

**B.Sc. ZOOLOGY**  
**THIRD SEMESTER [SPECIAL REPEAT]**  
**DIVERSITY OF CHORDATES**  
**BSZ-301**  
[USE OMR SHEET FOR OBJECTIVE PART]

**SET**  
**A**

Duration: 3 hrs.

Full Marks: 70

(Objective)

Time: 30 mins.

Marks: 20

*Choose the correct answer from the following:*

*1 × 20 = 20*

- The earliest known vertebrates to appear in fossil records is:
  - Ostracoderms
  - Placoderms
  - Tetrapods
  - Mammals
- Scales in Cyclostomes are:
  - Cycloid
  - Placoid
  - Ctenoid
  - Absent
- The earliest jawed vertebrates of fossil records are:
  - Placoderms
  - Ostracoderms
  - Cyclostomes
  - Acanthodii
- The tail in Chondrichthyes is:
  - Heterocercal
  - Homocercal
  - Hypocercal
  - Hypercercal
- The sense organs in Ostracoderms include:
  - A pair of nostrils
  - A pair of large lateral eyes, a median peneal eye and a median nostril
  - A single median and a lateral eye
  - Three nostrils
- Excretion in class Osteichthyes is:
  - Ammonotelic
  - Aminotelic
  - Uricotelic
  - Ureotelic
- Erythrocytes in Amphibians are:
  - Oval and enucleated
  - Oval and nucleated
  - Convex and nucleated
  - Convex and enucleated
- Paedogenesis refers to:
  - Precocious development of gonads
  - Retention of larval characters by adults
  - Retention of rudimentary characters by adults
  - Retrogressive metamorphosis
- Turtles are included in the order:
  - Squamata
  - Rhynchocephalia
  - Chelonia
  - Crocodylia
- RBC in mammals are:
  - Circular and enucleated
  - Oval and nucleated
  - Convex and nucleated
  - Convex and enucleated

11. Vertebral column is derived from:
- |                       |                         |
|-----------------------|-------------------------|
| a. Notochord          | b. Dorsal nerve cord    |
| c. Ventral nerve cord | d. Outgrowth of cranium |
12. Bilateral symmetry is seen in the body organisation of:
- |                                      |                     |
|--------------------------------------|---------------------|
| a. Only chordates                    | b. Vertebrates only |
| c. Vertebrates, annelids, arthropods | d. None             |
13. In which of the following animals notochord does not persist throughout life?
- |               |              |
|---------------|--------------|
| a. Amphioxus  | b. Tunicates |
| c. Petromyzon | d. Myxine    |
14. Pharyngeal gill slits:
- |  |  |
|--|--|
| a. Are unique chordate characters                    | b. Are found in fishes, crabs etc.   |
| c. Are found in higher invertebrates and vertebrates | d. Are not found in protochordates, but are present in vertebrates, at least during the embryonic life |
15. Larva of hemichordates is ciliated and is named as:
- |                |             |
|----------------|-------------|
| a. Trochophore | b. Tornaria |
| c. Planula     | d. Muller   |
16. Phylum hemichordates share characteristics with:
- |             |                  |
|-------------|------------------|
| a. Chordata | b. Echinodermata |
| c. Annelida | d. Both a & b    |
17. In hemichordates, process of fertilization is:
- |                  |               |
|------------------|---------------|
| a. Internal      | b. External   |
| c. None of these | d. Both a & b |
18. Acorn worms are included in the phylum:
- |                |                  |
|----------------|------------------|
| a. Chordata    | b. Protochordata |
| c. Urochordata | d. Hemichordata  |
19. Sudden migration is also known as:
- |                      |                        |
|----------------------|------------------------|
| a. Vagrant migration | b. Impromptu migration |
| c. Swarming          | d. Procreation         |
20. White winged wood duck is a:
- |                   |                       |
|-------------------|-----------------------|
| a. Summer migrant | b. Winter migrant     |
| c. Resident bird  | d. Occasional visitor |

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· ( Descriptive )

Time : 2 hr. 30 mins.

Marks : 50

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

- |  |          |
|--|----------|
| 1. Write down the general characteristics and classification of Protochordates with suitable examples.                                     | 10       |
| 2. What is dentition in Mammals? Describe the general characters of the class Mammalia.  | 3+7=10   |
| 3. Elaborate the different types of parental care behavior shown by amphibians.  | 10       |
| 4. Explain the differences between chordates and vertebrates. Write about the characteristic chordate features.                            | 5+5=10   |
| 5. Define migration. Write about the key factors of migration in birds. What are the various types of migration?                           | 2+4+4=10 |
| 6. Write the general characteristics of the class Pisces. Describe the significance of air bladder in Fishes.                              | 7+3=10   |
| 7. Write the significance of Ostracodermi. Mention the biological significance of Placodermi.  | 6+4=10   |
| 8. Write about the general characteristics and classification of hemichordates with specific reference to its affinities with other phyla. | 6+4=10   |

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