

7/12/19

[This question paper contains 4 printed pages.]

M

Your Roll No.....

Sr. No. of Question Paper : 8602

J

Unique Paper Code : 32231101

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

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

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 five questions in all including Question No. 1 which compulsory.
3. Please attempt various parts of a question at one place only.

1. (a) Define the following terms (Any three) :

(i) Polyembryony

(ii) Metachronal rhythm

P.T.O.

(iii) Bilateral symmetry

(iv) Rostellum (3)

(b) Differentiate between the following pairs of terms
(Any Four) :

(i) Protandry and Protogyny

(ii) Endomixis and Autogamy

(iii) Trophocytes and Thesocytes

(iv) Protostomia and Deuterostomia

(v) Gonozooids and Gonophores (8)

(c) Give exact location and functions of the following
(Any four) :

(i) Penial spicules

(ii) Trichoeysts

(iii) Myonemes

(iv) Pyrenoids

(v) Acetabulum (8)

(d) Write the scientific name of the following organisms and classify each up to classes.

(i) Sea pen

(ii) Venus' flower basket

(iii) Portugese-man-of-war

(iv) Sea anemone (8)

2. (a) Give a detailed account of the life history of *Plasmodium vivax* in its vector. (6)

(b) Briefly discuss the different modes of asexual reproduction in Protista. (6)

3. Discuss the canal system present in Porifera and write its importance. (12)

4. Give a detailed account of different types of coral reefs in Cnidaria. Describe various theories of its formation. (12)

5. Explain the life cycle of a digenetic cestode with suitable diagrams. Add a note on its adaptations for parasitic mode of life. (12)

6. What is metagenesis? Explain the phenomenon in brief with reference to the life cycle of *Obelia*. (12)
7. (a) Describe the life cycle of *Ascaris lumbricoides* with the help of well labelled diagram. (6)
- (b) Give a detailed account of locomotory organelles in flagellates. How do these organelles help in locomotion? (6)
8. Write short notes on **any three** of the following :
- (a) Affinities of Ctenophora
- (b) Larval stages of *Fasciola hepatica* in secondary host
- (c) Polymorphism in hydroids
- (d) Conjugation in *Paramecium*
- (e) Sexual reproduction in *Sycon* (12)