

LAIKIPIA



UNIVERSITY

UNIVERSITY EXAMINATIONS

2ND SEMESTER 2023/2024 ACADEMIC YEAR

FIRST YEAR EXAMINATIONS FOR BACHELOR OF SCIENCE IN AGRICULTURAL EXTENSION AND EDUCATION

AGED 125: PRINCIPLES OF CROP PRODUCTION

STREAM: R

TIME: 2 HRS

DAY: MONDAY (11.30-1.30PM)

DATE: 8/4/24

THIS QUESTION PAPER CONSISTS OF THREE (3 PAGES)

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTIONS: Answer question **ONE** and any other **TWO** questions.

QUESTION ONE (30 MARKS)

(a) Assuming you have been pointed as an Agriculture extension officer in hot parts of Siaya County. Based on crops ecology knowledge you have gained, explain possible causes of the following observations noted by farmers in your area:

- (i) Intercropping of maize and beans resulted to lower yield of Maize as compared to maize pure stand **(3 marks)**
- (ii) Cabbages formed very small heads and some did not form at all **(3 marks)**
- (iii) Potatoes formed very small potato tubers **(3 marks)**

(b) Explain the meaning of the following terms as used in integrated pest management (IPM)

- (i) Economic thresh hold level **(3 marks)**
- (ii) Economic Injury level **(3 marks)**

(c) Explain two economic importance of slow release fertilizer **(3 marks)**

(d) Discuss three important benefits of rainfall **(3 marks)**

(e) Outline two mechanisms by which plants cope with moisture deficiency in the soil **(4 marks)**

(f) Explain five cultural pest control strategies employed in crop production in Kenya **(5 marks)**

QUESTION TWO (20 MARKS)

(a) Define the term seed rate as applied in crop production **(2 marks)**

(b) Explain four factors that determine planting depth **(8 marks)**

(c) Discuss five factors that influence crop spacing **(10 marks)**



QUESTION THREE (20 MARKS)

- (a) Describe five most important Eco – zones in world and Kenya (10 marks)
- (b) Discuss five common crop harvesting methods in Kenya (10 marks)

QUESTION FOUR (20 MARKS)

- (a) Explain five economic importance of weeds in crop production (10 marks)
- (b) Discuss five methods of weed control in crop production (10 marks)

QUESTION FIVE (20 MARKS)

- (a) Explain five benefits of using Farmyard Manure for crop production (5 marks)
- (b) State five factors that determine the amount of fertilizer to be applied per hectare on a given field. (5 marks)
- (c) Explain five disadvantages of sprinkler irrigation (5 marks)
- (g) Discuss how a farmer can use cropping system to maintain soil fertility Maintenance. (5 marks)