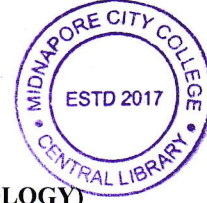


PG CBCS  
M.Sc. Semester-I Examination, 2022  
ZOOLOGY  
PAPER: ZOO 101



**(NON-CHORDATE BIOLOGY AND CHORDATE BIOLOGY)**

Full Marks: 40

Time: 2 Hours

Write the answer for each unit in separate sheet

UNIT - I  
**NON-CHORDATE BIOLOGY**  
**GROUP-A**

1. Answer any **TWO** from the following questions:

2×2=4

- What do you mean by Lophotrocozoan phyla?
- What is biogenic habitat?
- What is mastax? What is its function?
- What is the role of zooecium in *Bugula* sp.?

**GROUP-B**

2. Answer any **TWO** from the following questions:

2×4=8

- Give a brief account of feeding apparatus and mechanism in Nematoda.
- Discuss in brief the feeding in Bryozoa.
- State the ecological importance of Foraminifera.
- Write a short note on Bipinnaria larvae in Echinoderms.

**GROUP-C**

3. Answer any **ONE** from the following questions:

1×8=8

- Discuss the role of *C. elegans* in ecosystem. What do you mean by Superphyla? Give two examples. 5+2+1
- Discuss different conservation approaches for invertebrates. Comment on cyclomorphosis in Rotifera. 5+3



**UNIT-II**  
**CHORDATE BIOLOGY**  
**GROUP-A**

4. Answer any **TWO** from the following questions:

2×2=4

- 
- a) What is the significance of bipedalism in human evolution?  
b) What is opisthonephric kidney? Give example.  
c) Draw and label the membranous labyrinth of a dogfish.  
d) State any two salient features of Hemichordata.

**GROUP-B**

5. Answer any **TWO** from the following questions:

2×4=8

- a) Discuss the osmoregulatory problems and adaptations in salt water fishes.  
b) Draw and label the different parts of a physostomous swim bladder of a fish. State any two functions of swim bladder.  
c) Write a note on evolutionary significance of accessory respiratory organs.  
d) Describe the structure of archinephros kidney with suitable diagram.

**GROUP-C**

6. Answer any **ONE** from the following questions:

1×8=8

- a) Define echolocation. In which animal group echolocation mechanism is effective? State the morphological adaptations for echolocation in chiropterans. What is Reissner's membrane? 2+2+3+1  
b)  
i. Why iodine is needed in Cephalochordata? Discuss the mechanism of trapping of iodine in Cephalochordata. 1+3  
ii. Compare between Mongolian and Caucasian races. 4

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