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UNIVERSITY OF SWAZILAND

RE-SIT EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION LEVEL 2, BACHELOR OF SCIENCE IN AGRONOMY LEVEL 2, AND BACHELOR OF SCIENCE IN HORTICULTURE LEVEL 2.

COURSE CODE: CPR206

TITLE OF PAPER: PLANT PATHOLOGY & CROP DISEASE MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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

QUESTION 1

a. With the aid of a diagram, describe three ascocarps in ascomycetes and give an example of a fungus that produces each ascocarp. (10 Marks)

b. Define the gene-for-gene concept. (4 Marks)

c. List the different stages of disease development (5 Marks)

d. Describe how biotrophs enter their hosts when there are no natural openings and wounds. (6 Marks)

[25 Marks]

QUESTION 2

a. How are bacterial diseases disseminated. (8 Marks)

b. List Koch's postulates and their exceptions. (7 Marks)

c. With the aid of a diagram, explain how the different genera of the order Erysiphales are delimited. (8 Marks)

d. List any two subclasses of the telemorphic stage of an ascomycete. (2 Marks)

[25 Marks]

QUESTION 3

Describe a disease profile of a disease of your choice, except those found in maize..

[25 Marks]

QUESTION 4

Name the causal agents of the following diseases:

a) Bacterial wilt on tomatoes (3 Marks)

b) Halo blight on beans (4 Marks)

c) Angular leaf spot on beans (3 Marks)

d) Grey leaf spot on maize (3 Marks)

e) Early blight on potatoes (3 Marks)

f) White rust on mustard leaf (3 Marks)

g) Smut on sugarcane (3 Marks)

h) rust on beans (3 Marks)

[25 Marks]

QUESTION 5

Describe properties of any five phytopathogenic bacteria.

[25 Marks]