



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

SUPPLEMENTARY SEMESTER EXAMINATION FOR THE DEGREE IN AGRICULTURAL EDUCATION AND EXTENSION

KRM 308: ANNUAL CROPS PRODUCTION

Date:

Time:

INSTRUCTION TO CANDIDATES: Answer ALL questions from Section A and any other TWO from Section B:

SECTION A: COMPULSORY: (30 MARKS)

- a) i) Explain four reasons why classification of annuals is important to both scientists and farmers **(4 marks)**

ii) Explain any two ways of classifying annuals, giving specific example **(2 marks)**
- b) Explain four uses of the following annual crops **(10 marks)**
 - a) Tobacco
 - b) Sorghum
 - c) Sunflower
 - d) Yams
 - e) Wheat
- c) i) Explain four reasons why cassava does well in lowland parts of Kenya compared to Irish potatoes **(4 marks)**

ii) Giving specific crop examples, explain four ways how temperature influence annual production **(4 marks)**
- d) Explain two roles of the following practices in annual crops, giving specific example

(4marks)

- i. Staking
 - ii. Rogueing
- e) Giving an example of crop infected, describe one symptom and two management of the following infestations in annual crops
- a) Weevils (4 marks)
 - b) Antracnose (4 marks)

SECTION B: Answer any TWO questions (40 Marks)

QUESTION TWO

- i) Discuss the role of annual crop production in Kenya towards achieving Vision 2030 (14 marks)
- ii) Describe the planting of irish potatoes (6 marks)

QUESTION THREE

- a) Explain the production of cowpeas under the given headings (8 marks)
- i) Ecological
 - ii) Land preparation
 - iii) Planting
 - iv) Harvesting
- b) Explain six measures used in management of pests in pulses giving specific example of pests (12 marks)
- c) Explain any four reasons why a farmer should be advised to plant finger millet (4 marks)

QUESTION FOUR

- Describe planting of rice under the following headings (20 marks)
- a) Land preparation
 - b) Planting
 - c) Water Management
 - d) Fertilization
 - e) Harvesting and post harvesting practices

QUESTION FIVE

- a) Explain the production of maize production under the following headings (10 Marks)
- i) Ecological conditions
 - ii) Planting
 - iii) Weeding
 - iv) Fertilization
 - v) Harvesting

b) Explain five reasons a farmer must considered when selecting maize variety for planting
(10 marks)