

Pathogens and infections: practice questions

6 questions • 15 marks • mark scheme at the back

For Edexcel GCSE Biology 1BI0 and Combined Science 1SC0. **Triple only** is not in Combined Science. **Higher tier** is only on the Higher paper.

Name

Total / 15

1 Which disease is caused by a protist? [1 mark]

- A. ☐ Cholera
- B. ☐ Malaria
- C. ☐ Tuberculosis
- D. ☐ Chalarash dieback

2 Cholera is caused by bacteria. Explain how cholera is spread and how its spread can be reduced. [3 marks]

3 **Triple only** [1 mark]

Which disease is caused by a virus and spread by contact with infected body fluids?

- A. ☐ Ebola
- B. ☐ Stomach ulcers caused by *Helicobacter*
- C. ☐ Malaria
- D. ☐ Cholera

4 **Triple only** [3 marks]

Describe what happens in the lysogenic pathway of a virus.

5 Chlamydia is a sexually transmitted infection (STI). Explain how its spread can be reduced.

[3 marks]

6 Chalara ash dieback is a disease of ash trees caused by a fungus. (a) State two effects of the disease on an ash tree. (2) (b) Describe how the disease spreads and give one way of reducing its spread. (2)

[4 marks]

Mark scheme

One mark for each point unless a maximum is given. Words in brackets are not needed for the mark.

1. [1]

B B (1)

2. [3]

- bacteria are in water contaminated with sewage / faeces (1)
- people become infected by drinking the contaminated water (1)
- provide clean / treated drinking water or treat sewage (1) allow handwashing / thorough cooking of food

3. [1] Triple only

A A (1)

4. [3] Triple only

- the viral genetic material enters the host cell (1)
- it becomes part of the host cell's DNA / is integrated into the host DNA (1)
- the virus is inactive / dormant, and is copied when the host cell divides (1) allow no new viruses are made until it is triggered

5. [3]

- use a condom (1)
- which acts as a barrier / stops the bacteria passing between partners (1)
- regular screening / testing and treating infected people with antibiotics (1)
- limit the number of sexual partners / inform partners so they can be tested (1) allow abstaining from sex
- Max 3

6. [4]

- (a) leaf loss (1)
- bark lesions (1)
- (b) spores are carried in the air / by the wind (1)
- destroy infected trees / restrict the movement or import of ash plants (1)