



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

JANUARY – APRIL 2017 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF BIOLOGY

REGULAR PROGRAMME

BIO 311: GENERAL VIROLOGY

Date: April 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) Retroviruses
 - ii) Lentiviruses
 - iii) Prions
 - iv) Viroids
- (b) State River's postulates as applied in virology **(3 marks)**
- (c) Explain quantification of viruses using plaque Assay technique **(4 marks)**
- (d) Using examples describe various types of viral symmetry **(3 marks)**
- (e) Differentiate between plant viruses and animal viruses **(4 marks)**
- (f) Describe damages caused by viruses in cells **(4 marks)**
- (g) Explain pathogenesis of Hepatitis B virus **(4 marks)**
- (h) Explain how plant viruses are transmitted **(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)**

END