

M.Sc. 1st Semester Examination, 2019

ZOOLOGY

PAPER – ZOO-101

Full Marks : 40

Time : 2 hours

The figures in the right hand margin indicate marks

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

Write the answers to questions of each Group in separate books

GROUP – A

(Non-Chordates)

1. Answer *two* of the following : 2×2
- (a) Draw the relationship among Mesozoa, Parazoa and Metazoa.
 - (b) Mention the characters which have appeared sequentially in course of metazoan evolution.

- (c) Distinguish between enterocoely and schizocoely with examples.
- (d) Mention the significance of 'Flag-ship' species.

2. Answer any *two* questions of the following : 4×2

- (a) Explain the ecological roles played by the free living nematodes.
- (b) Highlight the merits and demerits of colonial theory of metazoan evolution as proposed of the Haeckel.
- (c) With a labelled diagram highlight the morphological excellence of rotifera.
- (d) Briefly discuss on the significance of the study of foraminifera.

3. Answer *one* question from the following : 8×1

- (a) Define Larva. Give a classificatory scheme of aquatic larvae based on resource utilisation. With a labelled diagram differentiate trochophore larva from the dipleurula larva. 1 + 3 + 4

- (b) Enlist different lophophorate phyla with comments on their relationship. Briefly discuss the feeding mechanism of lophophorates. 3 + 5

GROUP – B

(Chordates)

4. Answer any *two* questions : 2 × 2
- (a) Mention the structure of MIT and DIT.
 - (b) What is osmoregulation ?
 - (c) Define Echolocation.
 - (d) Write the characteristics features of cephalochordates with examples.
5. Answer any *two* questions : 4 × 2
- (a) Write down the morphological adaptations for bat Echolocation.
 - (b) Classify fish migration in respect to different sanity.
 - (c) Write a short note on evolution of urinogenetal system.

(d) Describe the structure and function of endostyle in *Amphioxus*.

6. Answer any *one* question : 8 × 1

(a) Write a note on Iodine cycle. Mention the difference between osmoregulator and osmoconformer. 6 + 2

(b) Give an account of evolutionary ancestral tree of human depending on types of skulls. 8
