



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

SECOND YEAR FIRST SEMESTER EXAMINATION FOR

DIPLOMA IN AGRICULTURAL EDUCATION AND EXTENSION

AGR 0202: PASTURE AND FORAGE MANAGEMENT

DATE: 5/12/2019

TIME:8.30-10.30 AM

INSTRUCTIONS:

Answer *ALL* questions from Section A and any other *TWO* from Section B:

SECTION A: COMPULSORY: (30 MARKS)

QUESTION ONE (30 MARKS)

- a) Distinguish between fodder and pasture (2 marks)
- b) Explain four reasons why farmers are advised to plant pastures and legumes for livestock (2 marks)
- c)
 - i) Fodder crops are an important source of feed supplements to livestock. Explain two ways in which a farmer can establish fodder in his/her compound (4 marks)
 - ii) Explain three reasons why farmers always get discouraged from planting fodder crops in their farms unlike food or cash crops (3 marks)
- d) Explain four advantages of stalled grazing than open type of grazing (2 marks)
- e)
 - i) A farmer visited you to seek advice on how to treat pasture/legumes before planting. Explain three methods you will advise the farmer to use (3 marks)
 - ii) Describe the steps you will give to the farmer in order to obtain uniform inoculated lablab seeds for planting (4 marks)
- f) Explain five reasons why paddocking is a good practice in pasture management (5 marks)
- g) Explain five reasons why you would advise a farmer to practice oversowing in Kikuyu grass (5 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

- a) Describe the procedures for preparing silage using grass as an example (14 marks)
- b) Explain three strengths of Nandi setaria as an animal feed (6 marks)

QUESTION THREE (20 MARKS)

- a) Discuss the establishment and management of the nappier grass under the following headings
 - i. Planting
 - ii. Weeding
 - iii. Fertility
 - iv. Limitations (12 marks)
- b) Discuss the establishment and management of the alfalfa under the following headings
 - i. Planting
 - ii. Weeding
 - iii. Harvesting
 - iv. Strengths (8 marks)

QUESTION FOUR (20 MARKS)

- a) Explain three methods of harvesting fodder trees and shrubs for livestock feeds, giving one specific example of a fodder tree (10 marks)
- b) Explain five methods a farmer can apply in managing pests and diseases in fodder cereals (10 marks)

QUESTION FIVE (20 MARKS)

- a) A farmer in Kenya Israel is planning to establish a pasture /legume in his farm. Advise the farmer five best ways on how to manage his crop for high productivity. (15 marks)
- b) Explain five advantages of cut-and-carry systems in Kenya white clove (5 marks)