Communicable diseases (viral, bacterial, fungal, protist)

Q1. (2018)

A)

05.1	any **one** from: • not everyone would go to the doctor • sample will not always be sent for analysis • some cases not tested / diagnosed / confirmed	allow not all cases recorded allow only medically confirmed cases recorded ignore some cases are unknown allow idea that doctor may make a judgemental error or mis-diagnosis	1	AO2 4.3.1.2

B)

05.2		an answer of 96 / 95.5 scores **2** marks allow **1** mark only for 95 or other incorrect rounding		AO2 4.3.1.2
	$\frac{1939}{2030} \times 100$	allow for **1** mark: $\left(\frac{91}{2030} \times 100 =\right) 4.5\%$	1	
	96 / 95.5	allow **2** marks for correct rounding of 95.51724138 allow **1** mark for correct calculation using incorrect subtraction **only** if working shown	1	

Q2. (2019)

04.1	protist		1	AO1 4.3.1.5

Q3. (2019)

04.2	any **two** methods with reason from: • Method: insecticides Reason: to kill mosquitos / vector • Method: (mosquito) nets Reason: to avoid being bitten • Method: insect repellents Reason: less likely to be bitten • Method: vaccination Reason: so people are immune (to malaria) • Method: anti-malaria tablets Reason: kills the pathogen / protist	1 mark for method and 1 mark for a correctly linked reason ignore kill insects unqualified allow long clothing ignore acts as a physical barrier allow DEET or named insect repellent allow named anti-malarial e.g. Larium / Malarone allow antibiotics allow ecf from 04.1 ignore kills malaria allow Method: drain swampy ground **or** remove pots of water **or** put oil on water / pond Reason: fewer breeding grounds for mosquitos allow Method: release GM / sterile mosquitos Reason: prevent / reduce reproduction if no other marks awarded allow **1** mark for kill mosquitos	4	AO1 4.3.1.1 4.3.1.5 4.3.1.7

Q4. (2020)

A)

04.3		ignore references to immunity unqualified		AO2 4.3.1.3 4.3.1.1
	fewer bacteria / pathogens in chicken / eggs / food	allow fewer chickens / eggs will carry the bacteria / pathogens ignore chickens do not get disease / infected	1 1	
	(so) fewer bacteria are ingested (by humans) **or** fewer bacteria / pathogens ingested (by humans) (1) (so) fewer toxins produced (1)	allow idea of fewer bacteria being passed on to humans in food allow idea of fewer bacteria being passed on to humans in food (1)		

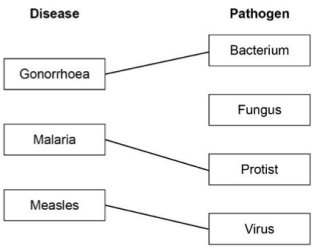
B)

04.4	wash hands before preparing food wash hands after using the toilet	ignore wash hands unqualified allow good food hygiene allow clean areas where a person has been ill allow do not shake hands (with someone who has food poisoning)	1	AO1 4.3.1.1 4.3.1.3

C)

04.5	warmer weather so bacteria reproduce / increase faster	ignore bacteria are killed at low temperatures allow food not cooked properly on barbeques	1	AO3 4.3.1.1 4.3.1.3

Q5. (2021)

04.1	 do **not** accept more than one line from a box on the left		1 1 1	AO1 4.3.1.1 4.3.1.2 4.3.1.3 4.3.1.5

Q6. (2022)

01.1	both have a cell membrane both have cytoplasm		1 1	AO1 4.1.1.1

Q7. (2022)

01.2	any **one** from: • fever • abdominal / stomach cramps	ignore vomiting / sickness / diarrhoea ignore feel unwell unqualified ignore rashes allow high temperature allow sweating / chills	1	AO1 4.3.1.3

Q8. (2023)

		assume 'it' refers to the virus		
01.7				AO1
	coughs / sneezes (spread virus in droplets)	allow breathing out (spreads virus in droplets)	1	4.3.1.1 4.3.1.2
	droplets / virus are inhaled	allow droplets / virus are breathed in ignore contact with infected person unqualified allow touch a contaminated surface **and** then touch your mouth / nose / eyes for **1** mark if no other marks awarded allow kissing for **1** mark only	1	

Q9. (2023)

01.8	$\frac{17}{100}$ × 67 961 900	allow 0.17 x 67 961 900	1	AO2 4.3.1.4
	= 11 553 523	allow 11 553 500	1	

Q10. (2023)

01.9	any **one** from: • dry feet thoroughly (after washing) • do not share socks / tights / shoes / towels • use a fungicide • do not walk around barefoot in public / contaminated areas	 allow use foot powder ignore keep feet dry ignore wash feet regularly allow named fungicide allow wear silver(-impregnated) socks allow wear flip flops in public / contaminated areas ignore avoid moist conditions	1	AO2 4.3.1.1 4.3.1.4

Q11. (2024)

03.1	virus(es)		1	AO1 4.3.1.2

Q12. (2024)

03.4	viruses enter cells	allow viruses exist / reproduce inside cells allow viruses inject genetic material into cells	1	AO1 4.3.1.1
	(so) cells are damaged / killed	allow cells burst open	1	