THE OPEN UNIVERSITY OF SRI LANKA
B.Sc DEGREE PROGRAMME – LEVEL 4
FINAL EXAMINATON - 2016/2017
COURSE CODE – ZLU2280/ZOU2264
COURSE TITLE – ANIMAL FORM AND FUNCTION
DURATION – THREE HOURS



Index Number				
•				
Date: 16th January 2018	Time : 9.30 am – 12.30 pm	_		
	4			

Instructions

- This question paper has two parts, Part A and Part B.
- Part A, structured essay question, is compulsory and answers should be written in the space given in question paper.
- Answers for Part B should be written in answer books/papers
- Please hand over both Part A and Part B.

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Part A			
Question 1. (100 marks)			
1. The endocrine system is one of the main regulatory and coo	ordinating systems of human body.		
1.1.i. What is the typical character of the endocrine system	compared to other systems.		
	(2 marks)		
1.1.ii. What do you call the secretion of endocrine system.			
	(1 mark)		
1.1.iii. Write 4 specific characters of endocrine secretions.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
2			
3			
4	M5 C0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
.1.iv. How does pheromones released by animals differ from	(8 marks) endocrine secretion?		
	(2 marks)		

1.2. Figure 1 shows various stages of development of human ovum.

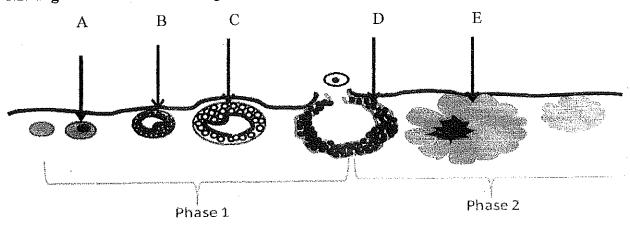


		Figure 1		1	
.2.i. Name A,B,C,D a	nd E shown in Figu				
A		В			
C		D			~~~~
E					(5 marks
.2.ii. Name the phase	and 2 & relevant ch	emical secretio	ons from each p	hase.	
Name of phase					-
Secretion					
	<u> </u>				(4 marks)
l.2.iii. What is the mai	n function of chemica	l secretions tha	at you have mei	ntioned in 1.2.i	i?
				ه هم هم المع المعارضة من المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المعارضة المع	ه الله المام ا
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			4, 4, 4, 4, 4, 4, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,		
•					(4 marks)

1.2.iv. Draw a graph below to show the changes of levels of secretions in blood during phase 1&2.

(5 marks)

.2.v. What would be the levels of above sections in blood of a pregnant woman?	بر کہ 🗷 نے بہار یہا بہ سا سا سر پہر پہا تھا
	(2 marks)
.2.vi. Name the event that usually takes place between two phases.	
*	(1 mark)
.2.vii. What would prevent further production of ova, if fertilization and implantation ta	
\$\$	
	(2 marks)
1.3.a. What are the major and minor endocrine secretions that regulate glucose level in	
.3.b.Name endocrine organs/glands that release secretions which you have mentioned i	n 1.3.a
	(3 marks)
3.c. Describe how organs mentioned in 1.3.b are structurally adapted to regulate blood	glucose le
	(5 marks)

	(1 marks)
1.3. e. Name three major components of the control mechanism that you men	
	#
	(4 marks)
1.3.f. Draw a diagram below to illustrate the relationship among all compone	nts that you have
mentioned in 1.3.e.	
	(5 marks)
1.4. When body temperature is changed similar controlling mechanism is of	perated. Figure 2 below
shows a summary of structures involved in regulation of body temperature	e.
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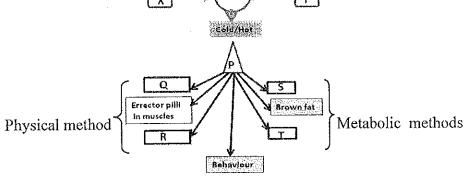


