FACULTY OF LIFE SCIENCES

DEPARTMENT OF ANIMAL SCIENCE

BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE

Pasture and Rangeland Management (LAS 2211)

SEMESTER 2 EXAMINATION

August 2021

Time Allowed:	**3 hours**
Special Requirements:	**None**
Examiner's Name:	**L. Sebele**

***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 __two__ printed pages including this one.

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SECTION A: ANSWER <u>ALL</u> QUESTIONS IN THIS SECTION

Question 1

a) Draw and label a palmately compound leaf. **[5]**

b) Describe any four growth habits of legumes. **[8]**

c) Explain why frequency and timing of burns are important in rangeland management. **[7]**

Question 2

a) Describe the procedure for carrying out a veld survey and the determination of veld condition. **[10]**

b) Describe how you would manage pastures of a named grass or legume. **[10]**

Question 3

a) There are two major approaches used to determine carrying capacity. Describe them, their assumptions and short comings. **[10]**

b) Explain why in the grasslands and savannas of the more arid regions, High Performance Grazing might perform better than High Utilisation Grazing. **[10]**

SECTION B: ANSWER ANY <u>TWO</u> QUESTIONS IN THIS SECTION

Question 4

a) Outline the objectives for carrying out veld condition assessments? **[6]**

b) Describe how you would use the benchmark method to assess a grassland. **[14]**

Question 5

a) Outline the characteristics of a well prepared piece of land. **[6]**

b) Describe in detail the two classifications of rests in line with veld management. **[14]**

Question 6

Outline the steps in hay making, stating the advantages and disadvantages of using hay as feed in the lean season. **[20]**

Question 7

Describe ways through which plants cope with herbivory. **[20]**

END OF EXAMINATION