

**POST-GRADUATE DEGREE PROGRAMME**

**Term End Examination — December, 2024**

**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 accuracy and relevance in the answer. Marks will be deducted for incorrect spelling, untidy work and illegible handwriting. The weightage for each question has been indicated in the margin.**

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

- a) What is extensive fish culture ? State the importance of planning in a fish farm management. Discuss factors influencing selection of a fish farm site. 2 + 4 + 3

OR

What is hypophysation ? How pituitary extracts are prepared ? State the dose of pituitary extract required to induce IMC. What is a knock out dose ? 2 + 3 + 2 + 2

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

( 4 + 2 ) + 3

OR

Describe different mouth parts of insects. Write a short note on 'The Comstock-Needman System' for the study of wing venation in insects.

5 + 4

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

- a) What is IPM ? Write the application of IPM for pest control. 2 + 4

- b) Write short notes on : 3 × 2

(i) Enforcement machinery

(ii) Air breathing cat fish.

- c) Write short notes on : 3 × 2

(i) Kairomones

(ii) Pheromone

- d) Write short notes on plankton, neuston and benthos.  $2 + 2 + 2$
- e) State the criteria for selecting cultivable species of fin fish and shell fish. Write the scientific name of two exotic species of fish.  $4 + 2$
- f) Discuss paddy-cum-fish culture method. State the advantage of this method.  $4 + 2$
3. Answer *two* questions :  $4 \times 2 = 8$
- a) Write the function of Primary and Secondary settling chamber in recirculatory system.  $2 + 2$
- b) Give an account of pen culture system of fish.
- c) Write a note on structure of integument of insect.
- d) Write a short note on image formation by compound eye of insects.
4. Answer *two* questions :  $3 \times 2 = 6$
- a) Write short notes on :  $1\frac{1}{2} \times 2$
- (i) Rhabdome
- (ii) Contact poison
- b) Write short notes on :  $1\frac{1}{2} \times 2$
- (i) Phytophagous mite
- (ii) Predatory mite
- c) Write a short note on sewage-fed fisheries.
- d) What is ozone sterilization ? Write the function of biofilter.  $2 + 1$
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