

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2016-17
<b>Course No.</b> : ENTO 242	<b>Title</b> : Insect Ecology, Integrated Pest Management and Beneficial Insects	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Tuesday, 02.05.2017	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 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 Define the term 'Insecticide'. Give the classification of insecticides on the basis of chemical composition with one example each.
- Q.2 Write the procedure for mass production of *Trichogramma* in the laboratory.
- Q.3 Enlist different methods of pest control. Explain the cultural method of pest control with suitable examples.
- Q.4 Define the term 'Biological control'. Explain the techniques of biological control.
- Q.5 Define 'IPM'. Write in brief about concepts of 'IPM'.
- Q.6 a) Explain the rearing of mulberry silkworm.  
b) State the characteristics of ideal parasitoid.
- Q.7 Define 'Insect Ecology'. Explain the effect of temperature and humidity on insects with suitable examples.
- Q.8 a) Describe the types of pheromone.  
b) Enlist the causes of pest outbreak.
- Q.9 What is insecticidal formulation? Why the formulations are necessary? Enlist different types of formulation with one example each.
- Q.10 Write short notes (Any Two).
- 1) Mechanism of Host Plant Resistance.
  - 2) Management of rodents in field.
  - 3) Role of IGRs in pest management.

**SECTION "B"**

- Q.11 Define the following terms.

- |                     |                        |
|---------------------|------------------------|
| 1) Biotic potential | 2) Legislative control |
| 3) Antifeedant      | 4) LC <sub>50</sub>    |
| 5) ETL              | 6) Regular pest        |
| 7) Hyperparasite    | 8) Insect Resurgence   |

(P.T.O.)

Q.12 Match the following pairs.

“A”

- 1) Lac insect
- 2) BHC
- 3) Silent spring
- 4) Tasar silkworm
- 5) Genetic control
- 6) *Kopidosoma koehleri*
- 7) Synergist
- 8) Dust carriers

“B”

- a) Michael Faraday
- b) *Kerria lacca* (Kerr.)
- c) Potato tuber moth
- d) Rachel Carlson
- e) E.F.Knipling
- f) Attapulgit
- g) Piperonil butoxide
- h) *Antheraea mylitta*

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