JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE

PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT

2nd YEAR 1ST SEMESTER 2019 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE:	**HCD 3212**
COURSE TITLE:	**INTRODUCTORY VIROLOGY**
EXAM VENUE:	**STREAM: BSc Public/ Comm. Hlth & Dev**
DATE:	**EXAM SESSION:**

TIME: 2.00 HOURS

Instructions:

1. **Answer all the questions in Section A and 2 questions in Section B.**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A (30 MKS)

1. Outline how a non-enveloped virus attacks a host cell (3 mks).
2. Name the key requirements of a vaccine (3 mks).
3. Describe how viruses are transmitted (3 mks).
4. List the three different structures of viruses (3 mks).
5. Briefly describe the limitations of virus culture using animal systems (3 mks).
6. Outline how viruses can be identified using antibodies (3 mks).
7. Explain the principle of the plaque forming assay (3 mks).
8. Mention three properties that are common to all viruses (3 mks).
9. Outline the contribution of Dmitri Lwanowski in the study of virology (3 mks).
10. List ways in which viruses impact the host cells (3 mks).

SECTION B (40 MKS)

11. Discuss the virus multiplication cycle (20 mks)
12. Discuss the Baltimore virus classification method (20 mks)
13. Discuss how the HIV attaches to its target cells (20 mks)
14. Discuss the advantages and disadvantages of using live attenuated organisms as vaccines (20 mks)