



MURANG'A UNIVERSITY OF TECHNOLOGY
SCHOOL OF AGRICULTURE AND ENVIRONMENTAL
STUDIES

DEPARTMENT OF AGRICULTURE

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR

OF SCIENCE IN AGRICULTURE

GAN 211 – ANIMAL FEED RESOURCES (2)

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE any other two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

SECTION A - ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Define the following terms: (8 marks)
- i. Digestibility
 - ii. Feed additives
 - iii. Total digestible nutrients
 - iv. Concentrates
- b) A ratio containing 18% protein is from made from maize meal and contains 7% crude protein and sunflower contains 34% crude protein, determine the quantity a 100 kg ratio. (5 marks)
- c) State two sources of minerals of the animal. (2 marks)
- d) Explain the classification of animal feeds in Kenya. (6 marks)
- e) Highlight four factors that affect the quality of hay. (4 marks)
- f) Name any ten legumes fodder crop found in Kenya. (5 marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

- a) Discuss proximate analysis. (8 marks)
- b) Explain the procedure to obtain crude tubule from proximate analysis. (5 marks)
- c) Define maintenance ration. (2 marks)
- d) Explain how to prepare a good quality hay. (5 marks)

QUESTION THREE (20 MARKS)

- a) Discuss any five factors affecting water requirements in animals. (10 marks)
- b) State five importance of minerals to livestock. (5 marks)
- c) Why are vitamins not included in proximate analysis? (2 marks)

QUESTION FOUR (20 MARKS)

- a) Discuss any four types of feed additives recently used in animal feed industries. (8 marks)
- b) Discuss factors affecting digestibility. (7 marks)
- c) Explain any five physical evaluation of raw feed resources. (5 marks)