



**1<sup>ST</sup> SEMESTER 2010/2011**

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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**

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GRANTED BY THE CHIEF INVIGILATOR**

**QUESTION ONE**

Explain the following:

- a- Oestrus in pigs (5 Marks)
- b- The gizzard in poultry (5 Marks)
- c- Fermentation of lipids in ruminants (5 Marks)
- d- Hypophyseal portal circulation (5 Marks)
- e- The nerve impulse (5 Marks)

**QUESTION TWO**

Illustrate with a labelled diagram the following:

- a- Structure of mammary duct and lobule-alveolar system (5 Marks)
- b- Structure of neuron synapse (5 Marks)
- c- Structure of skeletal muscle (5 Marks)
- d- Structure of avian oviduct (5 Marks)
- e- Structure of body wall (5 Marks)

**QUESTION THREE**

Describe the function (s) of the following:

- a- The epididymis (5 Marks)
- b- prolactin (5 Marks)
- c- Periosteum (5 Marks)
- d- Oxytocin (5 Marks)
- e- Testosterone (5 Marks)

**QUESTION FOUR**

Compare between:

- a- B-lymphocytes and T-lymphocytes (5 Marks)
- b- Compact bones and sponge bone (5 Marks)
- c- Mucous membrane of small intestine and large intestine in pigs (5 Marks)
- d- Respiratory bronchioles and alveolar ducts (5 Marks)
- e- Rumen and reticulum in ruminant animals (5 Marks)

**QUESTION FIVE**

- a. Name the three (3) structural organizations of the pumping portion of the respiratory system of farm animals (3 Marks)
- b. Name the four (4) body planes used in the study of anatomy in animals. (4 Marks)
- c. Indicate the duration of gestation in the following farm animals:
- i. ewe
  - ii. sow
  - iii. cow
- (3 Marks)
- d. Write the temporary dental formula of pigs and permanent dental formula of ruminants (8 Marks)
- e. Describe the deglutition stages in pigs. (7 Marks)