JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE

PUBLIC HEALTH / COMMUNITY HEALTH AND DEVELOPMENT

2ND YEAR 1ST SEMESTER 2022/2023 ACADEMIC YEAR

MAIN/KISUMU CAMPUS

COURSE CODE: HBB 9204

COURSE TITLE: INTRODUCTORY VIROLOGY

EXAM VENUE: **STREAM: (BSc. Env. Hlth/ Comm Hlth & Dev)**

DATE: 19/12/2022   **EXAM SESSION: 15.00-17.00PM**

TIME: 2.00 HOURS

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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: ANSWER ALL QUESTIONS 30 MARKS

1. List THREE characteristics of viruses that make them to be considered non-living entities (3 marks)

2. Using an example of one viral disease, explain vertical transmission in viral diseases and how it can be prevented (3 marks)

3. Differentiate, giving examples, between localized and generalized infections (3 marks)

4. Explain what cytopathic effects are and how they arise (3 marks)

5. Mutations that occur in viruses are a feature of Public Health importance, explain (3 marks)

6. Is there such a thing as a "good virus"? Explain why or why not. Consider all types of viruses (3 marks)

7. Describe TWO (2) ways in which chronic persistent infections can present. Give a specific example in each case (3 marks)

8. Distinguish between killed and live-attenuated vaccines and give one advantage of each (3 marks)

9. Compare and contrast productive and restrictive viral infections (3 marks)

10. Explain post exposure prophylaxis and give three instances when it can be applied (3 marks)

SECTION B: ANSWER QUESTION ONE (1) AND ANY OTHER QUESTION (40 MARKS)

1. With the help of a diagram, discuss the activities and events involved in the viral replication process (20 marks)

2. a. Why are viral diseases more difficult to treat than bacterial diseases? (1 mark)

   b. If you were involved in developing an antiviral drug, what would be some important considerations? (3 marks)

   c. How could multiplication be blocked? (16 marks)

3. Discuss transmission of viruses by portal of entry and give examples of viral diseases under each group (20 marks)