

Total pages: 2

PG CBCS
M.Sc. Semester-I Examination, 2020
ZOOLOGY
PAPER: ZOO 101

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

The figures in the right-hand margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable.

Group-101.1
(Marks: 20)
(Non chordate)

1. Answer two questions of the following:**10X2=20**

- a. Mention the characters of Phylum Brachiopoda and Rotifera with one example each. Comment on the locomotory organs of velvet worms. 4+4+2
- b. Describe the feeding in bryozoa. Define bilateral and radial symmetry with at least one example of each. 5+2.5+2.5
- c. Discuss the role of free living nematodes in ecosystem. Write down the characteristics of Foraminifera with example. Define coelom with example. 4+4+2
- d. Briefly comment on the agents that are threats to invertebrate diversity. Discuss the approaches and strategies for the conservation of invertebrate. 5+5
- e. Write short note on- 5+5
 - i. Metazoan evolution
 - ii. Ecological role of Foraminifera

Group-101.2
(Marks: 20)
(Chordate)

2. Answer two questions of the following:**10x2=20**

- a. Define hemichordates. Discuss in brief about the evolution of hemichordates. What is endostyle? Discuss the iodine trapping mechanism of endostyle in protochordates. 2+3+1+4
- b. What is the most important adaptive feature of *Exocoetus* sp. What are the problems of marine fisheries in India? Discuss about the prospects of inland fisheries in India. What is EEZ? 2+4+3+1
- c. What are the conditions of external respiration? What is holobranch? Discuss the mechanism of respiration in shark. What are the functions of afferent branchial artery? Write down the significance of accessory respiratory organs. 2+1+3+2+2

P.T.O.

(2)

- d. Define osmoregulation. Write in brief about metanephric kidney. Discuss the role of antidiuretic hormone in urine production with suitable diagram. Write the mechanism of osmoregulation in salt water fishes. 1+2+4+3
- e. i. Describe the anatomical specializations for echolocation in bats.
ii. Discuss the characteristics of ultrasonic signal in bats.
iii. What is Doppler Effect? 5+4+1
