



2ND SEMESTER 2017/2018

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UNIVERSITY OF SWAZILAND

RE-SIT/SUPPLEMENTARY EXAMINATION

**PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY LEVEL 2,
BACHELOR OF SCIENCE IN AGRONOMY YEAR 3, BACHELOR
OF SCIENCE IN AGRICULTURAL EDUCATIONS LEVEL 2,
BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION YEAR
3, BACHELOR OF SCIENCE IN AGRICULTURAL EXTENSION
LEVEL 2, BACHELOR OF SCIENCE IN HORTICULTURE LEVEL
2, AND BACHELOR OF SCIENCE IN HORTICULTURE YEAR 3**

COURSE CODE: CPR206/CP 304

TITLE OF PAPER: PLANT PATHOLOGY AND DISEASE MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS

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

QUESTION 1

A farmer who is a dry bean grower has started noticing problems with the germination of his crop. He obtains his bean seeds from a reputable seed company. From a plant pathology perspective:

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|----|--|-------------------|
| a. | diagnose what you think the problem might be | (8 marks) |
| b. | List possible signs/symptoms | (6 marks) |
| c. | What are possible causal agents? | (5 marks) |
| d. | Advise the farmer on what to do. | (6 marks) |
| | | [25 marks] |

QUESTIONS 2

Describe the spore stages of *Puccinia sorghi* on maize **[25 marks]**

QUESTION 3

In plant diseases, discuss:

- | | | |
|----|------------------------|-------------------|
| a) | True resistance | (15 marks) |
| b) | Apparent resistance | (8 marks) |
| c) | Gene-for- gene concept | (2 marks) |
| | | [25 marks] |

QUESTION 4

Discuss a fungal disease of a major crop in Swaziland under the following topics:

- | | | |
|-------|---------------------------------------|-------------------|
| (i) | Name of crop | (1 marks) |
| (ii) | Name of disease | (1 marks) |
| (iii) | Causal agent | (3 marks) |
| (iv) | Epidemiology | (3 marks) |
| (v) | Symptoms | (7 marks) |
| (vi) | How the pathogen survives/overwinters | (5 marks) |
| (vii) | Control/management measures | (5 marks) |
| | | [25 marks] |

QUESTION 5

Describe properties of any five phytopathogenic bacteria.

[25 Marks]