This question paper contains 4+1 printed pages]

Your Roll No. .....

5916

B.Sc. (Hons.) ZOOLOGY/Ist Sem. B

Paper II—ZOHT-101

Biodiversity I : Biodiversity Non-Chordata

Time : 3 *Hours* *Maximum Marks* : 75

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

Answer *Five* questions in all.

Q. No. 1 is compulsory.

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

(*i*) Coelom

(*ii*) Protista

(*iii*) Epitoky

(*iv*) Tagmosis

(*v*) Nacre

(*vi*) Totipotent

P.T.O.

(*vii*) Evisceration

(*viii*) Metamerism. 5

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

(*i*) Binary fission and budding

(*ii*) Polychaeta and Oligochaeta

(*iii*) Cilia and flagella

(*iv*) Holometabolous and hemimetabolous

(*v*) Bilateria and Radiata. 6

(*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. 6

(*d*) Give the precise location of the following :

(*i*) Ospharidium

(*ii*) Mehlis' gland

(*iii*) Radula

(*iv*) Spinnerets in spiders. 4

(*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	Echinodermata
(*iv*)	Parapodia	Spider. 4

(*f*) Fill in the blanks :

(*i*) The body cavity of Nematodes is called a.....

(*ii*) Respiratory structures in arachnids are called..... 2

P.T.O.

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 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 Mollusca.

(*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;

(*iv*) Origin of Metazoa;

(*v*) Adaptive radiation in polychaeta;

(*vi*) Locomotion in Sarcodina.