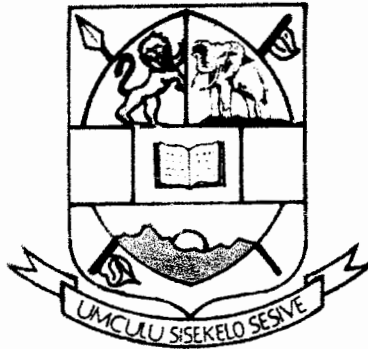


1ST SEMESTER 2007/2008



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**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

PROGRAMME : **B. SC. IN AGRICULTURAL EDUCATION
YEAR II AND B. SC. IN ANIMAL SCIENCE
YEAR II**

COURSE CODE : **APH 201**

TITLE OF PAPER : **ANATOMY AND PHYSIOLOGY**

TIME ALLOWED : **TWO HOURS**

INSTRUCTIONS : **ANSWER ANY FOUR QUESTIONS**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN
GRANTED BY THE CHIEF INVIGILATOR**

QUESTION ONE

- a. Name four (4) body planes and explain their importance in the study of anatomy. (5 Marks)
- b. Explain what is meant by bilateral symmetry in the bodies of farm animals exhibit. (5 Marks)
- c. Name three (3) body membranes and give an account of the arrangements of each of these membranes in the body cavities of farm animals. (15 Marks)

QUESTION TWO

- a. Give an account of the organisation of the skull as a component of the axial skeleton. (5 Marks)
- b. Give the main features of a rib and explain how ribs are joined with the vertebral column and the sternum to form part of the axial skeleton. (5 Marks)
- c. Name the five (5) regions of the vertebral column and explain how this vertebral column, the vertebral canal and the inter-vertebral foramen are formed. (15 Marks)

QUESTION THREE

- a. Describe the structural and functional organisation of the nervous system. (15 Marks)
- b. Explain how a nerve impulse is generated and transmitted along a neuron and across a neuron synapse. (5 Marks)
- c. Give an account of the functions of the nervous system. (5 Marks)

QUESTION FOUR

- a. Give an account of the four (4) types of blood circulatory systems and indicate. (20 Marks)
- b. Indicate the structural and functional relationship (s) between the blood circulatory system and the lymphatic system. (5 Marks)

QUESTION FIVE

- a. Explain how sex of farm animals is determined. (10 Marks)

- b. List the parts of the genital tract of a cow and describe the changes that take place to this tract under the influence of each of the hormones oestrogen and progesterone. (15 Marks)

QUESTION SIX

Describe the physical and hormonal events that lead to parturition and then describe the process of parturition in a female farm animal. (25 Marks)