

Exam. Code : 103202

Subject Code : 1341

B.A./B.Sc. 2nd Semester
BIODIVERSITY-II (Arthropoda to Hemichordata)
Paper—Zoology Zoo—II (B)

Time Allowed—3 Hours] [Maximum Marks—35

Note :— (1) Attempt **five** questions.

(2) Section A is compulsory. It consists of **seven** short answer type questions. Each carries **1** mark.

(3) Attempt **four** questions from Section B selecting at least **one** from each unit. Each question carries **7** marks.

SECTION—A

1. Write a short note on osphradium in *Pila*.
2. Write briefly on the sterile castes present in the termite colony.
3. Write a short note on pedicellariae present in star fish.
4. Write briefly about tarsus in cockroach.
5. Write a note on collar region of tongue worm.
6. Write a note on trochophore larva found in molluscs.
7. Give the complete systematic position of *Balanoglossus*.

7×1=7

SECTION-B

UNIT—I

1. (a) Describe the structure and mode of working of compound eye of cockroach. 5
- (b) Write in brief about ootheca formation in cockroach 2
2. (a) Discuss about the different types of castes forming a social organization in termites. 5
- (b) Write briefly nuptial flight in honey bees. 2

UNIT—II

3. (a) Describe the ctenidium of *Pila* ; also describe the mechanism of aquatic respiration in this animal. 4
- (b) Write about the pallial complex found in apple snail. 3
4. (a) Give a detailed account of pearl formation in oysters and clams. 5
- (b) Write about the apparent adaptations of *Pila*. 2

UNIT—III

5. (a) Discuss the perihæmal and hæmal systems found in *Asterias* along with well labeled diagram. 5
- (b) List the functions of tube feet in star fish. 2

6. In detail explain the evolutionary significance of larval forms echinoderms by highlighting various types of larvae found in this group. 7

UNIT—IV

7. (a) Discuss about the structure and functions of body wall of *Balanoglossus*. 4
(b) List the similarities between *Balanoglossus* and other nonchordates. 3
8. Discuss the affinities of hemichordates with non-chordates and chordates by highlighting the differences and similarities among these. 7