AQA GCSE Combined Science - Trilogy | 8464

SPECIFICATION POINT 4.3.1.6

Human defence systems

Mark schemes and examiner comments

Tier	**Foundation**
Question groups	**1**
Available paper years	**2020–2020**

Using this booklet

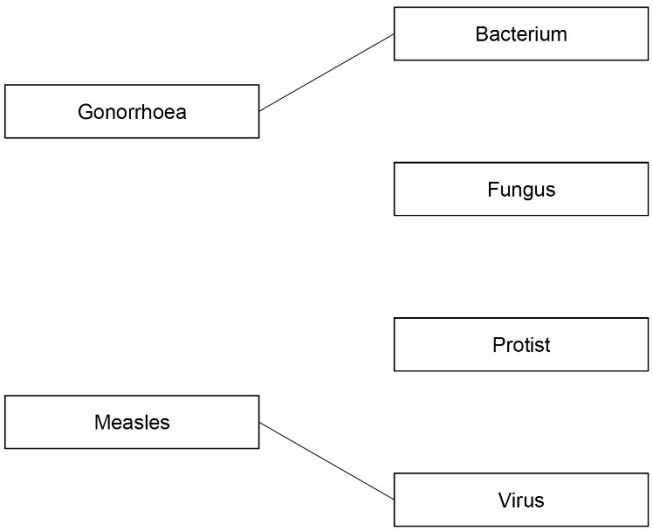
1. Booklet answer numbers match the question booklet.
2. Use the original question number within marking tables.
3. Examiner comments are included where available.

Name: _____ **Date:** _____

Where a precise marking extract is unavailable, the full source document is included in an appendix. Any missing mark scheme is explicitly identified.

4.3.1.6 Human defence systems

Answer 01 · Mark scheme November 2020 | 8464/B/1F | Original Q4

Question	Answers	Extra information	Mark	AO / Spec. Ref.
04.1	extra line(s) from a disease negates that mark  		1 1	AO1 4.3.1.2 4.3.1.3
04.2	any **two** from: • skin (acts as a barrier) • mucus in trachea / bronchi • mucus in nose • cilia (in trachea / bronchi / respiratory tract) • (hydrochloric) acid in stomach	ignore references to the immune response allow mucus in airways allow mucus unqualified if **neither** idea given ignore references to hairs allow scab forms (if you cut yourself) allow tears	2	AO1 4.3.1.6

4.3.1.6 Human defence systems

Answer 01 · Mark scheme

November 2020 | 8464/B/1F | Original Q4

Question	Answers	Mark	AO / Spec. Ref.
04.3	**Level 2:** Scientifically relevant facts, events or processes are identified and given in detail to form an accurate account.	4-6	AO1 4.2.2.3 4.3.1.1 4.3.1.6
	Level 1: Facts, events or processes are identified and simply stated but their relevance is not clear.	1–3	
	No relevant content	0	
	Indicative content • white blood cells • detect / identify foreign antigens / cells / pathogens / bacteria • destroy / kill invading cells • phagocytes • engulf invading cells • digest / kill invading cells • produce antibodies • (antibodies) attach to invading cells • (antibodies) destroy / kill invading cells • (antibodies) make invading cells clump together • (so) phagocytes can engulf more cells / pathogens / bacteria • produce antitoxins • to destroy toxins • (so) less tissue damage • (therefore) don't feel as ill • produce memory cells • (so) immune response (to later exposure) is faster A description of the ways that white blood cells act is needed for Level 2.		

4.3.1.6 Human defence systems

Answer 01 · Mark scheme

04.4	any **one** from: • HIV is a virus • antibiotics do **not** kill viruses • antibiotics (are used to) kill bacteria	allow HIV is **not** a bacterium	1	AO1 4.3.1.2 4.3.1.8
04.5	any **two** from: • avoid sexual intercourse • use a condom • do not share needles • use antiretroviral drugs • screen blood used for transfusions	ignore handwashing ignore social distancing allow practise safe sex ignore use protection unqualified ignore use contraception unqualified ignore use medication unqualified allow have regular checks / tests to see if you have HIV if no other marks awarded allow **1** mark for do not exchange body fluids	2	AO1 4.3.1.1 4.3.1.2
04.6	HIV damages the immune system		1	AO1 4.3.1.2
Total			**14**	

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