



**2<sup>ND</sup> SEM. 2006/2007**

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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMMES: BACHELOR OF SCIENCE IN AGRICULTURAL  
EDUCATION YEAR 4 AND BACHELOR OF SCIENCE IN  
AGRICULTURE YEAR 4 (CROP PRODUCTION AND  
HORTICULTURE OPTIONS)**

**TITLE OF PAPER: AGRICULTURAL ENTOMOLOGY**

**COURSE CODE: CP 405**

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

**INSTRUCTIONS: 1. THIS PAPER HAS SIX (6) QUESTIONS  
2. ANSWER ANY FIVE (5) QUESTIONS.**

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

**INSTRUCTIONS: 1. THIS PAPER HAS SIX (6) QUESTIONS  
2. ANSWER ANY FIVE (5) QUESTIONS.**

**Question 1**

Describe in detail, a pest from each of the following families:

- i. Diaspididae (5)
- ii. Tephritidae (5)
- iii. Gelechiidae (5)
- iv. Tetranychidae (5)
- v. Tenebrionidae (5)

**[Total = 20 marks]**

**Question 2**

Using the nitrogen cycle, describe how an ecosystem functions as a unit, with energy and nutrients flow between named biotic and abiotic components.

**[Total = 20 marks]**

**Question 3**

Name the non-harvestable components of plant biodiversity in agro-ecosystems and discuss their ecological value.

**[Total = 20 marks]**

**Question 4**

Describe steps followed during the implementation of a Biological control programme.

**[Total = 20 marks]**

**Question 5**

What threats do agricultural activities pose to invertebrates? Discuss these with special reference to insects.

**[Total = 20 marks]**

**Question 6**

Using named examples, differentiate between the following:

- i. Primary and secondary succession (5)
- ii. Intraspecific and interspecific competition (5)
- iii. Total Population Management and Integrated Pest management (10)

**[Total = 20 marks]**