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JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS 2022/2023
EXAMINATIONS FOR THE DEGREE OF MASTER OF SCIENCE IN MEDICAL VIROLOGY

TMM 3120: RETROVIROLOGY, VIRAL HEMORRHAGIC FEVER VIRUSES AND UNCONVENTIONAL VIRUSES

DATE: FEBRUARY 2023

TIME: 3 HOURS

Instruction: Answer any four questions

Question 1

HIV/AIDS pandemic remains a significant threat to public health. Despite availability of cART that suppresses plasma viral load to undetectable levels, cessation of treatment still leads to a viral rebound. Outline the cause(s) for this and best approach to overcome it (25 marks).

Question 2

- a) Outline the six steps in the HIV replication cycle. (5 marks)
- b) How can the 5 of the 6 steps above be inhibited? (20 marks)

Question 3

Discuss the epidemiology and transmission cycle of yellow fever virus (25 marks)

Question 4

Uganda is currently facing an Ebola outbreak, with a threat of spreading to Kenya. Discuss in detail the infection prevention and control measures for Ebola in an outbreak setting (25 marks)

Question 5

- a.) Describe cell transformation in association with oncogenic viruses (9 marks)
- b.) Discuss the main properties of transformed cells (16 marks)

Question 6

- a) Discuss the techniques used in the diagnosis of prion diseases in humans and animals (15 marks)
- b) Giving relevant examples, discuss acquired prion diseases (10 marks)