

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2006

TITLE OF PAPER : ANIMAL PHYSIOLOGY

COURSE CODE : B401

TIME ALLOWED : THREE HOURS

INSTRUCTIONS :

1. ANSWER ANY FOUR QUESTIONS
2. EACH QUESTION CARRIES TWENTY FIVE (25) MARKS
3. WHEREVER POSSIBLE ILLUSTRATE YOUR ANSWERS WITH LARGE CLEARLY LABELLED DIAGRAMS

SPECIAL REQUIREMENTS:

1. CALCULATORS (CANDIDATES MAY BRING THEIR OWN)
2. GRAPH PAPER (ORDINARY)

**THIS PAPER IS NOT TO BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATORS**

QUESTION 1.

- (a) What is meant by metabolic rate? (3 Marks)
(b) List and discuss the components of metabolic rate. (22 Marks)
[Total Marks = 25]

QUESTION 2.

Describe and discuss gaseous exchange in birds.
[Total Marks = 25]

QUESTION 3.

- (a) What are the functions of excretory systems in organisms? (10 Marks)
(b) Discuss fully the structure and function of the excretory system found in insects (20 Marks)
[Total Marks = 25]

QUESTION 4.

Discuss fully ANY THREE of the following:

- (i) Llama
(ii) Treppe
(iii) Epididymis
(iv) Root effect
(v) Homeotherm (25 Marks)

QUESTION 5.

- (a) Describe the functioning of the three types of skeletal muscle fibres giving examples of the animals in which they are found. (10 Marks)
(b) Discuss and compare the cost of locomotion in fliers, swimmers and bipedal terrestrial animals. (15 Marks)
[Total Marks = 25]

QUESTION 6.

Describe and discuss the physical ways in which heat is lost by organisms
[Total Marks = 25]