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University Examinations 2013/2014

SECOND YEAR, SECOND SEMESTER EXAMINATIONS FOR DIPLOMA IN
AGRICULTURE

AGR 0223: PERENIAL CROPS

DATE: APRIL 2014

TIME: 1 ½ HOURS

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

QUESTION ONE – (30 MARKS)

- (a) (i) State the steps involved during land preparation in readiness of planting sugar cane. (5 Marks)
- (ii) Weeds can cause 12 -70% reduction in cane yield. Briefly explain the procedure of weed control in sugar cane. (4 Marks)
- (b) (i) State any five factors which affects the performance of tea stem cuttings in the nursery. (5 Marks)
- (ii) Briefly explain the procedure of land preparation in readiness for transplanting of tea seedlings. (5 Marks)
- (c) (i) Briefly explain the procedure of establishing a single stem pruning system in the young coffee bushes. (5 Marks)
- (ii) Name any four types of coffee grown in Kenya and areas they are given. (4 Marks)
- (iii) What is the name of the causal agent of Armillaria root rot disease in coffee. (1 Mark)

QUESTION TWO – (15 MARKS)

- (a) Explain all the climatical conditions needed for growth and production of sugar canes. (10 Marks)
- (b) (i) Name any two coffee diseases. (2 Marks)
- (ii) State the causal agents of each. (2 Marks)
- (iii) Explain the major method of controlling Armillaria root rot disease. (1 Mark)

QUESTION THREE – (15 MARKS)

- (a) Explain the procedure of preparing and planting tea stem cuttings. (10 Marks)
- (b) Gapping-up is a practice that is common in tea;
- (i) State any two possible causes of death of tea seedlings. (2 Marks)
- (ii) Explain the procedure of Gapping-up of tea seedling. (3 Marks)

QUESTION FOUR – (15 MARKS)

- (a) Draw a well labelled diagram longitudinal section of ripe coffee berry. (4 Marks)
- (b) Explain the wet processing procedure of coffee berries. (8 Marks)
- (c) CBD is a problematic coffee disease.
- (i) Give the scientific name of the disease causal agent. (2 Marks)
- (ii) State one method of controlling it. (1 Mark)

QUESTION FIVE – (15 MARKS)

- (a) Explain the procedure of bringing tea to bearing through the formative pruning method. (5 Marks)
- (b) (i) State any three maturity indices used in sugar cane. (3 Marks)
- (ii) Name any two common sugarcane diseases. (2 Marks)
- (c) Give a detailed explanation of the land preparation procedure undertaken up when transplanting of coffee seedlings. (5 Marks)