AQA GCSE Biology | 8461

SPECIFICATION POINT 4.3.1.3

Bacterial 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.

4.3.1.3 Bacterial diseases

Question 01

June 2018 | 8461/1F | Original Q7

0 7 Eating food containing *Salmonella* bacteria can cause illness.

0 7 . 1 Two symptoms of infection by *Salmonella* are vomiting and diarrhoea.

What causes these symptoms?

[1 mark]

0 7 . 2 Give **two** ways a person with a mild infection of *Salmonella* can help prevent the spread of the bacteria to other people.

[2 marks]

1

2

0 7 . 3 In very serious infections of *Salmonella*, a doctor can prescribe drugs to kill the bacteria.

What type of drug can the doctor prescribe to kill the bacteria?

[1 mark]

0 7 . 4 A person with AIDS may take longer than a healthy person to recover from a *Salmonella* infection.

Explain why.

[2 marks]

4.3.1.3 Bacterial diseases

Question 01 · continued

0 7 . 5 *Salmonella* bacteria can be transmitted from chickens to humans. Chickens can be vaccinated to prevent the transmission of *Salmonella* bacteria to humans.

Suggest **one** other way farmers could prevent the transmission of *Salmonella* from chickens to humans.

[1 mark]

A restaurant owner employed a scientist to test the effectiveness of two kitchen cleaning liquids.

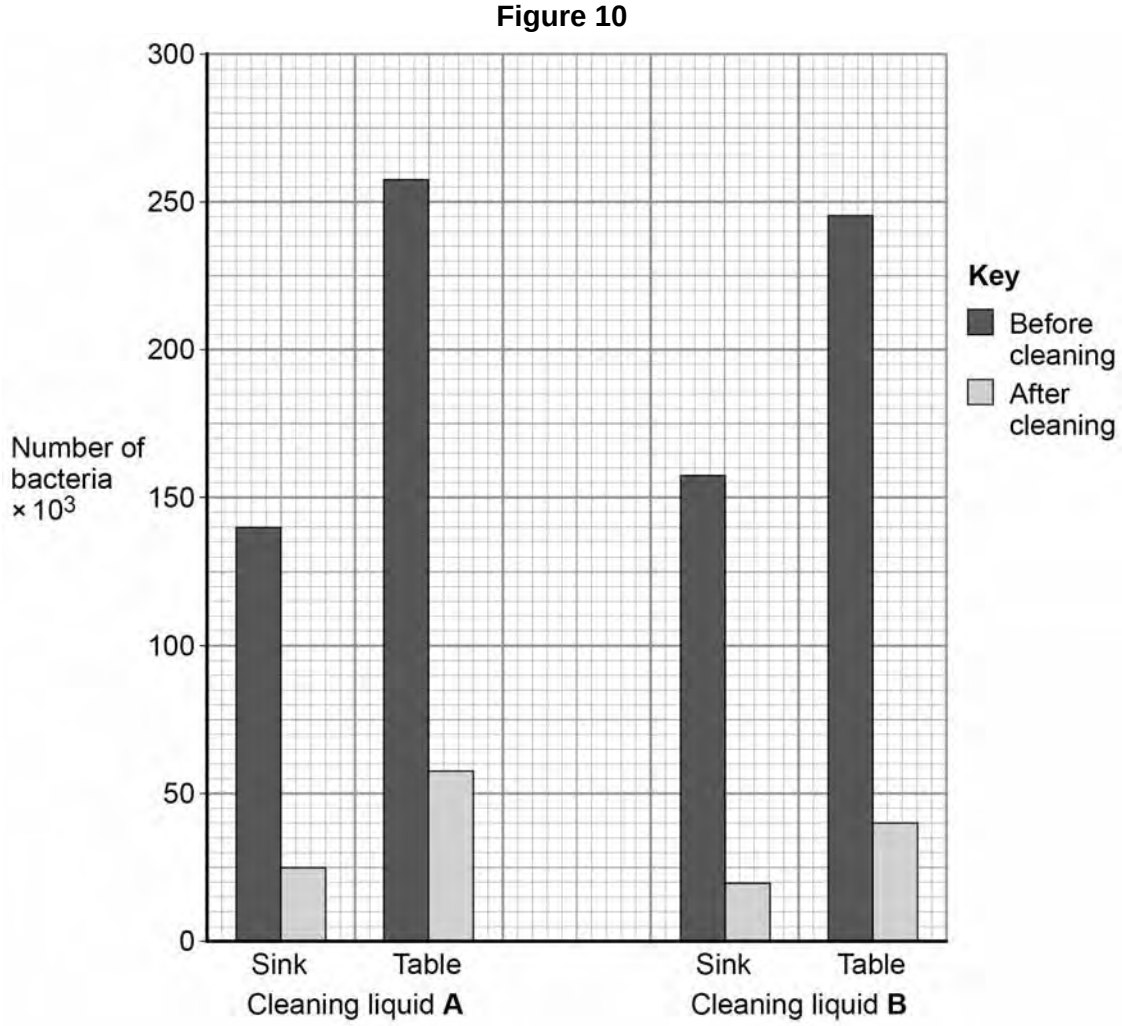
The scientist took samples from two work surfaces:

