



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc. (Hons.) Ag. 2016 Admission**  
**III Semester Final Examination-February-2018**

Ento.2102

**Insect Ecology and Integrated Pest Management (2+1)**

**Marks:50**

**Time: 2 hours**

**(10x1=10)**

**I Fill in the blanks:**

- 1 The lowest level of injury where the damage can be measured is called the-----
- 2 Cottony cushion scale , *Icerya purchasi* was controlled in California by the introduction of ----- from Australia.
- 3 One larval equivalent is-----  $\times 10^{-}$ POBs.
- 4 Papaya mealybug was controlled in India by the introduction and release of the parasitoid, -----
- 5 The lowest number of insects that cause economic damage is called as-----

**Name the following**

- 6 A green labelled lepidoptericide .
- 7 The group of insect pathogens effective against the non- feeding stages of crop pests.
- 8 Name an acute poison used in Agriculture .
- 9 The entomologist who identified the insecticidal property of DDT.
- 10 The species of EPN recommended for management of a key pest of banana

**II Write Short notes on ANY FIVE of the following**

**(5x2=10)**

- 1 EIL
- 2 Mechanisms of Insect resistance
- 3 Pseudoresistance
- 4 Bioassay
- 5 JH analogues
- 6 Parapheromone
- 7 Acaricides

**III Answer ANY FIVE of the following**

**(5x4=20)**

- 1 Briefly discuss the types of crop losses caused by insects
- 2 Explain with examples the cultural control as a component in IPM
- 3 What are the factors influencing insect population
- 4 What is a predator? List out important groups of insect predators
- 5 Briefly discuss legal methods of pest management
- 6 Offer critical comments on biocontrol as a component in IPM.
- 7 Give a list of eight natural enemies used in the biocontrol with the names of the pests controlled.

**IV Write an essay on ANY ONE of the following**

**(1x10=10)**

- 1 Give the classification of insecticides , briefly mentioning their modes of action , the insects against which these are effective with two examples each
- 2 Explain the biotechnological approaches for insect pest management.

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