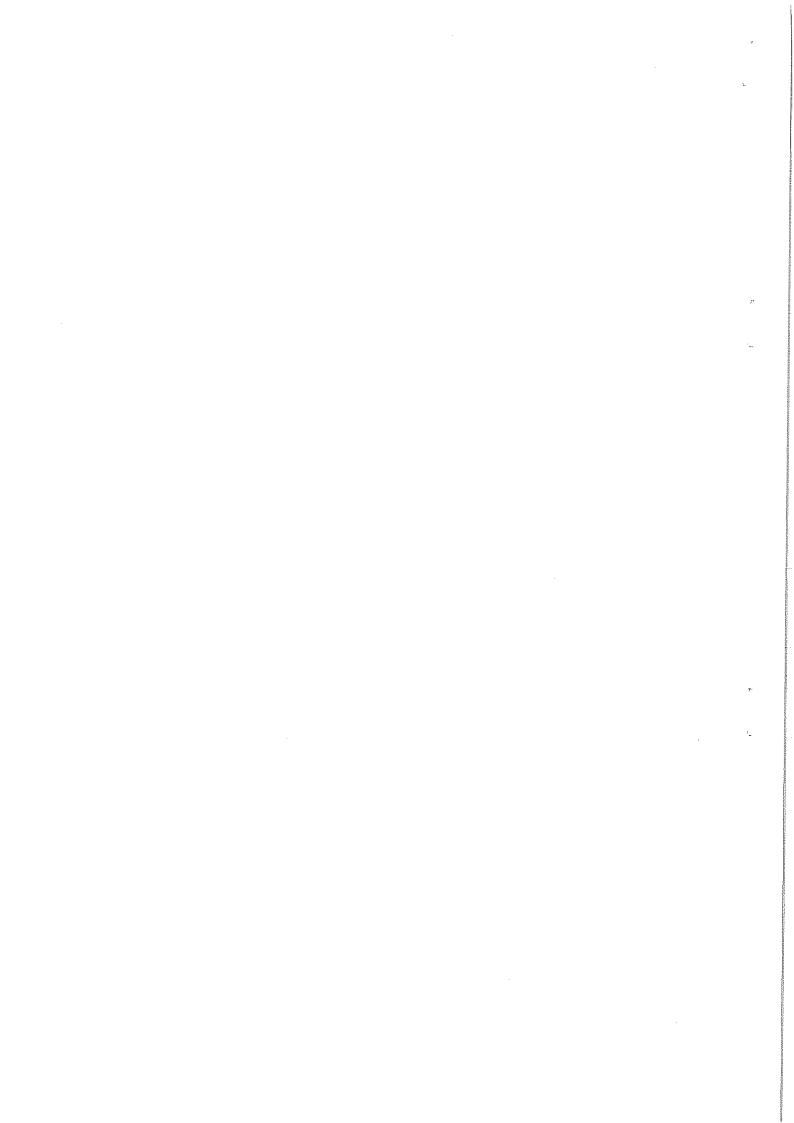
Figure 2

Q
S
X
(7 marks)

I	<u> </u>			
	1 - 3371-1-1			(4 marks)
.4.		of the brain contain the hot and cold ce		
				(2 marks)
.4.2		ehavioral methods that shows by animal		į
_			· ·	
4.3	Classify the	animals on the basis of the ability to regu	ilate hody temperature	(2 marks)
	Animal	Can regulate body temperature	Cannot regulate body to	emperature
	Group			
				(2 marks)
4.4	. Write the dif	ference between endotherms and ectother	erms animals.	

				(4 marks
4.5	. Name the sp	ecific system present in animals living i	in cold water to minimize th	ne heat loss.
				(2 marks)
4.6	. Describe hov	w the specific system mentioned in 1.4.5	operates in animal living	in coldwater
			·	
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		

	-
	(5 marks)
	,
What is heat stroke ?. Mention how it can be prevented in	n human body.
<del>.</del>	
	(7 marks)
Even at temperature of 25°C with high percentage humidity Explain why?	feels uncomfortable .
Even at temperature of 25°C with high percentage humidity  Explain why?	(7 marks)
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	PART B	
Answer any four (4) questions.		
	osed for membrane structure by Singer and Nic d membrane structure with illustrations. ons of the cell membrane.	holson. (5 marks) (75 marks) (20 marks) (Total 100 marks)
a. Describe the meaning of clo b. Compare the closed circulat	s are the major components of complete closed osed circulatory system. tory system with open circulatory system evelopment of closed circulatory system in anim	(10 marks) (20 marks)
•		e animals. (20marks) (30 marks) (50 marks) ( <b>Total 100 marks</b> )
<ul><li>5.a. List different respiratory</li><li>5.b. Briefly describe the majo</li><li>5.c. Insect respiratory system</li></ul>	een external environment through respiratory su surfaces that you have studied. or characteristics of a respiratory surface. is considered as very efficient system. Explain ood cells in transport of oxygen in human body	(5 marks) (20 marks) why? (10 marks)
<ul><li>6. Write short notes on any two (2)</li><li>a. Mitochondria .</li><li>c. Cardiac cycle.</li></ul>	2) of the following. b. Human blood groups. d. Electron Transport chain .	(each 50 marks (Total 100 marks
	es of tissues . by the tissues in human body according to their f on of covering tissues with examples.	unction. (40 marks) (60 marks) (Total 100 marks)