KERALA AGRICULTURAL UNIVERSITY

B.Sc.(Hons.) Agriculture – 2010 Admission - I[st] Semester
Final Examination – March/April 2011

Cat. No. : Path 1101 Max. marks: 80
Title : Introductory Plant Pathology (1+1) Time : 3 hours

I. Fill up the blanks **(20 x 0.5 = 10)**

1. Founder of modern mycology is _____.
2. _____ diseases usually occurs widely but periodically.
3. Solar heat treatment for wheat loose smut was developed by _____.
4. _____ are previously called as rikettsia like organism or RLO.
5. Complete total/holo/ root parasite _____

Match the following

1. Chlamydospores	a. - Rust
2. *Puccina* sp.	b. - Irish famine
3. Root rot	c. - Bengal famine
4. 1845 and 1846	d. - Fungi
5. 1943	e. - *Macrophomina phaseolina*

State True or False

1. Inoculation, infection, penetration, growth and reproduction, colonization are the chain of events in disease cycle.
2. Direct penetration is mode of entry in fungi.
3. Vascular wilts are caused by *Ceratocystis, Fusarium* and *Verticillium.*
4. The word "endemic" means "prevalent in.
5. Dolipore - It is a tubular, transparent filament, usually branched, composed of an outer cell wall.
6. Hyphae - It is a pore in the cross wall/septum through which cytoplasm is in continuity among adjacent cells.
7. Eucarpic thallus - The thalli does not show any differentiation on vegetative and reproductive structure.
8. Homokaryotic mycelium - The mycelium contains genetically identical nuclei.
9. Haustoria - organ for absorption.

10. Facultative parasites – They usually live as parasite but can grow saprophytically. they have long parasitic phase

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

1. Infectious diseases
2. Parasites
3. Endemic diseases
4. Thallus
5. Rhizomorphs
6. Sclerotium
7. Biotype
8. Symptoms
9. Disease
10. Alternate host

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

1. Koch's postulates
2. Fragmentation
3. Budding
4. Mycorrhizae
5. Conidia
6. Viroids
7. Nectrotrophs
8. Collateral host
9. Rust
10. Myxomycota
11. Toxins
12. Non-persistent virus

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

1. Life cycle of *Plasmodiophora* sp. with suitable diagrams.
2. Differentiate monocyclic and polycyclic diseases.
3. General character of plant pathogenic bacteria
4. Mode of entry of plant pathogenic bacteria
5. General character of plant viruses
6. Differentiate *Aspergillus* and *Penicillium*.

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

1. Taxonomic character of Mastigomycotina. Explain the life cycle of *Phytophthora*.
2. General character of Ascomycotina and Basidiomycotina.
3. Characters of algal and phanerogamic plant parasites.

******