

**GIET UNIVERSITY, GUNUPUR – 765022**

B. Sc (AG) (Third Semester – Regular) Examinations, December – 2020
ENT-212 – PESTS OF CROPS AND STORED GRAINS AND THEIR 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 Scientific name****(10 x 0.5 = 5 Marks)**

- a. Disfigured rice leaves with whitish blotches on the margins is due to _____ .
- b. The _____ larva folds the terminal leaflets and feeds on the chlorophyll causing blister-like mines in ground nut
- c. Nymphs and adults of _____ sucks the sap from cotton bolls, which turn dark brown and fail to burst.
- d. Feeding by _____ leads to marginal chlorosis, bronzing/ browning, puckering and drying of brinjal leaves.
- e. _____ adults girdle the grapevines so that the regions beyond the cut gets dried up to enable the grubs bore and tunnel the dry wood.
- f. Exudation of a thick brownish viscous fluid and extrusion of chewed up discarded fibres from holes in coconut trunk is due to _____ attack.
- g. _____ causes bronzed, dried and crumpled leaves in coffee.
- h. Pepper berries affected by _____ appear larger with maggots inside and galls on the tender stalks.
- i. White streaks appear on the infested leaves of rose due to _____ infestation, leading to brown patches and withering and dropping.
- j. Round exit holes in pulses seed are due to _____.

Q. 2. Define (or) Explain the following in one or two sentences.**(5 x 1 = 5 Marks)**

- a. Explain the symptom of damage caused by Rice gallmidge
- b. Distinguish between the damage caused by Spotted bollworm and pink bollworm in cotton
- c. Distinguish between the damage caused by *Sphenoptera perotetti* and *Holotrichia* spp. in Groundnut
- d. Distinguish between the damage caused by *Conogethes punctiferalis* and *Lampides elpis* in cardamom
- e. Distinguish between the adults of Cigarette beetle and drug store beetle

Q3. Match the following

Column – A			Column – B	
(a)	<i>Tetraneura nigriabdominalis</i>		(i)	Adults live for about 5 months
(b)	<i>Aleurodicus dispersus</i>		(ii)	Larva grows for about 10 months
(c)	<i>Deudorix (Virachola) isocrates</i>		(iii)	Two spots on the vertex
(d)	<i>Hypothenemus hampei</i>		(iv)	Subterranean pest
(e)	<i>Idioscopus clypealis</i>		(v)	Pupation inside the galleries
(f)	<i>Chloridolum alcamene</i>		(vi)	Pupation in soil
(g)	<i>Pentlonia nigronervosa</i>		(vii)	Cigar-shaped eggs
(h)	<i>Atherigona soccata</i>		(viii)	Litchi and Anar
(i)	<i>Rhynchophorus ferrugineus</i>		(ix)	Bunchy top of banana
(j)	<i>Spodoptera frugiperda</i>		(x)	Eggs in a characteristic spiralling pattern

Q4. Write True or False against each statement**(10 x 0.5 = 5 Marks)**

- Flooding to submerge the infested rice nursery/field for 1-2 days helps to reduce thrips populations.
- Fish meal trap is used to attract sorghum grain midge
- Intercropping with cumbu at the ratio of 1: 4 repels the ground nut leaf miner adult moth.
- Oryctes baculovirus is used to manage Coconut red palm weevil
- Cotton varieties like LPS 141 and Supriya are capable of tolerating the whitefly infestation.
- The larval parasitoid *Sturmiopsis inferens* is used to manage sugar cane top borer.
- Set up sex pheromone traps @ 5/acre is used to monitor Brinjal shoot and fruit borer
- Cotesia plutellae* is the dominant larval parasitoid of diamond back moth.
- Shade from intercrop agathi, *Sesbaniagrandiflora* regulate the thrips population in chilli.
- The variety 'Mysore' is highly susceptible while 'Malabar' is least susceptible to cardamom thrips

PART – B**Attempt ANY FIVE questions. All question carries equal marks****(6 x 5 = 30 Marks)****Give the Scientific name and taxonomic position of the pest in all the answers**

- Explain the damages caused by hopper pests on rice and their role as vector of rice diseases
- Give a detailed account of borers pests of tomato fruits
- Write about integrated management of cotton bollworms
- Narrate the biology, host plants, nature of damage and management of fruit fly
- Write the biology, damage symptoms and management of banana pseudostem borer and rhizome borer
- Give a detailed account on pepper pollu beetle and cardamom capsule borer

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