



2nd SEMESTER 2011/ 2012

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMMES: BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION
YEAR 2, BACHELOR OF SCIENCE IN AGRONOMY YEAR 2,
AND BACHELOR OF SCIENCE IN HORTICULTURE YEAR 2**

TITLE OF PAPER: AGRICULTURAL ENTOMOLOGY

COURSE CODE: CP 203

TIME ALLOWED: TWO (2) HOURS

- INSTRUCTIONS:**
- 1. THIS PAPER HAS FIVE (5) QUESTIONS**
 - 2. ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS**
 - 3. ALL QUESTIONS CARRY EQUAL MARKS OF TWENTY FIVE (25). MARKS FOR SUBSECTIONS ARE GIVEN IN BRACKETS WHERE APPLICABLE**

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN GRANTED
BY THE CHIEF INVIGILATOR**

Instruction:- Answer Question 1 and any other three (3) questions. All questions have 25 Marks.

Question 1

This question is compulsory

Give two (2) differences between the following:- (5 marks each)

- (a) Ants and termites
- (b) Heteroptera and Homoptera
- (c) Maize stemborer and the sorghum stemborer
- (d) Maize aphid and the sorghum aphid
- (e) An insect male reproductive system and a female one

(25 Marks)

Question 2

A. How would you identify each of the following pests? **(2 marks for each correct answer)**

- (a) African bollworm
- (b) African armyworm
- (c) Cotton aphid
- (d) Diamondback moth
- (e) Citrus psylla

B. What damage do these pests cause on the crops? **(3 marks for each correct answer)**

(25 Marks)

Question 3

A. Make a labelled sketch of each of the following:-

- (a) Insect body wall **(10 Marks)**
- (b) Insect alimentary canal **(10 Marks)**

- B. Briefly explain what you understand metamorphosis to be (5 Marks)
- (25 Marks)

Question 4

Give an example of a pest of an insect in each of the following insect Orders and also say how you would identify each of these insect Orders.

- (a) Lepidoptera (2.5 marks)
 - (b) Coleoptera (2.5 marks)
 - (c) Diptera (2.5 marks)
 - (d) Homoptera (2.5 marks)
 - (e) Heteroptera (2.5 marks)
 - (f) Thysanoptera (2.5 marks)
 - (g) Collembola (2.5 marks)
 - (h) Hymenoptera (2.5 marks)
 - (i) Orthoptera (2.5 marks)
 - (j) Isoptera (2.5 marks)
- (25 Marks)

Question 5

Giving examples, briefly explain the following methods of pest control.

- (a) Organic pesticides (5 marks)
 - (b) Biological pest control (5 marks)
 - (c) Biorational pest control (5 marks)
 - (d) Cultural pest control (5 marks)
 - (e) Legislative pest control (5 marks)
- (25 Marks)