

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
BIOMEDICAL**

BMET 232: MEDICAL VIROLOGY

STREAMS:

TIME: 2 HOURS

DAY/DATE: THURSDAY 08/07/2021

8.30 A.M – 10.30 A.M

INSTRUCTIONS:

- i. Answer Question One and any other Two Questions**
- ii. Do not write on the question paper**

Question One (30 marks)

- a. Outline the factors that affect virus host range. (3 marks)
- b. Explain how virus inhibit host cell nucleic acid synthesis and RNA transcription. (6 marks)
- c. Draw the structure of a virus and highlight the basic structural forms of viruses in nature. (7marks)
- d. Briefly describe types of virus-cell interaction. (7 Marks)
- e. What are some of immunological responses to viral infections? (3marks)
- f. Outline the various properties of viruses. (4marks)

Question Two (20 marks)

- a. Describe in detail the various microscopy techniques used in viral visualization. (10 marks)
- b. What are the mechanisms of cell damage as a result of a virus infection? (10 marks)

Question Three (20 marks)

- a. Describe in details, any 5 types of viral propagation methods. (10 marks)

- b. What are the three primary methods used for the indirect enumeration of viruses?
(10 marks)

Question Four (20 marks)

- a. Describe the following methods used diagnostic microbiology.
- i. Antigen detection (5 marks)
 - ii. Nucleic acid detection (5 marks)
- b. Describe the various tests used for HIV detection and monitoring. (10 marks)
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