AQA GCSE Biology | 8461

SPECIFICATION POINT 4.3.1.4

Fungal diseases

Past-paper questions

Tier	**Foundation**
Question groups	**1**
Available paper years	**2018–2018**

Using this booklet

1. Answer the questions in order and show your working.
2. Original question numbers and marks are retained.
3. Print at actual size (100%) for measuring questions.
4. Use the companion answer booklet to check your work.

Name: _____ **Date:** _____

Whole questions are retained for context, so some parts assess other specification points. Current and legacy sources are labelled. Continue on extra paper if needed.

4.3.1.4 Fungal diseases

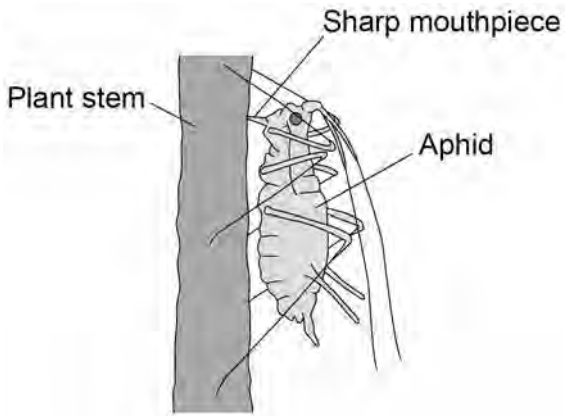
Question 01

June 2018 | 8461/1F | Original Q5

0 5 Aphids are small insects that carry pathogens.

Figure 7 shows an aphid feeding from a plant stem.

Figure 7



0 5 . 1 An aphid feeds by inserting its sharp mouthpiece into the stem of a plant.

After feeding, the mouthpiece of an aphid contains a high concentration of dissolved sugars.

Which part of the plant was the aphid feeding from?

[1 mark]

Tick **one** box.

- Palisade layer ☐
- Phloem ☐
- Stomata ☐
- Xylem ☐

4.3.1.4 Fungal diseases

Question 01 · continued

0 5 . 2 What is the process that transports dissolved sugars around a plant?

[1 mark]

Tick **one** box.

- Filtration ☐
- Respiration ☐
- Translocation ☐
- Transpiration ☐

0 5 . 3 Plants infected with aphids have stunted growth.

Explain **one** way the removal of dissolved sugars from the stem of the plant causes stunted growth.

[2 marks]

0 5 . 4 Most aphids do not have wings when they hatch. After several generations, some aphids hatch which have wings and can fly.

Explain the advantage to the aphid of being able to fly.

[2 marks]

4.3.1.4 Fungal diseases

Question 01 · continued

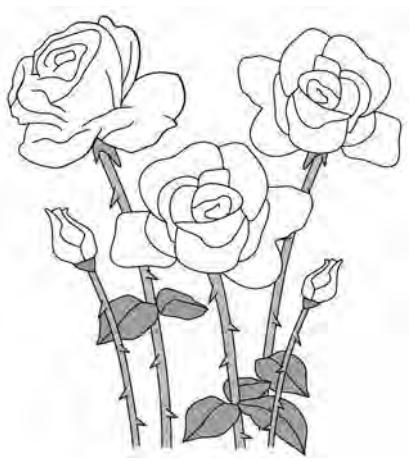
0 5 . 5 The leaves of some plants release oils onto their surface.

Suggest how the production of oil on the surface of a leaf may protect the plant from aphids.

[1 mark]

Figure 8 shows part of a rose plant.

Figure 8



0 5 . 6 Give **one** adaptation shown in **Figure 8** that helps the rose plant defend itself.

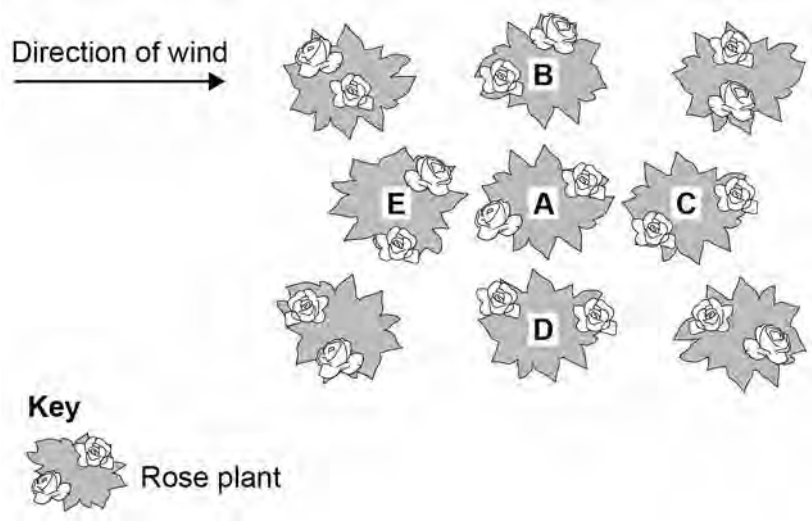
[1 mark]

4.3.1.4 Fungal diseases

Question 01 · continued

Figure 9 shows a plan of a garden containing rose plants.

Figure 9



0 5 . 7 Plant **A** has the fungal disease rose black spot.

Which plant in **Figure 9** is the fungus likely to spread to first?

Give a reason for your answer.

[2 marks]

Plant _____

Reason _____

0 5 . 8 Suggest **one** way the gardener could reduce the spread of rose black spot to the other plants in the garden.

[1 mark]

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