

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

SET
A

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

(Objective)

Marks: 20

1 × 20 = 20

Choose the correct answer from the following:

- Bilateral symmetry is seen in the body organisation of:
a. Only chordates
b. Vertebrates only
c. Vertebrates, annelids, arthropods
d. None
- In which of the following animals notochord does not persist throughout life?
a. Amphioxus
b. Tunicates
c. Petromyzon
d. Myxine
- 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
- Larva of hemichordates is ciliated and is named as:
a. Trochophore
b. Tornaria
c. Planula
d. Muller
- Which of the following is a characteristic of the members of the subphylum Urochordata?
a. Worm like animals that live in burrows in the muddy bottom of the shore
b. Both the notochord and the nerve cord are well developed
c. Notochord found in the larva and is confined to the tail only
d. Cranium and brain box distinct
- Hemichordates have only one chordate feature:
a. Perforated pharynx
b. Buccal diverticulum
c. Three types of coelom
d. Ciliated integument
- Urochordates inhabit:
a. Marine habitat
b. Streams
c. Estuarine habitat
d. Freshwater lakes
- In hemichordates, process of fertilization is:
a. Internal
b. External
c. None of these
d. Both a & b
- Vertebral column is derived from:
a. Notochord
b. Dorsal nerve cord
c. Ventral nerve cord
d. Outgrowth of cranium

10. Which of the following is found in all chordates?
- | | |
|------------------------------|-------------------------------|
| a. Umbilical cord | b. Ventral tubular nerve cord |
| c. Dorsal tubular nerve cord | d. Pseudocoelom |
11. Placoderms had:
- | | |
|---------------------------|----------------------|
| a. Movable jaw | b. Upper jaw movable |
| c. Only lower jaw movable | d. Immovable jaw |
12. The fish body is divided into:
- | | |
|-------------------------------|-------------------------|
| a. Head and Trunk | b. Head, Trunk and Tail |
| c. Head, Neck, Trunk and Tail | d. Head, Neck and Tail |
13. Scales in Cyclostomes are:
- | | |
|------------|------------|
| a. Absent | b. Placoid |
| c. Cycloid | d. Ctenoid |
14. The accessory organ of respiration in lung fishes is_____.
- | | |
|-----------------|--------------------|
| a. Swim bladder | b. Gills |
| c. Lungs | d. Urinary bladder |
15. Erythrocytes in Amphibians are_____.
- | | |
|-------------------------|-------------------------|
| a. Oval and enucleated | b. Oval and nucleated |
| c. Convex and nucleated | d. Convex and nucleated |
16. Neoteny refers to_____.
- | | |
|--|---------------------------------|
| a. Retention of rudimentary organ | b. Metamorphosis |
| c. Retention of larval characteristics in adults | d. Reproduction in larval forms |
17. Turtles are included in the order:
- | | |
|-------------|--------------------|
| a. Chelonia | b. Rhynchocephalia |
| c. Squamata | d. Crocodilia |
18. The most common mode of flight in Aves is:
- | | |
|-------------|-------------|
| a. Flapping | b. Gliding |
| c. Soaring | d. Hovering |
19. Teeth in mammals are:
- | | |
|-------------------------------------|--------------------------------------|
| a. Thecodont, homodont, diphyodont | b. Acrodont, homodont, polyphyodont |
| c. Acrodont, homodont, monophyodont | d. Thecodont, heterodont, diphyodont |
20. The ostracoderms are grouped into_____.
- | | |
|------------------|-------------|
| a. Pisces | b. Agnatha |
| c. Gnathostomata | d. Tetrapod |

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(Descriptive)

Time : 2 hr. 30 mins.

Marks : 50

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

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|---|----------|
| 1. Write a note on the parental care in amphibians. | 10 |
| 2. Write about the three fundamental chordate attributes which defines the phyla with neat labeled diagrams. | 8+2=10 |
| 3. Write about the structure, habitat and characteristics of Balanoglossus with diagrams. | 2+2+6=10 |
| 4. What is retrogressive metamorphosis? Write about the larval and adult characters of Urochordata with examples. | 2+8=10 |
| 5. Write down the general characters and classification of Protochordata with examples. | 6+4=10 |
| 6. Give an account of distinguishing characters and outline classification of mammals. | 10 |
| 7. Write a detailed note on the types of skull in reptiles. | 10 |
| 8. Classify the superclass Pisces giving characters and examples upto order level. | 10 |

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