



MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FOURTH YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (AGRICULTURAL EDUCATION AND EXTENSION)

BACHELOR OF EDUCATION (SCIENCE)

AGR 400: PASTURE AND FODDER PRODUCTION AND MANAGEMENT

DATE: 9/8/2021

TIME: 11.00-1.00 PM

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 that hinder farmers from establishing pastures and legumes for livestock (2 marks)
- c) Explain two methods farmers can adopt in establish fodder in their compounds (4 marks)
- d)
 - i Describe three method farmers can be advised to use in treating pastures and fodder before planting (3 marks)
 - ii Describe the steps farmers should take in order to obtain uniformly inoculated lablab seeds for planting (4 marks)
- e) Explain five reasons why fencing is a good practice in pasture management (5 marks)
- f) Explain five general guidelines that a farmer should consider before establishing pasture and fodder production (5 marks)
- g) Explain five seed factors that are considered before establishment of Boma Rhodes (5 marks)

SECTION B: Answer any TWO Questions (40 Marks)

QUESTION TWO (20 MARKS)

- a) Using one ensiling method, describe the procedures for preparing silage using Lucerne as an example (14 marks)
- b) Describe three methods of oversowing legumes in guinea grass (6 marks)

QUESTION THREE (20 MARKS)

- a) Discuss the establishment and management of the Elephant grass under the following headings (12 marks)
- i. Planting
 - ii. Weeding
 - iii. Fertility management
 - iv. Strengths and limitations
- b) Discuss the establishment and management of the Kenya white clover under the following headings (8 marks)
- i. Ecological conditions
 - ii. Weeding
 - iii. Harvesting
 - iv. Nutritional factors

QUESTION FOUR (20 MARKS)

- a) With specific two examples in each case, discuss three methods of harvesting fodder trees and shrubs (8 marks)
- b) With specific one pest/diseases examples in each case, explain six measures a farmer can employ in managing pests and diseases in fodder cereals (12 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss five practices of managing pasture and fodder farmers can adopt for high productivity without compromising on food crops (15 marks)
- b) Explain five advantages of cut-and-carry systems in Desmodium and vetch (5 marks)