

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc DEGREE PROGRAMME- 2004/05

ZOOLOGY - LEVEL 4

NO BOOK TEST 1 (NBT-1)

COURSE CODE - ZOU2264

COURSE TITLE - ANIMAL FORM AND FUNCTION

DURATION - ONE HOUR



Date : 11th March 2006

Time : 4.00pm - 5.00pm

Instructions

- Answer all questions in **Part A** and **Part B**
- Answers to **Part A** (multiple choice questions) must be indicated in the annexed sheet by placing a cross (X) in the relevant cage.
- Answers to **Part B** (structured questions) must be written within the space provided in the question paper.
- Please submit **Part A** of the question paper along with **Part B**

No Book Test 1 – Animal Form and Function

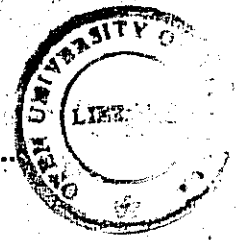
11/03/2006

Registration Number : _____

Answer sheet for question 1 (PART A)

Question No	a	b	c	d
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
1.10				
1.11				
1.12				
1.13				
1.14				
1.15				
1.16				
1.17				
1.18				
1.19				
1.20				

Registration Number



PART B

2.1.a. Define homeostasis

2.1.b. What are the major automatic homeostatic control mechanisms present in animals ?

2.1.c. Write the basic components of one of the above mentioned control mechanisms

2.1.d. Draw a figure to show the relationship of components mentioned in 2.1.c.

2.1.e. Animals show different adaptations to maintain a constant internal environment. State such adaptation shown by animals.

2.1.f. List out the mammalian organs involved in homeostasis in the following table and the blood factors regulated by these organs.

Organs involved	Blood factor regulated

2.2. Figure 1 is a graph which shows how the concentration of blood sugar and the concentration of a certain hormone in the blood changed over a period of 5 hours in human.

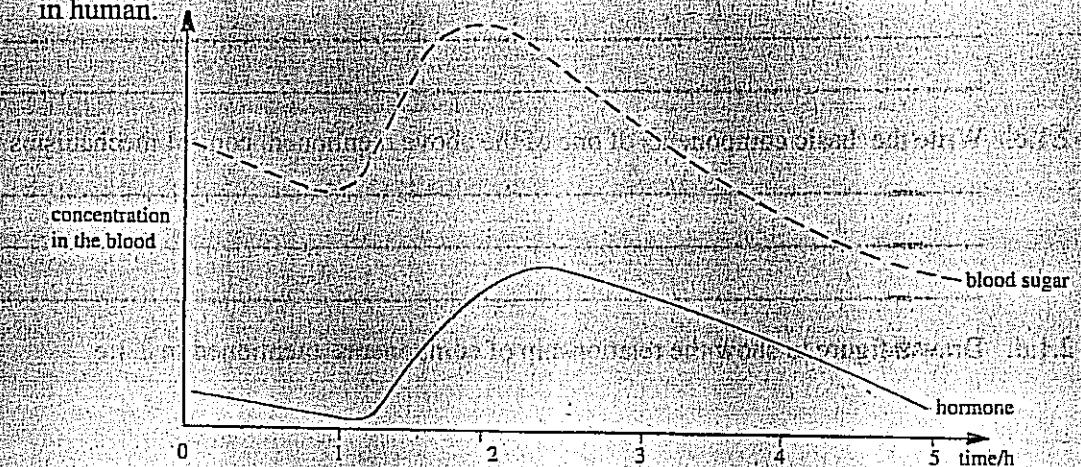


Fig. 1

2.2.a. What happened at the end of the first hour to cause the changes shown in the graph?

2.2. b. What type of sugar is "blood sugar"?

2.2.c. Give reasons for the fall in concentration of blood sugar level slowly during the first hour.

2.2.d. Name the hormone involved

2.2.e. Explain why the two curves are similar in shape.

2.3.1 What are the three major processes in urine formation?

1 _____

2 _____

3 _____

2.3.2. Mention the forces that determine the filtration pressure of the kidney

2.3.3. Write an equation to show the relationship of forces mentioned in 2.3.2.

2.3.4 a. What is the functional unit of the Kidney?



2.3.4. b. Draw a fully labeled diagram of a\the above mentioned unit

2.3.4. c. Describe the countercurrent mechanism

2.3.4. d. Name countercurrent multiplier and countercurrent exchanger present in the Human kidney

2.3.4. e. Mention the advantage of the presence of the countercurrent mechanism in the mammalian kidney
