

ZOOLOGY Paper-II (ZOO-602 B)

(Applied Zoology-II Opt. (ii) Economic Entomology and  
Pest Management-II)

Time Allowed : 3 Hours

Maximum Marks : 36

Note : Attempt *five* questions in all, selecting *one* question from each Unit.

Question No. 1 is compulsory.

1. Briefly explain the following :

- (i) Caterpillar larva
- (ii) Tumbler
- (iii) Band
- (iv) Name two pesticides banned in India
- (v) LD<sub>50</sub>
- (vi) *Two* vertebrates useful in biological control.
- (vii) Royal Jelly
- (viii) Foragial legs

8×1=8

### UNIT-I

2. What is Metamorphosis ? Describe its various types present in insects. 7
3. (a) Give an account of piercing-sucking type of mouth parts of Mosquito. 3.5
- (b) Give an account of major modifications in the antennae of insects. 3.5

### UNIT-II

4. Give an account of Apiculture with special reference to species of Honey bee, flora for Apiculture, methods and appliances of bee-keeping and diseases of Honey bee. 7
5. Give an account of Lac-culture with special reference to species and varieties of Lac-insects, hostplants, cultivation of Lac, processing of Lac and enemies of Lac insects. 7

### UNIT-III

6. What is an insecticide ? What are the qualities of a good insecticide ? Give an account of chlorinated Hydrocarbons insecticides with special reference to DDT, Dieldrin, Chloridane and Aldrin. 7
7. Give an account of insecticides of plant origin with special reference to Nicotine, Pyrethrum and Azadirachtin. 7

### UNIT-IV

8. What do you mean by Biological control ? How does it more ecofriendly than other control measures ? Give an account, to use Protozoan, Bacteria, virus and fungi in Biological Control. 7
9. What is Integrated Pest-Management ? Give an account of pre-requisites, implementation strategy and frame work of IPM programme.