

This question paper contains 4 printed pages.

Your Roll No.

2/12/18
(M)

Sl. No. of Ques. Paper : 125

I

Unique Paper Code : 32231301

Name of Paper : Diversity of Chordates

Name of Course : B.Sc. (Hons.) Zoology

Semester : III

Duration : 3 hours

Maximum Marks : 75

***(Write your Roll No. on the top immediately
on receipt of this question paper.)***

***Attempt five questions in all, including Question No. 1
which is compulsory. All the parts of a question must be
attempted together. Draw neat and labelled
diagrams, wherever necessary.***

1. (a) Fill in the blanks:

- (i) are called the tail feathers in birds.***
- (ii) The term 'Realm' was coined by***
- (iii) is a lizard with bifid tongue.***
- (iv) Limbless amphibians belong to the order***
- (v) marsupial is present in North America.***
- (vi) Ornithorhynchus and Echidna belong to subclass 6***

P. T. O.

(b) Give the exact location of the following:

- (i) Endostyle
- (ii) Hatschek's pit
- (iii) Jacobson's organ
- (iv) Rhamphotheca
- (v) Carapace.

5

(c) Give the function of the following:

- (i) Preen gland
- (ii) Operculum
- (iii) Chloride cells
- (iv) Lateral line.

4

(d) Differentiate between the following:

- (i) Archaeornithes and Neornithes
- (ii) Cycloid and Ctenoid scale
- (iii) Urochordata and Cephalochordata
- (iv) Proteroglyphous and Opisthoglyphous.

6

(e) State True or False:

- (i) Tornaria larva belongs to *Balanoglossus*.
- (ii) One pair of temporal fossae is present in anapsids.
- (iii) Kiwi is restricted to the forests of New Zealand only.
- (iv) Cyclostomes are jawed vertebrates.
- (v) Devonian is the age of reptiles.

(vi) Peacock belongs to the order galliformes. 6

2. (a) Give an account of larval forms in protochordates with example.

(b) All vertebrates are chordates but not all chordates are vertebrates. Justify. Also enlist any *four* characteristic features of vertebrates. 8,4

3. (a) Discuss origin and ancestry of Amphibia.

(b) Describe the biting mechanism of a poisonous snake. 6,6

4. (a) Explain the mode of osmoregulation in teleosts.

(b) What is adaptive radiation? Explain with reference to locomotory appendages in mammals. 6,6

5. (a) Discuss parental care in fishes.

(b) Enumerate the general characters of Prototherians. 8,4

6. Give an account of migration in birds. 12

7. Write short notes on any *three* of the following:

(a) Catadromous migration

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- (b) Continental Drift Theory
- (c) *Sphenodon*
- (d) Retrogressive metamorphosis.

4,4,4