



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
(MICROBIOLOGY)**

SBT 332: PLANT VIROLOGY

DATE: TUESDAY, 3RD APRIL 2012

TIME: 11.00 A.M. – 1.00 P.M.

INSTRUCTIONS

- a) Answer **ALL** questions in Section A. Answers should be written in the spaces provided.
(Each question is 5 marks).
- b) Write an essay on **ONE** question in Section B (30 marks)

SECTION A

1. Enumerate 5 leaf symptoms caused by plant viruses

2. Tabulate five factors that contribute to production of plant viral symptoms

3. Tabulate ultra structural changes in plant cells due to viral infection

4. Write characteristics of viruses transmitted in a persistent manner

5 a) Explain mechanical transmission of plant viruses

b) What is the importance of mechanical transmission of plant viruses?

6. What problems could be encountered by long time storage of a virus isolate in a green house?

7 a) Write the cryptogram of cassava mosaic virus that has unknown molecular weight of nucleic acid and percentage of infective nucleic acid in infective particle

b) Translate the last code of viral cryptogram indicated below

P/cc

8 Outline 5 instances when infection by a virus in a plant may not always lead to obvious disease symptoms

SECTION B: ESSAY (30 MARKS)

1. Discuss management strategies of plant viruses
2. Discuss classification of isometric viruses
3. Discuss major viruses on common Bean (*Phaseolus vulgaris*)
