



2nd SEMESTER 2005/2006

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION

PROGRAMME: REMEDIAL YEAR IN AGRICULTURE AND REMEDIAL YEAR IN AGRICULTURAL EDUCATION.

COURSE CODE: CP 306

TITLE OF PAPER: CROP PROTECTION

TIME ALLOWED: TWO (2) HOURS

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

BEGIN EACH QUESTION ON A NEW SHEET

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COURSE CODE: CP 306

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QUESTION 1

(This question is compulsory)

A) Briefly explain what EACH of the following means:-

- | | |
|-----------------------------|-----|
| i) Elytra | [1] |
| ii) Pronotum | [1] |
| iii) Ecological niche | [1] |
| iv) Aposematic | [1] |
| v) Habitat | [1] |
| vi) Nymph | [1] |
| vii) Complete metamorphosis | [1] |
| viii) Hypermetamorphosis | [1] |
| ix) Oviparous | [1] |
| x) Maxilla | [1] |
| xi) Pleural membrane | [1] |
| xii) Tympanum | [1] |
| xiii) Exocuticle | [1] |

B) Explain the following:

- | | |
|--------------------|-----|
| i) Disease pyramid | [4] |
| ii) biotrophs | [2] |
| iii) necrotrophs | [3] |
| iv) enations | [3] |

[25 Marks]

QUESTION 2

Name one insect belonging to each of the insect Orders listed below and give 3 identifying characteristics of each Order:-

- Lepidoptera
- Coleoptera
- Thysanoptera
- Orthoptera
- Hemiptera (Heteroptera)

[25 Marks]

QUESTION 3

- a) Name the most important pest of each of the following crops:
 - i) Sorghum [1]
 - ii) Green beans [1]
 - iii) Tomatoes [1]
 - iv) Cotton [1]
 - v) Citrus [1]
- b) How would you identify each pest? [10]
- c) Describe the damage each of the pest causes. [10]

[25 Marks]

QUESTION 4

- a) Explain the different means a fungal spore can penetrate its host. [10]
- b) Compare and contrast fungal leafspots and bacterial leafspots. [10]
- c) List any five symptoms caused by viruses on crops. [5]

[25 Marks]

QUESTION 5

- a) Define a disease. [5]
- b) Using an example, contrast symptoms and signs. [6]
- c) Describe the symptoms of grey leaf spot on maize and how the disease can be controlled? [10]
- d) List any four genera of phytopathogenic bacteria. [4]

[25 Marks]