



# MACHAKOS UNIVERSITY COLLEGE

(A Constituent College of Kenyatta University)  
University Examinations for 2014/2015 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURE

SECOND SEMESTER EXAMINATION FOR DEGREE IN BACHELOR OF SCIENCE IN  
AGRIBUSINESS MANAGEMENT

**KST 201: PRINCIPLES OF CROP PROTECTION THEORY**

**Date: 26/4/2016**

**Time: 2.00-4.00 PM**

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## 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 (totaling to 20 marks each)

## SECTION A (30 marks)

### QUESTION ONE

- a) Define the following terminologies:
- |                                  |           |
|----------------------------------|-----------|
| i) Pest                          | (2 marks) |
| ii) Economic threshold of a pest | (2 marks) |
| iii) Disease                     | (2 marks) |
| iv) Etiology                     | (2 marks) |
| v) Biological control            | (2 marks) |
| vi) Alternate host               | (2 marks) |

- b) Differentiate between the terms symptoms and signs with respect to pests (4 marks)
- c) Name 2 parasitic weed species found in Kenya and state one crop affected by each weed. (4 marks)
- d) Name two invasive weeds in Kenya and explain five major challenges that any of them pose to the environment. (7 marks)
- e) List 3 reasons why Integrated Pest Management is important. (3 marks)

## SECTION B: ANSWER ANY TWO QUESTIONS

### QUESTION TWO

- a) Name 2 insect pests with the following characteristics;
  - i) Chewing mouth parts (2 marks)
  - ii) Sucking mouth parts; (2 marks)
- b) Name any 2 insect vectors that transmit viruses (2 marks)
- c) State one virus transmitted by each insect vector in Q2b (2 marks)
- d) Discuss any 6 strategies that can be used to control the virus diseases affecting plants (12 marks)

### QUESTION THREE

- a) List any ten factors that affect the development of epidemics (10 marks)
- b) Discuss any five of the factors in Q3a with respect to their role in the development of epidemics (10 marks)

### QUESTION FOUR

- a) List 5 symptoms caused by plant parasitic nematodes in crops (5 marks)
- b) Give an example of a species for each of the following :
  - (i) Migratory endoparasitic nematodes (1 mark)
  - (ii) Ectoparasitic nematodes (1 mark)
  - (iii) Semi endoparasitic nematodes (1 mark)
  - (iv) Cyst nematode (1 mark)
  - (v) Obese nematode (1 mark)
- c) Discuss five management strategies that can be used in the control of plant parasitic nematodes in crop production (10 marks)

### QUESTION FIVE

- a) What are non-infectious diseases (2 marks)
- b) Explain the effect of any four factors that cause non infectious diseases in plants (8 marks)
- c) List any 5 factors that cause infectious diseases to plants and discuss their effect on plant growth citing examples. (10 marks)