



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2011/2012

SECOND YEAR, SECOND SEMESTER EXAMINATIONS FOR DIPLOMA IN
AGRICULTURAL EDUCATION AND EXTENSION

AGR 0223: PERENIAL CROPS

DATE: APRIL 2012

TIME: 1½ HOURS

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

QUESTION ONE (30 MARKS)

- a. Explain how sugar-cane cuttings are prepared in readiness for planting (3 Marks)
- b. High altitude affects tea crop plants in two ways. Explain (2 Marks)
- c. Coffee berry disease (CBD) is a problematic disease. State any two
 - i. Symptoms (2 Marks)
 - ii. Methods of control (2 Marks)
- d. (i) stated any two effects of high temperatures on sugar cane production (2 Marks)

(ii) Burning off is a common practice in sugar cane production. State any three reasons of burning off (3 Marks)

(iii) Give three advantages of detrashing as management practice undertaken in sugar-Canes (3 Marks)
- e. State and explain any three factors which influences the quality of coffee beans (6 Marks)
- f. (i) what is the name of the substance which needs to be removed from cotton seed oil before they are consumed by monogastric animals (1 Mark)
(ii) How is this substance removed (1 Mark)
(ii) Name any two types of cotton grown in the world (2 Marks)
- g. State any three vegetative effects of mulching tea bushes using vegetative material (3 Marks)

QUESTION TWO (15 MARKS)

- a. Explain how the following environmental conditions affects cotton production
 - i. High temperatures (2 Marks)
 - ii. Low sunlight (4 Marks)
- b. Name any two pests and diseases which affects cotton crops (4 Marks)
- c. State any three factors which affects cotton yield (3 Marks)
- d. Give two characteristics of AR grade in cotton (2 Marks)

QUESTION THREE (15 MARKS)

- a. Explain the procedure of obtaining and preparing tea stem cuttings in readiness for planting (10 Marks)
- b. Armillaria root rot is a problematic disease in tea farms
 - i. Give the name of the fungus which causes the disease
 - ii. Give three methods of controlling this disease (3 Marks)

QUESTION FOUR (15 MARKS)

- a. Give three differences between coffee Arabic and coffee canephora (6 Marks)
- b. (i) Explain the procedure of establishing a single stem preparing system (5 Marks)

(ii) Give two disadvantages of this system (2 Marks)
- c. What are the two processing methods used in post harvest handling of coffee beans (2 Marks)

QUESTION FIVE (15 MARKS)

- a. State any five objectives of pruning tea bushes (5 Marks)
- b. What are the five objectives of sugar cane breeding (5 Marks)
- c. What are the post harvest handling practices undertaken in wet processing of coffee beans (5 Marks)