

Bachelor of Science (B.Sc.) Semester-II (C.B.S.) Examination

ZOOLOGY (Life and Diversity of Animals - Non-chordates)

Compulsory Paper—1

(Arthropoda to Hemichordata)

Time : Three Hours]

[Maximum Marks : 50

N.B. :— (1) **ALL** questions are compulsory.

(2) All questions carry equal marks.

(3) Illustrate your answers with suitable diagrams.

1. Describe the digestive system of Cockroach. 10

OR

Write notes on :

(A) Social behaviour in Honey bees. 5

(B) Housefly as a vector. 5

2. Give an account of mechanism of aquatic and aerial respiration in *Pila*. 10

OR

Write notes on :

(A) Male Reproductive System of *Pila*. 5

(B) Glochidium Larva. 5

3. Describe the water vascular system in *Asterias*. 10

OR

Write notes on :

(A) Types of Pedicellariae and its functions. 5

(B) Auricularia Larva. 5

4. Describe the digestive system of *Balanoglossus*. 10

OR

Write notes on :

(A) General Characters of Hemichordata 5

(B) Chordate affinities of *Balanoglossus*. 5

5. Write **four** or **five** lines each on the following (any ten) :

(i) Ootheca of Cockroach.

(ii) Mushroom gland.

(iii) Megalopa larva.

(iv) Radula

(v) Gastropoda.

(vi) Operculum

(vii) Sea Lillies.

(viii) Actinosome.

(ix) Ambulacral spines.

(x) Collar coelom in *Balanoglossus*.

(xi) Branchiogenital region of *Balanoglossus*.

(xii) Tornaria. 10