

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2022/2023 ACADEMIC YEAR

SECOND YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF BIOMEDICAL SCIENCE

BMED 215: BIOLOGY OF HIV/AIDS AND SOCIETY

STREAM: R

TIME: 2 HRS

DAY: TUESDAY [8.30AM – 10.30AM]

DATE: 08/12/2022

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

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INSTRUCTIONS: - Answer all the questions in section A and any of the two questions in B
SECTION A (40 MKS)

QUESTION ONE

Explain the following theories on the origin of HIV/AIDS:

- a) The 'Hunter' theory (2.5 marks)
- b) The theory of colonialism (2.5 marks)

QUESTION TWO

Explain the risk factors associated with HIV Infection. (5 marks)

QUESTION THREE

Explain on the relationship between STDs and HIV infections. (5 marks)

QUESTION FOUR

Define the following components of the HIV virus:

- a) Genome (1 mark)
- b) Capsid (1 mark)
- c) Envelope (1 mark)
- d) Matrix (1 mark)
- e) Spikes (1 mark)

QUESTION FIVE

- (a) Determine the genus, family, and subfamily of the Human Immunodeficiency Virus. (HIV) (3 marks)
- (b) What are the similarities and differences between HIV-1 and HIV-2? (2 marks)

QUESTION SIX

List and explain five functions of T-helper cells in the immune response. (5 marks)

QUESTION SEVEN

List the five common causative organisms and their roles in Sexually Transmitted Diseases.
(5 marks)

QUESTION EIGHT

Define the term "HIV" and give an account of the clinical progression and symptoms of HIV infection.
(5 marks)

SECTION B

QUESTION NINE

Discuss the steps of viral replication.
(15 marks)

QUESTION TEN

Discuss on innate and acquired immunity in relation to HIV/AIDS infection.
(15 marks)

QUESTION TWELVE

Discuss the impact of HIV/AIDS in the society.
(15 marks)

