

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY 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 male 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.

What is an oxygen dissociation curve? Describe and discuss the factors that determine the positioning of oxygen dissociation curves detailing the advantages (and disadvantages) of the position of an animal's oxygen dissociation curve. (25 Marks)

QUESTION 4.

How is body temperature regulated in endotherms? Comment on the differences between endotherms and ectotherms (25 Marks)

QUESTION 5.

How would you design a weight loss programme for human beings? Give a factual basis for your design. (25 Marks)

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]