) 2 marks
- b) Ref to points – drinking is a lifestyle choice/can be addictive/diseases such as liver disease life threatening/causes heart disease/brain-nerve-damage/high blood pressure/strokes/mental health problems/premature death/treatment costs resources which are limited – ‘wasted’ need for prioritisation/individual entitlement under the NHS/other factors may need to be considered e.g. age/lifestyle/possibility of pregnancy

Band 1 1-4 marks

Rather simplistic arguments, mainly one sided for 1/2 marks offering own view point rather than discussion issues. Little detail offered, more in 3/4 answers with at least one valid point on either side. Own views, if offered, not reasoned.

Band 2 5-8 marks

Generally valid points but still lacking some detail or coherence for 5/6 marks. At least two points either side of argument for 7/8 marks. Own views supported with reasoning rather than simply stated.

Band 3 9-12 marks

Sound answers in good detail will gain 9/10 marks but need to cover the majority of points both in detail and good reasoned coherence for 11/12 marks. Own views very well reasoned throughout.

12 marks