



1st SEMESTER 2007/2008

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION

**PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURAL
EDUCATION YEAR 3 (NEW), BACHELOR OF SCIENCE
IN AGRONOMY YEAR 3 (NEW), AND BACHELOR OF
HORTICULTURE YEAR 3 (NEW)**

COURSE CODE: CP 303

TITLE OF PAPER: PLANT PATHOLOGY & DISEASE MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS
BEGIN EACH QUESTION ON A NEW SHEET**

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THE CHIEF INVIGILATOR**

QUESTION 1

- a) Discuss the three fundamental elements required for disease in plants. (10)
- b) When doing plant disease diagnosis, plant parts with a range of symptoms from early stages to late stages of disease should be used instead of completely dead plants. Explain this recommendation. (5)
- c) What is the difference in the function between a nonhost-specific and a host-specific toxin in pathogenesis? (5)
- d) Compare and contrast race-specific and general race-non specific resistance. (5)

[25 marks]

QUESTION 2

Write short notes on the following:

- a) Downy mildew (5)
- b) Powdery mildew (5)
- c) Rust (5)
- d) Vascular wilts (5)
- e) Parasitic flowering plants (5)

[25 marks]

QUESTION 3

Discuss the following strategies as they relate to bacterial disease management:

- a) Exclusion (5)
- b) Eradication (10)
- c) Protection (10)

[25 marks]

QUESTION 4

Discuss the following strategies as they relate to viral disease management:

- a) Avoidance (4)
- b) Exclusion (4)
- c) Eradication (8)
- d) Protection (9)

[25 marks]

QUESTION 5

- a) Why are all viruses considered obligate parasites? (5)
- b) Write short notes on hemiparasitic and holoparasitic flowering plants. (10)
- c) Nematodes and zoospores are said to be chemotactic, what does that mean? (5)
- d) What are oomycetes. (5)

[25 marks]