



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE IN AGRICULTURAL EDUCATION AND EXTENSION

KRM 308: ANNUAL CROPS PRODUCTION

DATE:

TIME:

INSTRUCTIONS:

Answer question one and two other questions

SECTION A: COMPULSORY: (30 MARKS)

- a) Explain **two** uses of the following annual crops that benefits the farmer directly (4 marks)
- Pearl millet
 - Oats
 - Barley
 - Chickpea
- b) Explain **four** reasons why special classification of annuals is important to a researcher (2 marks)
- c) Explain the advice you would give to a farmer to overcome the greening condition in Irish potatoes (2 marks)
- d) You have been appointed a crop specialist in your division, describe to the farmer **two** special symptoms for the following infestation you have observed in his farm
- Smut (4 marks)
 - Pink disease (4 marks)
 - Beanfly (4 marks)
 - Fall armyworm (4 marks)

- e) Explain **four** reasons why you would advise farmers to plant sorghum in Lower Eastern part of Kenya (4 marks)
- f) Giving specific crop examples, explain **two** ways how temperature influence annual production (2 marks)

SECTION B: Answer any TWO questions (40 Marks)

QUESTION TWO

- a) Discuss the role of annual crop production in Kenya towards achieving the Kenya's 'Big four' agenda, aligning your roles to these four-government agenda (14 marks)
- b) Describe the best practices of harvesting of sweet potatoes you would recommend to a farmer in Kakamega region (6 marks)

QUESTION THREE

- a) Describe planting of groundnuts under the following headings (15 marks)
- i. Land preparation
 - ii. Planting
 - iii. Fertilization
 - iv. Post harvesting practices
- b) As an extension officer attached to Ahero Irrigation Scheme describe the advice you would share with farmers on management of nutrients in rice fields (5 marks)

QUESTION FOUR

- a) Explain the production of yams under the following headings (15 marks)
- i) Ecological conditions
 - ii) Planting
 - iii) Weeding
 - iv) Fertilization
 - v) Harvesting
- b) Describe five economic importance of fall armyworm to maize farmers in Kenya (5 marks)

QUESTION FIVE

- a) Explain the production of fingermillet under the given headings (14 marks)
- i) Ecological
 - ii) Land preparation
 - iii) Planting
 - iv) Harvesting and post-harvest handling
- b) Explain six measures used in management of pests and diseases in pulses production (6 marks)