

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE

B.Sc. (Hons.) Agriculture Summer, 2021-2022 Examination

Semester: V

Date: 30-03-2022

Subject Code: 20107302

Time: 10:30am to 1:00pm

Subject Name: Principles of Integrated Pest and Disease 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 marks)****(05)**

1. _____ discovered the insecticidal property of DDT in _____ year.
2. "Destructive insects and pests Act" passed in _____ year.
3. Toxic effects produced by the accumulation of small amounts of the toxicant over a long period of time is called _____.
4. Iris Potato Famine (1945-49) in Ireland was caused by _____ disease.
5. _____ is the first generation insecticide.
6. _____ is the father of host plant resistance
7. Removing or uprooting disease plant from the field to manage the disease is called _____.
8. Computer based program in U. S. A. for potato late blight is known as _____.
9. _____ is a localized disease in Groundnut.
10. Management of host gene is known as _____.

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

1. _____ is/are major pest.

a) Cotton jassid	c) Brown plant hopper
b) Rice stem borer	d) All of the above
2. Green lace wing bug is.....

a) Microorganism	c) Parasitoids
b) Predator	d) None of the above
3. Hot water or hot air treatment is the example of _____ control method.

a) Chemical control	c) Mechanical control
b) Physical control	d) None of the above
4. _____ chemical released by maize which imparts resistance against European corn borer

a) Sinigrin	c) Salicylic acid
b) DIMBOA	d) None of the above
5. Population density at which control measure should be implemented to prevent an increasing pest population is referred as

a) Economic threshold level	c) Economic injury level
b) Damage boundary	d) None of the above
6. Which is not an infectious pathogen?

a) Virus	c) Dodder
b) Fungi	d) Bacteria
7. _____ proposed the term 'Antixenosis'

a) R. H. Painter	c) Ortman Zeidler
b) Kogan and Ortman	d) None of the above
8. Disease responsible for the Bengal Famine is.....

a) Wheat rust	c) Coffee rust
b) Late blight of Potato	d) Paddy leaf spot
9. Bunchy top of Banana disease introduced from.....

a) France	c) Sri Lanka
b) America	d) Europe
10. A visible abnormality observed on the plant due to disease is called.....

a) Sign	c) Syndrome
b) Symptom	d) None of the above
11. Vine industry of France destroyed by the disease of.....

a) Powdery mildew	c) Wilt
b) Downy mildew	d) Leaf blight

12. Inoculative release is a part ofcontrol
 - a) Legislative control
 - b) Physical control
 - c) Cultural control
 - d) Biological control
13. Tremendous increase in pest population despite good initial reduction in pest population at the time of treatment is called
 - a) Pest outbreak
 - b) Pest resurgence
 - c) Pest incidence
 - d) Pest occurrence
14. White gray, brownish or purple growth on lower side of leaves is the symptoms of disease.....
 - a) Powdery mildew
 - b) Rust
 - c) Smut
 - d) Downey mildew
15. Collapse and death of seedlings due to extensive necrosis of stem tissue is due to...
 - a) Wilt
 - b) Die-back
 - c) Damping off
 - d) Root rot
16. Khaira disease of Rice is due to the nutritional deficiency of
 - a) Fe
 - b) Mn
 - c) Zn
 - d) Cu
17. Hot water treatment to Pearl millet (Bajara) seeds at 55°C for 10 minutes controls disease.....
 - a) Leaf spot
 - b) Rust
 - c) Downy mildew
 - d) Smut
18. Chemical compound in Neem seed kernel is.....
 - a) Azadirachtin
 - b) Allicin
 - c) Curcumol
 - d) Lantic acid
19. A book 'Silent spring' was written by.....
 - a) Swaminathan
 - b) Rachel Carson
 - c) S. Pradhan
 - d) Wigglesworth
20. Clipping of young seedling to eliminate of egg mass off.....
 - a) Yellow stem borer
 - b) Grasshopper
 - c) Brown plant hopper
 - d) All of the above

Q.2 Do as Directed.

A. Define the following. (Any five)

(05)

1. Host evasion
2. Sporadic pest
3. Augmentation
4. Biotype
5. Integrated plant disease management
6. Plant quarantine
7. Foreign quarantine

B. Answer the following. (Any Five)

(05)

1. Enlist factors affecting to sampling of insects
2. Difference between domestic quarantine and foreign quarantine
3. What is disease triangle?
4. Enlist the classification of disease on the bases of perpetuation of the pathogen
5. Write two fungicides used for seed treatment
6. Enlist the factors required/ essential for disease forecasting
7. Write chemical name released by cotton crop which imparts resistance against *Helicoverpa armigera*

Q.3 Write short notes. (Any five)

(10)

1. Integrated diseases management of Rice
2. Legislative control
3. Epidemic disease
4. Pest forecasting
5. Koch's Postulates technique
6. Plant quarantine

Q.4 Attempt any Three/Long Questions/Example

(15)

1. Explain cultural control methods of insect pests
2. What is Biological control? Describe principal/techniques of Biological Control and its advantages and limitations.
3. Describe the significance or effects of plant diseases.
4. Describe the General Principles of Integrated Plant Disease Management.