



1st SEM. 2005/2006

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

PROGRAMME : **DIPLOMA IN AGRICULTURE YEAR I,
 AGRICULTURAL EDUCATION YEAR I,
 DIPLOMA IN HOME ECONOMICS YEAR I,
 HOME ECONOMICS EDUCATION YEAR I
 REMEDIAL YEAR IN HOME ECONOMICS
 AND REMEDIAL YEAR IN HOME
 ECONOMICS EDUCATION**

COURSE CODE: : **APH 100**

TITLE OF PAPER : **ZOOLOGY**

TIME ALLOWED : **TWO (2) HOURS**

INSTRUCTIONS : **ANSWER ANY FOUR QUESTIONS**

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

QUESTION ONE

- a. Explain the difference (s) between a plant and an animal. (5 Marks)
- b. Describe how classification of animals is carried out and give the reasons for carrying out this classification. (12 Marks)
- c. Describe the characteristics of each of the following classes of vertebrate animals.
- i. Pisces (2 Marks)
 - ii. Amphibia (2 Marks)
 - iii. Aves (2 Marks)
 - iv. Mammalia (2 Marks)

QUESTION TWO

Give an account of the phenomenon of natural selection as a force that brings about evolution and then, using this phenomenon, explain how the present giraffe could have acquired the long neck. (25 Marks)

QUESTION THREE

- a. Describe the processes of diffusion, osmosis and active transport as occurs at the cell membrane of animal cells. (15 Marks)
- c. List five (5) cytoplasmic organelles and give the function (s) of each of them. (10 Marks)

QUESTION FOUR

- a. Describe the process of meiosis in a goat with 60 diploid number of chromosomes and indicate the behaviour of these chromosomes in the process. (15 Marks)
- b. Describe the process of ova genesis in a goat with 60 diploid number of chromosomes and explain how the diploid number of chromosomes is achieved during the process of fertilization in this goat. (10 Marks)

QUESTION FIVE

- a. Using the cell as the unit of the structure of the body of farm animals, indicate how the animal body is organized. (5 Marks)
- b. List the eight (8) types of epithelial tissue found in the body of farm animals. (8 Marks)
- c. Describe the structure of a tubular organ found inside the abdominal cavity of farm animals and indicate the difference (s) in structure between such an organ and a tubular organ found outside of the abdominal cavity. (13 Marks)

QUESTION SIX

- a. Describe how glands develop and indicate the main difference (s) between an exocrine gland and an endocrine glands. (15 Marks)
- b. List the five (5) hormones secreted by the anterior pituitary gland and indicate the function (s) of each of these hormones. (10 Marks)