



2ND SEMESTER 2005/2006

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMMES: DIPLOMA IN AGRICULTURE YEAR 1
DIPLOMA IN AGRICULTURAL EDUCATION YEAR 1
DIPLOMA IN HOME ECONOMICS YEAR 1
DIPLOMA IN HOME ECONOMICS EDUCATION YEAR 1**

COURSE CODE: CP 100

TITLE OF PAPER: CROP BOTANY

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTION: ANSWER A TOTAL OF THREE [3] QUESTIONS.
ANSWER QUESTION ONE [1], WHICH IS
COMPULSORY, AND ANY OTHER TWO [2]
QUESTIONS.**

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

INSTRUCTIONS: **ANSWER A TOTAL OF THREE [3] QUESTIONS.**
ANSWER QUESTION ONE [1], WHICH IS
COMPULSORY, AND ANY OTHER TWO [2]
QUESTIONS.

QUESTION 1
(THIS QUESTION IS COMPULSORY)

Copy the list below, using the same sequence in which the items appear. Give the scientific names of the following species:

- | | |
|------------------|------------------|
| (a) Carrot | (k) Grapefruit |
| (b) Maize | (l) Mango |
| (c) Sweetpotato | (m) Cassava |
| (d) Irish potato | (n) Sorghum |
| (e) Cabbage | (o) Barley |
| (f) Field bean | (p) Oat |
| (g) Banana | (q) Apple |
| (h) Orange | (r) Spinach |
| (i) Avocado pear | (s) Green pepper |
| (j) Sugarcane | (t) Cotton. |

[Total marks for question 1 = 40 marks]

INSTRUCTIONS: **ANSWER A TOTAL OF THREE [3] QUESTIONS.**
ANSWER QUESTION ONE [1], WHICH IS
COMPULSORY, AND ANY OTHER TWO [2]
QUESTIONS.

QUESTION 2

With the help of diagrams, write short notes on the dark reaction and the light reaction of photosynthesis.

[Total marks for question 2 = 30 marks]

QUESTION 3

Write short notes on each of the following plant physiological processes:

- (a) Transpiration [6]
- (b) The water-absorbing capacity of plant cells [6]
- (c) Osmosis [6]
- (d) The role of stomata, their movement and the sequence of events in sugar synthesis. [6]
- (e) Photoperiodism in crop plants [6]

[Total marks for question 3 = 30 marks]

QUESTION 4

Write an essay on crop nutrition and the role of any named FOUR mineral nutrients in crop plants.

[Total marks for question 4 = 30 marks]