Sec. 2019-20

MCC/19/M.Sc./Sem.-I/ZOO/1

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PG (NEW) CBCS
M.Sc. Semester-I Examination, 2019
ZOOLOGY
PAPER: ZOO-101
(NON- CHORDATES& CHORDATES)

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
(NON-CHORDATES)

1. Answer any <u>two</u> questions from the following: **2×2=4**

a. Mention the different types of larval forms found in Echinodermata.
b. Mention the general characters of protostome larva.
c. What do you mean by prototroch and metatroch?
d. Mention the importance of hydrostatic skeleton in nematodes.

2. Answer any <u>two</u> questions from the following: **2×4=8**

a. Briefly describe the blastca-gastrea theory regarding the evolution of metazoa. **(4)**
b. Briefly discuss the pumping mechanism of oesophagus in nematodes with special emphasis on Bennet-Cark's Model. **(4)**
c. Enumerate the interphylectic relationship of Bryozoa with Brachiopoda and Entoprocta. **(2+2)**
d. Define mastax. Classify mastax on the basis of the trophi. **(1+3)**

3. Answer any <u>one</u> of the following questions: **1×8=8**

a. What do you mean by lophophorates? What are the food capturing devices of Bryozoa. Briefly describe the mechanism of feeding in Bryozoa. **(2+2+4)**

b. Give short notes on-
i. Cyclomorphosis
ii. Foraminiferal Ooze
iii. Indicator species
iv. Umbrella species **(2+2+2+2)**

(Turn Over)

Group B
(CHORDATES)

1. **Answer any <u>two</u> of the following questions:** **2×4=8**
   a. Give suitable examples of the following fish orders-
      i. Cypriniformes
      ii. Perciformes **(1+1)**
   b. State the chemical names of T_3 and T_4. **(1+1)**
   c. Where do you find opisthonephric and metanephric kidney?
   d. Write down two primate characteristics along with example.

2. **Answer any <u>two</u> of the following questions:** **4×2=8**
   a. What is endostyle? Briefly describe the structure and function of endostyle of any protochordate studied by you. **(1+3=4)**
   b. Fresh water fishes don't drink water- explain. **(4)**
   c. Schematically represent the iodine cycle in protochordates. **(4)**
   d. Explain how air breathing is carried out by any catfish studied by you. **(4)**

3. **Answer any <u>two</u> of the following questions:** **1×8=8**
   a. Mention structural modification in chiropterans for echolocation. Briefly describe the mechanism of echolocation in bats. **(4+4)**
   b. What are osmoregulators and osmoconformers? Give an example each of euryhaline and stenohaline animals. Briefly discuss osmoregulation in marine water fishes. **(2+2+4)**

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