

This question paper contains 4 printed pages]

Your Roll No.

5179

B.Sc. Prog. / II **J**

L.S.-202 – BIODIVERSITY-II (ANIMALS)

(NC – Admission of 2008 onwards)

Time : 3 Hours

Maximum Marks : 75

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

There are **two** Sections, Section A and Section B to be answered on separate answer-books

Draw labelled diagrams wherever necessary

Answer **three** questions in all, including Q No **1** which is compulsory

SECTION – A

1. (a) Define the following :

- (i) Balcon
- (ii) Carnassial tooth
- (iii) Interbranchial septum
- (iv) Amnion

4

- (b) Differentiate between the following .
- (i) Holobranch & Hemibranch
 - (ii) Homodont & Heterodont
 - (iii) Swim bladder & air sac 6
- (c) Classify the following
- (i) Amphioxus
 - (ii) Hemidactylus
 - (iii) Electric ray
 - (iv) Bufo 4
2. What do you understand by Osmoregulation ?
Give an account of osmoregulatory mechanisms adapted by fishes in varying salinity 12
- 3 Explain respiration in amphibians Add a note on the respiratory adaptations to amphibians mode of life. 12
- 4 Write short notes on any two of the following
- (i) Integument in Mammals
 - (ii) Flight adaptations in birds
 - (iii) Salient features & affinities in Hemichordates 6 + 6

SECTION – B
(Nonchorda)

Answer **three** questions in all, including Question No. 1 which is compulsory

- 1 (a) Differentiate between : **6**
- (i) Protonephridia and metanephridia.
 - (ii) Nematocyst and Trichocyst
 - (iii) Radiata and Bilateria
- (b) Define the following **3**
- (i) Cephalization
 - (ii) Deuterostome
 - (iii) Schizocoelom
- (c) Give the function of the following **4**
- (i) Osphradium
 - (ii) Aristotle's lantern
 - (iii) Ommatidium
 - (iv) Acetabulum
2. (a) Give an account of polymorphism in Hydrozoa **9**
- (b) Diagrammatically show the structure of flagella **3**

3. Give an account of various types of larvae in echinoderms and their significance **12**

4. Attempt any two of the following : **6 + 6**

(i) Metamerism

(ii) Conjugation in Paramecium

(iii) Parasitic adaptations in platyhelminthes.
