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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

2nd SEMESTER 2016-2017

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR 2

COURSE CODE: CPR202

TITLE OF PAPER: ANNUAL CROPS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER QUESTIONS 1 & 2 AND ANY OTHER TWO QUESTIONS.

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COURSE CODE: CPR202 (F) 2016 - 2017

QUESTION 1 - COMPULSORY

Describe the cultivation of the Irish potato under each of the following headings:

a) Climatic and soil requirements (5 marks)

b) Seed-bed preparation and planting (5 marks)

c) Fertiliser requirements (5 marks)

d) Insect pest and disease control (5 marks)

e) Yield per hectare (5 marks)

[25 Marks]

QUESTION 2 - COMPULSORY

a) Describe the factors that determine the most suitable planting date for dry beans. (5 marks)

b) Explain the relationship between nodulation and dry matter and grain yield (5 Marks)

c) Describe two diseases and two pests commonly associated with beans (*Phaseolus vulgaris* L.) and give their symptoms and control. (10 Marks)

d) Explain the horticultural maturity in beans. (5 Marks)

[25 Marks]

QUESTION 3

a) Explain five factors that make maize an important crop in Swaziland. (5 marks)

b) Explain the advantages of planting hybrid seeds over the local seeds. (5 marks)

c) Describe how you would control witch weed (*Striga asiatia* L. Kuntze) in cereal production.(5 marks)

d) Compare and contrast the performance of sorghum to maize in terms of yield in all production areas in Swaziland.(5 marks)

e) List and describe the different products for human consumption that are produced from sorghum.(5 marks)

[25 Marks]

QUESTION 4

a) Explain the advantages of ridging in potato production. (10 marks)

b) Why are the vine cuttings in sweet potatoes preferred to roots as planting material in propagation? (5 marks)

c) Explain why nitrogen fertilizers are not a requirement in root crops. (5 marks)

[25 Marks]

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QUESTION 5

a) Explain what the harvest index is and indicate how it is calculated (5 marks)

b) Give reasons why the harvest index is low in some crops (10 marks)

c) How could the harvest index be improved? (10 marks)

[25 Marks]