

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE
B.Sc.,(Hons.) Agriculture Winter 2019 - 20 Examination

Semester: 5

Date: 20/11/2019

Subject Code: 20104302

Time: 10:30 am to 01:00pm

Subject Name: Pests of Crops & Stored Grain & their Management

Total Marks: 50

Instructions

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Do as Directed.**A. Fill in the blanks. (Each of 0.5 mark)****(05)**

1. Bunchy top in sugarcane is caused by _____.
2. _____ is a monophagous pest on mango
3. _____ tablets of Aluminum phosphide used per ton of grains
4. Stage of rice at which the gundhi bug feeds is _____.
5. _____ coleopteran pest feeds voraciously on flowers and pods of pulses while the grubs are predators
6. _____ weevils can be trapped by placing chopped pseudostems.
7. _____ trap used for attract the fruit fly
8. Larvae make mine on leaves and drying and dropping of leaves is seen due to severe infestation of _____
9. Flaring of squares is due to _____
10. Yellow vein mosaic virus is transmitted by _____

B. Multiple choice type questions. (Each of 0.5 mark)**(10)**

1. Grassy stunt virus disease transmit by _____

a) Green leaf hopper	c) Brown plant hopper
b) White backed plant hopper	d) None of above
2. Pheromone trap to attract

a) Female moth	c) Male moth
b) whitefly	d) Butterfly
3. The flowers do not open and give rosette appearance due to

a) Spotted bollworm	c) Spiny boll worm
b) Pink boll worm	d) American boll worm
4. Destructive stage of pumpkin beetle is -----

a) Grubs	c) Both grubs and adults
b) Adults	d) Eggs
5. _____ causing formation of a tube like gall that is similar to “onion leaf” or “Silver-shoot”.

a) <i>Nymphula depunctalis</i>	c) <i>Pelopidas mathias</i>
b) <i>Orseolia oryzae</i>	d) <i>Scirpophaga incertulas</i>
6. Pigeon pea sterility mosaic virus disease transmits by _____

a) Aphid	c) Whitefly
b) Eriophid mite	d) Jassid
7. Passing of rope over the crop helps to manage

a) Yellow stem borer	c) Case worm
b) Rice hispa	d) Leaf folder
8. Which pest feeds on tender foliage and grown up larva cuts the stem at collar region.

a) Potato tuber moth	c) Shoot borer
b) Potato cutworm	d) Tussock moth

9. Citrus butterfly belongs to family
 a) Nymphalidae
 b) Papilionidae
 c) Lycaenidae
 d) None of the above
10. Little leaf of brinjal disease transmitted by
 a) Aphid
 b) whitefly
 c) Leaf hopper
 d) jassids
11. Dead heart in 1-3 month old crop, which can be easily pulled out is due to attack of following pest
 a) Early shoot borer
 b) Internode borer
 c) Root borer
 d) Top shoot borer
12. NPV is used for control of which insect of the following
 a) Mealy bug
 b) Gall midge
 c) Gram caterpillar
 d) Gandhi bug
13. *Trichogramma chilonis* is a
 a) Pathogen
 b) Nematode
 c) Predator
 d) Parasitoid
14. Which of the following is rodenticides
 a) Zinc phosphide
 b) Barium carbonate
 c) Warfarin
 d) All the above
15. Order of mango stem borer
 a) Lepidoptera
 b) Diptera
 c) Coleoptera
 d) Hemiptera
16. The insect pest of the citrus where only the adults are damaging stage is
 a) Lemon butterfly
 b) Cabbage butterfly
 c) fruit sucking moth
 d) Blue butterfly
17. Presence of dead heart in early stage in sorghum indicates the attack of
 a) Sorghum shoot bug
 b) Stem borer
 c) Sorghum Shoot fly
 d) Sorghum ear head bug
18. Alternate wetting and drying is a good management technique for controlling _____
 a) BPH
 b) WBPH
 c) GLH
 d) Whitefly
19. Saw toothed grain beetle is a _____
 a) Secondary feeder
 b) Mould feeder
 c) Primary feeder
 d) All of the above
20. Dead heart in rice is due to
 a) Grass hopper
 b) Stem borer
 c) Gall midge
 d) Gandhi bug

Q.2 Do as Directed.

A. Define the following. (Any five out of six)

(05)

1. External feeders
2. Trap Crop
3. Insect vectors
4. Predator
5. Secondary pests
6. Parasitoid
7. Pests

B. Answer the following. (Any five out of six)

(05)

1. Write the symptom of rice gundhi bug.
2. Mention any three important pest of mango.
3. Write down the scientific name of five major pests of crucifers
4. Enlist the external and internal feeders of storage pests
5. Write about the damage symptoms of white grub in groundnut
6. Write any two names of predator

Q.3 Write short notes. (Any five out of six)

(10)

1. What are the causes of rice brown plant hopper outbreak?
2. Discuss in brief about management of mango mealy bug
3. Specific management practices for gram pod borer, *Helicoverpa armigera*.
4. Write in brief damaging symptom of mango leafhopper.
5. Explain in brief nature of damage and management of Green leaf hopper.
6. Write in brief damaging symptom of Diamond back moth

Q.4 Long Questions/Example (Attempt any three out of four)

(15)

1. Enlist the insect pests of Rice. Describe nature of damage and management of Yellow Stem Borer.
2. Discuss in detail about the management of stored grain insect pests.
3. Give the list of insect pests of Sugarcane. Describe nature of damage and management of Early shoot borer.
4. Enlist major pests of infesting cotton and describe IPM schedule