First Semester Examination-2017
M.Sc. ZOOLOGY
Paper Code: ZOO-101

Full Marks : 40   **Time: 2 Hours**

The figures in the margin indicate full marks.

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

Illustrate the answers whenever necessary.

Use separate Answer Scripts for Group-A & Group-B

Group A

(Nonchordates)

1.   **Answer any two from the followings.**   **2×2=4**

a) Enlight two major threats to invertebrates.

b) Diagrammatically represent the stomal modifications in free living nematodes.

c) What do you meant by "wheel animalcule"?

d) What do you mean by "key stone" species? Give one example.

2.   **Answer any two from the followings.**   **2×4=8**

a) Differentiate protostomia from deuterostomia with suitable example.

d) Describe the oesophagus movement mechanism in nematode with special reference to Bennet Clark's model.

c) Define cyclomorphosis? Discuss it in rotifers with example.

d) Describe food capturing mechanism in Bryozoans.

3.   **Answer any one of the following.**   **1×8=8**

a) Define "Mastax". Discuss about types of Mastax. What do you mean by a mictic and amictic eggs of rotifers.   2+4+2

b) i). Write the characteristics feature of Foraminifera? Write its ecological role.

ii). Write the importance of invertebrate conservation. $2\frac{1}{2} + 2\frac{1}{2} + 3$

Group-B
(Chordates)

4. **Answer any two of the followings.**   2× 2=4

a) Place the following fishes in their respective order.

    i) Cynoglossus sp.   ii) Echinorhinus sp.

    iii) Clarias sp.   iv) Notopterus sp.

b) Differentiate between euryhaline and stenohaline fish.

c) Distinguish pronephric kidney from Metanephric kidney.

d) Define physostomus and physoclistous swim bladder.

5. **Answer any two of the followings.**   2×4=8

a) Mention any two unique characters of fish, used for their identification.

b) Write down the characteristic feature of *Homo erectus* and name their geographical era.

c) Name the respiratory organs in vertebrates.

d) Write the function of swim bladder.

6. **Answer any one from the followings.**   1×8=8

a) Define Echolocation. Mention the morphological adaptation of bat for echolocation.   2+3+3

b) Define endostyle? Write the structure and function of endostyle in protochordates.   2+3+3

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