



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

**A. M. E. C. E. A**

**MAIN EXAMINATION**

**AUGUST – DECEMBER 2017 TRIMESTER**

**FACULTY OF SCIENCE**

**DEPARTMENT OF BIOLOGY**

**REGULAR PROGRAMME**

**BIO 311: GENERAL VIROLOGY**

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**Date: DECEMBER 2017**

**Duration: 2 Hours**

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

- Q1. a) Explain the following terms as used in virology **(4 marks)**  
i) Genome  
ii) Lentiviruses  
iii) Prions  
iv) Viroids
- b) Differentiate between viruses and prokaryotes **(4 marks)**
- c) Explain quantification of viruses using plaque Assay technique **(3 marks)**
- d) Using examples describe various types of viral symmetry **(3 marks)**
- e) Differentiate between plant viruses and animal viruses **(4 marks)**
- f) Give examples of enveloped and non enveloped viruses **(4 marks)**
- g) Explain pathogenesis of Hepatitis B virus **(4 marks)**
- h) Describe symptoms associated with plant viruses **(4 marks)**
- Q2. Discuss various stages of viral replication **(20 marks)**
- Q3. Discuss with examples classification of viruses **(20 marks)**

- Q4. Discuss HIV and AIDS under the following subheadings. **(20 marks)**
- i) HIV structure
  - ii) Theories of HIV
  - iii) Stages of HIV and AIDS progression
  - iv) Laboratory diagnosis of HIV
  - v) Management of HIV and AIDS
- Q5. Discuss various methods of viral cultivation **( 20 marks)**

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