

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) Baleen
  - (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
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