

Ento 304
Economic Entomology I (2+1)

Max. Marks: 60
Time: 2 ½ hours
20 X 5 = 10

PART I

Write the common and scientific names of the insect pests responsible for the following symptoms

1. Dead heart in rice
2. Death of pulses seedlings
3. Dead heart in grown up sugarcane
4. Upward curling of chilli leaves
5. Oozing of brown resinous fluid from fruits of cucurbits.
6. Tunnels in sweet potato tuber
7. Holes in the leaves of Colacasia
8. Irregular zig-zag tunnels in amaranthus stem
9. Withering and shedding of mango flower buds
10. Corky scab in guava fruit

Fill up the blanks

11. ----- is responsible for wilting and drying of ragi plants in patches
12. ----- of pumpkin beetle feeds on the roots, stem and fruits touching the soil.
13. ----- is responsible for crinkling and yellowing of grapevine leaves.
14. *Margaronia caesalis* causes ----- in jack
15. *Nephoteryx eugraphella* is responsible for ----- in sapota

Choose the correct answer

16. The vector of seasmum phyllody is
 - a) *Orosius albicinctus*
 - b) *Aphis gossypii*
 - c) *Polyphagotarsonemus latus*
 - d) None of the above
17. An insect which undergoes diapause in soil during winter
 - a) *Drosicha mangiferae*
 - b) *Microceropsylla brevicornis*
 - c) *Pulvinaria psidi*
 - d) None of the above
18. Pupation site of *Spodoptera litura* is
 - a. Soil
 - b. Leaf
 - c. Fruit
 - d. Flower
19. Chilli mite resurgence inducing insecticide
 - a. Monocrotophos
 - b. Chlorpyrifos
 - c. Endosulfan
 - d. Phosalone
20. An insect which is a predator during its larval stage and a pest during its adult stage
 - a. Blister beetle
 - b. Rhinoceros beetle
 - c. Epilachna beetle
 - d. Flea beetle

Write the damage symptoms of the following insect pests

1. Groundnut earwig
2. Castor capsule borer
3. Cotton white fly
4. Tobacco caterpillar
5. Subabul jumping lice
6. Bhendi fruit borer
7. Diamond back moth
8. Mushroom phorid fly
9. Pomegranate fruit borer
10. Grapevine stem girdler

Distinguish between

11. *Calocoris angustatus* and *Contarinia sorghicola* (adult)
12. *Amsacta albistriga* and *Amsacta moorei* (adult)
13. *Achaea janata* and *Paralellia algira* (adult)
14. *Spodoptera litura* and *Helicoverpa armigera* (adult)

PART III

Answer any eight questions

8 X 2 = 16

Write short notes on

1. Gingelly leaf webber
2. Sugarcane inter node borer
3. Brinjal fruit borer
4. Sucking pests of wheat
5. Locust

Write the management practices for

6. Sucking pests of rice
7. Sorghum shoot fly
8. Sugarcane borers
9. Potato tuber moth
10. Mango stem borer

PART IV

Answer any five questions

5 X 4 = 20

1. List out the important pests of rice. Describe the nature of damage, biology and management of rice stem borer and leaf folder
2. Give an account of pod borer complex in pulses.
3. Write the nature of damage of different species of boll worms. How will you avoid the development of insecticide resistance in cotton pests?
4. Explain the nature of damage, bio-ecology and management methods of banana pseudostem weevil and aphids.
5. Give an account of cashewnut stem borer and mirid bug
6. List out the insect pests of citrus. Write the nature of damage, bio-ecology and management of orange borer and citrus leaf miner