

**B.Sc. ZOOLOGY
SECOND SEMESTER
BIOLOGY OF CHORDATES
BSZ-201**

**SET
A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

(Objective)

Choose the correct answer from the following:

1 × 20 = 20

- Ostracoderms date back to almost:
 - 500 million years
 - 300 million years
 - 400 million years
 - 600 million years
- In Cyclostomes the scales are:
 - Placoid
 - Absent
 - Cycloid
 - Ctenoid
- What is true about Placoderms?
 - Plate skinned
 - Spiny sharks
 - Movable jaws
 - Lampreys
- Tail in Chondrichthyes is:
 - Homocercal
 - Heterocercal
 - Hypocercal
 - Hypercercal
- Excretion in class Osteichthyes is:
 - Ammonotelic
 - Aminotelic
 - Ureotelic
 - Uricotelic
- Neoteny refers to:
 - Retention of rudimentary organs
 - Retention of larval characters in adults
 - Reproduction in larval forms
 - Metamorphosis
- Tadpoles (Anuran larval forms) is a connecting link between:
 - Fishes and Amphibia
 - Amphibia and Reptiles
 - Amphibia and Aves
 - Amphibia and Mammals
- It is present immediately beneath the nerve cord and just above the digestive canal:
 - Nerve cord
 - Notochord
 - Pharyngeal gill slits
 - None of the above
- The vascular system in chordate is:
 - Closed
 - Open
 - Both
 - Semi-open
- The term vertebrate is synonymous to:
 - Protochordate
 - Urochordate
 - Chordata
 - Craniata

11. Which group of animals can be considered endothermal?
 - a. Anamniota
 - b. All vertebrate
 - c. Amniota
 - d. All invertebrate
12. The post-anal tail is present in:
 - a. Cephalochordates
 - b. Hemichordates
 - c. Urochordates
 - d. All protochordates
13. Name the animal group whose members are considered doubtful chordates.
 - a. Urochordata
 - b. Hemichordata
 - c. Cephalochordata
 - d. All of the above
14. Chordates with a backbone are called:
 - a. Protochordates
 - b. Invertebrates
 - c. Hemichordates
 - d. Vertebrates
15. Which of the following characteristics is unique to Urochordata?
 - a. Presence of a notochord throughout life
 - b. Lack of digestive system
 - c. Possession of a free swimming larval stage called a tadpole larva
 - d. Ability to regenerate lost body parts
16. Urochordates are also known as:
 - a. Tunicates
 - b. Lancelets
 - c. Hagfish
 - d. Sea squirts
17. What is the basic body plan of Cephalochordates?
 - a. Tadpole-like larval stage followed by a sessile adult stage
 - b. Bilaterally symmetrical with a well-developed notochord
 - c. Radially symmetrical with a central nerve ring
 - d. Asymmetrical with a simple gut and muscular tail
18. Which of the following statements about the nervous system of Cephalochordates is true?
 - a. They lack a nervous system
 - b. They have a centralized nervous system with a brain
 - c. They have a nerve cord running the length of their body
 - d. They have separate ganglia controlling each segment
19. Which of the following adaptations allows birds to fly?
 - a. Hollow bones
 - b. Presence of fur
 - c. Mammary glands
 - d. Presence of gills
20. Which bone in the bird skeleton is homologous to the human collarbone (clavicle)?
 - a. Coracoid
 - b. Scapula
 - c. Humerus
 - d. Furcula

(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

1. With the help of a suitable diagram, explain the three fundamental chordate characters. 10
2. Write the general characteristics of the Super class Pisces. 10
3. Describe the significance of Air bladder in Pisces. 10
4. Explain with diagram the parental care mechanisms in class Amphibia. 10
5. Discuss some affinities of *Balanoglossus* with phylum chordata, Annelida and Echinodermata. 10
6. What are vertebrates? Describe their general characters. 10
7. Discuss the process of retrogressive metamorphosis in Herdmania, highlighting the key morphological changes that occur during the transition from larval to adult stages. 10
8. Explain the taxonomic relationships and systematic position of Cephalochordata. 10

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