AQA GCSE Combined Science - Trilogy | 8464

SPECIFICATION POINT 4.3.1.5

Protist diseases

Mark schemes and examiner comments

Tier	**Foundation**
Question groups	**2**
Available paper years	**2019–2022**

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.

4.3.1.5 Protist diseases

Answer 01 · Mark scheme June 2019 | 8464/B/1F | Original Q5

Question	Answers	Extra information	Mark	AO / Spec. Ref.
05.1	840 000 – 440 000 400 000	an answer of 400 000 scores 2 marks allow tolerance of +/- half a small square allow 840 – 440 = 400	1 1	AO2 4.3.1.5
05.2	2005 to 2010		1	AO3 4.3.1.5
05.3	any **one** from: • data not collected (for 2002) • only shows a trend line • not all deaths reported / recorded	allow no data plotted for 2002	1	AO3 4.3.1.5
05.4	protist		1	AO1 4.3.1.5
05.5	makes people immune **or** they do not develop the disease (so) fewer (infected) people to pass pathogen on (to mosquitos)	allow ecf from 05.4 allow correct description of immunity allow idea of disrupting life cycle of parasite	1 1	AO1 AO2 4.3.1.5
05.6	any **one** from: • (mosquito) nets / long clothing • prevent mosquitos breeding • insecticides • insect repellents • anti-malarial tablets • kill mosquitos	allow specific method e.g. drain swamps, release GM mosquitos allow DEET / mosquito band allow names e.g. Larium / Malarone allow antibiotics	1	AO1 4.3.1.5 4.3.1.7
Total			**8**	

4.3.1.5 Protist diseases

Answer 01 · Mark scheme

June 2019 | 8464/B/1F | Original Q5

4.3.1.5 Protist diseases

Answer 02 · Mark scheme

June 2022 | 8464/B/1F | Original Q3

Question 3

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.1	fungus		1	AO1 4.3.1.4

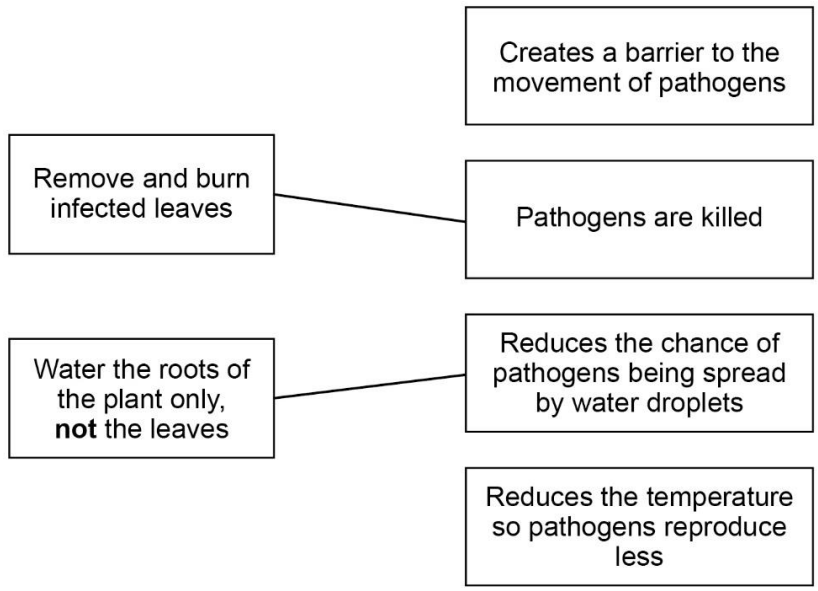
Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.2	less / no chlorophyll **or** chlorophyll has been broken down	allow reference to chloroplasts for chlorophyll	1	AO2 4.4.1.2

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.3	less photosynthesis **or** less light absorbed (so) less glucose / sugar formed **or** less light absorbed (1) (so) less photosynthesis (1)		1 1	AO2 4.3.1.4 4.4.1.1 4.4.1.2

4.3.1.5 Protist diseases

Answer 02 · Mark scheme

June 2022 | 8464/B/1F | Original Q3

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.4	 extra line from a box negates that box		1 1	AO2 4.3.1.4

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.5	virus		1	AO1 4.3.1.2

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.6	by mosquito bites	allow by mosquitos	1	AO1 4.3.1.5

4.3.1.5 Protist diseases

Answer 02 · Mark scheme

Question	Answers	Extra information	Mark	AO / Spec. Ref.
03.7	drain water from swamps		1	AO2 4.3.1.5

Total Question 3		**9**

4.3.1.5 Protist diseases

Answer 02 · Examiner comments

June 2022 | 8464/B/1F | Original Q3

Question 3 (low & standard demand)

03.1 59% of the students knew that rose black spot is caused by a fungus. Almost a fifth thought it was caused by a bacterium.

03.2 15% of students scored the mark for saying the leaves are yellow because they have little or no chlorophyll. Saying they had few chloroplasts was allowed. Some said the chloroplasts or chlorophyll had been damaged or destroyed, which was creditworthy, but saying the chloroplasts were killed was ignored. Quite a lot of students said the leaves were yellow because they couldn't photosynthesise.

03.3 A third of students scored one mark, with very few achieving two marks. The most common correct answer was that there would be less photosynthesis. References to light were often phrased poorly. Leaves getting less light was ignored; they had to say less light was absorbed.

03.4 Most students scored at least one mark, with 63% of students achieving both marks for the control of rose black spot.

03.5 40% of students knew that the pathogen TMV is a virus. A quarter thought it is a bacterium.

03.6 Just under half the students knew that malaria is transferred to humans by mosquitos. A whole range of incorrect suggestions were given, including coughs and sneezes, sexual intercourse, in food or dirty water and by physical contact.

03.7 42% of students recognised that the spread of malaria pathogens can be controlled by draining water from swamps. Just over a quarter thought that using a tissue when sneezing would reduce the spread.