



THE OPEN UNIVERSITY OF SRI LANKA
B.Sc./ B. Ed. DEGREE PROGRAMME – LEVEL-4
FINAL EXAMINATION 2011/2012
COURSE CODE- ZLU2280/ZOU2264
COURSE TITLE – ANIMAL FORM AND FUNCTION
DURATION - THREE HOURS.

Index Number.....

DATE- 1ST DECEMBER 2012

TIME - 9.30am -12.30 p.m.

Instructions to candidates.

1. This question paper consists of two parts; A and B.
2. Answering part “A” is compulsory and answers to parts 1.1- 1.16 should be provided in spaces provided in the paper.
3. Part “B” consists of six (06) questions and you have to answer any four (04) questions.
4. Answers to questions in part B should be written in answer books/papers provided.
5. Candidates should return both parts A and B to the examiner, at the end of the examination.

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PART- "A"(30 MINUTES)

Question-1 (compulsory)

1. .
1.1 What are the principal categories into which animal tissues are divided?

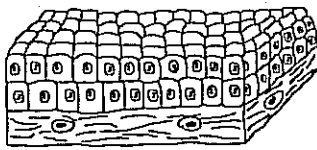
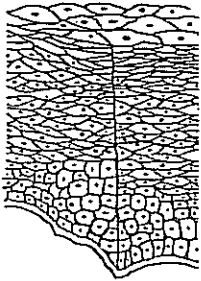
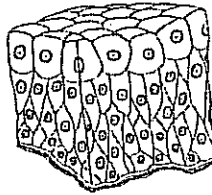
- 1.2 Give three characteristic features of epithelial tissues.

- 1.3 Based on the function, epithelial tissues are divided into two categories; what are those?

- 1.4 Collections of epithelial tissues can form two types of secretory glands. What are these types of glands?

1.5 Identify figures "A", "B" and "C" and complete Table-I given below with the relevant information in empty cages.

Table-I

<p>Figure</p>	 <p style="text-align: center;">"A"</p>	 <p style="text-align: center;">"B"</p>	 <p style="text-align: center;">"C"</p>
<p>Epithelial type</p>		<p>Stratified squamous epithelium.</p>	
<p>Structure</p>	<p>Usually consists of only two or three layers of cuboidal cells.</p>		
<p>Function</p>			<p>Accomodation of fluid content and permitting distension.</p>
<p>Location</p>		<p>Outermost layer of skin</p>	

1.6 What are the two major constituents of connective tissues?

1.7 One of the above mentioned constituents is **non-living**. What is it?

1.8 What are the three types of fibre present in the matrix of connective tissue?

1.9 Depending on the cell type, fibre type and the amount of matrix present, connective tissues are divided into four types. What are those?

1.10 Name the three types of connective tissues?

1.11 Of the above three loose connective tissues, which is the most widely distributed connective tissue in animals?

1.12 Make a fully labeled diagram of a loose connective tissue of **your choice**, in the space provided below.

1.13 What is the major function of **cartilage** in an animal?

1.14 What are the main constituents of cartilage?

1.15 Name the three types of cartilage found in vertebrates.

1.16 What are the characteristics of blood that allows us to identify it as a connective tissue?

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PART-B

Answer any four (04) questions.

2. i) What are the major dietary constituents of man?
ii) Discuss their sources and functions/roles in a healthy person.
3. i) Compare and contrast, **open** and **closed** circulatory systems in animals, using suitable examples.
ii) Discuss the advantages and disadvantages of **single** and **double** circulations.
4. Explain how endotherms overcome **fluctuations of temperature** in the environment to maintain a steady state in their body temperature.
5. Describe the sequential events in spermatogenesis in a human male, along with the hormonal regulation which involves feedback mechanisms.
6. “Malfunctioning of endocrine glands can result in various disorders in human beings”. Justify this statement giving examples.
- 7.

Write short notes on any two of the following:

- i) Invertebrate muscles.
- ii) The human Cardiac cycle.
- iii) Neuroglial cells.
- iv) Neuromuscular junctions.

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