



810

1st SEMESTER 2016/2017

PAGE 1 OF 3

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

**PROGRAMME:** BACHELOR OF SCIENCE IN AGRICULTURAL  
ECONOMICS AND AGRIBUSINESS YEAR TWO  
  
BACHELOR OF SCIENCE IN ANIMAL SCIENCE  
YEAR 2  
  
BACHELOR OF SCIENCE IN ANIMAL SCIENCE  
YEAR 2 (DAIRY OPTION)

**COURSE CODE:** CPR 211

**TITLE OF PAPER:** PRINCIPLES OF CROP PRODUCTION

**TIME ALLOWED:** TWO (2) HOURS

**INSTRUCTION:** ANSWER QUESTIONS 1 AND 2, WHICH ARE  
COMPULSORY AND ANY OTHER TWO QUESTIONS OF  
YOUR CHOICE

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

82

**QUESTION 1**  
**(THIS IS A COMPULSORY QUESTION)**

- (a) What are greenhouse gases? [3 marks]
- (b) Name four main sources of greenhouse gases in Swaziland [4Marks]
- (c) Explain how can these greenhouse gases be reduces in Swaziland (7 Marks)
- (d) A farmer wishes to apply 75 kg/ha of nitrogen to a maize crop. Name two sources (carriers) of nitrogen and calculate the mass (kg/ha) of each nitrogen source the farmer will need for the 75 kg/ha of nitrogen.

(14 Marks)  
[28 Marks]

**QUESTION 2**  
**(THIS IS A COMPULSORY QUESTION)**

Write briefly on **a to g** listed below. Give examples to illustrate your answers, where necessary. Each question carries four marks.

- (a) Ideal characteristics of an agroforestry tree
- (b) Seed viability tests
- (c) Stages of on-farm trials
- (d) Seed health
- (e) Methods of determining seed moisture content in crops
- (f) Methods of applying fertilisers to crops
- (g) Organic fertilisers

[28 Marks]

**QUESTION 3**

Write an essay on "Organic Manures"

[22 Marks]

**QUESTION 4**

Distinguish between the following pairs of words/terms. Use examples and/or diagrams to illustrate your answers.

- (a) Top dressing fertiliser and side dressing fertilizer (4 Marks)
- (b) Complete and incomplete compound fertilisers (4 Marks)
- (c) Cropping system and farming system (4 Marks)
- (d) Trace elements and minor nutrients (4 Marks)
- (e) Normal and abnormal seedlings (3 Marks)
- (f) Relay intercropping and catch crop (3 Marks)

**[22 Marks]****QUESTION 5**

What is drought?

**[5 Marks]**

Name five causes of drought?

**[5 Marks]**

Write on the effects of drought on crops and livestock in Swaziland and what measures can be taken to reduce the adverse effects of drought.

**[12 Marks]****[22 Marks]**