

THE OPEN UNIVERSITY OF SRI LANKA
B.Sc. DEGREE PROGRAMME - BOTANY - LEVEL 05 - 2009/2010
BTU 3102/BTE 5102 - PLANT PATHOLOGY I
ASSESSMENT TEST I (OPEN BOOK TEST)
DURATION : ONE (01) HOUR



Date: 13th September 2009

Time : 11.00 a.m. - 12.00 noon

Reg. No.



ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.

- I. Give the most appropriate term/s which describe/s the following morphological symptoms.
1. Clustered appearance of leaves due to reduced elongation of internodes in a plant -
.....
 2. Progressive death of shoots and branches starting from the tip -
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 3. Loss of turgor resulting in drooping of plants -
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 4. A disease that appears as black sunken leaf, stem or fruit lesions caused by fungi that produce asexual spores in acervuli -
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 5. Excessive plant growth due to increase in cell division -
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 6. Destruction of seedlings at soil-line, resulting in seedlings falling over on the ground.
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 7. Complete repression of colour -
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 8. A disease characterized by rapid death of entire organs or leaves including veins -
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9. Development of floral organs with leaf-like structures –

10. Over – production of anthocyanin resulting in the development of a purple colouration on leaves –

(20 marks)

II. Matching Test

Each of the following terms corresponds with a statement give below. Select the most suitable term for each statement and write its designated letter (A to O) in the space provided next to it.

Terms :

A – Biotroph
B – Stanley
C – Vector
D – Infection
E – Koch

F – Pisatin
G – Tyloses
H – Inoculum
I – Flor
J – Sclerotia

K – Van der Plank
L – Dilution end point
M – Haustoria
N – Epidemic
O – Polygalacturonase

Statements :

- 1. A pathogen or its part which can cause infection.
- 2. Phytoalexins produced in pea pods.
- 3. Crystallization of virus particles.
- 4. Progressive increase in the incidence of a particular disease within a definite population.
- 5. An enzyme which hydrolyzes pectic acid chains.
- 6. Highest dilution of the sap from a virus infected plant at which the virus is still active.
- 7. Balloon – like outgrowth of protoplast of a parenchyma cell into adjacent cells.
- 8. Mathematical description of epidemics.
- 9. An organism that can live and multiply in another living organism.
- 10. Establishment of causality of disease.

- 11. "Gene for gene" hypothesis
- 12. Establishment of a pathogen within a host plant.
- 13. Dormant propagules formed by the aggregation of fungal hyphae.
- 14. An organism able to transmit a pathogen.
- 15. Projections of hyphae into host cells which act as absorbing organs.

(30 marks)

III. Differentiate between the following:

1. Parasite and pathogen

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2. Virulence and resistance

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3. Hypertrophy and hyperplasia

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4. Inoculation and infection

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5. Biotroph and nectrotroph

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(30 marks)

IV. Briefly describe the following:

1. Plant quarantine

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2. Alternative hosts

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3. Appressoria

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4. Signs of disease

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5. Hypersensitive response

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(20 marks)

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