



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**MAIN EXAMINATION**

**JANUARY – APRIL 2019 TRIMESTER**

**FACULTY OF SCIENCE**

**DEPARTMENT OF BIOLOGY**

**REGULAR PROGRAMME**

**BIO 311: VIROLOGY**

**Date: April 2019**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and any other TWO Questions**

- Q1. a) Outline five characteristics of viruses (5marks)
- b) Differentiate enveloped viruses from naked ones (4 marks)
- c) Explain the following terms:
- i) Genome (1 mark)
  - ii) Virions (1 mark)
  - iii) Prions (1 mark)
  - iv) Vectors (1 mark)
- d) Describe the structure of bacteriophage (5 marks)
- e) Outline signs of influenza (4 marks)
- f) Describe prevention of herpes disease (3 marks)
- g) Outline the main symptoms of acute HIV infection (5 marks)
- Q2. Discuss classification of viruses (20 marks)
- Q3. Discuss viral replication cycle (20 marks)
- Q4. Citing examples, discuss genetic constitution of viruses (20 marks)

Q5. Discuss mechanisms of resistance to viruses in humans and plants **(20 marks)**

**\*END\***