



MACHAKOS UNIVERSITY

University Examinations for 2016/2017 Academic Year

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES MANAGEMENT

DEPARTMENT OF AGRICULTURAL EDUCATION AND EXTENSION

FOURTH YEAR SEMESTER EXAMINATION FOR BACHELOR OF
SCIENCE AGRICULTURAL EDUCATION AND EXTENSION

AGR 400: PASTURE AND FODDER MANAGEMENT

Date:

Time:

INSTRUCTIONS:

Answer QUESTION ONE and any two questions in section B

QUESTION ONE (COMPULSORY) (30 MARKS)

- a)
 - i) Distinguish between annual and perennial grasses. (2 marks)
 - ii) Explain **TWO** differences between grass seed and legume seed (2 marks)
- b)
 - i) Explain the meaning of the term 'Ley pastures' (2 marks)
 - ii) Explain **Three** methods of pasture establishment. (3 marks)
- c) Explain **FOUR** limitations of Lucerne (*Medicago sativa*) as a forage crop (4 marks)
- d) Explain the following terminologies
 - i. Coppicing (2 marks)
 - ii. Pollarding (2 marks)
- e) Explain **TWO** reasons for side pruning. (4 marks)
- f) Explain **TWO** reasons for conserving fodder for livestock (4 marks)
- g) Explain the **FIVE** advantages of Kikuyu Grass as a pasture species for the upper highland zones of Kenya. (5 marks)

SECTION B. ANSWER ANY TWO QUESTIONS IN THIS SECTION (40MARKS)

QUESTION TWO (20 MARKS)

- a) Explain **FOUR** growth habits of pasture legumes (8 marks)
- b) Explain **THREE** grass seed scarification methods. (12 marks)

QUESTION THREE (20 MARKS)

- a) Explain **FOUR** reasons for conserving feed for ruminant livestock (8 marks)
- b) Explain **SIX** causes of post-harvest losses during hay making. (12 marks)

QUESTION FOUR (20 MARKS)

- a) Explain **FIVE** challenges facing grazing lands in the Eastern and North Eastern regions in Kenya. (10 marks)
- b) Explain **FIVE** factors that influence the use of fertilizers for grazing lands. (10 marks)

QUESTION FIVE (20 MARKS)

- a) Explain **FIVE** consequences of overgrazing. (10 marks)
- b) Describe **FIVE** good pasture management practices. (10 marks)