

M.Sc. ZOOLOGY
FIRST SEMESTER (REPEAT)
ANIMAL PHYSIOLOGY & ENDOCRINOLOGY
MSZ-103

[USE OMR FOR OBJECTIVE PART]

SET
A

Duration: 3 hrs.

Full Marks: 70

(Objective)

Time: 30 mins.

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

1. Which of the following is a protein in bile?
 - a. Bilirubin
 - b. Cholesterol
 - c. Lecithin
 - d. Alkaline phosphatase
2. The hormone that causes emptying of gall bladder is:
 - a. Cholesystokinin
 - b. Gastrin
 - c. Secretin
 - d. Motilin
3. Which one of the following is not a type of Troponin?
 - a. Tn-C
 - b. Tn-P
 - c. Tn-T
 - d. Tn-I
4. Muscle contraction begins with:
 - a. Acto-myosin cross bridge formation
 - b. Formation of Tropomyosin-actine complex
 - c. Movement of Ca⁺⁺ to sarcoplasmic reticulum
 - d. Shrinkage of sarcomere
5. The neurotransmitter that is found in neuromuscular synapse is:
 - a. Noradrenalin
 - b. Acetylcholin
 - c. Serotonin
 - d. Histamine
6. If terminal sugar of oligosaccharide is D galactose on RBC, then the antigen is called:
 - a. A antigen
 - b. B antigen
 - c. D antigen
 - d. H antigen
7. If H antigen is absent then the blood group is called:
 - a. Bombay blood group
 - b. A blood group
 - c. B blood group
 - d. Golden blood group
8. Specialized epithelial cell of Bowmen's capsule is called:
 - a. Fenestra
 - b. Mesengial cell
 - c. Podocytes
 - d. Macula densa
9. The P wave of the ECG represents:
 - a. Ventricular depolarization
 - b. Ventricular repolarization
 - c. Atrial depolarization
 - d. Atrial repolarization
10. Nephron of desert rodents have:
 - a. Long proximal convoluted tubule
 - b. Long loop of Henle
 - c. Long distal convoluted tubule
 - d. None of the above

11. Paedomorphosis is.....
 - a. Retention of larval characters
 - b. Early growth of adult characters
 - c. Delaying of growth
 - d. None of the above
12. What is the function of androgen replacement therapy?
 - a. Resumes testicular function
 - b. Menopausal symptoms
 - c. Endometriosis
 - d. Growth and cell development
13. Which among these is not a type of neuroendocrine system?
 - a. Hypothalamic - pituitary - gonadal
 - b. Hypothalamic - pituitary - thyroid
 - c. Hypothalamic - pituitary - hypophyseal
 - d. Hypothalamic - pituitary - pancreas
14. In which domain the hormones bind and reacts to secondary messenger?
 - a. Cytoplasmic
 - b. Transmembrane
 - c. Extracellular
 - d. Intracellular
15. The Alpha cells in pancreas secrete.....
 - a. Insulin
 - b. Glucagon
 - c. Somatostatin
 - d. Pancreatic juice
16. The hormone involved in osmoregulation in man is:
 - a. ADH
 - b. TSH
 - c. ACTH
 - d. GH
17. Highly concentrated urines are passed by:
 - a. Fresh water animal
 - b. Marine animal
 - c. Terrestrial animal
 - d. None of the above
18. Hormone related with heat stress are secreted by:
 - a. Adrenal medulla
 - b. Pancreas
 - c. Sweat gland
 - d. Pituitary gland
19. The term 'local hormone' deals with:
 - a. Steroid hormones
 - b. Amines
 - c. Prostaglandins
 - d. Melatonin
20. Group of hormones derived from cholesterol is:
 - a. Protein hormones
 - b. Peptide hormones
 - c. Steroid hormones
 - d. Amine hormones

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

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| 1. Write about ABO and Rh blood group system in human. | 5+5=10 |
| 2. Write the mechanism of actions of amine hormones. | 8+2=10 |
| 3. How hyperosmolarity is created and maintained in the medulla region of kidney? | 10 |
| 4. Describe the modes of transportation of Carbondioxide from body tissues to lung. | 10 |
| 5. What are the influences and feedback mechanisms with organs involved in HPA axis? Also mention the mechanism of action. | 6+4=10 |
| 6. Mention the major mechanical processes involved in the mechanism of digestion. Write how digested products of protein, carbohydrates and lipids are absorbed. | 2+8=10 |
| 7. What is hormone therapy? Mention the different types with suitable examples. | 3+7=10 |
| 8. What is meant by membrane potential? Explain the ionic basis of resting membrane potential and action potential. | 2+8=10 |

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