

LAIKIPIA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST SEMESTER 2025/2026 ACADEMIC YEAR

FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN AGRIBUSINESS
MANAGEMENT

AGRO 112/AGD 125: PRINCIPLES OF CROP PRODUCTION

STREAM: AGBM

TIME: 2 HRS

DAY: FRIDAY [14.30 P.M-16.30 P.M]

DATE: 30/01/2026

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

- a) Crop production began when domestication of plants became essential to supplement natural food supplies. While the art of crop production is older than civilization, its essential features have remained almost unchanged since the dawn of history. List and briefly discuss the essential features of crop production. **(9 Marks)**
- b) Using relevant examples, discuss the agronomic classification of crops. **(9 Marks)**
- c) Discuss the objectives of fertilizer application to crops. **(8 Marks)**
- d) Some agronomists argue and vouch for deep tillage and subsoiling. Why is it that deep tillage and subsoiling may not be necessary tillage operations for crop production? **(4 Marks)**

QUESTION TWO

- a) Using appropriate examples, describe the centres of origin of cultivated crops. **(4 Marks)**
- b) Discuss the three groups of sexually propagated crop plants by their normal habit of pollination. **(9 Marks)**
- c) Distinguish between perfect bisexual and imperfect unisexual flowers as applied to crop production. **(5 Marks)**
- d) Comment on how the normal habits of pollination in crops influence plant breeding. **(2 Marks)**

QUESTION THREE

- a) Giving examples in crop production, state what asexual plant propagation is. **(5 Marks)**
- b) Under what circumstance is asexual propagation desirable? **(2 Marks)**
- c) Describe the process of fertilization. **(9 marks)**
- d) How does the environment impact on the success of fertilization? **(4 Marks)**

QUESTION FOUR

- a) Discuss the main purposes of tillage operations for crop production. **(6 Marks)**
- b) What are the qualities of a good seedbed for crop production? **(6 Marks)**

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- c) Discuss the advantages of the one-way disc plough as used in land preparation. **(4 Marks)**
- d) Discuss, with examples, what mixed fertilizers are. **(4 Marks)**

QUESTION FIVE

- a) State the basic principles of crop rotation. **(3 Marks)**
- b) How does crop rotation contribute to the control of diseases and insect pests? **(5 Marks)**
- c) What are the contributions of legumes to crop rotations? **(4 Marks)**
- d) List 4 crops that can grow in Laikipia University farm and provide, with reasons, a crop rotation sequence. **(8 Marks)**