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UNIVERSITY OF SWAZILAND
SUPPLEMENTARY 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

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COURSE CODE: CP 403 (S) 2016 - 2017

QUESTION 1 - COMPULSORY

Describe the cultivation of cotton 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) Explain what the harvest index is and indicate how it is calculated (5 marks)
- b) Give an explanation as to why the harvest index is low in some crops (5 marks)
- c) How could the harvest index be improved? (15 marks)

[25 Marks]

QUESTION 3

Describe three mechanisms that are considered to contribute to drought tolerance for each of the following crops:

- a) Cotton
- b) Cassava

[25 Marks]

QUESTION 4

Water stress from too little water is usually the most serious problem in potato production. Describe the effects of a shortage and excess of water on the performance of a potato crop. (*Solanum tuberosum* L.)

[25 Marks]

QUESTION 5

- a) Describe the two most important constraints in sweetpotato production (10 marks)
- b) Outline the ecological requirements of the potato (*Solanum tuberosum* L.) (10 marks).
- c) Distinguish with examples, the two major types of competition in crop production (5 marks)

[25 Marks]