



**FACULTY OF NATURAL RESOURCE MANAGEMENT AND AGRICULTURE**  
**DEPARTMENT OF ANIMAL SCIENCES**  
**BACHELOR OF SCIENCE HONOURS DEGREE IN ANIMAL SCIENCE**  
**ANIMAL ANATOMY AND PHYSIOLOGY OF FARM ANIMALS (LAS1208)**  
**SEMESTER 2 FINAL EXAMINATION**

**June 2023**

**Time Allowed:** 3 hours  
**Total Marks:** 100  
**Special Requirements:** None  
**Examiner's Name:** Dr S Moyo

***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**

<b>QUESTION</b>	<b>MARKS</b>
<b>SECTION A</b>	<b>60</b>
<b>SECTION B</b>	<b>40</b>
<b>TOTAL ATTAINABLE MARKS</b>	<b>100</b>

***This paper consists of three printed pages including this one.***

**SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION**

**Question 1**

- a) Define the following terms and give examples:
- i) Proximal [2 marks]
  - ii) Distal [2 marks]
  - iii) Superficial [2 marks]
  - iv) Endocrine gland [2 marks]
  - v) Hormone. [2 marks]
- b) What are the functions of the following:
- i) Connective tissue [3 marks]
  - ii) Muscle tissue? [3 marks]
- c) Explain the role of the respiratory system in the regulation of blood pH. [4 marks]

**Question 2**

- a) Relate the structure to the functions of the following blood vessels:
- i) Capillary [2 marks]
  - ii) Veins. [4 marks]
- b) Describe the following bone fractures:
- i) Compound fracture [2 marks]
  - ii) Greenstick fracture [2 marks]
  - iii) Comminuted fracture. [2 marks]
- c) Discuss the thermo-regulation of testes in bovine bulls. [8 marks]

**Question 3**

- a) What is the function of the esophageal groove in the calf? [4 marks]
- b) Describe how digestion takes place in ruminants in the following:
- i) Mouth [2 marks]
  - ii) Reticulo-rumen [6 marks]
  - iii) Omasum [2 marks]
  - iv) Abomasum. [6 marks]

**SECTION B. ANSWER ANY TWO QUESTIONS IN THIS SECTION**

**Question 4**

Discuss in detail the role of hormones in the estrous cycle.

**[20 marks]**

**Question 5**

a) Relate the anatomy to the function of the heart.

**[10 marks]**

b) Write short notes on the regulation of the cardiac cycle.

**[10 marks]**

**Question 6**

a) Using a table, highlight the differences between bones of the pelvic limb and bones of the pectoral limb.

**[12 marks]**

b) Discuss the role of the urinary system in homeostasis.

**[8 marks]**

**END OF QUESTION PAPER**

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