

(6 pages)

Reg. No. :

Code No. : 5444

Sub. Code : ZZOM 12

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2023

First Semester

Zoology – Core

COMPARATIVE ANATOMY OF CHORDATES

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The term Urochordate means _____
 - (a) Notochord in head
 - (b) Notochord in tail
 - (c) Half chordate
 - (d) Possesses vertebrae

6. Oesophagus in adult vertebrates is derived from:
 - (a) Primitive gut
 - (b) Fore gut
 - (c) Mid gut
 - (d) Hind gut

7. In bony fishes operculum arises from:
 - (a) Hyomandibular
 - (b) Mandible
 - (c) Sphenethmoid
 - (d) Hyoid arch

8. The opening of coronary sinus is guarded by:
 - (a) Besian valve
 - (b) Mitral valve
 - (c) Semilunar valve
 - (d) Tricuspid valve

9. Archinephros is found in:
 - (a) Fishes
 - (b) Reptiles
 - (c) Larval cyclostomes
 - (d) Amphibians

10. The functional adult gonad is derived from which part of genital ridge:
 - (a) Gonal
 - (b) Pregonal
 - (c) Epigonal
 - (d) Endogonal

2. The endoskeleton of chordate animals is:
 - (a) Living structure
 - (b) Living structure without growth
 - (c) Living structure with growth
 - (d) Non-living structure

3. Melanocytes are located in:
 - (a) Stratum corneum
 - (b) Stratum germinativum
 - (c) Stratum lucidum
 - (d) Dermis

4. In birds uropygial gland is present just above the:
 - (a) Beak
 - (b) Eye
 - (c) Tail
 - (d) Ear

5. Cranium is a constituent of
 - (a) Dermatocranium
 - (b) Splanchocranium
 - (c) Visceral skeleton
 - (d) Neurocranium

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Comment on Urochordata.
Or
(b) Write the general characters of Cephalochordata.

12. (a) Explain about the digital cornifications.
Or
(b) Give a brief account of Hairs.

13. (a) Compare vertebral column of Amphibia and Reptilia.
Or
(b) Give a general account on functions of endoskeleton.

14. (a) Compare brain of fishes and Amphibians.
Or
(b) Elucidate evolution of heart.

15. (a) Discuss gustatoreceptors in vertebrates.

Or

(b) Compare lateral eyes in lower vertebrates with higher vertebrates.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Classify Chordata with suitable examples.

Or

(b) Discuss the nature of vertebrate morphology.

17. (a) Illustrate the functions of Integument.

Or

(b) Discuss about the dermal derivatives.

18. (a) Compare alimentary canal of Rana and Uromastix.

Or

(b) Compare pectoral girdles of reptiles and birds.

Page 5 Code No. : 5444

19. (a) Elucidate the spinal cord in vertebrates.

Or

(b) Explain the evolution of aortic arches in vertebrates.

20. (a) Compare lateral line system in Scoliodon and Teleosts.

Or

(b) Give an account of Electroreception.

Page 6 Code No. : 5444