



**2009/2010**

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**UNIVERSITY OF SWAZILAND  
SUPPLEMENTARY EXAMINATION PAPER**

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

**COURSE CODE** : **AS 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. Give an account and the importance of the descriptive terms used in the study of anatomy and physiology. (10 Marks)
- b. Name the components of the two parts of the skeleton of farm animals. (5 Marks)
- c. Name and define the two attachments of skeletal muscles and then give an account of the types of skeletal muscles found in farm animals indicating the requirement for all of these types in order for them to effect movement across a joint. (10 Marks)

**QUESTION TWO**

- a. Give an account of how joints of farm animals are classified into types and indicate the types of these joints. (5 Marks)
- b. Describe the general structure of a typical synovial joint of farm animals. (10 Marks)
- c. Name the types of synovial joints of farm animals and indicate the type (s) of movement (s) each type of synovial joint allows. (10 Marks)

**QUESTION THREE**

- a. Describe the structural and functional organisation of the nervous system of farm animals. (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**

Describe the events and hormonal changes that take place during the oestrous cycle of a cow. (25 Marks)

**QUESTION FIVE**

- a. Give an account of how you would influence a heifer to attain puberty at an early age. (15 Marks)
- b. Explain why the breeding of a heifer should be delayed for several months after she has attained puberty. (10 Marks)

**QUESTION SIX**

- a. Explain how sex of farm animals is determined. (10 Marks)
- b. List the parts of the genital tract of a sow and describe the changes that take place to this tract under the influence of the hormones oestrogen and progesterone. (15 Marks)