



**MERU UNIVERSITY COLLEGE
OF SCIENCE & TECHNOLOGY**

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University Examinations 2010/2011

**FIRST YEAR, SECOND SEMESTER EXAMINATIONS FOR CERTIFICATE IN
AGRICULTURE**

AGRI 0122: ANNUAL CROPS

DATE: APRIL 2011

TIME: 1½ HOURS

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

QUESTION TWO – (30 MARKS)

- (a) Name any four methods used for inhibiting sprouting in wore potatoes in store. (4 Marks)
- (b) Bacterial wilt is a problematic disease in potato production. (3 Marks)
- (i) State any three methods of spreading this disease. (3 Marks)
- (ii) State any three methods recommended for controlling this disease. (3 Marks)
- (c) Stat the five agro-ecological maize growing areas citing an example of the hybrid variety grown in each zone. (10 Marks)
- (d) Beanfly is a major field pest for beans: (3 Marks)
- (i) State any three symptoms of the pest infection. (2 Marks)
- (ii) State any two methods of control. (3 Marks)
- (e) (i) State any three research objectives of breeding new wheat varieties. (2 Marks)
- (ii) State any two methods of controlling stem rust in wheat. (3 Marks)

QUESTION TWO – (15 MARKS)

- (a) Phosphorous is highly needed by potatoes:
- (i) State any five factors which a farmer needs to consider before determining the rate of application. (5 Marks)
- (ii) State all the steps involved during storage of wore potatoes. (5 Marks)
- (iii) State five methods of controlling potato tuber moth. (5 Marks)

QUESTION THREE – (15 MARKS)

- (a) State any three methods of controlling striga weed in maize farm. (3 Marks)
- (b) Explain fertilizer application regime as done in Kenya. (7 Marks)
- (c) State any five methods of prolonging the storage life of maize. (5 Marks)

QUESTION FOUR – (15 MARKS)

- (a) Give a detailed account of all the agro-ecological requirements needed for pigeon peas production. (5 Marks)
- (b) Give the casual agents, distinctive symptoms and specific method of control of the following crop diseases.
 - (i) Maize smuts in maize (2 Marks)
 - (ii) Fusarium wilts in pigeon peas. (2 Marks)
 - (iii) Anthracnose in beans (2 Marks)
- (c) Name any two chemicals used for enhancing chitting in potatoes. (2 Marks)
- (d) What is chitting in potatoes? (2 Marks)

QUESTION FIVE – (15 MARKS)

Give a detailed account of how a farmer can produce beans in the farm from land preparation stage up to harvesting stage. (15 Marks)