

UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER 2008

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.

What is meant by the "metabolic rate" of an animal? List and discuss its components?

(25 Marks)

QUESTION 2.

How is body temperature regulated in endotherms?

(25 Marks)

QUESTION 3.

Describe fully the structure and function of skeletal muscle.

(25 Marks)

QUESTIONS 4.

(a) What are the three dietary classes of mammalian herbivores? Give examples in each case. (12 Marks)

(b) Discuss digestion in herbivores. (13 Marks)

[Total Marks = 25]

QUESTION 5.

(a) Describe the structure and functioning of the two types of lungs giving examples of the animals in which they are found. (10 Marks)

(b) Compare regulation of respiration in aquatic and terrestrial animals. (15 Marks)

[Total Marks = 25]

QUESTION 6.

(a) Describe the structure and function of the human male reproductive system. (10 Marks)

(b) What is puberty? Discuss puberty in female humans, describing the role played by hormones. (15 Marks)

[Total Marks = 25]