

THE OPEN UNIVERSITY OF SRI LANKA
 B.Sc. DEGREE PROGRAMME - BOTANY - LEVEL 05
 FINAL EXAMINATION - 2007/2008
 BTU 3102/BTE 5102 - PLANT PATHOLOGY I
 DURATION : TWO AND A HALF (2 ½) HOURS



DATE : 10th January 2008

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. Write a concise account on:
 - a) Koch's postulates.
 - b) Cultural methods in disease control.
 - c) Typical progress curve of disease during the development of a plant disease epidemic.

02.
 - a) Describe the structure of the following and explain their function in disease development:
 - i. Appressoria
 - ii. Fungal haustoria.
 - b) Giving examples, briefly outline the different types of growth and colonization observed among fungal plant pathogens in or on their host tissue.

03.
 - a) What are soft rots?
 - b) Give one(01) common example each for a bacterial soft rot and a fungal soft rot. Name the causative organism for each example you give.
 - c) Describing the factors which affect disease development, explain how post harvest soft rots on fruits and vegetables are managed.

04. Briefly write on:
 - a) Induced structural barriers in plant disease resistance.
 - b) Insects as vectors of plant pathogens.

05. Name and classify the causative organism/s, describe the diagnostic symptoms and disease cycle and suggest control measures for any two (02) of the following:
- a) Clubroot of crucifers.
 - b) Late blight of potato.
 - c) Vascular wilt on tomato.
06. a) What are rusts?
- b) Describe the different spore types produced by rusts.
 - c) State two (02) common economically important rust diseases in Sri Lanka. Name the causative organism for each of the diseases you give.
 - d) Recommend suitable methods of control for these diseases.

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