



DEPARTMENT OF ZOOLOGY
HANS RAJ COLLEGE
UNIVERSITY OF DELHI

B.Sc. (Hons.) ZOOLOGY / 1ST Sem.

Paper II—ZOHT-101

Biodiversity 1: Biodiversity Non-Chordata

Time : 3 Hours

Maximum Marks : 75

Attempt *Five* questions in all.

Question No. 1. is compulsory.

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

(i) Coelom

(ii) Protista

(iii) Epitoky

(iv) Tagmosys

(v) Nacre

(vi) Totipotent.

(vii) Evisceration

(viii) Metamerism

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(b) Distinguish between any *three* of the of the following:

- (i) Binary fission and budding
- (ii) Polychaeta and Oligochaeta
- (iii) Cilia and flagella
- (iv) (Holometabolous and hemimetabolous
- (iv) Bilateria and Radiata.

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(c) Give the zoological names and classification of any *three* of the following animals

- (i) Sea mouse
- (ii) Water flea
- (iii) Brittle star
- (iv) Spider
- (v) Jelly fish
- (vi) Squid.

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(d) Give the precise location of the following:

- (i) Ospharidium
- (ii) Mehlis' gland
- (iii) Radula
- (iv) Spinnerets in spiders

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(e) Match the terms in Column A with the appropriate one in Column B:

Column A	Column B	
(i) Ctenidium	Nereis	
(ii) Pedicellaria	Mollusca	
(iii) Pedipalps	Echinoderata	
(iv) Parpodia	Spider	4

(f) Fill in the blanks

- (i) The body cavity of Nematodes is called a.
- (ii) Respiratory, structures in arachnids are called..... 2

2. Give an account of sexual reproduction in protozoa. Discuss, its importance 12
3. What are corals? How do they form Coral Reefs? Give an account of the various types of Coral Reefs found in the world. 12
4. Describe the life history of Ascaris. How does it differ from that of I Liver Fluke? Discuss its parasitic adaptations. 12
5. Draw a labelled diagram of the body wall of sycon. Describe its canal system and add a note on its functions. 12
6. Define Eusociality. What are the requisites of a social community? Compare the

- social organization of termites with that of bees. 12
7. Give the general characters of the Phylum Cnidaria and describe the different polymorphic forms in them and give their functions. 12
8. Give an account of the structure and function of the water vascular system in Echinoderms. 12
9. (a) Give the distinguishing features of the major classes of Phylum Molluscs.
- (b) Explain the phenomenon of Torsion in gastropods. 6,6
10. Write short notes on any *three* of the following 4,4,4
- (i) Compound eye;
- (ii) Metamerism;
- (iii) Foot in cephalopoda
- (v) Origin of Metazoa;
- (v) Adaptive radiation in polychaeta;
- (vi) Locomotion in Sarcodina.