

**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2014/2015**

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR CERTIFICATE IN AGRICULTURE

**AGR 0122: ANNUAL CROPS**

**DATE: APRIL 2015 TIME:** $1½$**HOURS**

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

**QUESTION ONE – (30 MARKS)**

1. Explain the following terms; (5 Marks)
2. Perennial crops
3. Ratoon crop
4. Tillering
5. Silking
6. Harvest index
7. State four important features of rainfall that influence distribution of annual crops. (4 Marks)
8. Explain four factors affecting annual crops water requirement. (8Marks)
9. (i) State any four research objectives in breeding new maize varieties. (4 Marks)

(ii) Striga weed is a major weed in maize farmers in Nyanza region.Give four ways of controlling this weed. (4 Marks)

1. State the five agro-ecological maize growing areas giving an example of the hybrid variety grown in each zone. (5 Marks)

**QUESTION TWO (15 MARKS)**

1. What are the breeding objectives in wheat? (4 Marks)
2. Give two symptoms and two control measures of maize stalkborers. (4 Marks)
3. Explain the procedure of applying nitrogen fertilizer in a maize crop. (5 Marks)
4. Why do farmers keep on planting local maize varieties even if they are of low yields?

(2 Marks)

**QUESTION THREE (15 MARKS)**

Explain how a farmer can produce beans in the farm from land preparation stage to storage.

(15 Marks)

**QUESTION FOUR (15 MARKS)**

Give a brief description of cassava production under the following subheadings;

1. Ecological requirements ( 3 Marks)
2. Soils (1 Mark)
3. Spacing (1 Mark)
4. Four varieties (4 Marks)
5. Three pests and their control (3 Marks)
6. Three disease and their control (3 Marks)

**QUESTION FIVE (15 MARKS)**

1. Explain why water moisture is critical in annual crops during the flowering and earing.

(7 Marks)

1. (i) What is chitting as used in potato production? (2 Marks)

(ii) State three symptoms of bacterial wilt in potatoes. (3 Marks)

1. Give any three advantages of earthing up in irish potatoes. (3 Marks)