Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Master's Degree Examination – May 2025
II Semester

Class : I P.G. **Time: 3 Hours**
Major : Zoology **Max. Marks: 100**

23MZOC08 Animal Physiology and Endocrinology

Course Outcomes:

CO1: Understand the physiological systems and their specific functions
CO2: Knowledge on the interaction and interdependence of physiological and biochemical processes.
CO3: Know the transfer of information from one group of animals to other using signals
CO4: Learn properties and regulation of biological processes in the body from conceptionthrough adulthood by the endocrine glands.
CO5: Understanding the factors influencing the adaptations and responses of organisms to particular environment.

Part A **10 x 1 = 10**
Choose the Correct Answer

1. Name the enzyme that is responsible for carbohydrate digestion in the mouth CO1K1
a. Pepsin b. Trypsin c. Amylase d. Lipase

2. Which of the following is the functional unit of the kidney? CO1K1
a. Nephron b. Alveolus c. Glomerulus d. Loop of Henle

3. …….. organ is responsible for gas exchange in mammals. CO2K1
a. Heart b. Liver c. Lungs d. Kidneys

4. Select the part of the brain that controls balance and coordination. CO2K1
a. Cerebrum b. Cerebellum c. Medulla d. Hypothalamus

5. Name the type of muscle that is involuntary and non-striated. CO3K1
a. Skeletal muscle b. Cardiac muscle c. Smooth muscle d. Shoulder muscles

6. Select the biological rhythm which is based on a 24-hour cycle. CO3K1
a. Ultradian b. Circadian c. Infradian d. Lunar

7. ……gland is called as "master gland" of the endocrine system CO4K1
a. Thyroid b. Pituitary c. Adrenal d. Pancreas

8. Which of the following hormone that regulates calcium levels in the blood? CO4K1
a. Insulin b. Parathyroid Hormone c. Thyroxine d. Cortisol

9. Choose the hormone which is primarily responsible for maintaining pregnancy. CO5K3
a. Estrogen b. Progesterone c. Oxytocin d. Testosterone

10. The hormone that stimulates the secretion of gastric juices. CO5K1
a. Gastrin b. Secretin c Cholecystokinin d. Insulin

Part B **5 x 6 = 30**
Answer ALL questions
Each answer should not exceed 400 words or two pages

11.a. Relate the role of digestive glands in mammals. CO1K3
(or)

11.b. Explain the role of the heart in blood circulation. CO1K4

12.a. List the respiratory pigments, and mention their roles. CO2K1

(or)

12.b. Explain reflex actions with examples. CO2K2

13.a. Differentiate between axial and appendicular skeletons. CO3K4

(or)

13.b. Discuss the various types of pheromones and their significant in animals. CO3K3

14.a. Discuss the functions of the pituitary gland. CO4K2

(or)

14.b. Explain the structure of adrenal gland and its functions. CO4K3

15.a. Explain the menstrual cycle and its hormonal regulation. CO5K4

(or)

15.b. Write a note on neuroendocrine systems in Arthropods. CO5K3

Part C **5 x 12 = 60**

Answer ALL questions

Each answer should not exceed 800 words or four pages

16.a. Explain the process of digestion in mammals. CO1K4

(or)

16.b. Discuss the structure and function of the nephron in the excretory system. CO1K2

17. a. Discuss the mode of respiration in mammals and its regulation process. CO2K3

(or)

17.b. Illustrate the structure and function of the human eye. CO2K2

18.a. Explain the mechanism of muscle contraction. CO3K4

(or)

18.b. Point out the mode of orientation and navigation in animals. CO3K4

19.a. Illustrate the structure and functions of the hypothalamus and pituitary gland. CO4K2

(or)

19.b. Discuss the hormonal regulation of body temperature and acclimatization. CO4K2

20.a. Elucidate the hormonal regulation of male and female reproduction. CO5K3

(or)

20.b. Explain hormone analogues and their applications. CO5K4

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