

NATIONAL UNIVERSITY OF LESOTHO
B.Sc. (AGRIC) EXAMINATION

CPS3508: WEED SCIENCE

May 2023 TOTAL MARKS: 100 TIMES: 3 HOURS

INSTRUCTIONS: ANSWER ANY TWO QUESTIONS FROM EACH SECTION

SECTION A: WEED BIOLOGY

Question 1: (25 marks)

- i) Describe crop-weed competition with suitable examples. [15 Marks]
- ii) Discuss factors affecting weed-crop interference or critical period of crop weed competition. [10 Marks]

Question 2: (25 Marks)

- i) Discuss the beneficial effects of weeds or economic uses of weeds? [10 Marks]
- ii) Describe the main losses in crop production due to weed infestation? [15 Marks]

Question 3: (25 Marks)

Compare and contrast between the following: [5 Marks each]

- a. Weed biology and weed ecology
- b. Period of weed growth and weed/crop density
- c. Facultative weeds and obligate weeds
- d. Objectionable weeds and noxious weeds
- e. Weeds classification based on soil type and Weeds classification based on origin

SECTION B (WEED MANAGEMENT)

QUESTION 4.

[25 marks]

Write the teaching notes for your Diploma students on **Pre-emergence herbicides** and **Post emergence herbicides**. Cover the following

- a) How they differ
- b) The requirements for the success of each
- c) Explain the advantages and disadvantages of each class.
- d) Give two examples of herbicides in each class and the crops in which they are applied.

QUESTION 5

[25 marks]

You have been given a task of designing a weed management program for a commercial farmer who wants to grow maize in Berea district. Explain the steps you will follow in carrying out this activity. Your program should also include herbicides recommendations

QUESTION 6

[25 marks]

Write notes on the following major classes of weeds: **Aromatic carboxylic acids** and **Triazines**;

- A. mode of action
- B. injury symptomology,
- C. Basis for selectivity
- D. Two examples for each class.