UNIVERSITY OF SWAZILAND

MAIN EXAMINATION PAPER 2006

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) 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]

QUESTION 2.

Describe any 3 (three) endocrine glands detailing their function and that of their secretions. (25 Marks)

QUESTION 3.

(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 4.

Discuss fully ANY THREE of the following:
(i) Riboflavin
(ii) Calcium
(iii) Ascorbic acid
(iv) Magnesium
(v) Vitamin E (25 Marks)

QUESTION 5.

(a) Describe the structure and functioning 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]

QUESTION 6.

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

[Total Marks = 25]