

QP Code: 23/PT/14/VIIIB

**POST-GRADUATE COURSE**

**Term End Examination — June, 2023/December, 2023**

**ZOOLOGY**

**Paper-8B : AGRICULTURAL ENTOMOLOGY AND AQUATIC  
RESOURCE MANAGEMENT**

Time : 2 hours ]

[ Full Marks : 50

Weightage of Marks : 80%

**Special credit will be given for precise and correct answer. Marks will be deducted for spelling mistakes, untidiness and illegible handwriting. The figures in the margin indicate full marks.**

1. Answer *two* questions : 9 × 2 = 18

- a) Briefly describe the life cycle and importance of a common rice pest studied by you. Add a note on the control measures of the pest.

( 4 + 2 ) + 3

OR

Write in brief about different principal functional modifications of insect legs with suitable example. Compare Economic Injury Level (EIL) and Economic Threshold (ET) with example. 5 + 4

- b) Differentiate between lake and reservoir. Give salient features of changes in ecology for a new reservoir. State the factors involved in the transition of rivarine to lacustrine ecology in a reservoir. 2 + 3 + 4

OR

Compare between extensive and intensive aquaculture system. What is super-intensive culture of shrimp ? Name the species of brackish water fish that are cultured with shrimp / prawn in extensive culture system. Write the scientific name of a murrel. 4 + 2 + 2 + 1

2. Answer *three* questions : 6 × 3 = 18

- a) Give an account of cage culture system of fish.
- b) Write in brief the sensory system of insect.

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- c) Write short notes on the following : 2 × 3  
i) Stomach poison  
ii) Contact poison  
iii) Systemic poison.
- d) State the methods of estimation of pest population.
- e) What is meant by ozone sterilization ? Comment on the uses of biofilter. What are the benefits of outdoor water recirculatory system ? 2 + 2 + 2
- f) Discuss the life-cycle and larval rearing techniques of freshwater prawn. 3 + 3
3. Answer *two* questions : 4 × 2 = 8
- a) Write a short note on glass jar hatchery.
- b) What are the principles of integrated fish culture ? State the limitations of simultaneous culture. 2 + 2
- c) Write short notes on the following :  
i) Knapsack sprayers  
ii) Fumigants. 2 + 2
- d) State the interrelationship between nematodes and other plant pathogens. Define pheromones. 2 + 2
4. Answer *two* questions : 3 × 2 = 6
- a) Enumerate the various methods of oviposition by insects.
- b) Distinguish between biopesticides and bioagents.
- c) Discuss on the factors influencing selection of a fish farm site.
- d) Distinguish between prawn and shrimp. What do you mean by PL10 ? 2 + 1
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