

[This question paper contains 2 printed pages.]

Sr. No. of Question Paper : 8611

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Roll No.....

Unique Paper Code : 223101

Name of the Paper : ZOHT-101 : Biodiversity – I Non-Chordata

Name of the Course : B.Sc. (H) Zoology

Semester : I

Duration : 3 Hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately on receipt of ~~this~~ question paper.)*

**Instruction for Candidates**

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

Draw well-labeled diagrams wherever necessary.

Q1. (a) Differentiate between the following pairs of terms (**Any Four**)

- (i) Plasmogamy and Plasmotomy
- (ii) Protostomes and Deuterostomes
- (iii) Gonozoid and Gonophore
- (iv) Epitoky and Atoky
- (v) Hermatypic corals and Ahermatypic corals
- (vi) Thesocytes and Trophocytes

8

(b) Define **any four** terms:

- (i) Polyembryony
- (ii) Multiple fission
- (iii) Radial Symmetry
- (iv) Archaeocytes
- (v) Ecdysis

4

(c) Give location and function of **any three** of the following:

- (i) Basal body
- (ii) Amphid
- (iii) Nematocyst
- (iv) Statocyst

6

(d) Give scientific names of the following animals and classify up to order:

- (i) Jelly fish
- (ii) Star fish
- (iii) Silver fish

6

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- (e) Identify the organism and write their scientific names (**Any three**):
- (i) A fresh water sponge
  - (ii) A crawling polychaete
  - (iii) A parasitic flagellate
  - (iv) A sessile echinoderm
- 3
- Q2. (a) Give a brief account of the locomotory organelles found in protozoa. 8
- (b) Explain the various theories of locomotion in Sarcodina. 4
- Q3. (a) Briefly discuss the structural organization of the body wall in *Sycon*. 7
- (b) Describe the embryonic development in *Sycon*. 5
- Q4. (a) What are coral reefs? Describe the different types of coral reefs. 6
- (b) Discuss the various theories of metamerism in metazoa. 6
- Q5. Describe the life cycle of *Ascaris lumbricoides* in detail and add a note on its parasitic adaptations. 12
- Q6. Give a detailed account of the characteristic features of Phylum Mollusca. Briefly describe the outline classification of the phylum with suitable examples. 12
- Q7. (a) What is water vascular system? Give a detailed account of the ambulacral system in asteroidea. 6
- (b) Explain the structure of compound eye and types of vision in arthropods. 6
- Q8. Write short notes on **any three** of the following:
- (i) Locomotion in ciliates
  - (ii) Caste system in termites
  - (iii) Polymorphism in hydroida
  - (iv) Foot in cephalopoda
  - (v) Origin of metazoan
- 12