



1ST SEMESTER 2007/2008

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR 4

COURSE CODE: CP 401

TITLE OF PAPER: CEREAL CROP PRODUCTION

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTION: ANSWER A TOTAL OF FIVE [5] QUESTIONS. ALL
QUESTIONS CARRY EQUAL MARKS.**

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

INSTRUCTIONS: ANSWER ANY FIVE [5] QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

QUESTION 1

Using one or more named cereal crops, write an essay on the group of plants called 'grasses', and show that the cereal crops named are grasses.

[20 marks]

QUESTION 2

(a). Identify and discuss **THREE** major problems associated with the production of the staple food of Swaziland. (15 marks)

(b). For any **TWO** of the problems identified in 2(a) above, identify and discuss possible agricultural solutions. (5 marks)

[20 marks]

QUESTION 3

(a). Based on habitat, name and classify a cereal crop that is not grown on a large scale in Swaziland, but its cultivation is actively promoted by a diplomatic mission near the town of Matsapha, is commonly sold in stores, and commonly features as food in homesteads, and during ceremonies. (3 marks)

(b). If farmers in Manzini region consulted you and wished to know which type of the cereal named in 3(a) above would be suitable to grow, which type would you recommend? Justify your answer. (2 marks)

(c). Explain the following terms and describe in detail how each is achieved:

- i. Parboiling (8 marks)
- ii. Winnowing (3 marks)
- iii. Milling (4 marks)

[20 marks]

INSTRUCTIONS: ANSWER ANY FIVE [5] QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

QUESTION 4

- (a). Identify one cereal crop that you would recommend for cultivation in the Lowveld of Swaziland, by stating its scientific name, the common English name, and the siSwati name, respectively. (3 marks)
- (b). Giving two reasons, discuss why you would recommend the cereal crop identified in 4(a) above, to be cultivated in the Lowveld of Swaziland. (5 marks)
- (c). Giving two reasons, explain why you would not recommend the cereal crop named in 4(a) above, to be cultivated in the Highveld of Swaziland. (5 marks)
- (d) Make a botanical description of the cereal crop named in 4(a) above. (7 marks)
[20 marks]

QUESTION 5

- (a). Relative to other crop plants, of what importance are cereals in the world's economy? (4 marks)
- (b). Specify one cereal and list five ways in which its major products are utilized. (5 marks)
- (c). Stating the respective common English names and scientific names, identify two cereal crops that are not grown in Swaziland, but their products are commonly used in industry in Swaziland. (4 marks)
- (d). Explain why the two cereal crops named in 5(b) above are not grown in Swaziland, despite the industrial use of these cereal crops in Swaziland. (4 marks)
- (e). Specify how one of the crops named in 5(c) is used in Swaziland. (3 marks)
[20 marks]

INSTRUCTIONS: ANSWER ANY FIVE [5] QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.

QUESTION 6

Answer this question by filling in the required information in the blank spaces. [After answering Question 6, detach this page from the question paper, and insert it in the middle of your answer booklet, as you submit the booklet.]

(a). Complete the blank spaces for any three cereal crops.

No.	Common English name of cereal	Scientific name	Recommended inter-row spacing	Recommended intra-row spacing	One major infectious disease	One major insect pest
i.						
ii.						
iii.						

(0.5 marks each space x 18 = 9 marks)

(b). For the cereal named in 6(a)i above, state below TWO features that differentiate it from the cereal named in 6(a)ii above.

- i.
- ii. (10 marks)

(c). State below one industrial use of the cereal named in 6(a)iii above.

..... (1 mark)
[20 marks]