

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
RANGELAND ECOLOGY MANAGEMENT NAP 2102
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) What is the collective name of the following things provided by rangelands food, fibre, water, carbon, biodiversity and wildlife? [2 marks]
- ii) State any four important uses of the rangeland [4 marks]
- iii) Briefly describe veld [4 marks]
- iv) What are animals that mainly feed on grass called? [4 marks]
- v) State any five grass species that supply different forms of food and feed to both humans and animals [5 marks]
- vi) What do veld grasses and planted pastures supply to meat, milk and wool producing animals? [1 mark]

Question 2

- (i) Which are the three main groups of veld grasses? [3 marks]
- (ii) State any four recreational areas found in semi-arid ecosystems [4 marks]
- (iii) Which four types of plants are found on the veld? [4 marks]
- (iv) Define fibre [2 marks]
- (v) What do the following indicate about the quality of a grass?
 - (i) Protein [3 marks]
 - (ii) Fibre [5 marks]
 - (iii) What is the importance of the breaking strength of a grass leaf-blade? [2 marks]

Question 3

- a. What are the scientific names of the following grass species; Red grass, Turpentine grass, Finger grass, Yellow-thatching grass and Weeping love grass? [5 marks]
- b. Which nutrients of a grass sample are tested in the laboratory? [2 marks]
- c. What is the significance of the pioneer stage of the veld? [5 marks]
- d. Describe how climate change influences the veld [5 marks]
- e. State the three stages of succession [3 marks]

SECTION B. ANSWER ANY TWO QUESTIONS IN THIS SECTION

Question 4

- (a) What is the importance of veld condition? [5 marks]
- (b) What is the other role of grasses besides feeding animals? [5 marks]
- (c) Describe intermediate feeders [5 marks]
- (d) Explain what is meant by grazing selectivity [5 marks]

Question 5

- (a) Describe any two vegetation types of Zimbabwe [10 marks]
- (b) Briefly describe browsers [5 marks]
- (c) Brief describe grazers [5 marks]

Question 6

- (a) Why is the condition of a rangeland ecosystem important? [10 marks]
- (b) Describe the role of learning in diet selection [10 marks]

END OF QUESTION PAPER

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