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**GIET UNIVERSITY, GUNUPUR – 765022**  
**B. Sc (AG) (Fifth Semester) Examinations, December' 2020**  
**PP 353 – PRINCIPLES OF INTEGRATED PESTS AND DISEASE**  
**MANAGEMENT**

Time: 2 hrs

Maximum: 50 Marks

**The figures in the right hand margin indicate marks.**

**PART – A**

**Q.1. Fill in the blanks with suitable word / figure**

**(10 x 0.5 = 5 Marks)**

- Write the full form of NIPHM-----
- is a parasitism in which a parasite draw its nutrition from another parasite.
- test is done for detecting bacterial diseases in plants.
- The term biological control was coined by -----
- was awarded with Nobel Prize in 1948 for DDT.
- The book 'Silent Spring' was written by -----
- The brown plant hopper is an important pest of -----
- The control of plant diseases by eliminating the established pathogen or by eliminating the plants that carry the pathogen is called-----
- is the example of egg paasitoid.
- The term IGRs means -----

**Q. 2. Define (or) Explain the following in one or two sentences**

**(5 x 1 = 5 Marks)**

- ETL
- Endophytes
- Biopesticides
- Induced resistance
- Predation

**3. Match the following**

**(10 x 0.5 = 5 Marks)**

Column – A	Column – B
(a) Trichoderma	(i) Quarantine
(b) Streptomyces	(ii) Virus
(c) Trap crop	(iii) Loosesmut of wheat
(d) Exclusion	(iv) actinomyces
(e) Sudden out break of pest	(v) BT-cotton
(f) ELISA	(vi) Marigold
(g) Vertical resistance	(vii) Fungus
(h) Solar heat treatment	(viii) Monogenic
(i) Metarhizium	(ix) bioagent
(j) Biotechnological approach	(x) Pest epidemic

**Q4. Write True or False against each statement**

**(10 x 0.5 = 5 Marks)**

- a. Horizontal resistance is governed by single gene
- b. Central Insecticide Board is situated in Faridabad.
- c. The insecticide act was passed by the parliament in the year 1965.
- d. *Pseudomonas fluorescens* is a biocontrol agent generally used against insects
- e. The term antixenosis means plant is considered to be desirable for insect attachment and multiplication
- f. ETL is widely used index in making pest management decision
- g. Red hairy caterpillar is an important pest of groundnut
- h. S.D. Garrett (1965) was the first to use the term Biological Control
- i. The substance like gelatine is known to improve the spread of the fungicide.
- j. Shaking of grape vines to dislodge the pest is recommended against flea beetle

**PART – B**

**Attempt ANY FIVE questions.**

**(6 x 5 = 30 Marks)**

**All questions carry equal marks**

5. Describe briefly with suitable examples of bio pesticides used for pest management.
6. Write down the safety issues related to the uses of pesticides.
7. Narrate the physical and cultural methods adopted for insect pest management.
8. Enumerate biotic and abiotic factors which influence pest populations.
9. Prepare an IPM model for management of one major insect and one disease of rice crop.
10. What is IPM? Describe different factors included in IPM for the management of insect pest.

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