

AQA

A Level

A Level Biology

HIV Questions

Name:

M M E

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Total Marks: /21

HIV

HIV is a virus that attacks the body's immune system, over time HIV can progress into AIDS (Acquired Immunodeficiency Syndrome). There are currently 36.7 million people worldwide who are living with HIV/AIDS, the majority of those people live in Sub-Saharan Africa.

1. A) HIV infects vital cells in the body's immune system.
 - i) How does HIV affect the cells in the immune system? (1 mark)
 - ii) How does AIDS differ from HIV? (1 mark)
 - iii) Explain the statement 'for many sufferers of AIDS the cause of death is not AIDS' (1 mark)

- b) HIV is a retrovirus; the life cycle of the virus goes through various stages over a period of many years. Antiretroviral drugs have been developed to interrupt this cycle.
 - i) Explain how HIV infects the body once it has been contracted. (6 marks)
 - ii) The HIV virus can remain latent in cells for many years. What is meant by the term 'latency' with regard to the HIV virus? (2 marks)
 - iii) Why is the HIV virus so hard to treat? (3 marks)

- c) The Enzyme-Linked Immunosorbent Assay technique is used to test for the presence of HIV.
 - i) What substance does the ELISA technique test for? (1 mark)
 - ii) Explain how the ELISA test would be carried out to detect a HIV infection. (6 marks)