



# Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

## Master's Degree Examination – June / July 2021

### II Semester

Class : I PG  
Major : Zoology

Time : 3 Hours  
Max. Marks: 100

### 20MZOC08 Animal Physiology and Endocrinology

#### Part A

10 x 1 = 10

#### Choose the Correct Answer

- Name the digestive juice that lacks enzyme but helps in digestion.  
a. Bile juice      b. Pancreatic      c. Ptyalin      d. Pepsin      **CO1K1**
- The specific gravity of plasma is \_\_\_\_\_  
a. 1.027      b. 2.027      c. 1.127      d. 2.127      **CO2K1**
- The ratio of carbondioxide liberated to that of oxygen taken up in unit time is termed as \_\_\_\_\_  
a. Respiration centre      b. Respiratory pigment  
c. Respiratory quotient      d. Cellular Respiration      **CO2K1**
- A reflex is a \_\_\_\_\_ response to a stimulus.  
a. Psychological      b. Physiological      c. Physical      d. Stereotyped      **CO3K1**
- Production and emission of light by a living organism is known as \_\_\_\_\_  
a. Bioluminescence      b. Crepusculous      c. Photometry      d. Lightning      **CO5K1**
- The magnetic compass can be used to determine the directions along which the gradients of the "map" called \_\_\_\_\_  
a. Orientation      b. Bicordinate navigation      c. Movement      d. Pointing      **CO5K1**
- The endocrine gland recorded as the "master gland" is \_\_\_\_\_.  
a. Thyroid      b. Pancreas      c. Adrenal      d. Pituitary      **CO4K1**
- The ability of an organism to regulate their body temperature by producing heat within the body is called \_\_\_\_\_  
a. Ectotherms      b. Endotherms      c. Mesotherms      d. Epitherms      **CO2K1**
- The sexual cycle in mammals is known as \_\_\_\_\_  
a. Lactation      b. Copulation      c. Fertilization      d. Oestrous cycle      **CO3K1**
- The genetic disease due to hormonal imbalance is \_\_\_\_\_  
a. Graves disease      b. Down's Syndrome      c. Klienfelter's syndrome      d. Haemophilia      **CO4K1**

**Part B**

**5 x 6 = 30**

**Answer ALL questions**

**Each answer should not exceed 400 words or one page**

- 11.a. Infer the role of digestive glands in digestion. **CO1K2**  
(or)  
11.b. With a neat sketch explain the ultra structure of nephron. **CO1K3**
- 12.a. Give a brief account of the physiology of reflex action. **CO2K2**  
(or)  
12.b. Generalize the mechanism of muscle contraction. **CO2K6**
- 13.a. Recall the types and significance of bioluminescence. **CO5K1**  
(or)  
13.b. How do birds navigate their way? **CO5K3**
- 14.a. Give an account on adrenal gland. **CO3K2**  
(or)  
14.b. Cite the physiology of thermoregulation in mammals. **CO2K2**
- 15.a. Briefly write the production and regulation of female sex hormone. **CO4K3**  
(or)  
15.b. Summarize the genetic disorders due to hormonal imbalance. **CO4K3**

**Part C**

**5 x 12 = 60**

**Answer ALL question**

**Each answer should not exceed 800 words or four pages**

- 16.a. Record the different types of heart found in animals. **CO1K3**  
(or)  
16.b. Visualize the physiology of excretion in mammals. **CO2K2**
- 17.a. Summarize the structure and functions of respiratory pigments found in animals. **CO2K3**  
(or)  
17.b. Demonstrate the eye of a mammal with a neat labelled sketch. **CO3K2**
- 18.a. Comment on Biological clock with examples. **CO3K2**  
(or)  
18.b. Illustrate circadian and circannual rhythms. **CO5K3**
- 19.a. "pituitary gland is the master of endocrine gland:- Justify. **CO4K6**  
(or)  
19.b. Trace the role of thyroid gland in mammals. **CO4K2**
- 20.a. Report the various stages of ovarian cycle. **CO4K3**  
(or)  
20.b. Explain the phenomenon of neuro endocrine system in insects. **CO4K3**

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