

125



**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

1ST SEMESTER 2016-2017

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR 4

COURSE CODE: CP 403

TITLE OF PAPER: FIBRE, TOBACCO AND TUBER CROPS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER QUESTION 1 AND 2 AND ANY OTHER TWO QUESTIONS

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

COURSE CODE: CP 403 (F) 2016 - 2017

126

QUESTION 1 - COMPULSORY

Describe the cultivation of any root or tuber crop under each of the following headings:

- a) Climatic and soil requirements (5 marks)
- b) Seed-bed preparation (5 marks)
- c) Fertiliser requirements (5 marks)
- d) Insect pest and disease control (5 marks)
- a) Yield per hectare (5 marks)

[25 Marks]

QUESTION 2 - COMPULSORY

- a) Describe how cotton is harvested by smallholder farmers (5 marks).
- b) Name and describe the factors affecting the yield and quality of cotton (10 marks).
- c) Name and describe the factors that determine the grade of cotton and, have far reaching impacts on breeding, farming, ginning, and merchandising cotton (10 marks).

[25 Marks]

QUESTION 3

- a) Describe the various methods of planting cassava stem cuttings, indicating the unique features of each method (7 marks).
- b) Discuss the nutritional value of cassava roots and how a diet based cassava may be improved (8 marks).
- a) Discuss the toxic factors present in cassava and measures to safety levels in respect to human consumption and implications in the productivity of livestock (10 marks).

[25 Marks]

QUESTION 4

- b) Give the main advantages of planting tuber crops in mounds and ridges (7 marks).
- c) What are the limitations of planting the tuber crops on ridges? (3 marks).
- d) Give reasons why seedbeds should be prepared early (5 marks).
- e) In some crops organs that are 'sources' of photo assimilates change with crop growth and development. Discuss this observation with specific examples (10 marks).

[25 Marks]

COURSE CODE: CP 403 (F) 2016 - 2017

127

QUESTION 5

Cotton production in Swaziland provides employment in rural communities yet its production in the 2015/2016 season decreased considerably but increased by 113% in neighbouring South Africa. Discuss this situation and propose strategies for increasing Swazi production.

[25 Marks]