



FINAL EXAMINATION 2014

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE YEAR TWO IN AGRICULTURAL
EDUCATION, AGRONOMY AND HORTICULTURE**

COURSE CODE: CP 203

TITLE OF PAPER: AGRICULTURAL ENTOMOLOGY

TIME ALLOWED: TWO (2) HOURS

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

DO NOT OPEN UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR

Question 1

- (a) One of the reasons why insects are so successful on this planet is because of the bodywall they have. Explain how and why the bodywall of insects makes them particularly well adapted for just about any conditions on this earth.

(10 Marks)

- (b) In your view how do insects contribute to crop production? (10 Marks)

- (c) Compare and contrast the Mandibulata and the Chelicerata (5 Marks)

(25 Marks)

Question 2

- (a) Draw a well-labeled sketch of the alimentary canal of an insect and give the functions of each part labeled? (20 Marks)

- (b) Compare and contrast prognathous and opisthognathous mouth parts (5 Marks)

(25 Marks)

Question 3

Discuss how the law in any country can be used to control pests. **(25 Marks)**

Question 4

- (a) What are locusts? (5 Marks)

- (b) How do locust outbreaks occur? (10 Marks)

- (c) How and why do locusts cause so much devastation? (10 Marks)

(25 Marks)

Question 5

Citrus is a very important export crop in Swaziland. Answer the following questions about citrus production in Swaziland:-

- (a) Name any TWO (2) places where it is grown in Swaziland for export? (2 Marks)

- (b) Although citrus was initially grown in the middleveld the various orchards had to be abandoned because of pest problems. Explain. (5

Marks)

- (c) Name SIX (6) major pests of citrus in Swaziland and also describe how each of these pests can be identified.

(18 Marks)

(25 Marks)