

2021**ZOOLOGY****[HONOURS]****Paper : XIII**

Full Marks : 50

Time : 2 Hours

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

1. Answer any **five** questions: $2 \times 5 = 10$
- Give an example of reciprocal altruism.
 - What is IPM?
 - State the chemical composition of pearl.
 - What is latent learning?
 - Distinguish between aquaculture and pisciculture.
 - Mention the differences between penaeid and non-penaeid prawn.
 - What are pheromones?
 - Explain Kin selection.

2. Answer any **two** questions: $5 \times 2 = 10$
- Write the name of a jute pest. Describe its life cycle. $1 + 4$
 - Write down the scientific name, symptoms and preventive measure of silkworm disease Pebrine and Muscardine. $2\frac{1}{2} + 2\frac{1}{2}$
 - What is Vermiculture? Name two species that are used. State importance of vermiculture. $2 + 2 + 1$
 - Write short notes on: $2\frac{1}{2} + 2\frac{1}{2}$
 - Ranikhet disease (New castle disease)
 - Pullorum disease (PD)
3. Answer any **three** questions: $10 \times 3 = 30$
- Give a short account of social organisation in termites. Discuss parent-offspring conflict with an example. Give an example of fixed action pattern. $5 + 3 + 2$
 - Describe the behaviour of *Bandicota bengalensis*. Suggest the control measure against this pest. Mention the scientific name of lac insect. Write a short note on processing of lac. $3 + 2 + 1 + 4$

- c) Discuss different types of learning behaviour with example. Explain the phenomenon of circadian rhythm with example. 6+4
- d) Write short notes on the following parental care process in fishes with suitable examples:
- i) Nest building
 - ii) Shelter in mouth and intestine
 - iii) Brood pouch
 - iv) Viviparity $2\frac{1}{2} \times 4 = 10$
- e) What is stored grain pest? Describe the biology and control methods of jute pest with suitable diagram.
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