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ZOOLOGY

( Major )

Paper : 2.1

[ **Animal Diversity (Chordates)** ]

Full Marks : 60

Time : 2½ hours

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

1. Answer the following questions : 1×7=7
- (a) What is called the larval form of Hemichordata?
  - (b) In which class the lungfishes are included?
  - (c) Give an example of order Gymnophiona.
  - (d) Which Amphibia is known as 'stem reptile'?
  - (e) Name the cells present in dentine.
  - (f) Name the central sac-like part of the membranous labyrinth.
  - (g) Where is the rhodopsin pigment found?

2. Answer the following questions : 2×4=8

(a) Why are the Urochordates called as Tunicates?

(b) Why is *Sphenodon* called a 'living fossil'?

(c) Draw a neatly labelled diagram of air sacs in a typical bird.

(d) Write the distinctive characters of Monotremata.

3. Answer any three questions : 5×3=15

(a) What are protochordates? Write their significance. 4+1=5

(b) Write what you know about the neuromast organs of *Scoliodon*. Mention its functions. 3+2=5

(c) Write the chordate affinities of *Balanoglossus*. 5

(d) Give a brief note on the flight mechanism of birds. 5

(e) Write briefly the biting mechanism of poisonous snakes with suitable diagram. 4+1=5

4. (a) Give an account of general structure of *Amphioxus*. 10

Or

- (b) Discuss Agnathostomata with examples. Distinguish between lamprey and hagfish. 4+6=10

- (c) Describe the structures and functions of different types of accessory respiratory organs in fishes with suitable neat diagrams. 10

Or

- (d) Write an essay on the parental care in Amphibia with suitable examples.
- (e) Write briefly the navigation and orientation in migration of birds. 10

Or

- (f) What are dentition and dental formula? Write the characteristics of mammalian dentition. 4+6=10

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