

[This question paper contains 4 printed pages.]

Sr. No. of Question Paper : 1876

FC-3

Your Roll No.....

Unique Paper Code : 42231102

Name of the Paper : ANIMAL DIVERSITY

Name of the Course : B.Sc. Life Science 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. There are **two** sections, **Section A** and **Section B** to be answered on separate answer-books.
3. Answer **three** questions from each section, including Question No. 1 which is compulsory.
4. Draw labelled diagrams wherever necessary.

SECTION A

NONCHORDATA

1. (a) Define the following terms :

(i) Metamorphosis

(ii) Protista

(iii) Pseudocoel

(iv) Protostomes

(4)

P.T.O.

(b) Give the scientific name and classify the following upto class :

(i) Venus' flower basket

(ii) Devil fish

(iii) Sea cucumber

(iv) King crab

(4)

(c) Differentiate between the following terms :

(i) Radial and bilateral symmetry

(ii) Cilia and flagella

(iii) Juvenile hormone and moulting hormone

(6)

2. (a) Define polymorphism and describe the different polymorphic forms in Hydrozoa giving suitable examples.

(b) Discuss metamerism in Annelids.

(8,4)

3. (a) Give an illustrated account of the life history of *Taenia solium*. Support your answer with the help of suitable diagrams.

(b) Describe the structure of the flagellum and add a note on its working.

(7,5)

4. Write short notes on any **two** of the following :

(a) Canal system in *Sycon*

(b) Torsion in gastropods

(c) Parasitic adaptations in Aschelminthes

(d) Structure of the compound eye

(6,6)

SECTION B**CHORDATA**

1. (a) Name the animal in which the following structure is present and give the function of each :
 - (i) Proboscis
 - (ii) Operculum
 - (iii) Preen glands
 - (iv) Sweat glands

(4)
- (b) Define the following terms :
 - (i) Ratitae
 - (ii) Retrogressive metamorphosis
 - (iii) Agnatha

(3)
- (c) Differentiate between the following terms :
 - (i) Neornithes and archaeornithes
 - (ii) Endothermy and ectothermy
 - (iii) Osteichthyes and Chondrichthyes

(6)
2. (a) How do poisonous snakes differ from non-poisonous snakes ?
(b) Write a short note on the biting mechanism in snakes.

(6,6)
3. Give an account of flight adaptations in birds.

(12)

4. Write short notes on any **two** of the following :

- (i) Parental care in Amphibia
- (ii) Osmoregulation in fishes
- (iii) General features of Chordates
- (iv) Origin of mammals

(6,6)