



**2<sup>ND</sup> SEM 2007/2008**

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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME: B.Sc. IN AGRICULTURE V: CROP PRODUCTION  
OPTION, LAND AND WATER MANAGEMENT OPTION  
AND B.Sc. IN AGRICULTURAL EDUCATION V**

**COURSE CODE: CP 507**

**TITLE OF PAPER: FIELD CROPS**

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

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

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THE CHIEF INVIGILATOR**

**QUESTION 1**

Give a brief explanation of the following (each carries 5 marks):

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

**(25 marks)**

**QUESTION 2**

The increased production of sugarcane in Swaziland in recent years has resulted in decreased food security. Discuss.

**(25 marks)**

**QUESTION 3**

- (a) Outline the factors affecting tuber formation in sweet potatoes. (15)
- (b) How can you improve the tuber yield of sweet potatoes. (10)

**(25 marks)**

**QUESTION 4**

- (a) Canopy structure could influence yield other than by canopy photosynthesis in maize. Discuss this statement. (10)
- (b) List at-least five characteristics of a maize plant that needs improvement to increase its yield potential. (15)

**(25 marks)**

**QUESTION 5**

Groundnut plants have no pronounced juvenile phase. Photoperiod influences the relative amounts of vegetative and reproductive growth, but the balance depends also upon the temperature. Discuss.

**(25 marks)**