

Question	Answers	Extra information	Mark	AO / Specification reference												
01.2	caused by a pathogen can be spread between organisms		1 1	AO1 4.3.1.1												
01.3	tobacco mosaic virus (TMV) / rose black spot	accept other named plant communicable disease	1	AO1 4.3.1.1												
02.1	<table border="1"> <thead> <tr> <th>Feature</th> <th>Bacteria</th> <th>Viruses</th> </tr> </thead> <tbody> <tr> <td>causes disease by producing toxins</td> <td>✓</td> <td></td> </tr> <tr> <td>uses host organism's cells to reproduce</td> <td></td> <td>✓</td> </tr> <tr> <td>divide by binary fission</td> <td>✓</td> <td></td> </tr> </tbody> </table>	Feature	Bacteria	Viruses	causes disease by producing toxins	✓		uses host organism's cells to reproduce		✓	divide by binary fission	✓		award one mark for each correct row	3	AO1 4.3.1.1
Feature	Bacteria	Viruses														
causes disease by producing toxins	✓															
uses host organism's cells to reproduce		✓														
divide by binary fission	✓															
02.2	measles HIV		1 1	AO1 4.3.1.2												
02.3	protist		1	AO1 4.3.1.5												
02.4	mosquito		1	AO1 4.3.1.5												
03.1	raw meat – cook thoroughly sneezing – wear mask to cover nose and mouth contaminated water – use sterilising tablets before consuming open wounds – cover with a dressing	1 mark for one correct 2 marks for two correct 3 marks for all correct	3	AO2 4.3.1.1												

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03.2	bacteria viruses		2	AO1 4.3.1.1
03.3	students in close contact / students exposed to many other students		1	AO3 4.3.1.1
04.1	measles – virus salmonella – bacteria rose black spot – fungus malaria – protist	1 mark for one correct 2 marks for two correct 3 marks for all correct	3	AO1 4.3.1.2 4.3.1.3 4.3.1.4 4.3.1.5
04.2	fever / red rash		1	AO1 4.3.1.2
04.3	droplet infection		1	AO1 4.3.1.2
04.4	$14.4 \times 66 = 950.4$		1	AO2 4.3.1.2 MS1c
04.5	$1204 - 14.4 = 1189.6$		1	AO2 AO3 4.3.1.2 MS1c

Question	Answers	Extra information	Mark	AO / Specification reference
05.1	communicable protist mosquitoes high		1 1 1 1	AO1 4.3.1.5
05.2	insect nets placed over beds: prevents mosquito biting / prevents contact with person spraying buildings with insecticides: kills mosquitos anti-malarial drugs: kills protist		1 1 1	AO1 4.3.1.5
05.3	less access to healthcare/sanitation	accept other reasonable suggestion	1	AO3 4.3.1.5
06.1	bacteria		1	AO1 4.3.1.1
06.2	can be passed between organisms/people		1	AO1 4.3.1.1
06.3	vaccinate livestock to prevent infection cook meat thoroughly before consumption	accept other reasonable suggestion	2	AO2 4.3.1.3
06.4	any two from: <ul style="list-style-type: none"> • fever • abdominal cramps • vomiting • diarrhoea 		2	AO1 4.3.1.3

Question	Answers	Extra information	Mark	AO / Specification reference
07.1	fungus		1	AO1 4.3.1.4
07.2	any two from: <ul style="list-style-type: none"> • Purple / black spots on leaves • Leaves yellow • Leaves drop early 		2	AO1 4.3.1.4
07.3	less chlorophyll present this reduces photosynthesis (in chloroplasts) less glucose for respiration		2	AO1 4.3.1.4
07.4	any two from: <ul style="list-style-type: none"> • use fungicides • use disinfectant on tools/area around plant/on footwear • remove infected leaves/plants 		2	AO1 4.3.1.4
08.1	caused by a microorganism/pathogen spread between organisms/plants		1 1	A01 4.3.1.1
08.2	discoloured chlorophyll photosynthesis growth		4	A01 4.3.1.2

Question	Answers	Extra information	Mark	AO / Specification reference
08.3	any two from: <ul style="list-style-type: none"> • use chemicals / disinfectant on tools • use pesticides / insecticides • burning of crop • removal of soil around infected plants 		2	AO3 4.3.1.2
09.1	tobacco mosaic virus (TMV) – discolouration of leaves gonorrhoea – yellow or green discharge from sexual organs rose black spot – purple or black spots on leaves <i>Salmonella</i> – fever, vomiting, diarrhoea	1 mark for one correct 2 marks for two correct 3 marks for all correct	3	AO1 4.3.1.2 4.3.1.3 4.3.1.4 4.3.1.5
09.2	HIV gonorrhoea condoms barrier	accept other correctly named STD for either / both of the first two marks	1 1 1 1	AO1 4.3.1.2 4.3.1.3
09.3	send infected children home prevent visitors from coming into the school wash surfaces down with disinfectant		3	AO3 4.3.1.1
10.1	fungus			AO1 4.3.1.4
10.2	fungicide			AO1 4.3.1.4

Question	Answers	Extra information	Mark	AO / Specification reference
10.3	antibiotics are only used to treat bacterial infections rose black spot is caused by a fungus so antibiotic do not work		1 1	AO2 4.3.1.3 4.3.1.4
11.1	A – oesophagus B – stomach C – small intestine D – large intestine		1 1 1 1	AO2 4.2.2.1
11.2	small intestine		1	AO1 4.2.2.1
11.3	to produce enzymes		1	AO1 4.2.2.1
12.1	1 μm		1	AO1 4.1.1.1
12.2	plant cell walls contain cellulose or bacterial cell walls contain peptidoglycan	accept converse arguments	1	AO1 4.1.1.1
12.3	flagellum / flagella		1	AO1 4.1.1.1