Write the following information in the first page of Answer Script before starting answer

ODD SEMESTER EXAMINATION: 2020-21

Exam ID Number	
Course	Semester
Paper Code	Paper Title
Type of Exam:	(Regular/Back/Improvement)

Important Instruction for students:

- 1. Student should write objective and descriptive answer on plain white paper.
- **2.** Give page number in each page starting from 1st page.
- **3.** After completion of examination, Scan all pages, convert into a single PDF, rename the file with Class Roll No. (2019MBA15) and upload to the Google classroom as attachment.
- **4.** Exam timing from 10am 1pm (for morning shift).
- **5.** Question Paper will be uploaded before 10 mins from the schedule time.
- **6.** Additional 20 mins time will be given for scanning and uploading the single PDF file.
- **7.** Student will be marked as ABSENT if failed to upload the PDF answer script due to any reason.

B.Sc. ZOOLOGY THIRD SEMESTER

PHYSIOLOGY: CONTROLLING & COORDINATING SYSTEM

BSZ - 302 [REPEAT]

Duration: 3 hrs. FullMarks: 70

(PART-A: Objective)

Time : 20 min. Marks : 20

Choose the correct answer from the following:

 $1\times20=20$

- Which of the following hormones stimulates the renal absorption of sodium, hydrogen , ammonium and magenesium.
 - a Insulin

b Prostaglandin

c. Aldosterone

- **d** Oxytocin
- 2. Both epinephrine and nor epinephrine are stored in the cytoplasmic granules of
 - a. F- cells

b. Chief cells

c. Chromaffin cells

- **d.** δ cells
- 3. Sperms are produced by the -----of the testes.
 - a Sertoli cells

b Interstitial cells.

c. Leydig cells

- d. Seminiferous tubules
- **4.** The hormone which prepares the uterine endometrium for implantation is
 - a. Follicle Stimulating Hormone.
- b. Progesterone

c. Estrogen

d. LH and Progesterone

- 5. Glucagon
 - a. accelerates protein synthesis within cells
 - b. accelerates conversion of glycogen into glucose
 - c. decreases conversion of glycogen into glucose
 - **d.** slows down glucose formation from lactic acid
- **6.** Insulin activates cells by binding to the following receptor?
 - a. G protein Receptor

b. Tyrosine kinase Receptor

c. Nuclear receptor

- **d.** None of the above
- 7. Estrogen can easily pass the membrane by simple diffusion because it is
 - a. Hydrophilic

b. Lipophilic

c. Enter through the pore

- **d.** None of the above.
- 8. In the liver, insulin decreases the production of glucose by inhibiting
 - a. glycolysis

b. gluconeogenesis

c. glycogenesis

- d. All of the above.
- The ovum is surrounded by a mass of several thousand small granulosa cells, called the
 - a. Corona radiata

b. antrum

c. Sertoli cells

Zona pellucida

10.	 Low level of adrenal cortex hormones re a. Addison diseases b.Cushing syndrome c. Goiters d.Tetany 	esults in
	a. Addisons diseasec. Goiters	b. Cushing syndromed. Tetany
	Which of the following hormone is produced females but functional only in a female? a. Relaxin c. Vasopressin	by a pituitary gland in both males andb. Prolactind. Somatotrophic hormones
12.	Which of the following is an accumulation an a. Hypothalamus c. Posterior pituitary gland	d releasing centre of neurohormone? b. Anterior lobe of pituitary gland d. Intermediate lobe of pituitary
13.	MSH is produced by	
	a. Anterior lobe of pituitary glandc. Parathyroid	b. Posterior pituitary glandd. Pars intermedia of pituitary
14.	Sertoli cells are regulated by pituitary hormo a. FSH c. GH	b. LH d. Prolactin
15.	Which hormone causes the contraction of lab a. Prolactin c. Progesterone	or? b. Estrogen d. Oxytocin
16.	Which of the following diseases not related to a. Myxoedema c. Acromegaly	b. Cretinism d. Goitre
17.	Grave's disease is due to a. Hyperactivity of thyroid gland c. Hyperactivity of adrenal cortex	b. Hyperactivity of adrenal medullad. Hyperactivity of islets of langerhans
18.	Hypothyroidism causes in an adult a. Obesity c. Cretinism	b. Diabetesd. Myxoedema
19.	Which of the following is not the symptom of a. Accumulation of urea in blood. c. Mental retardation	f hypothyroiditis? b. Edema d. Lethargy
20.	Which of the following is protein hormone? a. Oxytocin c. TSH	b. Insulind. Anti diuretic hormone

PART-B: Descriptive

Time: 2 hrs. 40 min. Marks: 50

[Answer question no.1 & any four (4) from the rest]

1.	What is mean by endocrine, paracrine and autocrine signaling? Differentiate between endocrine and exocrine gland. Why pancreas is called heterocrine gland?	3+5+2=10
2.	Describe the mechanism of hormone response resulting from the binding of a hormone with an intracellular receptor. What would be the physiological consequence of a disease that destroyed the beta cells of the pancreas?	8+2=10
3.	Discuss the hypoglycemic role of insulin. How does it effect lipid metabolism. What is the role of C-peptide in insulin formation?	4+4+2=10
4.	Draw a Graffian follicle. What role does the pituitary hormones play in ovulation?	3+7=10
5.	"The adrenal medulla releases its hormones in response to acute, short-term stress"-Justify the statement. Compare and contrast the roles of aldosterone and cortisol.	6+4=10
6.	What are trophic hormones? What are the hormones secreted by adenohypophysis? Describe their functions in the body.	2+3+5=10
7.	Describe the histology of thyroid gland. What is Iodine trapping? Discuss the role of Iodine in biogenesis of thyroid hormones.	3+2+5=10
8.	Write Short Note on Following:	5+5=10

8. Write Short Note on Following:

- a. Hypothalamo-hypophyseal axis.
- b. Function of Oxytocin.