

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.

SIXTH SEMESTER – APRIL 2010

PB 6604 - PLANT DISEASES AND MANAGEMENT

Date & Time: 15/04/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART –A (20 MARKS)

I. CHOOSE THE CORRECT ANSWER: (5X1=5)

1. Name father of Indian mycology and plant pathology
a) De Bary b) Millardet c) K.C.Mehta d) E.J.Butler
2. When a disease is established in a particular area for a long time, it is a/an:
a) Endemic b) Pandemic c) Epidemic d) Cyclic
3. Damping off is caused by
a) *Aspergillus* b) *Ustilago* c) *Pythium* d) *Cercospora*
4. Grassy shoot is caused by
a) Mycoplasma b) Virus c) Nematodes d) Parasite
5. Which one of the following is not a mixture formula for Bordeaux mixture
a) 4: 4 : 50 b) 5 :5: 50 c) 2: 2: 50 d) 6:5:2

II. STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE: (5X1=5)

6. Heteroecious nature of wheat rust was reported by Anton de Bary.
7. Phytoalexin is an example for induced defense mechanism.
8. Sclerotium is a sexual stage of *Fusarium*.
9. Tungro disease of rice is a bacterial disease.
10. Maneb is a systemic fungicide.

III. COMPLETE THE FOLLOWING: (5X1=5)

11. Vascular wilts are caused by
12. Process by which a pathogen establishes itself in a host is
13. Pycnidiospores develop on plant.
14. Rootknot disease of potato is caused by
15. Induced localized cell defense is

IV. ANSWER EACH WITHIN 50 WORDS: (5X1=5)

16. Define incubation period.
17. Define cross-protection.
18. What are fructifications?
19. Write notes on angiospermic parasites.
20. Define the term: Crop rotation.

PART –B

**ANSWER ALL THE QUESTIONS EACH WITHIN 500 WORDS, DRAW DIAGRAMS
WHEREVER NECESSARY: (5 X 7 =35 marks)**

21. a) Explain Koch's postulates. Add a note on inoculum.

(Or)

b) Describe parasitism.

22. a) Comment upon the role of abiotic factors in disease resistance in plants.

(Or)

b) Describe the biochemical defense mechanism in plants.

23. a) Describe the symptom and causal organism of smut in sorghum.

(Or)

b) Explain the causal organism and symptoms of club root of cabbage.

24. a) Write about insect galls.

(Or)

b) Write about TMV and Mycoplasma's plant disease.

25. a) What are systemic fungicides? Name any 3 fungicides and mention their mode of action in Plant Protection.

(Or)

b) Write a brief account on soil and seed treatment in plant protection.

PART – C

**ANSWER ANY THREE QUESTIONS IN NOT MORE THAN 1200 WORDS EACH. DRAW
DIAGRAMS WHEREVER NECESSARY: (3 X 5 =45 marks)**

26. Give an account on classification of plant diseases.

27. Describe the life cycle of a heteroecious fungus studied by you.

28. Explain the fundamental concepts on induced resistance.

29. Describe the importance of disease forecasting in modern plant pathology.

30. Describe the causal agent, symptom, control measures and economic importance of bacterial blight.

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