



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2010/2011

SECOND/FIRST YEAR, SECOND/FIRST SEMESTER EXAMINATIONS FOR DIPLOMA IN
AGRICULTURAL EDUCATION AND EXTENSION/ CERTIFICATE IN AGRICULTURE

AGR 0220/0122: ANNUAL CROPS

DATE: DECEMBER 2010

TIME: 1½ HOURS

INSTRUCTIONS: Answer *Question one* which is *Compulsory* and any other *two* questions

QUESTION ONE – (30 MARKS)

- (a) Give detailed account of how manures or fertilizers are applied in maize crop. (6 Marks)
- (b) Seed pre-treatment is undertaken in rice seeds awaiting planting. Give a detailed account of it. (8 Marks)
- (c) Bean fly is one of the most problematic bean pests.
 - (i) State any four symptoms of bean fly (3 Marks)
 - (ii) State any three ways of controlling it. (3 Marks)
- (d) (i) What is chitting? (2 Marks)
 - (ii) State any three, chemicals which can be used to enhance chitting. (3 Marks)
 - (iii) Give a detailed account of how you can prolong the storage life of ware potatoes. (3 Marks)
- (e) Name the two types of cassava. (2 Marks)

QUESTION TWO – (15 MARKS)

- (a) What are the characteristics used for differentiating various sweet potato varieties. (10 Marks)
- (b) What are the two planting materials used in establishing sweet potatoes. (2 Marks)
- (c) Ridge planting is the most common method of establishing sweet potatoes. Give three advantages for using it. (3 Marks)

QUESTION THREE – (15 MARKS)

Give any three methods of controlling each of the following plant pests.

- (i) Anthracnose in beans (3 Marks)

- (ii) Bacterial wilt in Potatoes (3 Marks)
- (iii) Maize stalk borers. (3 Marks)
- (iv) Potato moth (3 Marks)
- (v) Stem rot in rice. (3 Marks)

QUESTION FOUR – (15 MARKS)

Give a detailed account of potato production under the following sub-headings.

- (i) Planting materials (3 Marks)
- (ii) Fertilizer application (3 Marks)
- (iii) Weeding (2 Marks)
- (iv) Grading (2 Marks)
- (v) Storage of planting seed tubers (3 Marks)
- (vi) Name any three potato varieties grown in water stressed areas. (2 Marks)

QUESTION FIVE – (15 MARKS)

- (a) Give the five agro-ecological requirements of cassava. (5 Marks)
- (b) Explain the three conditions which help the farmer to determine the right time to plant cassava. (6 Marks)
- (c) Briefly discuss fertilizer application in cassava. (4 Marks)