

GWANDA STATE UNIVERSITY



FACULTY OF NATURAL RESOURCES MANAGEMENT AND AGRICULTURE

DEPARTMENT OF ANIMAL PRODUCTION AND HEALTH

BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE

NATURAL RESOURCES MANAGEMENT NAP 2201

HERITAGE BASED NATURAL RESOURCES MANAGEMENT LAE2102

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 four natural resources should be managed? [4 marks]
- ii) What does Natural Resources Management focus on? [2 marks]
- iii) State any two of each of the following [4 marks]
 - (a) Renewable natural resources
 - (b) Non-renewable natural resources
- iv) How are Natural Resources Management approaches categorized? [2 marks]
- v) (a) Which are the biotic components of an ecosystem? [2 marks]
 - (b) What is the collective term for things such as soil, moisture, carbon dioxide, organic compounds and elevation? [2 marks]
- vi) (a) What is an ecosystem? [2 marks]
 - (b) Which parameters do ecologists use to describe how an ecosystem responds to disturbance? [2 marks]

Question 2

- (i) Briefly explain the difference between a community and an ecosystem [5 marks]
- (ii) What does a community consist of? [3 mark]
- (iii) Explain what natural resources depletion is [4 marks]
- (iv) What is Heritage Management? [4 marks]
- (v) Which four natural resources can be depleted? [4 marks]

Question 3

- (a) Which four natural resources exist without human actions? [4 marks]
- (b) What is the significance of biodiversity in an ecosystem? [3 marks]
- (c) Name any three terrestrial biomes. [3 marks]
- (d) Explain how energy and matter travel through ecosystems [5 marks]
- (e) (i) Define equilibrium [3 marks]
 - (ii) What can knock ecosystems out of equilibrium? [2 marks]

SECTION B. ANSWER ANY TWO QUESTIONS IN THIS SECTION

Question 4

- (a) What are the key assumptions of Community-based natural resources management? **[5 marks]**
- (b) Which aspects are brought together by natural resources management? **[5 marks]**
- (c) Describe the stages in stakeholder analysis **[5 marks]**
- (d) What is the importance of higher biodiversity in an ecosystem? **[5 marks]**

Question 5

- (a) Which methods are used to manage biodiversity? **[10 marks]**
- (b) Describe the ownership regimes **[10 marks]**

Question 6

Describe how depletion of natural resources can be prevented **[20 marks]**

END OF QUESTION PAPER

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