

**UNIVERSITY OF SWAZILAND**

**MAIN EXAMINATION PAPER 2015**

**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 male humans, describing the role played by hormones. (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 hypothalamus.

**(25 Marks)**

**QUESTION 4.**

- (a) What is an endotherm? (5 marks)
- (b) What is a homeotherm? (5 marks)
- (c) How is body temperature regulated in endotherms? (15 marks)

**[Total Marks = 25 Marks]**

**QUESTIONS 5.**

Describe and discuss digestion in herbivores? In your discussion relate the anatomy of the digestive system to the digestibility of the dietary material?

**(25 Marks)**

**QUESTION 6.**

- (a) Describe the structure and function of the mammalian lung. (15 Marks)
- (b) How is respiration regulated in terrestrial animals. (10 Marks)

**[Total Marks = 25]**