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3(Sem-8/FYUGP)BNC(A)/DSCI

2025

ZOOLOGY

(Discipline Specific Core)

Paper Name: Entomology & Fisheries

Paper Code: ZOO-DSC-244

Full Marks: 45

Time: Two Hours

(The figures in the margin indicate full marks for the questions)

1. Answer the following questions: 1x4=4
  - (a) The exoskeleton of insects is made up of \_\_\_\_\_.
  - (b) The functional unit of a compound eye in insects is called a \_\_\_\_\_.
  - (c) Electric organ of fishes are modified from \_\_\_\_\_.
  - (d) Which type of swim bladder is connected to the alimentary canal ?
  
2. Answer any three of the following questions: 2x3=6
  - (a) Mention two causes of insect success on earth.
  - (b) Write two functions of insect antennae.
  - (c) Mention two differences between cage culture and pen culture.
  - (d) Mention any two applications of GIS in fisheries.
  
3. Answer any three of the following questions: 5x3=15
  - (a) Describe the process of moulting in insects.
  - (b) Discuss the role of insects as vectors of human diseases.

- (c) Explain the types of scales found in fishes with suitable diagrams.
- (d) Discuss the impact of climate change on fisheries.
- (e) Write a note on fishery by-products and their significance.

**4. Answer any two from the following questions: 10x2=20**

- (a) What is pollination ? Describe in detail the role of insects in pollination and their importance in agriculture and ecosystem maintenance.
- (b) Give a detailed account of the structure and function of gills in fishes and the mechanism of gas exchange.
- (c) Describe in detail the culture practices of Indian Major Carps, including types of culture systems and hatchery management.

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