



General Certificate of Education

**Health and Social Care
8621/8623**

HC06

Mark Scheme

2008 examination – January series

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HCO6 JANUARY 2008 MARK SCHEME

1 (a) (i) Ref to: Nina suffering itching/burning/soreness/swelling/redness/discharge/inflammation or description

Ignore irritation. Not pain/rash/fever.

max 2 2 marks

1 (a) (ii) Athlete's foot/Ringworm (tinea) (1)

1 mark

1 (a) (iii) Bacteria (1) Viruses (1) Allow parasites (1) max 2

2 marks

1 (b) Examples (Bacteria): meningitis, pneumonia, gonorrhoea max 2

(Viruses): common cold, influenza max 2

(Parasites): Head lice/scabies/tapeworm max 2

Allow other valid examples.

max 4 marks

1 (c) (i) Food/drink (1) breathing in/droplet infection AW (1) sexually transmitted/exchange of body fluids (1) poor hygiene practices or example (1) cuts (1) max 2

2 marks

1 (c) (ii) Ref to: cells/tissues being damaged (1) toxins AW being released by organisms (1) nutrients AW taken from host cells/tissues (1) by the body's efforts at defence against the organism (1)

4 marks

Total 15 marks

2 (a) (i) Ref to Rick having: itching/swelling/sneezing/excess mucus secretion AW/breathing difficulties - asthma type symptoms/eye inflammation/stomach problems/diarrhoea

NB: not red rash (in stem)

max 3 3 marks

2 (a) (ii) Ref to shellfish allergens (1): 'misinforming' AW (1) b-lymphocytes (1) which produce antibodies/immunoglobulins/IgE (1) in large amounts AW (1) these attach to mast cells (1) and basophils (1) which contain histamine (1) the release of the histamine causes symptoms (1) max 6

6 marks

2 (a) (iii) Ref to Rick's first exposure – only 'sensitising' Rick (1) histamine not/little released (1) therefore no symptoms caused (1) Allow higher level answers re: antibodies AW made in large amounts (1) attach to mast cells/basophils (1) but no/little histamine released max 3

3 marks

2 (b) Ref to: pollen/animal dander/hair/fur or feathers/dust mites/spores

Not dust/mould/grass.

max 3

3 marks

Total 15 marks

3 (a) (i)

Myopia (1)

1 mark

3 (a) (ii) Ref to Albert can see near objects AW clearly/not distance AW (1)

1 mark

plus: due to eyeball shape AW (1) distance front to back greater than normal/too long (1) (for objects) light rays not focussed accurately on retina (1) actually focus in front of retina (1) lens too convex AW (1) max 3

3 marks

3 (a) (iii) Ref to: infection/inflammation AW (1) of (conjunctive)/clear outer layer front of eye (1) 2 marks

3 (b) (i) Ref to with increased age: sensorineural loss (1) of hair cells (1) in the cochlea/inner ear (1) loss of nerve cells/neurones (1) in brain (1) this is called presbycusis (1) allow – wear/damage of bones in middle ear (1) called ossicles (1) hammer/anvil/stirrup (1) vibrations affect nerve messages AW (1) ear drum damage (1)

NB: Not hairs must be hair cells.

Not hair follicles.

max 6

6 marks

3 (b) (ii) Tinnitus (1) glue ear (1)

2 marks

Total 15 marks

4 (a) (i) Ref to: As increase age – generalised rashes decrease (1) very few AW/similar levels in 22-43 and 44+ age groups (1) allow generalised rashes **overall** least (1) localised rashes less in 22-43 cf under 21 (1)

rise again in over 44+ (1)

macular rashes less in 22-43 cf under 21 (1)

rise again in over 44+ (1)

pattern for localised rashes/macular rashes similar (1) suggests many localised rashes are macular (1) localised rashes much more common than generalised – allow example e.g. nearly 5x under 21 (1)

For higher level answers N.B. Macular rashes could be localised or generalised

any ref calculating **raised**/papules/nodule rashes e.g. under 21-46 rashes in total less 33 macular = 13 raised rashes

Allow 1 most and 1 least mark only.

max 6

6 marks

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- 4 (a) (ii) 1. Generalised rash – covers entire body/allow much of body (1) 1 mark
 2. Localised rash – covers only a small area (1) 1 mark
 3. Macular rash – not raised AW (1) but different colour/texture area (1) 2 marks
- 4 (b) (i) Ref to: vomiting/stomach pain/diarrhoea/raised temperature/sweating/headache max 2 2 marks
- 4 (b) (ii) Ref to infective – can be caught/passed to others by sufferer since infection or
 converse AW (1) 1 mark
 Allow up to 2 examples – one of each type
 bacteria or named – salmonella/
 virus or named – Norwalk
 chemical or named – fruit juice in zinc container
 toxic food or named – toadstools 2 marks

Total 15 marks
Paper Total 60 marks