

UNIVERSITY OF ESWATINI

MAIN EXAMINATION PAPER 2019

TITLE OF PAPER : ANIMAL PHYSIOLOGY

COURSE CODE : B401/BIO431

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.

Discuss fully ANY THREE of the following:

- (i) Riboflavin (5 Marks)
- (ii) Calcium (5 Marks)
- (iii) Ascorbic acid (5 Marks)
- (iv) Magnesium (5 Marks)
- (v) Vitamin E (5 Marks)

[Total Marks = 25]

QUESTION 2.

Life and physiological systems on earth are governed by physical laws and by the characteristics of materials that exist on the planet. Discuss this statement fully by making use of relevant examples. (25 Marks)

QUESTION 3.

- (a) How is body temperature regulated in endotherms? (15 Marks)
- (b) What is meant by torpor? Define and discuss torpor by making use of appropriate examples. (10 Marks)

[Total Marks = 25]

QUESTION 4.

- (a) Briefly describe the structure and function of the human male reproductive system (20 Marks)
- (b) What is meant by puberty? (5 Marks)

[Total Marks = 25]

QUESTIONS 5.

- (a) Differentiate between resting potential and action potential. (10 Marks)
- (b) Write notes on the following:
 - (i) Post-synaptic potentials (5 Marks)
 - (ii) Conduction speed (5 Marks)
 - (iii) Electrical synapses (5 Marks)

[Total Marks = 25]

QUESTION 6.

You go home to visit and you find that your father's cows are all looking thin and malnourished. How would you go about correcting this? Give a factual basis for your strategy. (25 Marks)