



NATIONAL OPEN UNIVERSITY OF NIGERIA  
Faculty of Agricultural Sciences  
Department of Animal Science and Fisheries  
**2025\_2 EXAMINATIONS**

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Course: ANP512: Pasture and Range Management

Credit Unit: 2

Time Allowed: 2 hours.

INSTRUCTIONS: Answer question One (Compulsory: 30 Marks) and any other TWO (20 marks each)

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QUESTION 1 (30 Marks)

- 1a. Discuss the impact of overgrazing on pasture quality. (10 marks)
  - 1b. Explain the methods used to prevent overgrazing. (10 marks)
  - 1c. Provide examples of overgrazing effects observed in Nigerian rangelands. (10 marks)
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QUESTION 2 (20 Marks)

- 2a. Discuss why forage yield is essential for planning and sustaining grazing, as well as its role in reducing costs and maintaining animal health. (8 marks)
  - 2b. Discuss the methods used to determine forage yield. (8 marks)
  - 2c. Provide an example of how forage yield data is used to improve pasture management. (4 marks)
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QUESTION 3 (20 Marks)

- 3a. Describe the role of legumes in soil fertility management. (8 marks)
  - 3b. Discuss the symbiotic relationship between legumes and Rhizobium bacteria, detailing how atmospheric nitrogen is converted into usable forms for plant growth. (8 marks)
  - 3c. Provide examples of legume species used for nitrogen fixation in Nigerian pastures. (4 marks)
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QUESTION 4 (20 Marks)

- 4a. Discuss the importance of soil testing before pasture establishment. (8 marks)
- 4b. Explain how soil testing informs decisions about soil amendments, seed germination, and nutrient management for pasture establishment. (8 marks)
- 4c. Provide an example of how soil test results influence pasture management decisions. (4 marks)