

Bs/ZOO/M3

2025

(FYUGP)

(3rd Semester)

ZOOLOGY

(MINOR)

Paper Code : ZOO/M3

(Diversity of Chordates)

Full Marks : 75

Pass Marks : 40%

Time : 3 hours

(PART : B—DESCRIPTIVE)

(Marks : 50)

*The figures in the margin indicate full marks
for the questions*

- 1. Give an outline classification of the phylum Chordata.** **10**

Or

What are hemichordates? Describe the general characteristics of Hemichordata.

1+9=10

2. Explain the echinoderm theory of origin of Chordates. Add a note on dipleurula concept.

7+3=10

Or

Classify cyclostomes up to order with examples. 10

3. Give the general characteristics of class Chondrichthyes. 10

Or

Give a detailed account on parental care in amphibians.

4. Write the general characteristics of Reptilia and classify up to order. 10

Or

Write notes on the following : 5+5=10

(a) Flight adaptations in birds

(b) Migration in birds

5. Give the general characteristics of Mammalia. 10

Or

Write an account on the affinities of Prototheria.

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ZOOLOGY

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Paper Code : ZOO/M3

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(PART : A—OBJECTIVE)

(Marks : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(Marks : 15)

Put a Tick (✓) mark against the correct answer in the brackets provided : $1 \times 15 = 15$

1. Which of the following is a characteristic of cephalochordates?

(a) Absence of post-anal tail ()

(b) Presence of backbone ()

(c) Persistent notochord throughout life ()

(d) Sessile adult stage ()

2. Retrogressive metamorphosis is a feature of which subphylum?

- (a) Vertebrata ()
- (b) Hemichordata ()
- (c) Cephalochordata ()
- (d) Urochordata ()

3. Which of the following subphyla is not included in phylum Chordata?

- (a) Hemichordata ()
- (b) Urochordata ()
- (c) Cephalochordata ()
- (d) Echinodermata ()

4. The term 'dipleurula' refers to

- (a) an extinct protochordate ()
- (b) a larval form of echinoderms ()
- (c) an adult cephalochordate ()
- (d) a vertebrate ancestor ()

5. Which structure is replaced by the vertebral column in vertebrates?

- (a) Brain ()
- (b) Notochord ()
- (c) Pharynx ()
- (d) Endostyle ()

6. Members of Agnatha are also known as

- (a) gnathostomes ()
- (b) jawless vertebrates ()
- (c) protochordates ()
- (d) amniotes ()

7. Which of the following fishes belongs to the class Osteichthyes?

- (a) Scoliodon ()
- (b) Trygon ()
- (c) Labeo ()
- (d) Torpedo ()

8. Which of the following is a characteristic feature of Chondrichthyes?

- (a) Bony skeleton ()
- (b) Cartilaginous skeleton ()
- (c) Air bladder present ()
- (d) Operculum present ()

9. Which fish shows male parental care by brood pouch?

- (a) Tilapia ()
- (b) Labeo ()
- (c) Seahorse (*Hippocampus*) ()
- (d) Salmon ()

10. *Sphenodon* is often called a 'living fossil' because

- (a) it is extinct ()
- (b) it has mammalian features ()
- (c) it shows primitive reptilian features unchanged over millions of years ()
- (d) it migrates annually ()

11. *Archaeopteryx* is considered a connecting link between

(a) amphibians and reptiles ()

(b) birds and reptiles ()

(c) mammals and birds ()

(d) fishes and amphibians ()

12. The venom in snakes is produced by

(a) tongue ()

(b) salivary glands ()

(c) maxillary glands ()

(d) poison glands ()

13. Which order includes egg-laying mammals?

(a) Marsupialia ()

(b) Placentalia ()

(c) Prototheria ()

(d) Carnivora () ()

14. The term 'adaptive radiation' refers to

- (a) adaptation to temperature ()
- (b) radiation energy in organisms ()
- (c) evolution of different species from a common ancestor ()

15. The Australian realm is unique for the presence of

- (a) placental mammals ()
- (b) marsupials and monotremes ()
- (c) large primates ()
- (d) ungulates ()

SECTION—II

(Marks : 10)

Write short notes on any *five* of the following : $2 \times 5 = 10$

1. Cephalochordata

2. Retrogressive metamorphism

(Marks : 10)

Write short notes on any five of the following: 2x5=10

1. Cephalochordata

arrangement in y-axis

arrangement in y-axis

arrangement in y-axis

15. The A. A. A.

arrangement in y-axis

arrangement in y-axis

arrangement in y-axis

3. Agnatha

4. Osmotegulation in fishes

4. Osmoregulation in fishes

5. Archaeopteryx

6. Mammalian affinity with Prototheria

7. Osmoregulation

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