



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

Major/Branch: Zoology

Time : 2 Hours

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

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

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

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|------|--|-----|----|
| 10.a | Compare the anatomy and physiology of integument in chordates.
(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.
(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.
(or) | CO3 | K5 |
| 12.b | Write an essay on aquatic and terrestrial respiration. | CO3 | K5 |