



1ST SEMESTER 2010/2011

PAGE 1 OF 3

**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

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)