

QP Code: 22/PT/14/VIIIB

**POST-GRADUATE COURSE**

**Term End Examination — June, 2022/December, 2022**

**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 history and importance of a common jute pest. Add a note on the control measure of jute pests. ( 4 + 2 ) + 3
- OR
- Give an account of different management practices adopted to prevent the attack of mites to economic plants. State the role of Johnston's organ in the perception of sound of insects. 6 + 3
- b) Define sewage and sludge. How sewage is treated before it is recycled through aquaculture ? Discuss advantages of sewage fed aquaculture. 2 + 4 + 3
- OR
- How could you differentiate a prawn from that of a shrimp ? Discuss about the culture practice of GFP. What do you mean by PL10 ? 2 + 6 + 1
2. Answer *three* questions : 6 × 3 = 18
- a) How nematodes could be isolated from plant material ? State the interrelationships between nematodes and other plant pathogens. 3 + 3
- b) Give a brief idea on behavioural and microbial control of insect pest. 3 + 3

- c) How stocking density of a polyculture pond is calculated ? State ecological principles behind composite culture of fish. 3 + 3
- d) Name three catfishes and state their significance in Indian fisheries. 3 + 3
- e) Write a short note on Paddy-cum-fish culture method.
- f) Write short notes on the following : 3 × 2
- i) Enforcement machinery
- ii) Glass jar hatchery.
3. Answer *two* questions : 4 × 2 = 8
- a) What is Integrated Pest Management ? State its significance. 2 + 2
- b) Write in brief about the pen culture of fish.
- c) State the factors involved in transition of riverine to lacustrine ecology in a reservoir.
- d) Comment on the following :
- i) Photoreception
- ii) Role of FSH in hypophysation. 2 + 2
4. Answer *two* questions : 3 × 2 = 6
- a) Distinguish between biopesticides and bioagents.
- b) Write a short note on mouth parts of insects.
- c) Write short note on : 1½ × 2
- i) Biological filter (biofilter)
- ii) Knock out dose.
- d) Write the criteria for selecting culturable species of fin fish and shell fish.
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