

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE

B.Sc. (Hons.) Agriculture Winter 2019-20 Examination

Semester: 5

Date: 18/11/2019

Subject Code: 20107302

Time: 10:30am to 01:00pm

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. _____ gave the term host plant resistance.
2. _____ synthesized DDT in _____ year.
3. Toxic effect produced by a single dose of a toxicant is called _____.
4. "Destructive insects and pests Act" passed in India in _____ year.
5. _____ is the third generation insecticide.
6. Rotation with Lucerne crop control _____ disease of cotton.
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. Physical method for managing post-harvest losses of fruits during transport is _____.
10. Iris Potato Famine (1945-49) in Ireland was caused by _____ disease.

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

1. Insect occur in a few isolated localities is known as.....
 - a) Sporadic pest
 - b) Potential pest
 - c) Regular pest
 - d) None of the above
2. Physical factors in antibiosis.....
 - a) Thick cuticle
 - b) silica deposits
 - c) Glandular hairs
 - d) All of the above
3. _____ is/are key pest.
 - a) cotton bollworms
 - b) chickpea pod borer
 - c) Diamond Back Moth
 - d) All of the above
4. Host evasion is also known as.....
 - a) Pseudo resistance
 - b) Ecological resistance
 - c) Both a and b
 - d) None of the above
5. The lowest number of insects that will cause economic damage is referred to as
 - a) Economic threshold level
 - b) Damage boundary
 - c) Economic injury level
 - d) None of the above
6. Which is not an infectious pathogen?
 - a) Virus
 - b) Fungi
 - c) Dodder
 - d) Bacteria
7.proposed the term 'Antixenosis'
 - a) R. H. Painter
 - b) Kogan and Ortman
 - c) Ortmen Zeidler
 - d) None of the above
8. Disease responsible for the Iris Potato Famine is.....
 - a) Wheat rust
 - b) Late blight of Potato
 - c) Coffee rust
 - d) Paddy leaf spot
9. Bunchy top of Banana disease introduced from.....
 - a) France
 - b) America
 - c) Sri Lanka
 - d) Europe
10. A visible abnormality observed on the plant due to disease is called.....
 - a) Sign
 - b) Symptom
 - c) Syndrome
 - d) None of the above
11. Vine industry of France destroyed by the disease of.....
 - a) Powdery mildew
 - b) Downy mildew
 - c) Wilt
 - d) Leaf blight

12. Inundative 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. Lethal concentration required for killing 50% of insect and it is expressed as...
 - a) LC₅₀
 - b) LD₅₀
 - c) LC₉₀
 - d) KD₅₀
20. Clipping of young seedling to eliminate of egg mass of.....
 - 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)

1. Super parasitism
2. Economic threshold level
3. Resurgence
4. Augmentation
5. Integrated plant disease management
6. Phytosanitary Certificate
7. Soil solarization

(05)

B. Answer the following. (Any Five)

1. Difference between parasite and predator.
2. Difference between inundative release and inoculative release.
3. Write chemical name released by cucurbit crop which imparts resistance against fruit flies.
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. Enlist the classification of disease on the bases of perpetuation of the pathogen.

(05)

Q.3 Write short notes. (Any five)

1. Physical control
2. Biological Control
3. Epidemic disease
4. Pest surveillance
5. Koch's Postulates technique
6. Integrated Diseases Management of Rice

(10)

Q.4 Attempt any Three/Long Questions/Example

1. Economic importance of insects.
2. What is host plant resistance? Describe types and mechanisms of host plant resistance with examples.
3. Describe Eco-friendly Cultural methods/practices for Integrated Disease Management (IDM).
4. Describe the significance or effects of plant diseases.

(15)