

GWANDA STATE UNIVERSITY



FACULTY OF NATURAL RESOURCES MANAGEMENT AND AGRICULTURE
DEPARTMENT OF ANIMAL PRODUCTION AND HEALTH
BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL PRODUCTION AND
HEALTH
PASTURE AND FORAGE AGRONOMY NAP 2202
SECOND SEMESTER FINAL MAIN EXAMINATION

September 2024

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: None
Examiner's Name: Dr. A.S. Hlatshwayo

Instructions to Candidates:

- 1. The paper consists of six questions, answer ALL questions in Section A and ANY TWO in Section B.*
- 2. Marks for each question are shown in brackets. Where a question has subdivisions, the marks for each subdivision are given.*
- 3. Illustrate your answer, where applicable, with large clearly labelled diagrams.*

MARK ALLOCATION

QUESTION	MARKS
SECTION A	60
SECTION B	40
TOTAL ATTAINABLE MARKS	100

This paper consists of three printed pages including this one

SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION

Question 1

- i) Which are the three groups of the Graminae or Poaceae family? [3 marks]
- ii) Which four grass species fall under the Panicoide grasses? [4 marks]
- iii) State three grass species that develop roots and shoots at the nodes [3 marks]
- iv) What is the purpose of primary roots on a seedling? [2 marks]
- v) Describe the floral organs of a grass [2 marks]
- vi) State the types of inflorescence of grasses [3 marks]
- vii) Describe growth habits of any two grass species [3 mark]

Question 2

- (i) Which are the three tribes of commonly cultivated legume species? [3 marks]
- (ii) List the growth habits of legumes [5 marks]
- (iii) State any four characteristics of binomial nomenclature [4 marks]
- (iv) Why is it not ideal to use common names of plant species? [3 marks]
- (v) State five aspects of good land preparation [5 marks]

Question 3

- a. What does pasture management involve? [5 marks]
- b. State five reasons for conserving forages [5 marks]
- c. What is hay? [3 marks]
- d. Which four forage grasses can be used to make hay? [4 marks]
- e. Briefly describe the procedure of making good hay [3 marks]

SECTION B. ANSWER ANY TWO QUESTIONS IN THIS SECTION

Question 4

- (a) Describe the steps taken in making hay [10 marks]
- (b) Describe the silage making process [10 marks]

Question 5

- (a) Which are the stages of silage making? [5 marks]
- (b) Describe other sources of dry season feed [10 marks]
- (c) Describe the physical properties of silage [5 marks]

Question 6

- (a) What is involved in pasture improvement? **[5 marks]**
- (b) Discuss the selection of pastures species or cultivars **[15 marks]**
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END OF QUESTION PAPER

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