

2024

ZOOLOGY — HONOURS

Paper : CC-5

(Chordata)

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer **question no. 1** and **any four** questions from the rest.

1. Answer **any five** questions :

2×5

- (a) Differentiate between prototheria and theria.
- (b) Write the salient features of Chondrichthyes.
- (c) Cite two differences between Urochordata and Cephalochordata.
- (d) Differentiate between *Petromyzon* and *Myxine*.
- (e) Write the features of Rhynchocephalia.
- (f) Explain heterodont dentition with suitable example.
- (g) Differentiate between Neoteny and Paedogenesis.
- (h) Write the location and function of spur in birds.
- (i) What is wheel organ? Where is it found?

2. (a) Differentiate between venomous and non-venomous snake. What are the advantages of parental care in fishes?

(b) Comment on the adaptive radiation in mammals with reference to locomotory appendages.

(3+2)+5

3. (a) Place the following animals (**any two**) in their respective classes and orders with reasons (one character for each taxon) :

(i) *Torpedo*

(ii) *Necturus* sp.

(iii) *Chelone* sp.

(iv) Bat.

(b) Classify class Amphibia up to orders with salient features of each taxon and one example each.

(2½×2)+5

Please Turn Over

(1058)

4. (a) Ascidian tadpole shows retrogressive metamorphosis.— Justify.
(b) Comment on the different modes of parental care in Amphibians. 5+5
5. (a) Define accessory respiratory organ. Describe accessory respiratory organ in *Anabas* sp. with diagram.
(b) How swim bladder can be used as hydrostatic organ? (2+5)+3
6. (a) Write the biting mechanism of a venomous snake with diagram.
(b) Describe briefly the echolocation in microchiropterans. 5+5
7. (a) Describe the structure of pharynx of *Branchiostoma* sp.
(b) Draw and describe the structure of a typical flight feather in birds. 5+5
8. Write short notes on (*any two*) : 5×2
- (a) Structural peculiarity of Physoclistous swim bladder.
 - (b) Migration in fishes.
 - (c) Structure of Ascidian tadpole larva.
 - (d) Mechanism of navigation in migratory birds.
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