



**2<sup>nd</sup> SEM 2010/2011**

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**UNIVERSITY OF SWAZILAND  
SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME: B.Sc. IN AGRICULTURAL ECONOMICS AND  
AGRIBUSINESS MANAGEMENT 4 AND B.Sc. IN LAND AND  
WATER MANAGEMNT 4.**

**COURSE CODE: CP 402**

**TITLE OF PAPER: FIELD CROPS**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS.**

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CHIEF INVIGILATOR**

**QUESTION 1**

Give a brief explanation of the following:

- (a) Seed dormancy
- (b) Seed viability
- (c) Imbibition of water
- (d) Leaf area index
- (e) Photoperiodism

**(25 marks)**

**QUESTION 2**

(a) Topping and suckering is a management practice that enhances the quality of the leaf in tobacco plants. Explain what is meant by the two terms and indicate their importance in tobacco production

**(20 marks)**

(b) Tobacco leaves can be harvested using two methods. Outline the two methods.

**(5 marks)**

**QUESTION 3**

Cassava is one of the few drought tolerant crops being promoted in almost all the countries experiencing recurrent drought conditions. While this is true in most of the countries in the African Continent, Swaziland is opening a firm in the lowveld that will utilize cassava tubers “just for starch” production. As a University Graduate, how would you advise the Ministry of Agriculture on this action?

**(25 marks)**

**QUESTION 4**

(a) Name the two types of groundnuts based on their growth habit and choose one type that you would recommend for a smallholder farmer who wish to produce “butter” and explain why you chose that type.

**(15 marks)**

(b) Give at-least five (5) reasons why recent studies indicate fluctuations and downward trend in groundnuts production in Africa.

**(10 marks)**

**QUESTION 5**

- (a) Maize plants have three types of roots. Name the different roots and their importance in maize plant growth. **(12 marks)**
- (b) Briefly describe the three stages of grain filling in maize up until it reaches physiological maturity. **(8 marks)**
- (c) Weeding in maize production should be conducted at-least twice in a growing season. Describe the feeding method of Witch-weed. **(5 marks)**