

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc. (Hons.) Agriculture – 2009 Admission**  
**1<sup>st</sup> Semester Final Examination - March 2010**

Cat. No. : Path 1101

Title : Introductory Plant Pathology (1+1)

Max. marks: 80

Time : 3 hours

**I. Fill up the blanks**

(20 x 0.5 = 10)

1. Professor Millardet accidentally discovered the efficacy of \_\_\_\_\_.
2. Father of modern plant pathology in India is \_\_\_\_\_.
3. \_\_\_\_\_ contributed on gene for gene hypothesis of diseases resistance and susceptibility.
4. \_\_\_\_\_ is a pore in the cross wall/septum through which cytoplasm is in continuity among adjacent cells.
5. Complete/holo/total stem parasite \_\_\_\_\_.

**Match the following**

- |                               |                        |
|-------------------------------|------------------------|
| 1. Budding                    | a - <i>Striga</i>      |
| 2. <i>Albugo</i> sp.          | b - <i>Fusarium</i>    |
| 3. wilt                       | c - Fungi              |
| 4. Conidia                    | d - White rust disease |
| 5. Hemi/partial/semi parasite | e - Bacteria           |

**State True or False**

1. B.B. Mundkar started Indian Phytopathological Society.
2. The *Cephaleuros* causes 'white rust' disease in crop plants.
3. "Viroid" first recognized by Diener (1971).
4. Coconut – "cadang cadang"- is caused by virus
5. Gingelly (sesame) phyllody – transmitted by leaf hopper, *orosis albicinctus*.
6. NEPO means - Nematode transmitted Polyhedral viruses.
7. Unique character of thrips is vector of plant bacteria.
8. Banana Bunchy top is transmitted by *Toxoptera citricidus*
9. The actual period of feeding to inoculate the virus is called as inoculation feeding period.
10. Virus moves from one cell to another cell through the plasmodesmata.

**II. Write answers in a word or sentence /Define (10x1=10)**

- |                      |                    |
|----------------------|--------------------|
| 1. Pathogenicity     | 6. Chlamydo spores |
| 2. Parasites         | 7. Antagonism      |
| 3. Pandemic diseases | 8. Inoculum        |
| 4. Mycelium          | 9. Pathogen        |
| 5. Pseudoparenchyma  | 10. Bacteria       |

**III. Write short notes / answers etc. on ANY TEN (10x2=20)**

- |                              |                      |
|------------------------------|----------------------|
| 1. Phytoplasma               | 7. Smut              |
| 2. Enzymes                   | 8. Root rot          |
| 3. Plant pathogenic bacteria | 9. Leaf blight       |
| 4. Biotrophs                 | 10. <i>Mucor</i> sp. |
| 5. <i>Rhizopus</i> sp.       | 11. Persistent virus |
| 6. Alternate host            | 12. Vectors          |

**IV. Write short essays on ANY FOUR of the following (4x5=20)**

1. Life cycle of *Albugo* sp. with suitable diagrams.
2. Taxonomic character of Ascomycotina with diagram.
3. Reproduction of plant pathogenic bacteria
4. Phanerogamic plant parasites
5. Algal diseases
6. Life cycle and plant pathological significance of *Puccinia*.

**V. Write essays on ANY TWO (2x10=20)**

1. General character of Mastigomycotina. Explain the life cycle of *Pythium*.
2. General character of plant pathogenic bacteria and their mode of entry in plants.
3. General character of viruses and viroids.