Human defence systems (skin, nose, trachea, white blood cells)

Q1. (2018)

01.2	engulf pathogens	extra ticks negates marks	1	AO1 4.2.2.3 4.3.1.6
	produce antibodies		1	
	produce antitoxins		1	

Q2. (2020)

A)

04.2	any **two** from: • skin (acts as a barrier)	ignore references to the immune response	2	AO1 4.3.1.6
	• mucus in trachea / bronchi • mucus in nose	allow mucus in airways allow mucus unqualified if **neither** idea given		
	• cilia (in trachea / bronchi / respiratory tract)	ignore references to hairs		
	• (hydrochloric) acid in stomach			
		allow scab forms (if you cut yourself)		
		allow tears		

B)

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.		

Q3. (2022)

05.7	B	1	AO2 4.2.2.3 4.3.1.7

Q4. (2023)

04.8	**Description** **Person in Table 2** Person most likely to have an infection → Person **W** Person whose blood will **not** clot properly → Person **X** Person **Y** Person **Z** do **not** accept more than one line from a box on the left	1 1	AO3 4.2.2.3