

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: IV (Old)	Term	: II	Academic Year	: 2018-19
Course No.	: ENTO 242	Title	: Insect Ecology, Integrated Pest Management and Beneficial Insects		
Credits	: 3 (2+1)				
Day & Date	: Saturday, 04.05.2019	Time	: 09.00 to 12.00	Total Marks	: 80

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Enlist biotic and abiotic components of environment and explain the influence of temperature on insects.
- Q.2 Define pest and enlist their categories? Describe the factors responsible for pest outbreak in agro ecosystem.
- Q.3 Define IPM. Enlist the different methods of pest control and explain in detail the mechanical control.
- Q.4 Define pesticide formulation, Why need to formulate pesticides? Describe types of pesticide formulations.
- Q.5 a) Define insecticide. Write down the properties of ideal insecticides or pesticides.
b) Distinguish between predator and parasite.
- Q.6 a) What is biological control? Describe the Techniques of Biological Control.
b) Classify the insecticides on the basis of mode of entry.
- Q.7 a) Define apiculture. Explain the duties performed by worker bee.
b) Define sericulture. Write down the procedure of rearing mulberry silkworm.
- Q.8 Describe in detail mass production technique of *Trichogramma spp.* and *Helicoverpa armigera* NPV.
- Q.9 State the four important species of rat with their scientific names. Describe cultural and chemical methods adopted for rodent control in field.
- Q.10 Write short notes (Any two).
- a) Microbial control
 - b) Insecticide Act, 1968
 - c) Mechanism of HPR

(P.T.O.)

SECTION "B"

Q.11 Define the following terms

- | | |
|-------------------|---------------------|
| 1) Insect ecology | 2) Lac culture |
| 3) Pheromones | 4) LC ₅₀ |
| 5) ETL | 6) Pest resurgence |
| 7) Pest survey | 8) Agro ecosystem |

Q.12 Do as directed.

- 1) The active ingredient of Neem is _____.
- 2) Insects which are active at dusk are called _____.
- 3) Who is the founder of male sterile techniques?
- 4) Chemicals that induce avoiding (oriented) movements in insect away from their source are called _____.
- 5) State any two antidotes used for poisoning due to stomach poison.
- 6) State any one example of sprayers and duster.
- 7) The lure used to attract *Helicoverpa armigera* is _____.
- 8) Give any two host plants of Lac insects.

