M.Sc. ZOOLOGY First Semester (Repeat) ANIMAL PHYSIOLOGY & ENDOCRINOLOGY (MSZ - 103)

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20 Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any four from Question no. 2 to 8 Question no. 1 is compulsory.

- 1. Briefly state the mechanism of urine formation in human kidney. How does the counter current Mechanism concentrate urine? (5+5=10)
- 2. Write short notes on:

 $(5 \times 2 = 10)$

- (a) Blood clotting mechanism
- (b) Cardiac cycle
- 3. Discuss about the Morphology of Pituitary gland. Mention about the hormone secreted by anterior and posterior pituitary gland and their functions. (5+5=10)
- 4. What is the role of Ca⁺⁺ in muscle contraction? Describe briefly on the biochemical mechanism of muscle contraction. (4+6=10)
- 5. Explain about the feedback mechanism of Thyroid gland with suitable example.

(10)

- 6. Explain about the Cushing's disease. Mention the sign and symptoms of the disease and its effect on other endocrine glands. (4+6=10)
- 7. Define Hormone. Classify hormone according to their chemical nature. Explain how transportation of hormones takes place in blood. (2+3+5=10)

8. Write short notes on the following: (any two)

 $(5 \times 2 = 10)$

- (a) Role of Cholecystokinin (CCK) in GI tract.
- (b) Enzymes in gastric juice and pancreatic juice.
- (c) Role of HCL in digestion of food in stomach.
- (d) Transmission of nerve impulses at synapse.

REV-00 MSZ/03/08

2017/08

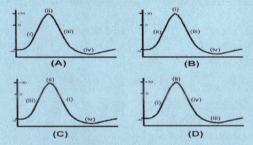
M.Sc. ZOOLOGY First Semester (Repeat) ANIMAL PHYSIOLOGY & ENDOCRINOLOGY (MSZ - 103)

Duration: 20 minutes Marks - 20 (PART A - Objective Type) I. Choose/write the correct answer: $1 \times 20 = 20$ 1.are the two important characteristic features of neuron. 2. Which of the following is an anterior pituitary hormone? b) Oxytocin a) ADH c) TSH d) Cortisol 3. The primary target organ of aldosterone is a) the liver b) the pancreas c) the kidney d) all of the above 4. The Hypothalamus regulates b) Body temperature a) Heart rate c) Glandular secretions d) All of the above 5. Which of the following prevents the conversion of prothrombin to thrombin in an undamaged blood vessel? a) Thromboplastin b) Fibrinogen d) Calcium ion c) Heparin 6. The function (s) of oxytocin as/are to a) cause the uterus contract. b) induce labor. c) stimulate the release of milk from the mother's mammary glands when her baby is nursing. d) All of the above. 7. Which hormone dramatically affects physical appearance? a) Gonadotropin releasing hormone. b) Growth. c) Steroid. d) Male and female.

8.	The adrenal glands consist of a) the inner and outer layer of the kidney b) the inner medulla and the outer cortex c) lower adrenal and upper paradrenal se d) ACTH and BCTH sections.				
9.	Insulin functions to a) promote the storage of nutrients. b) lower the blood glucose level by stim glucose. c) stimulate uptake of glucose by cells. d) all of the above.	ulating liver, fat and muscle cells to metabolize			
10		roidism. To investigate the matter, you measure the ers from iodine deficiency, you can expect the b) T4 elevated, TSH reduced d) T4 reduced, TSH elevated			
11	1. Which of the following pair is NOT corn	ectly matched?			
	a) Insulin Diabetes mellitus (Disb) Glucagon beta cell (Source) c) Somatstatin delta cell (Source) d) Corpus luteum relaxin (Secretion				
12	2.Mitotane drug is used to cure a) Conn's disease c) Addison's disease	b) Cushing's disease d) Parkinson's disease			
13	3.Reabsorption of useful substances from a) Collecting tube c) Proximal convoluted tubule	glomerular filtration occur in: b) Loop of Henle d) Distal convoluted tubule			
14	 14.Role of Secretin in the pancreatic ductular cells is: a) To reabsorb HCO₃⁻ from the pancreatic juice. b) To secrete HCO₃⁻ and reabsorb Cl⁻ from the pancreatic juice. c) To secrete Na⁺ and Cl⁻ in the pancreatic juice. d) To reabsorb Na⁺ and Cl⁻ from the pancreatic juice. 				
15	5. Which of the following cells in the renal its contraction? a) Podocytes c) Perital epithelial cell	b) Endothelial cells of glomerular capillaries d) Mesangial cell			
16	6. Which of the following situation will be a) If Rh + man marries Rh + woman c) If Rh + man marries Rh - woman	fatal to second foetus? b) If Rh - man marries Rh - woman d) If Rh - man marries Rh - woman			

- 17. The functions of tropomyosin in skeletal muscle include:
 - a) sliding on actin to produce shortening.
 - b) releasing Ca2+ after initiation of contraction.
 - c) binding to myosin during contraction.
 - d) acting as a "relaxing protein" at rest by covering up the sites where myosin binds to
- 18. The events happen during the transmission of nerve impulses along the axon are:
 - (i) Na+ channel close and K+ channel open.
 - (ii) More Na+ channel open.
 - (iii) More K+ channel open.
 - (iv) K+ channel close.

Which of the following graph is the correct representation of events during the transmission of nerve impulses along the axon?



- 19.In humans, MSH (melanocyte-stimulating hormone)
 - a) regulates primary skin color
- b) causes the thyroid to produce thyroxin
- c) governs the rate of tanning
- d) concentration is very low
- 20. Angiotensinogen is a protein produce and secreted by:
 - a) Liver cells

b) Macula densa cells

c) Endothelial cell

d) Juxtaglomerular cells



Offiversity of science and reciniology, is	Date Stamp:		
SESSION 2016-17		100	
COURSEPAPER CODE:			
NAME OF THE PAPER:			
SEMESTER			Islanda komagnistik
Instructions to Candidates	For Objective		Session: 2016-17
1. This answer booklet has 4 pages. Please check before	Type Questions		
writing whether it is complete or in good condition.	Page No.	Marks	Course
2. Do not write your name anywhere in the answer booklet.			Roll No
3. Write legibly on both sides of the paper			Enrollment No
4. You may use some space for any rough notes or calculation			Semester
on the answer booklet if you need. These rough notes,			
calculations must be scored out before submitting the answer			Name of the Paper
booklet.			
5. Do not bring any book or loose paper in the examination			
hall.	Total		Paper Code
6. Do not tear any page from the answer booklet.	For Descriptive Type Questions		
7. Do not write anything on the question paper or blotting	Question No.	Marks	
paper or any pieces of paper while you are in the examination			
hall.			
8. Any act of indiscipline or misbehavior in the examination hall			
will result in your expulsion.			
9. No examinee is allowed to leave the examination hall until			107 1000
30 minutes lapse after the commencement of the examination.			
10. Additional answer sheet will be supplied after the main			
answer booklet is completed.	1		
	BLUGGE CHARLES CONTROL		

Scrutinizer's Signature

Examiner's Signature

Total **Grand Total**

Invigilator's Signature