



1st SEMESTER 2015/2016

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION

PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION YEAR 3, BACHELOR OF SCIENCE IN AGRONOMY YEAR 3, AND BACHELOR OF SCIENCE IN HORTICULTURE YEAR 3.

COURSE CODE: CP 304

TITLE OF PAPER: PLANT PATHOLOGY & DISEASE MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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QUESTION 1

In plant diseases, discuss:

- a). True resistance (12 marks)
 - b) Apparent resistance (8 marks)
 - c) Gene-for- gene concept (5 marks)
- [25 marks]**

QUESTION 2

In genetics of plant disease, discuss the different specialised mechanisms of variability in:

- a) Fungi (12 marks)
 - b) Bacteria. (13 marks)
- [25 marks]**

QUESTION 3

- a) Name five diseases that attack groundnuts (5 marks)
 - b) List the ascocarps of Ascomycetes (3 marks)
 - c) Compare symptoms of common and halo blight on beans (6 marks)
 - d) Describe the spore stages of *Puccinia sorghi* on maize (11 marks)
- [25 marks]**

QUESTION 4

Discuss the disease profile of gray leafspot on maize **[25 marks]**

QUESTION 5

You are the Plant Pathologist in your ministry responsible for feeding your country. The Ministry is promoting Conservation Agriculture (CA) as a farming method that should be used in order to mitigate the effects of climate change.

- (i) What would be your position or take on this promotion of CA? (10 Marks)
- (ii) Using a disease on a crop of your choice, explain the negative impact the adoption of CA would have on the disease if used generally. (15 Marks)

[25 marks]