[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 6282   D   Your Roll No................

Unique Paper Code   : 223101

Name of the Course   : **B.Sc. (Hons.) Zoology**

Name of the Paper   : Biodiversity – I (Non-chordata) (ZOHT-101)

Semester   : I

Time : 3 Hours   Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.

2. Attempt any **five** questions including Question No. **1** which is compulsory.

3. Draw well labelled diagrams wherever necessary.

1. (a) Define any **three** of the following terms :

         (i) Lobopodium

         (ii) Cephalothorax

         (iii) Torsion

         (iv) Metamerism   (3)

    (b) Differentiate between the following pair of terms :

         (i) Setae and Parapodia

         (ii) Stomoblastula and Amphiblastula

         (iii) Chitin and Shell

         (iv) Pseudocoelom and true coelom

         (v) Cercaria larva and meta cercaria larva   (10)

    (c) Give the exact location and function of the following :

         (i) Cuticle

         (ii) Flame cells

         (iii) Choanocytes

         (iv) Mehlis's gland   (8)

(d) Classify **any three** of the following and write their scientific name :

    (i) Sea mouse

    (ii) Elephant tusk

    (iii) Leech

    (iv) King crab

    (6)

2. (a) Describe the process of conjugation in **Paramecium** & add a note on its significance.

   (b) Explain the canal system in Sycon.

    (7+5)

3. (a) How is the coral skeleton secreted & draw the diagrams for it ?

   (b) Describe different types of coral reefs and their formation. Write the significance of coral reefs.

    (3+9)

4. Describe the origin of Metazoa.

    (12)

5. (a) Write the life history of **Ascaris**.

   (b) Explain the adaptive radiation in Polychaets.

    (7+5)

6. Write detailed account of social life in insects and its significance.   (12)

7. (a) Give general characters and outline classification of Phylum Echinodermata.

   (b) Write a brief account of water vascular system in Echinoderms.   (6+6)

8. Write short notes on **any three** of the following :

   (a) Effect of torsion in molluscs

   (b) Vision in Arthropoda

   (c) Skeleton in Porifera

   (d) Polymorphism

    (4+4+4)