

LAIKIPIA



UNIVERSITY

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2025/2026 ACADEMIC YEAR

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

AGED 315: ANNUAL CROPS

STREAM: (AGED & EXT.)

TIME: 2 HRS

DAY: THURSDAY (14.30-16.30)

DATE: 05/02/2026

THIS QUESTION PAPER CONSISTS OF THREE (3 PAGES)

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INSTRUCTIONS:

Answer question **ONE** and any other **TWO**

QUESTION ONE (30MARKS)

- a) Outline FIVE problems facing maize (*Zee mays*) production in Kenya (5 marks)
- b) Cassava is famous for the presence of free and bound cyanogenic glucosides, which is converted into hydrocyanic acid HCN in the presence of linamarase a naturally occurring enzyme in cassava. Discuss FIVE precautions against hydrocyanic acid HCN. (5 marks)
- c) Describe the symptoms of Bean anthracnose disease in common bean (*Phaseolus vulgaris*) (5 marks)
- d) Describe cowpeas production under the following (5 marks)
 - i) Crop establishment
 - ii) Harvesting
- e) List FIVE factors affecting lint quality in cotton (*Gossypium barbadense*). (5 marks)
- f) Describe aflatoxin mould in groundnuts(*Arachis hypogeal*) under the following (5 marks)
 - i) Causal organism
 - ii) Symptoms
 - iii) Control measure

QUESTION TWO (20 MARKS)

- a) i) Name TWO pests of common bean (*Phaseolus vulgaris*). (2 marks)
- ii) Explain TWO diseases that affect common bean. (2 marks)
- iii) State TWO control measures of diseases mentioned in (ii). (2 marks)
- b) Explain wheat production under the following
 - i) Management of acidity soil condition (2 marks)
 - ii) Preventive weed control (2 marks)
- c) Explain five effects of type of soils on tobacco production (5 marks)
- d) Using examples, outline five reasons for closure of Agriculture industries in Kenya. (5 Marks)

QUESTION THREE (20 MARKS)

- a. Describe cassava mosaic disease under the following
 - i) Symptoms (3 marks)
 - ii) Control (2 marks)
- b. Discuss sorghum (*Sorghum bicolor*) production with respect to;
 - i) Ecological requirements
 - ii) Varieties
 - iii) Crop establishment
 - iv) Ratooning (15 marks)

QUESTION FOUR (20 MARKS)

- a. Explain four physiological/maturity indices of a crop of your choice. (8 marks)
- b. Discuss the processes in flue-curing of tobacco (*Nicotiana tabacum*). (12 marks)

QUESTION FIVE (20 MARKS)

- a. Discuss sweet potato production with respect to
 - i) Land preparation (3 marks)
 - ii) Crop establishment (3 marks)
 - iii) Harvesting (3 marks)
 - iv) Curing (3 marks)
- b. Explain malting quality in Barley (*hordeum distichum*). (3 marks)
- c. Moisture is the key to safe storage and moisture content of grain is related to relative humidity of surrounding air. Outline the steps in testing moisture content in grain. (5 marks)