



**THE OPEN UNIVERSITY OF SRI LANKA**

**B.Sc. DEGREE PROGRAMME - BOTANY - LEVEL 05**

**FINAL EXAMINATION – 2010/2011**

**BTU3102/BTE5102 – PLANT PATHOLOGY I**

**DURATION : TWO AND A HALF (2 ½) HOURS**

**DATE : 05<sup>th</sup> January 2011**

**TIME: 9.30 a.m. – 12.00 noon**

**ANSWER ANY FOUR (04) OF THE FOLLOWING QUESTIONS.**

**ILLUSTRATE YOUR ANSWER WITH FULLY LABELLED DIAGRAMS WHEREVER NECESSARY.**

01. (a) Name an economically important fungal diseases of banana (*Musa x paradisiaca*) in Sri Lanka.
- (b) For the disease you mention in (a):
  - i. Name and classify the causative organism.
  - ii. Describe the diagnostic symptoms.
  - iii. Draw and label the sexual and asexual spores.
  - iv. Recommend suitable methods of disease management.
02. (a) How do phytopathogenic fungi survive in the absence of host plants?
- (b) Name the types of dispersal agents which assist pathogens to arrive at the host plants.
- (c) Briefly outline how fungal pathogens penetrate plants.
03. Write short notes on:
  - (a) Protectant fungicides and systemic fungicides.
  - (b) Bacterial soft rots.
  - (c) Plant disorders.

04. (a) Describe the nature and composition of viruses.
- (b) What properties are used to identify and characterize plant pathogenic viruses?
05. Briefly outline the effect of each of the following substances in the development of plant disease:
- (i) Cell wall degrading enzymes.
- (ii) Toxins.
- (iii) Growth regulators.
06. Name and classify the causative organism/s, describe the diagnostic symptoms and disease cycle for any two (02) of the following:
- (a) Club root disease of crucifers.
- (b) Late blight of potato.
- (c) Rust disease of wheat.

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