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(July)

ZOOLOGY

(Elective/Honours)

(**Developmental Biology, Ecology and
Economic Zoology**)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** and *any four* from the rest

1. Answer any *three* of the following questions :

4×3=12

- (a) Describe the process of acrosomal reaction during fertilization.
- (b) Write a note on ecdysone.
- (c) Describe the various types of ecological pyramids.
- (d) Write a note on mutualism giving suitable animal examples.
- (e) Write a note on the economic importance of apiculture.

2. What is spermatogenesis? Explain the process of spermatogenesis in animals with well-labelled diagrams. 1+8+2=11

3. What is gastrulation? Describe the process of gastrulation in frog up to the formation of three germinal layers with the help of labelled diagrams. 1+8+2=11

4. (a) Briefly describe the concepts of biotic community. 5

(b) Define ecological niche. Describe the different aspects of ecological niche. 1+5=6

5. Define the term 'pollution'. Write an essay on the effects of water pollution on aquatic organisms. Add a note on the methods to control water pollution. 1+6+4=11

6. Describe the life history of *Bombyx mori* and explain how it can be cultured. Write a note on economic importance of sericulture. 4+3+4=11

7. Describe the different methods commonly used to control or eradicate pests. 11

(3)

8. Write short notes on any *two* of the following : $5\frac{1}{2} \times 2 = 11$

- (a) Types of cleavage
- (b) Food chains
- (c) Composite fish culture

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