

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 1798 GC-3 Your Roll No.....

Unique Paper Code : 32231101

Name of the Paper : Non-Chordates I : Protists to Pseudocoelomates

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

Semester : I

Duration : 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. Please attempt various parts of a question at one place only.
4. Draw well-labelled diagrams wherever necessary.

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

(i) Cyclosis

(ii) Encystation

(iii) Polyembryony

(iv) Apolysis

(3)

- (b) Differentiate between any four of the following pairs :

(i) Polyp and Medusa

(ii) Circumvallation and Circumfluence

P.T.O.

(iii) Radial symmetry and Bilateral symmetry

(iv) Primary host and Secondary host

(v) Silicoblast and Calicoblast (8)

(c) Give one function for each of the following :

(i) Amphids

(ii) Flame cells

(iii) Nematocysts

(iv) Myonemes (4)

(d) Give generic names of the following and classify up to class. Write one identifying feature of Phylum in each case :

(i) Venus flower basket

(ii) Sea fan

(iii) Pork tapeworm

(iv) Portuguese man of war (8)

(e) Match the terms in Column 'A' with the organisms in Column 'B'.

**Column 'A'**

**Column 'B'**

(i) Pinacoderm

(a) *Euglena*

(ii) Pyrenoid

(b) *Taenia*

(iii) Comb plates

(c) *Sycon*

(iv) Proglottid

(d) *Ctenoplana* (4)

2. (a) What are coral reefs ? Give an account of the different types of coral reefs. (6)
- (b) What is metagenesis ? Explain it with reference to the life cycle of *Obelia*. (6)
3. Give a detailed account of locomotory organelles and their working in Protista. (12)
4. Give a detailed account of the life cycle and pathogenicity of the filarial worm. Add a note on its nocturnal periodicity. (12)
5. (a) Describe the water canal system in *Sycon*. Add a note on its importance. (6)
- (b) Explain sexual reproduction and its significance in *Paramecium caudatum*. (6)
6. With the help of labelled diagrams, explain the life cycle of *Fasciola hepatica*. Describe its pathogenicity in detail. (12)
7. Give a detailed account of parasitic adaptations in helminthes. (12)
8. Write short note on any **three** of the following :
- (a) Affinities of Ctenophora
- (b) Polymorphism in Hydroida

(c) Course of migration of *Ascaris* larva with its in host body

(d) Pathogenic phase of *Entamoeba histolytica*

(e) Cysticercus larva

(4,4,4)