



1st SEMESTER 2013/2014

PAGE 1 OF 3

UNIVERSITY OF SWAZILAND

FINAL 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: CP 205

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

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

(a) Write an essay on "Conservation Agriculture". (14 Marks)

(b) A farmer has been advised to apply 75kg/ha of nitrogen and 37.6 kg/ha of phosphorus to his maize crop. If the farmer applied the advised amount of phosphorus using a compound fertiliser 2-3-2 (22). How many kg of limestone ammonium nitrate will the farmer apply to obtain the balance of the 75 kg/ha of nitrogen that he was advised to apply? Show your calculations. (14 Marks)
[28 Marks]

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

Write briefly on (a to g) the following. Give examples to illustrate your answers, where necessary. Each question carries four marks.

- (a) Ideal characteristics of an agroforestry tree
- (b) Factors that affect efficient use of fertilisers by crops
- (c) Seed vigour tests
- (d) Botanical classification of crops
- (e) Criteria for essential elements
- (f) Seed viability tests
- (g) Factors affecting seed rates in crops

[28 Marks]

QUESTION 3

Write an essay on climate change

[22 Marks]

QUESTION 4

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

- (a) Organic and inorganic fertilisers (4 marks)
- (b) Dollop and spot application of fertiliser (4 marks).
- (c) Nurse crop and companion crop (3 marks)
- (d) Normal and abnormal seedlings (4 marks)^k
- (e) Inter-plant and intra-plant competition (3marks) ✓
- (f) Relay intercropping and catch crop (4 marks)

[22 Marks]

QUESTION 5

List five types of organic manures and write on the advantages and the disadvantages of organic manures in general

[22 Marks]