



## **MASENO UNIVERSITY**

### **UNIVERSITY EXAMINATIONS 2016/2017**

**THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF SCIENCE IN MEDICAL  
LABORATORY SCIENCE WITH INFORMATION TECHNOLOGY**

### **MAIN CAMPUS**

### **PML 323: MEDICAL DIAGNOSTIC VIROLOGY**

Date: 5<sup>th</sup> June, 2017

Time: 12.00 - 3.00 pm

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#### **INSTRUCTIONS:**

- Answer question ONE and any other TWO questions in SECTION B.



**BSC. MEDICAL LABORATORY SCIENCES**

**EXAMINATION 2017**

**PML 323: MEDICAL DIAGNOSTIC VIROLOGY**

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**YEAR 1 SEMESTER 2**

**Answer question one and Two questions in section B**

1. Discuss the basis for the use of the following diagnostic procedures
  - a) Haemagglutination inhibition test in the diagnosis of human influenza virus disease (5mks)
  - b) Polymerase chain reaction in the diagnosis of human immunodeficiency virus type 1 (5mks)
2. Discuss the laboratory diagnosis and pathogenesis of Ebola virus infection (5mks)
3. Discuss the process involved in genome replication and translation of small pox virus infection (6mks)
4. Discuss the steps involved in the replication process of a negative stranded RNA Virus (7mks)
5. What is a virus (2mks)

**Section B: ANSWER Two Question, ONE is COMPULSORY**

1. Using the Herpes simplex virus types 2 as an example,, Discuss the the laboratory diagnosis and rationale for the use 5-Methoxymethyl-2' deoxycytidine (MMdCyd) in combination with Tetradeoxyuridine (J4dURD) in the management of herpes genitalia (20mks)
2. Discuss the processes involved in the genome replication and translation of Herpes simplex virus type -1 infection (20mks)
3. Outline the various mechanisms which viruses and cancer cells can become resistant to chemotherapeutic drugs (20mks)