

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc. DEGREE PROGRAMME - BOTANY - LEVEL 05

BTU 3102/BTE 5102 – PLANT PATHOLOGY I

ASSESSMENT TEST III (NO BOOK TEST)

DURATION : ONE (01) HOUR



4

Date: 10th October 2007

Time : 4.00 p.m. – 5.00 p.m.

Reg. No.

ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.

- I. a) State the causative organism for each of the following plant diseases.
- i. Fire blight on pear –

- ii. Downy mildew on grapes –

- iii. Fungal vascular wilt on tomato –

- iv. Rust on coffee –

- v. White root on rubber –

- b) Answer the following questions based on the diseases mentioned in I. a).
- i. With the aid of a fully labelled diagram describe the morphology of the causative organism of (a) (i).



ii. Illustrate how pathogen (a) (ii) colonizes the mesophyll cells of grapes.

iii. Describe how pathogen (a) (iii) disrupts the water flow of the host vascular tissue.

(iv) Draw and label the main spore type produced by (a) (iv) which assists in disease dispersal.

(v) What measures are taken to control disease (a) (v) in Sri Lanka?

(40 marks)

II. Name the disease and briefly describe the characteristic symptoms of the following pathological conditions.

a) *Agrobacterium tumefaciens* on woody trees.

b) *Erwinia carotovora* on carrot.

c) *Plasmodiophora brassicae* on crucifers.

d) *Pythium debaryanum* on mung beans.

e) *Ustilago scitaminae* on sugar cane.

(40 marks)

III. Write short notes on the following.

a) Spore types of rusts.

b) Disease management of post-harvest diseases.

c) Common anthracnoses in Sri Lanka.

(20 marks)

