

General Certificate of Education

Health & Social Care 8621/8623/8626/8629

HC06 Common Diseases and Disorders

Mark Scheme

2006 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.

Common Diseases and Disorders

HC06

Question 1

- (a) (i) Bacterium/Virus or named example (1) (1 mark)
- (ii) Lung (1) inflammation/infection (1)
- plus any 4 of:
- fever (1) chills (1) shortness of breath/wheezing/breathing difficulty (1) cough (1) (yellow green)
- sputum/phlegm (1) occasional blood/blood in mucus (1) chest/breathing pain/tight chest (1)
- max 4 (6 marks)
- (b) Ref to: when elderly/old *AW* (1) immunity decreases *AW* (1) as body systems/organs/lungs are less efficient *AW* (1) easier for bacteria/viruses to establish and multiply (1) max 3 (3 marks)
- (c) Ref to: sensorineural loss (1) presbycusis (1) loss of hair cells (1) in the cochlea (1) loss of nerve cells (1) in brain (1) wear/damage on bones in middle ear (1) ossicles (1) hammer/anvil/stirrup (1) vibrations affect nerve messages *AW* (1) ear drum damage (1) max 5 (5 marks)

Total 15 marks

Question 2

- (a) (i) Any 2 of:
eggs/shellfish/nuts/milk/cereals or e.g. max 2
Allow dairy products if not named
Ignore seafood (2 marks)
- (ii) Any 2 of:
pollen/dust mites/mould (spores)/animal dander (allow 2 if specific – grass pollens/tree poll
Not: feathers (2 marks)
- (b) (i) Ref to: Allergen 3 fewest cases/Allergen 2 most cases (1)
- Allergen 1 10x more cases than Allergen 3 (1)
- Allergen 2 more cases than other 2 allergens combined (allow other numerical c.f.) (1)
- Allergen 2 suggests more common/widespread allergen (1)
- Allergen 3 rare (c.f. other two)/c.f. allergen 2 (1) max 4
- Allow:** Allergen 2 might be airborne (4 marks)

- (ii) When food (allergens) eaten – some individual's immune system sensitised *AW* (1) they have symptoms when allergen next eaten (1) B-lymphocytes (1) foreign/dangerous/'misinformed' (1) produce (large quantities) antibodies/immunoglobins (1) attach to mast cells (1) and basophils (1) release histamine (1) exaggerated reaction/abnormal response/causing symptoms (1) blood vessels widen (1) itch/swelling/skin rash (1) max 7

(7 marks)

Total 15 marks

Question 3

- (a) Ref to: gum bleeding (1) inflammation (1) soreness/redness *AW* (1) due to infection (1) caused by dental plaque build up (1) i.e. sticky deposit bacteria and mucus/saliva/food (1) around tooth base max 3

(3 marks)

- (b) Ref to: plaque (1) components – bacteria/mucus/saliva/food (1) bacteria feed on food (1) especially carbohydrates/sugars/starches (1) creating acid (1) which destroys enamel/demineralisation (1) forms cavities (1) dentine eroded *AW* (1) invading pulp (1) which is destroyed/tooth dies (1) pain caused (1) max 6

Ref abscess: infection spreads to gum (1) pus *AW* collects *AW* (1) Allow diagram marks

(8 marks)

- (c) Flossing removes food/debris (1) from between teeth/where brush can't reach (1) reduces bacterial/microbe growth/numbers reduced (1) less acid formation (1)

(4 marks)

Total 15 marks

Question 4

- (a) Ref to: Skin rash – most common in under 16-year-old males (1) less common in females, c.f. males or vice versa (1) more skin rash in male under 16s than all other groups (1) less common (either group) as they get older (1)

Spots – most common males under 16 (1) more common under 16 than all three other groups together (1)

Similar levels females – all ages and males over 16 (1)

Food poisoning – rare *AW* in all groups (1) little difference/similar both ages (1) both sexes (1)

Stress headaches – similar levels female under 16 and males over 16 (1) twice as common c.f. males under 16/females over 16 (1) as get older males more likely to have stress headaches (1)

Stress headaches most common overall (1)

Males and females same number stress headaches in total (1) max 9 (9 marks)

Allow numerical cfs for all significant numbers i.e. not +/- 1 differences (food poisoning etc)

- (b) Any 2 of:
dehydration/alcohol/hangover/(prolonged) travel/certain foods or, e.g. chocolate/cheese/stuffy atmosphere/hunger
max 2 (2 marks)

- (c) Blister: a pool of body fluid/lymph/serum (1) beneath upper skin/epidermis/dermis/two skin layers *AW* (1) (2 marks)

Scab: Blood clot (1) hardens/dries out/goes crusty *AW* (1) (2 marks)

Total 15 marks

Paper Total 60 marks