



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

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

**PML 323: MEDICAL AND DIAGNOSTIC
VIROLOGY**

Date: 8th August, 2013

Time: 11.00 – 1.00pm

**PML 323: Medical and Diagnostic Virology
Special Exam August 2013**

Answer all the questions in SECTION A

SECTION A: (40 Marks)

1. Virus must enter and replicate in living cells in order to "reproduce/replicate". Briefly explain.
2. List components of the virus genome that contribute to its family classification.
3. Distinguish between productive and abortive viral infections.
4. State the targets for antiviral action in a productive viral replication cycle.
5. Some viruses use a cell receptor that may be widely distributed on cells, yet the tissue tropism is restricted. Briefly explain.
6. Briefly describe the origin of viral envelope.
7. State the possible direct cell damage that may result from viral infection.
8. Briefly explain how prior immunity in human influence the transmission of a virus.
9. State the viral markers for hepatitis B virus (HBV) diagnosis.
10. Briefly describe how measles virus infection is diagnosed in a virology laboratory.

Answer any TWO Questions in Section B

SECTION B: 30 Marks

1. Describe the basic steps of virus replication in a productive infection. **(15 marks)**
2. Describe various mechanisms of virus transmission, and give a specific example of a virus that is transmitted in each mode of transmission. **(15marks)**
3. Describe **THREE** methods of diagnosis of Human Immunodeficiency Virus (HIV) infection. **(15 marks)**