



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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## University Examinations 2013/2014

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR CERTIFICATE/DIPLOMA IN  
AGRICULTURE

### AGR 0122 – ANNUAL CROPS

DATE: DECEMBER 2013

TIME: 1  $\frac{1}{2}$  HOURS

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**INSTRUCTIONS:** Answer question *one* and any other *two* questions

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#### QUESTION ONE – 30 MARKS

- (a) Mr. Njoroge a farmer from Molo division has sent an e-mail enquiring on the following with regard to Irish Potato production; as the technical officer incharge of the area reply to his e-mail.
- (i) Three (3) possible potato varieties he can plant. (3Marks)
  - (ii) Spacing of the potatoes (1Mark)
  - (iii) Two (2) common pests (2Marks)
  - (iv) Two (2) common diseases (2Marks)
  - (v) Fertilizer type and rate (2Marks)
- (b) Wendo Women Group has been informed that groundnuts are a leguminous plant that has many uses. As the promoter of the crop from Equatorial nuts give three (3) uses of the crops. (3Marks)
- (c) The Patron Umoja PrimarySchool 4-Club has called on your office as the Crops Officer in charge of the ward wanting beans information on the following:
- (i) Three (3) possible varieties of beans that his 4K-Club can grow. (3Marks)
  - (ii) Two (2) common disease and their control (2Marks)
  - (iii) Two (2) common pests and their control. (2Marks)

- (d) What do you understand by the following terms in maize production?
- (i) Hybrid (1Mark)
  - (ii) Composite (1Mark)
- (e) In wheat production lodging is considered as an important aspect:
- (i) Define what is lodging (1Mark)
  - (ii) Give three (3) causes of lodging. (3Marks)
- (f) Sorghum is an important crop that is being adopted very fast in Arid and Semi-Arid areas. Gadam variety is the top variety in these areas. Give a brief description of this variety. (4marks)

### **QUESTION TWO – 15 MARKS**

Give brief descriptions of Cassava production addressing the following aspects:

- (i) Ecology/ecological requirements. (3Marks)
- (ii) Soils (1Mark)
- (iii) Spacing (1Mark)
- (iv) Four (4) varieties (4Marks)
- (v) Three (3) pests and their control (3Marks)
- (vi) Three (3) disease and their control (3Marks)

### **QUESTION THREE – 15 MARKS**

As the ward extension officer, prepare a message for farmers attending a ‘baraza’ on maize production on the following aspects:

- (i) Rainfall (1Mark)
- (ii) Altitude (1Mark)
- (iii) Temperatures (1Mark)
- (iv) Soils (1Mark)
- (v) Four (4) varieties (4Marks)
- (vi) Spacing (1Mark)
- (vii) Two (2) pests and their control (2Marks)
- (viii) Two (2) diseases and their control (2Marks)
- (ix) Interpret hybrid maize packet from East Africa Seed Company. H<sub>5</sub>13 (2Marks)

**QUESTION FOUR – 15 MARKS**

Discuss in details production of sweet potatoes.

(15Marks)

**QUESTION FIVE – 15 MARKS**

Green grams is one of the crops that has been noted to do well ASAL areas and therefore with the climate change it has become very important as farmers look for crops that are adaptable to this change. Prepare key points to give to farmers attending a workshop on climate change in regard to green grams production.

(15Marks)