



বিদ্যাসাগর বিশ্ববিদ্যালয়  
**VIDYASAGAR UNIVERSITY**  
**Question Paper**

**B.Sc. Honours Examinations 2021**

(Under CBCS Pattern)

**Semester - III**

**Subject : ZOOLOGY**

**Paper : C 5 - T & P**

**(Chordates)**

**Full Marks : 60 (Theory-40 + Practical-20)**

**Time : 3 Hours**

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

**(Theory)**

**Group-A**

Answer any **three** questions from the following :

12×3=36

1. (a) Write down the chordate characters of Amphioxus.
- (b) What is migration ? Describe the different types of migrations of fish with examples.
- (c) Write a short note on : Swim bladder in fishes. 3+2+4+3
2. (a) Describe the parental care in fishes.
- (b) What is retrogressive metamorphosis? How Ascidia retrograde itself ?

6+2+4

3. (a) Illustrate the biting mechanism of snake ?  
(b) Describe the aerodynamics flight of bird. 6+6
4. (a) Classify the Sub-phylum Urochordata upto classes with characters and proper examples.  
(b) Write down the two important similarities between eutherian and Prototherian mammals. 8+4
5. (a) What is zoogeographical realm? Describe different types of such realms.  
(b) State the affinities between Echinodermata and Chordata.  
(c) Add a note on the larval diversity in Echinodermata. 6(2+4)+3+3
6. (a) Classify the Class Amphibia upto living order with characters and proper example.  
(b) Explain the taxonomic significance of Balanoglossus in respect of evolution of chordates. 8+4

**Group-B**

Answer any *two* questions from the following : 2×2=4

1. Write the advantages of accessory respiratory organs in fishes?
2. What is echolocation ? Give example.
3. 'All vertebrates are chordates but all chordates are not vertebrates'—justify this statement.
4. What is adaptive radiation ?

**(Practical)**  
**Paper - C-5P**  
**(Chordates)**  
**Marks : 20**

**Group-A**

Answer any **one** question from the following : 15×1=15

1. Write down the identifying characters of the following questions any **three** : 5×3=15

(a) *Balonaglossus*

(b) *Hippocampus*

(c) *Myxine*

(d) *Axolotol*

2. With a labelled diagram show the different parts of the dissected brain and pituitary of any fish sample. 8+7

3. Comment on different structural components of endostyle, labyrinth organ and swim bladder of fish 5+5+5

**Group-B**

Answer any **one** question from the following : 5×1=5

1. Write about the significance of submission of laboratory note book and viva-voce in the subject chordates. 5

2. Comment on the roles of Avifauna as the biomanipulator of both aquatic and terrestrial ecosystems. 5

3. Comment on the roles of exotic species of fish in the freshwater ecosystem. 5

---