



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF AGRIBUSINESS MANAGEMENT AND TRADE

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (AGRI-BUSINESS MANAGEMENT AND TRADE)

AGR 309: PERENNIAL CROPS

DATE: 25/3/2021

TIME: 2.00-4.00 PM

INSTRUCTIONS:

Answer question one and any other two questions

QUESTION ONE (30 MARKS)

- a) Explain four reasons why you would encourage farmers to plant perennial crops (4 marks)
- b) Describe the following in pyrethrum production
 - i. Harvesting (4 marks)
 - ii. False bud disease symptoms (2 marks)
- c) Describe three differences between *Coffea arabica* and *Coffea robusta* (4 marks)
- d) Explain five reasons for decreasing production of sugarcane which has resulted in increased importation of sugar in Kenya (5 marks)
- e) Explain the role of the following practices in perennial production
 - i) Shading (3 marks)
 - ii) Cutting back (2 marks)
 - iii) Training (2 marks)
- f) With specific crop example, describe the symptoms of pineapple disease (2 marks)
- g) Explain the uses of coconut as a crop (2 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

Explain the propagation of tea under the following headings

- a) Climatic conditions (5 marks)
- b) Spacing requirements (4 marks)
- c) Harvesting (5 marks)
- d) Crop improvement (5 marks)

QUESTION THREE (20 MARKS)

- a) Explain production of sisal under the headings
 - i. Weeding (3 marks)
 - ii. Seedbed preparation (4 marks)
 - iii. Harvesting and processing (6 marks)
- b) Explain seven challenges facing tea farmers that has contributed to low production in Kenya (7 marks)

QUESTION FOUR (20 MARKS)

Describe the production of coffee under the following headings

- a) Ecological conditions (5 marks)
- b) Single stem pruning (4 marks)
- c) Coffee leaf rust disease (6 marks)
- d) Fertilization (5 marks)

QUESTION FIVE (20 MARKS)

Describe macadamia production under the following headings

- a) Climatic requirements (5 marks)
- b) Pruning (4 marks)
- c) Canopy management (6 marks)
- d) Propagation (5 marks)