

Foundation Combined — only core Foundation content included.

Q1. Describe THREE non-specific defences of the body against pathogens.

[3 marks]

Q2. Explain the specific immune response to a new pathogen entering the body for the first time.

[5 marks]

Total: 8 marks

Q1 (3 marks)

Describe THREE non-specific defences of the body against pathogens.

- Skin: physical barrier — prevents pathogen entry [1]
- Mucus in airways: traps pathogens [1]
- Stomach acid (pH 2): kills pathogens ingested with food and water [1] — accept: cilia sweeping mucus

Q2 (5 marks)

Explain the specific immune response to a new pathogen entering the body for the first time...

- Pathogen has specific antigens on its surface [1]
- Phagocytes engulf some pathogens (non-specific response) [1]
- Lymphocytes detect specific antigens and produce complementary antibodies [1]
- Antibodies bind to antigens — mark pathogen for destruction [1]
- Memory cells remain in body — rapid antibody production on re-exposure → no symptoms [1]