



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF AGRICULTURAL AND FOOD SCIENCES**

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE IN
2024/2025 ACADEMIC YEAR
SIAYA**

COURSE CODE: AAB 1208

COURSE TITLE: Production and Utilization of Fodder and Pastures

DATE:

TIME:

INSTRUCTIONS TO CANDIDATES

- 1. This paper is divided into two sections, A and B.**
- 2. Answer ALL Questions in SECTION A and any Two in SECTION B.**
- 3. Candidates are advised NOT to write anything on this question paper.**
- 4. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

Q1.

- a) Describe the main types of pastures. (3 marks)
- b) Explain the weed control methods on a seedbed. (2 marks)
- c) Outline the necessary steps that should be taken to ensure successful seed establishment following sowing by the broadcasting method. (3 marks)
- d) Analyse the consequences of overgrazing. (3 marks)
- e) Illustrate how hay can be stored to minimize losses through quality deterioration. (3 marks)
- f) Differentiate between fodder and pasture. (2 marks)
- g) Discuss the various fertilizers used in pasture management. (4 marks)
- h) Describe the processes that precede planting of Sesban (*Sesbania sesban*). (3 marks)
- i) Outline the disadvantages of establishing semi-permanent pastures on the farm. (3 marks)
- j) Describe the method used to reduce water content in the forage after harvesting. (3 marks)

SECTION 2: ANSWER ANY TWO QUESTIONS (40 MARKS)

Q2. Suppose you paid a visit to a local farmer, and found out that they have some conserved forage, justify the primary evaluation tests you would undertake to determine the quality of that feed.

(8 marks)

- b) The most important aspects of a good fodder crop. (6 marks)
- c) Describe the key principles that guarantee optimal plant growth and livestock consumption. (6 marks)

Q3. a) Describe the factors that determine the viability of seeds is maintained over long term post-harvesting. (8 marks)

(8 marks)

- b) Discuss the best management practices that optimize forage productivity. (12 marks)

Q4) a) Outline the key barriers to the adoption of forage production by small scale farmers in Kenya (8 marks)

- b) Using an example of Dolichos lablab as the targeted fodder crop for the next planting season in the rangelands, discuss the preliminary steps that one would undertake just before planting its seeds. (12 marks)

Q5) a) Compare and contrast between native and improved pastures. (10 marks)

b) Discuss the disadvantages associated with the following pasture species.

i. Lucerne (*Medicago sativa*)

ii. Star grass (*Cynodon dactylon*)

iii. Bracharia

iv. Nappier grass (*Penisetum puperum*)

(10 marks)