

GCSE Biology B (Twenty First Century Science)
J257/03 Breadth in Biology (Higher)

Question Set 10

- 1 (a) Read the newspaper article.

**Scarlet fever cases
increase**

The number of scarlet fever cases is increasing. The number of confirmed cases in 2016 is reported to be > 19000, the highest level in 50 years.

- (a) The article states that > 19000 cases were reported in 2016.

What does the '>' in this statement mean? **Greater than**

[1]

- (b) Look at the data in the table showing the number of confirmed cases of scarlet fever.

Year	Number of confirmed cases of scarlet fever
2013	4700
2014	15637
2016	19206

Explain why doctors and scientists may be concerned by the data in the table.

The number of confirmed scarlet fever cases is rising rapidly. The number of cases in 2016 is over 4 times the number in 2013. The data only shows the number of confirmed cases, the actual figures including undiagnosed cases are likely much higher.

[2]

- (c) Calculate the percentage increase in the number of cases from 2013 to 2014.

Put a **ring** around the correct answer.

23% 30% **233%** 333% $\frac{15637-4700}{4700} \times 100 = 233\%$

[1]

- (d) Scarlet fever is common in children under 10 years old.

- (i) Scarlet fever is a bacterial infection. It is transmitted easily by close contact.

How could the spread of this infection be reduced?

Frequent hand washing.

Cover mouth and nose when coughing or sneezing.

[2]

(ii) Doctors could prescribe some medication to treat this infection.

Write down **one** factor that doctors will consider before prescribing this treatment [1]

Whether the patient is taking any other medication that could interact with the antibiotic.

(iii) Which of the following diseases is also caused by bacteria?

Tick (✓) **one** box.

Athlete's foot

HIV

Malaria

Salmonella food poisoning

[1]

Total Marks for Question Set 10: 8

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