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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME: B.Sc. IN AGRONOMY IV**

**COURSE CODE: CP 409**

**TITLE OF PAPER: SUGARCANE PRODUCTION**

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

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

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**QUESTION 1**

- (a) The history of sugarcane varieties can be divided into four phases. Discuss this statement giving relevant examples where necessary. (20)
- (b) List the characteristics of a sugarcane variety that are considered when developing a new variety. (5)
- (25 marks)**

**QUESTION 2**

- (a) What are the advantages and disadvantages of not burning the trash in a sugarcane field? (15)
- (b) When is it advisable to trash? (10)
- (25 marks)**

**QUESTION 3**

Overhead irrigation is the method whereby water under pressure in pipes is distributed through sprinklers or jets, in droplet form, over a given area of crop or land. Describe the four (4) portable overhead irrigation systems used in sugarcane production. **(25 marks)**

**QUESTION 4**

- (a) *Eldana saccharina* is one of the most problematic sugarcane pest in Swaziland. It has been estimated that about 0.5t cane/ha is lost due to this pest. Discuss some of the ten agronomic practices that can reduce the incidence of this pest. (20)
- (b) A section of a sugarcane field with approximately 5000 plants has one third (1/3) of its population infested with *E. saccharina*, calculate the percentage of stalks bored. (5)
- (25 marks)**

**QUESTION 5**

Filtercake can be used in sugarcane production. Explain how and why? **(25 marks)**