

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME - 2016/17
ZOOLOGY- LEVEL 4
OPEN BOOK TEST - I
COURSE CODE - ZLU2280
COURSE TITLE - ANIMAL FORM AND FUNCTION
DURATION - ONE AND HALF HOURS



Reg. No.-----

Date: 30th May 2017

Time : 4.00 pm – 5.30 pm

Instructions

1. This question paper has two parts, **Part A** and **Part B**.
2. There are twenty five (25) MCQs (Multiple Choice Questions) in Part A.
3. Answers to all MCQs must be indicated by placing a cross (X) in the relevant cage of the answer sheet.
4. Answers to Part B should be written in the space provided in the question paper.
5. Please handover both **Part A** and **Part B**.

Part A

(25 marks)

Answer sheet for Question 1

Question number	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				
1.21				
1.22				
1.23				
1.24				
1.25				

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Part B

(Total marks 75)

2. Plasma membrane has special structures to serve different functions. One of these structures is a cell junction.

2.1.a. What is a cell junction?

(2 marks)

b. Write the common function of a cell junction.

(2 marks)

c. What is the specific feature of Adhesive junctions?

(2 marks)

d. Name and compare two types of Adhesive junctions.

<i>Name</i>		
1		
2		
3		

(8 marks)

2.2.a. What is a carrier molecule?

(2 marks)

b. Describe how a carrier molecule transports substances.

(5 marks)

c. How does transporting with carrier molecule differ from simple diffusion?

(4 marks)

d. Name the transport method that occurs between two cells using energy.

(1 mark)

e. Why does it need energy?

(2 marks)

f. Describe how bulk of substances are transported into a cell.

(5 marks)

3.1.a. How would you define a tissue?

(4 marks)

b. What are the most diverse and common tissues found in almost all organs?

(2 marks)

c. Name the type of epithelium present in each structure given in Table 1 and write one function of each.

	Organ	Type of epithelium	Function
	Mouth		
2	Bronchi		
3	Bowman's capsule		

(6 marks)

d. Compare the functions of a tissue with an organ.

(4 marks)

e. Do you think that blood should be considered as a tissue? Yes or No -----

(1 mark)

f. Give reasons for your answer given for above 3.1.e.

(4 marks)

3.2.a. Oxygenated blood is transported from lungs to the tissues of the body.

Give method of transporting oxygenated blood from lungs and percentage of oxygen carried by each method.

	Method	Percentage
1		
2		

(4 marks)

b. Write the advantages of having a closed circulatory system in vertebrates.

(3 marks)

c. Write the importance of separation of pulmonary circulation from systematic circulation.

(2 marks)

d. Explain why the human heart is considered as a myogenic heart.

(2 marks)

e. Write the adaptations of capillaries and arteries for their functions in human circulatory system.

	Capillaries	Arteries
Function		
Adaptation		

(8 marks)

f. What do you measure as blood pressure in human body?

(1 marks)

g. What is the normal blood pressure in a healthy man?

(1 marks)

(Total marks 75)
