

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

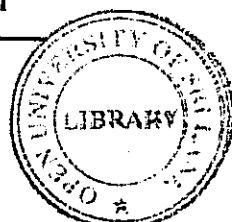


Date: 13th September 2009

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 -

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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 –

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

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(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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