

Higher Combined version — Higher Tier (★) included; Separate-only (◆) removed.

Q1. For each type of pathogen, give ONE example of the disease it causes: (a) bacterium, (b) virus, (c) fungus, (d) protist.

[4 marks]

Q2. Explain why antibiotics cannot treat viral diseases such as influenza.

[3 marks]

Q3. Explain how HIV leads to AIDS.

[3 marks]

Total: 10 marks

Q1 (4 marks)

For each type of pathogen, give ONE example of the disease it causes: (a) bacterium, (b) v...

- (a) Bacterium: salmonella / TB / gonorrhoea [1]
- (b) Virus: HIV / measles / influenza [1]
- (c) Fungus: rose black spot / athlete's foot [1]
- (d) Protist: malaria (Plasmodium) [1]

Q2 (3 marks)

Explain why antibiotics cannot treat viral diseases such as influenza.

- Antibiotics target bacterial structures (cell walls, bacterial ribosomes) [1]
- Viruses lack these structures [1]
- Viruses replicate inside host cells — targeting viral replication would also kill host [1]

Q3 (3 marks)

Explain how HIV leads to AIDS.

- HIV infects and destroys CD4+ T helper lymphocytes [1]
- As T cell count falls, immune system progressively weakens [1]
- AIDS: immune system fails — opportunistic infections become life-threatening [1]