- before the surfaces had been cleaned with the cleaning liquids
- after the surfaces had been cleaned with the cleaning liquids.

The samples were then analysed for the number of bacteria they contained.

The results are shown in **Figure 10**.

Figure 10



4.3.1.3 Bacterial diseases

Question 01 · continued

0 7 . 6 Which cleaning liquid is the more effective?

Give a reason for your answer.

[1 mark]

Cleaning liquid _____

Reason _____

_____

_____

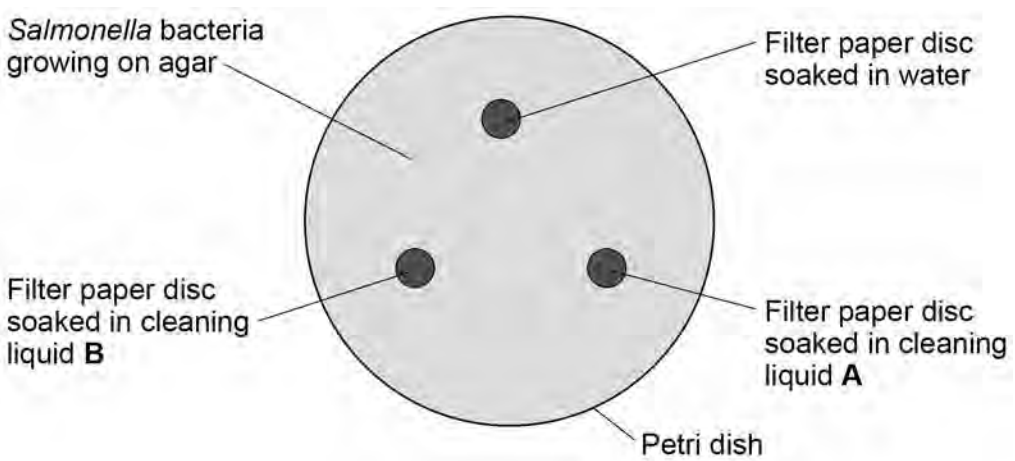
Question 7 continues on the next page

Question 01 · continued

The scientist investigated the effect of cleaning liquid **A** and cleaning liquid **B** on *Salmonella* bacteria grown in a laboratory.

Figure 11 shows the way the investigation was set up.

Figure 11



The Petri dish was placed in an incubator at 25 °C for 48 hours.

After 48 hours, the scientist calculated the area around each paper disc where no bacteria were growing.

The results are shown in **Table 4**.

Table 4

Filter paper disc	Area around disc with no bacteria growing in cm^2
Water	0
Cleaning liquid **A**	11
Cleaning liquid **B**	13

0 7 . 7 What measurement would the scientist need to take to calculate the area where no bacteria were growing?

[1 mark]

4.3.1.3 Bacterial diseases

Question 01 · continued

0 7 . 8 Give **one** change to the investigation that would allow the scientist to check if the results are repeatable.

[1 mark]

0 7 . 9 The scientist showed the results to the restaurant owner.

Both cleaning liquids cost the same per dm^3.

Suggest **one** other factor the restaurant owner should consider when choosing which cleaning liquid to use.

[1 mark]

11