

27



SUPPLEMENTARY 2005/2006

PAGE 1 OF 2

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION

PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURE YEAR 4 (CROP PRODUCTION, HORTICULTURE OPTIONS)

COURSE CODE: CP 404

TITLE OF PAPER: PLANT PATHOLOGY

TIME ALLOWED: TWO (2) HOURS

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

DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE CHIEF INVIGILATOR

QUESTION 1

Discuss the two types of mycorrhiza and how they benefit plants they colonize. [25 Marks]

QUESTION 2

Using diagrams, describe the life cycle of *Phytophthora infestans* and indicate in the life cycle the best stage to control the pathogen. [25 Marks]

QUESTION 3

Explain the post-infection changes that occur in an infected plant's physiology. [25 Marks]

QUESTION 4

Name the causal agents of the following diseases:

- a) Bacterial wilt on tomatoes [4]
- b) Halo blight on beans [5]
- c) Angular leaf spot on beans [4]
- d) Grey leaf spot on maize [4]
- e) Early blight on potatoes [4]
- f) Smut on maize cobs [3]

[25 Marks]

QUESTION 5

Discuss how plants defend themselves chemically when attacked by pathogens (induced biochemical defenses). [25 Marks]