



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FIRST SEMESTER EXAMINATION FOR DIPLOMA IN AGRICULTURAL EDUCATION
AND EXTENSION

SPECIAL EXAMINATION

SBT 0205: PLANT PATHOLOGY

DATE: 1/9/2017

TIME: 8:30 – 10:30 AM

INSTRUCTIONS

1. This paper has sections A and B.
2. Section A has one question. Answer all questions in this section (totaling to 30 marks)
3. Answer any two questions in section B (20 marks each totaling to 40)

SECTION A (30 MARKS)

QUESTION ONE (COMPULSORY)

- a) Define the following terminologies used in Plant Pathology:
- | | |
|-------------------|-----------|
| i) Inoculum | (2 marks) |
| ii) Necrosis | (2 marks) |
| iii) Fumigation | (2 marks) |
| iv) Disease cycle | (2 marks) |
| v) Ascus | (2 marks) |
| vi) Ectoparasite | (2 marks) |
- b) Explain the use of solarization in managing soil borne pathogens. (2 marks)
- c) Identify 1 parasitic weed species that affects cow pea in Eastern Kenya and explain how it acquires food from the host plants. (2 marks)

- d) Describe three symptoms of bacterial wilt disease of tomato. (6 marks)
- e) Give two characteristics of fungi in the class basidiomycetes (4 marks)
- f) Explain 4 management strategies for the root knot nematode in tomato production. (4 marks)

SECTION B: ANSWER ANY OTHER TWO QUESTIONS

QUESTION TWO (20 MARKS)

- a) Describe 4 symptoms of cassava mosaic disease and give the name of the insect vector that transmits it. (10 marks)
- b) Explain 5 factors that cause noninfectious diseases in plants. (10 marks)

QUESTION THREE (20 MARKS)

- a) Explain 5 symptoms of the maize lethal necrosis disease and name the insect vectors that transmit it (10 marks)
- b) Illustrate using a diagram the disease tetrahedron and explain five main factors that affect it (10 marks)

QUESTION FOUR (20 MARKS)

- a) Explain 5 reasons why management of *Striga* sp. is a major challenge in maize production in Kenya. (10 marks)
- c) Explain 5 management strategies for viral diseases (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain 5 factors that affect the development of epidemics in plants. (10 marks)
- b) Describe 5 management strategies for soil borne diseases. (10 marks)