

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc. DEGREE PROGRAMME

BOTANY- LEVEL 05

BOU3101/ BOE5101 – PLANT PATHOLOGY

ASSESSMENT TEST II (NO BOOK TEST)

DURATION: ONE (01) HOUR



Date: 20th May 2017

Time: 2.30-3.30 pm

Registration No:

Answer **ALL** questions in the space provided.

1. Give the most **appropriate term/ terms** for the following:

i) A causative agent of damping off of seedlings -

.....

ii) A protective chemical is used to manage powdery mildew in rubber -

.....

iii) The causative organism of club root disease of crucifers -

.....

iv) The disease of sugar cane plant with apical whip-like structure –

.....

v) The causative bacterium of fire blight of pears -

.....

vi) The alternate host of rust disease of wheat plants –

.....

vii) The process of the production of dikaryotic mycelia from the combination of spermatia with compatible hypha –

.....

viii) A disease caused by the fungus *Rigidoporus lignosus* -

.....

ix) The disease in which the tissue becomes soft and mushy and the cell contents begin to ooze out –

.....

x) The causative organism of Tobacco Mosaic -

.....

(10 x 2 marks)

2. i). What are the characteristic symptoms of rust fungi?

.....
.....
.....
.....
.....

ii) What is the causative organism of the rust disease on wheat?

.....

iii). Using arrows (————→) indicate the sequence of occurrence of rust spores and their respective spore-producing sori of a macrocyclic rust fungi in the space provided

iv). List the role/roles of uredospores and teliospores in the rust diseases.

Uredospores:

.....

.....

.....

.....

Teliospores:

.....

.....

.....

.....

(23 marks)

3. i) Name the disease and causative organism for each of the following diseases in Sri Lanka.

a. A leaf disease of banana

Disease

Causative organism

b. An infection of a potato plant which starts before the development of the tuber

Disease

Causative organism

c. White to grayish spots and patches on rose leaves

Disease

Causative organism

d. A leaf disease on tea

Disease

Causative organism

e. Black sunken lesions on bean

Disease

Causative organism

ii). Draw fully labeled diagrams of the asexual spores of the organisms you mentioned in a, b, and c.

a

b

c

iii). Indicate the most characteristic feature to identify the disease you mentioned in d

.....

.....

.....

iv). Name the asexual fruiting body type of e

.....

(45 marks)

4. Fill the table using the characteristic features of the following fungal spore types.

Fungus	Characteristic features of the spores		
	Colour	Shape	Septate/Aseptate
<i>Corynespora cassicola</i>			
<i>Colletotrichum lindemuthianum</i>			
<i>Fusarium oxysporum</i>			
<i>Ustilago scitaminea</i>			

(12 marks)

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