



UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER

**PROGRAMME: BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS
AND AGRIBUSINESS YEAR TWO**

BACHELOR OF SCIENCE IN ANIMAL SCIENCE YEAR TWO

**BACHELOR OF SCIENCE IN ANIMAL SCIENCE YEAR TWO
(DAIRY OPTION)**

COURSE CODE: CPR211

TITLE OF PAPER: PRINCIPLES OF CROP PRODUCTION

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: ANSWER QUESTION ONE, WHICH IS A COMPULSORY
QUESTION AND ANY OTHER THREE (3) QUESTIONS**

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THE CHIEF INVIGILATOR**

QUESTION 1

The shortage of tractors during the ploughing season is one of the serious problems that results in low crop yields for farmers under the Swazi Nation Land in Swaziland. Most of the farmers under this land tenure system own 1-2 ha of land for their farming purposes. You have been employed by the Ministry of Agriculture as an Extension Officer, describe the cropping system method you would advise the farmers to use in order to solve the problem (shortage of tractors).

(25 Marks)

QUESTION 2

a. A farmer wishes to plant old maize seed from a previous season, whose viability is 55%. How many kg of seed should he/she plant on a farm of 12 ha? If he had paid E15.00/kg of seed, how much will the seeds for the 12 ha cost? (14 marks)

b. What are the factors that may affect the quality of seed during harvest (4 factors) and after harvest (7 factors) (11 marks)

QUESTION 3

a. Describe the effect of temperature on crop production. (12 Marks)

b. Describe the effect of moisture on crop production. (13 Marks)

QUESTION 4

Write briefly on the following. Give examples to illustrate your answers, where necessary.

- a. Catch crops (3 Marks)
- b. Exhaustive crops (4 Marks)
- c. Smother crops (4 Marks)
- d. Nurse crops (3 Marks)
- e. Guard/barrier crops (4 Marks)
- f. Trap crops (4 Marks)
- g. Cover crops (3 Marks)

QUESTION 5

- a) Describe crop classification based on the life of crops/duration of crops in the field.
(9 Marks)

- b) Describe the botanical classification of maize and beans.
(16 Marks)