

2020

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** of the following: $2 \times 5 = 10$
- Differentiate between 'Univoltinism' and 'Multivoltinism'.
 - What is swarming?
 - State the chemical composition of Lac.
 - What is Argonite? Which layer is known as "The Mother of Pearl"?
 - Name two synthetic hormone used in fish breeding.
 - Give scientific name each for
 - Brackish water shrimp
 - Fresh water prawn.
- g) Name two synthetic hormones used in fish breeding.
- h) Define altruism with an example.
- i) What is royal jelly?
2. Answer any **two** questions: $5 \times 2 = 10$
- Define FAP. Define 'Eusociality' and Selfishness in the light of animal behavior with example. $1 + 2 + 2 = 5$
 - What is Vermiculture? Name two species that are used here. State the importance of vermiculture. $2 + 2 + 1 = 5$
 - Describe the behavior of *Bandicota bengalensis*. Write in brief the chemical control method of *Bandicopta* sp. $3 + 2 = 5$
 - Write the composition of pearl. Discuss the process of pearl formation. $1 + 4 = 5$
3. Answer any **three** of the following: $10 \times 3 = 30$
- Discuss the social organization in termites.
 - What do you mean by 'bee language'? State the importance of pheromone in bee language.

b) Classify breeds of poultry according to their origin. What do you mean by sitter and non sitter. Define deep litter and its method of preparation. $3+2+(1+4)=10$

c) Write down the causative agents, symptoms and controls of the following:-

i) Pulloran disease in Poultry birds and

ii) Muscardine disease in silkwarm.

$$5+5=10$$

d) Define biological pest control? Discuss the procedure of biological pest control with example. Differentiate between contact and systemic pesticides. What are fumigants?

$$2+4+2+2=10$$

e) Explain the phenomenon of circadian rhythm with examples. What is the importance of supra-chiasmatic nucleus in circadian rhythm. What is tidal rhythm?

$$4+4+2=10$$
