



# UNIVERSITY OF SWAZILAND

## MAIN EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN AGRONOMY YEAR FOUR

COURSE CODE: CP 408

TITLE OF PAPER: WEED MANAGEMENT

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FIVE (5) QUESTIONS OF YOUR CHOICE

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#### **QUESTION 1**

Describe how weeds and weed communities may change in response to crop production practices. (20 Marks)

### **QUESTION 2**

- (a) Describe "concept of safe site" for weed seed germination and seedling establishment.

  (4 Marks)
- (b) Explain at least four factors a site must provide to ensure safety for germination and establishment. (16 Marks)

  (Total 20 Marks)

### **QUESTION 3**

- (a) What is the best time to apply foliar herbicides; mid-morning or late afternoon? Briefly explain. (8 Marks)
- (b) Describe factors that may influence effectiveness of foliage-applied herbicides.

(12 Marks)

(Total 20 Marks)

#### **QUESTION 4**

Vegetative reproduction of perennial weeds is achieved through the production of various types of perennating (vegetative parts). Mention four such parts and describe their characteristics that contribute to the difficulty of controlling perennial weeds.

(20 Marks)

#### **QUESTION 5**

- a) What are the four families of plants that contain a majority of the world's worst weeds? (8 Marks)
- b) What is the significance of this?

(4 Marks)

c) Briefly describe four biologically or ecologically positive attributes to "weeds"?

(8 Marks)

(Total 20 Marks)

#### **QUESTION 6**

- a) When using soil-applied herbicides, it is important to know the soil texture and organic matter content. Elaborate the significance of this. (10 Marks)
- b) Efficacy of herbicides on weed control is influenced by moisture status of soil. Explain.

  (5 Marks)
- c) Describe two important concerns about herbicides in soil? (5 Marks)

(Total 20 Marks)