

**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER 2005**

**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) Describe the structure and function of the human male reproductive system.
- (b) What is meant by puberty? Write out a discussion on puberty in female humans, describing the role played by hormones.

(15 Marks)

(10 Marks)

[Total Marks = 25]

**QUESTION 2.**

Define what is meant by the "metabolic rate" of an animal. Describe and discuss the components of metabolic rate?

(25 Marks)

**QUESTION 3.**

Describe fully the structure and function of the hypophysis.

(25 Marks)

**QUESTION 4.**

How is body temperature regulated in endotherms? Comment on the differences between endotherms and ectotherms"

(25 Marks)

**QUESTIONS 5.**

- (a) Describe the three dietary classes of mammalian herbivores giving examples in each case.
- (b) Give a brief discussion of digestion in herbivores.
- (c) What is extra-intestinal digestion? Describe this process in a named animal.

(7 Marks)

[Total Marks = 25]

**QUESTION 6.**

- (a) Describe the structure and function 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]