



GIET UNIVERSITY, GUNUPUR – 765022
B. Sc. (Ag.) (Fifth Semester) Examinations, January – 2023
ENT-314– Principles of Integrated Pests & Diseases 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.

(0.5 x 10 = 5 Marks)

- a. Bengal famine occurred due to.....
- b.is a parasitism in which a parasite draws its nutrition from another parasite.
- c. Irish famine occurs due to.....
- d.was awarded with Nobel Prize in 1948 for DDT.
- e. The brown plant hopper is an important pest of.....
- f. The active ingredient of *Azadirachta indica* is.....
- g. Trap crop for IPM of DBM is.....
- h. Microbial control was given by.....
- i. Khaira disease occurs due to.....
- j. Coffee rust was prevalent in.....

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

(1 x 5 = 5 Marks)

- a. LD 50 and LC50
- b. Pesticide and insecticide
- c. Disease
- d. Pandemic disease
- e. Pest

Q3. Match the following

(0.5 x 10 = 5 Marks)

Column – A		Column – B	
(a)	<i>Apanteles</i>	(i)	<i>Helminthosporium</i>
(b)	Extremely toxic	(ii)	Red colour
(c)	Maneb	(iii)	PM millardet
(d)	Marigold	(iv)	Larval parasitoid
(e)	Moderately toxic	(v)	DANGER
(f)	Sulfex	(vi)	Trap crop
(g)	Pyrethrin	(vii)	Sucking pest
(h)	Bordeaux mixture	(viii)	S based
(i)	Bengal famine	(ix)	Chrysanthemum
(j)	Sticky trap	(x)	Mn based

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- a. DDT was first synthesized by Paul Muller.
- b. The active ingredient of tobacco is nicotine.
- c. Back cross is used to develop disease resistant variety.
- d. Horizontal resistance is controlled by major gene.
- e. *Heterorhabdidae* makes symbiotic association with *Xenorhabdus*.
- f. Bordeaux mixture was discovered by PM Millardet.
- g. Use of resistant variety in the IPM is an example of mechanical control.
- h. Horizontal resistance is controlled by minor gene.
- i. The insecticide act was passed by the parliament in the year 1965.
- j. *Trichogramma* is a larval parasitoid

PART – B

Attempt ANY FIVE questions. All question carries equal marks

(6 x 5 = 30 Marks)

5. Write down the different formulations of insecticides.
6. Write short notes on:
 - a. Irish famine
 - b. Quarantine
7.
 - a. Define biological control and explain briefly about the techniques of biological control.
 - b. Classify parasite and parasitoid based on stages of host, site of parasitization and degree of parasitization with specific examples.
8.
 - a. What is IPM? Write down its aim and objective.
 - b. Write down the IPM practice for management of insect pest of cotton.
9. Define disease. Classify diseases on the basis of occurrence, plant parts affected, perpetuation and spread, based on major causes.
10. Write down the classification entomopathogenic bacteria. Explain symptoms and mode of action of *Bacillus thuringiensis*.

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