

2013

ZOOLOGY

(Major)

Paper : 2.1

(Animal Diversity—II)

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) Give an example of luminescent tunicate.
 - (b) Name the knobbed tubules found in the body of the nephridium of amphioxus.
 - (c) Which frog carries eggs and tadpoles in its vocal sac?
 - (d) Write the term used for winglike expansion of the skin of Draco.
 - (e) Which pectoral muscle acts as depressor muscle?
 - (f) In which order river dolphin is included?
 - (g) Name the only poisonous lizard.

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

- (a) How do the cephalochordates differ from vertebrates?
- (b) Justify the swim bladder as hydrostatic organ.
- (c) Write the structure of syrinx.
- (d) Give a brief note on the functions of ear other than hearing.

3. Answer any *three* questions :

- (a) What is retrogressive metamorphosis? Write about the phenomenon by giving an example of urochordate. 1+4=5
- (b) Why is the heart of scoliodon a venous heart? Draw a neatly labelled diagram of LS of the heart of scoliodon. 2+3=5
- (c) Write short notes on : 2½+2½=5
 - (i) Ampullae of Lorenzini
 - (ii) Uropygial gland
- (d) Give a brief note on the perching mechanism of birds with neat diagram. 3+2=5
- (e) Write the affinities of marsupials. 5

4. (a) Describe the general structure of *Balanoglossus* with suitable diagram.

8+2=10

Or

- (b) Give an account of the structure of ammocoete larva with diagram. Write its significance in evolution.

7+3=10

- (c) Write an essay on the migration of fishes.

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Or

- (d) Write what you know about the respiration in amphibia.

- (e) Write about the anatomical peculiarities of *Sphenodon*. Discuss its affinities with other vertebrates.

4+6=10

Or

- (f) What are receptors? Describe the chemoreceptors in mammals with suitable diagrams.

2+8=10
