

Roll No. :

Total No. of Questions : 16]

[Total No. of Printed Pages : 3

ZOOLSEM-109

M.Sc. (Ist Semester) Examination Dec., 2022

ZOOLOGY

Paper - I

(Taxonomy and Invertebrate Phylogeny)

Time : 3 Hours]

[Maximum Marks : 40

The question paper contains three Sections.

Section-A

(Marks : 1 × 10 = 10)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries 1 mark.

Section-B

(Marks : 2 × 6 = 12)

Note :- Answer any *six* questions by selecting at least *two* questions from each Unit (Answer limit **200** words). Each question carries **2** marks.

Section-C

(Marks : 6 × 3 = 18)

Note :- Answer any *three* questions by selecting *one* question from each Unit (Answer limit **500** words). Each question carries **6** marks.

BRI-9

(1)

ZOOLSEM-109 P.T.O.

Section–A

1. (i) Define Species.
- (ii) Difference between Protostomes and Deuterostomes.
- (iii) What is the difference between Acoelomate, Pseudocoelomate and Coelomate ?
- (iv) Define Metamerism.
- (v) Name the *two* examples of Phylum Ctenophora.
- (vi) Name the *two* endocrine glands found in Insects.
- (vii) Name *four* respiratory pigments founds in Invertebrates.
- (viii) Define term filter feeding with one suitable example.
- (ix) What do you mean by term Lophophora ?
- (x) What are Rotifers ?

Section–B

Unit–I

2. Classify major coelomate groups of Invertebrates. Write briefly.
3. Write a note on theories of Biological Classification.
4. Write a note on Preparation and use of Taxonomic Keys.

Unit–II

5. How multicellular animals originated ? Explain the fact.
6. Enumerate the importance of the Planula Larva.
7. Explain Phylogenetic significance of Rhynchocoela.

Unit-III

8. Write a short note on affinities and evolutionary significant of Priapulida and Sipuncula.
9. Explain affinities on Chaetognatha and Hemichordata.
10. Write a note on interrelationship of Pseudocoelomate groups.

Section-C

Unit-I

11. Describe the rules of Nomenclature and add a note on Science of Taxonomy.
12. What is Cytotaxonomy ? Discuss importance of Cytology and genetics in Taxonomy.

Unit-II

13. Explain how Bilateria originated from Radiata.
14. Describe Phylogenetic interrelationship between Invertebrate Phyla.

Unit-III

15. Describe the phylogenetic relationship between Coelomate Phyla.
16. Describe Affinities and evolutionary significance of Lophophorate coelomate Phyla (Brachiopoda, Phoronida, Ectoprocta)