

UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2017

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.

Discuss fully ANY THREE of the following:

- (i) Sodium
- (ii) α -Tocopherol
- (iii) Phosphorus
- (iv) Cyanocobalamin
- (v) Vitamin K

[Total Marks = 25]

QUESTION 2.

- (a) Describe the structure and function of the human respiratory system. (15 Marks)
- (b) Compare regulation of respiration in aquatic and terrestrial animals. (10 Marks)

[Total Marks = 25]

QUESTION 3.

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

QUESTION 4.

- (a) How is food intake controlled in man? (12 Marks)
- (b) Describe and discuss the role of water in human nutrition and metabolism? (13 Marks)

[Total Marks = 25]

QUESTIONS 5.

- (a) Describe the structure and function of flagella. (10 Marks)
- (b) Write out a full discussion on the stimulation and response to stimulation of vertebrate skeletal muscle. (15 Marks)

[Total Marks = 25]

QUESTION 6.

- (a) What are the functions of excretory systems in organisms? (10 Marks)
- (b) Discuss fully the structure and function of the excretory system found in insects (20 Marks)

[Total Marks = 25]