

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME - BOTANY - LEVEL 05
BTU3110 – PLANT PATHOLOGY II
ASSESSMENT TEST – II
NO BOOK TEST



14

DURATION : ONE (01) HOUR

DATE : 15th March 2009

TIME: 4.00p.m.-5.00p.m.

Registration No.....

ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.

01. (a) Give one (01) example of a pre-existing structural barrier mentioning both the host and the pathogen of the disease.

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- (b) Give one (01) example of a pre-existing chemical barrier mentioning both the host and the pathogen of the disease.

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02. (a) What is hypersensitive response?

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- (b) Briefly explain the genetics of resistance through hypersensitive response.

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03. (a) What are phytoalexins?

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(b) Give two (02) examples of phytoalexins isolated from diseased plants.

1.
2.

04. (a) What is true resistance?

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(b) What are the two (02) main types of true resistance?

1.
2.

(c) How would you differentiate the two type you mention with respect to gene control?

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05. (a) What is the gene-for-gene concept?

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- (b) Explain compatibility and infection of disease and incompatibility and resistance to disease in terms of virulent and avirulent genes of the pathogen and resistant and susceptible genes of the host.



06. (a) Give three (03) ways of measuring plant disease, briefly explaining each way.

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3.
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- (b) What is the difference between attainable yield and actual yield?

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07. (a) What are transgenic plants?

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(b) How is genetic transformation of plant cells carried out for disease resistance?

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(c) Mention one (01) such method which has been successfully carried out to produce plant resistance to disease.

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08. Give two (02) cultural methods used for the eradication or reduction of pathogen inoculum.

1.
2.

09. (a) What is biological control?

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- (b) Name one (01) fungus successful in biological control and give its commercial name.

Fungus-.....

Commercial name -

- (c) Name one (01) bacterium successful in biological control and give its commercial name.

Bacterium-.....

Commercial name-.....

10. (a) What are protective fungicides?

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- (b) What are systemic fungicides?

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- (d) Why is it recommended to use a combination of both these types of fungicides for effective control of plant disease?

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