



UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMMES:** BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION &  
EXTENSION YEAR TWO  
BACHELOR OF SCIENCE IN AGRONOMY YEAR TWO  
BACHELOR OF SCIENCE IN HORTICULTURE YEAR TWO

**COURSE CODE:** CP 203

**TITLE OF THE PAPER:** AGRICULTURAL ENTOMOLOGY

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTIONS:** ANSWER QUESTION 1 AND ANY OTHER THREE (3)  
QUESTIONS

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CHIEF INVIGILATOR**

**QUESTION 1**

- a) List ten (10) insect Orders and for each Order, give an example, and one (1) main characteristic. **(20 Marks)**
- b) State two (2) insect Orders with the following developments.
- i. Ametabolous **(1 mark)**
  - ii. Paurometabolous **(1 mark)**
  - iii. Hemimetabolous **(1 mark)**
  - iv. Holometabolous **(1 mark)**
  - v. Hypermetamorphosis **(1 mark)**
- (25 Marks)**

**QUESTION 2**

- a) Draw typical male and female reproductive systems of an insect, and label the different parts. **(15 marks)**
- b) What are the five (5) characteristics of Arthropods? **(5 marks)**
- c) State why insects are more successful than other living organisms? **(5 marks)**
- (25 Marks)**

**QUESTION 3**

- a) Draw a well-labelled sketch of a typical alimentary canal of an insect and state the function of each part labelled. **(20 marks)**
- b) Explain the following:
- i. Endemic pest **(1 mark)**
  - ii. Exotic pests **(1 mark)**
  - iii. Monophagous pest **(1 mark)**
  - iv. Polyphagous pest **(1 mark)**
  - v. Phytosanitary pest **(1 mark)**
- (25 Marks)**

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**QUESTION 4**

- a) Draw the three (3) mouthpart orientations and state examples of an insect with the mouthpart orientation. (6 marks)
  - b) List the six (6) insect's mouthparts. (6 marks)
  - c) List six (6) mouthpart modifications and examples of an insect with the mouthpart modification. (12 marks)
  - d) Draw insect antennae and label the different parts. (1 marks)
- (25 marks)**

**QUESTION 5**

- a) Name five (5) major pests of maize in Swaziland. (5 marks)
  - b) Describe how each of the pests mentioned above can be identified. (10 marks)
  - c) Explain how pests can be prevented or controlled? (10 marks)
- (25 marks)**