

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2012

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 female reproductive system. (15 Marks)
- (b) What is meant by puberty? Write out a discussion on puberty in female humans, describing the role played by hormones. (10 Marks)

[Total Marks = 25]

QUESTION 2.

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. (9 Marks)
- (b) Give a brief discussion of digestion in herbivores. (9 Marks)
- (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]