



**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  
Continuous Internal Assessment Test I August, 2025  
**SEMESTER III**

**Class : II UG**

**Time : 2 Hours**

**Major/Branch: Zoology**

**Max. Marks: 60**

**23BZOC05 COMPARATIVE ANATOMY & PHYSIOLOGY OF CHORDATES**

**Course Outcomes:**

- CO1. Understand the evolution of vertebrates by integrating its structure, function and development.
- CO2. Have an overview of the evolutionary concepts including homology and homoplasy, and detailed discussions of major organ systems.
- CO3. Understand the abnormal function of animal and human diseases and new methods for treatment.
- CO4. Learn generously the life supporting properties and regulation of biological processes by the endocrine glands in the body from conception to adulthood.
- CO5. Develop an understanding of the related disciplines, such as cell biology, neurophysiology, pharmacology, biochemistry etc.

**Part- A**

**Circle the correct answer**

**6x1=6**

- |   |  |     |    |
|---|--|-----|----|
| 1 | Which of the following dermal scale is found in cartilaginous fishes?<br>a. Dermal plates      b. Cycloid      c. Playcoid      d. Ctenoid                   | CO1 | K1 |
| 2 | The presence of the following is one among the fundamental chordate character<br>a. heart      b. nerve cord      c. pharyngeal gill slits      d. nephridia | CO1 | K1 |
| 3 | Melanocytes are located in the<br>a. Stratum corneum      b. Stratum germinativum<br>c. Stratum lucidum      d. Dermis                                       | CO2 | K1 |
| 4 | In birds uropygial gland is present just above the<br>a. Beak      b. Eye      c. Tail      d. Ear   | CO2 | K1 |
| 5 | Single aortic arch is present in<br>a. birds & mammals      b. birds& reptiles<br>c. reptiles & mammals      d. reptiles& birds                              | CO3 | K2 |
| 6 | ECG stands for<br>a. electrocardiogram      b. electroencephalogram<br>c. enhanced cardiogram      d. enhanced encephalogram                                 | CO3 | K1 |

**Part-B**

**3x6 =18**

**Answer all questions**

**Each answer should not exceed 400 words or two pages**

- |     |   |     |    |
|-----|---|-----|----|
| 7.a | Give an account on functional significance of integument.<br>(or) | CO1 | K4 |
| 7.b | Comment on epidermal derivatives in chordates.                    | CO1 | K4 |
| 8.a | Comment on different types of muscles.<br>(or)                    | CO2 | K4 |
| 8.b | Write notes on digestive glands                                   | CO2 | K4 |
| 9.a | Describe about cardiac cycle and cardiac output.<br>(or)          | CO3 | K4 |
| 9.b | Write notes on blood cells and blood groups.                      | CO3 | K4 |

**Part-C**

**3x12=36**

**Answer any one question**

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

- |      |  |     |    |
|------|--|-----|----|
| 10.a | Compare the anatomy and physiology of integument in chordates.<br>(or)               | CO1 | K3 |
| 10.b | Compare pelvic and pectoral bones in chordates.                                      | CO1 | K3 |
| 11.a | Describe about different types of nutrients and its biological significance.<br>(or) | CO2 | K4 |
| 11.b | Explain the functional significance of endocrine glands with neat illustrations.     | CO2 | K4 |
| 12.a | Elucidate the structure and evolution of heart.<br>(or)                              | CO3 | K5 |
| 12.b | Write an essay on aquatic and terrestrial respiration.                               | CO3 | K5 |