

C



THE OPEN UNIVERSITY OF SRI LANKA
B. Sc. DEGREE PROGRAMME – LEVEL 05 – 2007/2008
Botany – BTU 3111/ BTE 5111 – Plant Breeding

ASSESSMENT TEST 1 – NO BOOK TEST (NBT)
DURATION : ONE HOUR

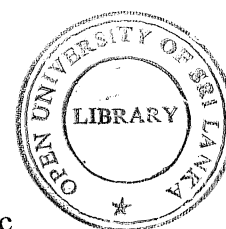
Reg. No. _____

DATE : 04th April 2008

TIME : 4.00 pm – 5.00 pm

ANSWER ALL QUESTIONS

(This paper contains three (03) questions and six (06) pages)



1.

- a) What is the basis of crop improvement using the technique – genetic engineering ?

- b) Name four (04) types of uses of applying recombinant DNA technology in plant breeding.

- c) Name three (03) different viral DNA sequences appear to function in transgenic plants to make sure resistance to viral infection.

d) Name three (03) types of plants which are genetically modified.

2.

a) Explain what is meant by plant cell and tissue culture ?

b) What is/are the use/s of *in vitro* culture ?

c) State the fundamental principal in tissue culture and briefly explain it

d) What is micro-propagation ?

This image shows a blank sheet of white paper with horizontal dashed lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no other markings, text, or illustrations on the page.

f) Name two methods use in virus and other pathogen elimination and briefly explain them.

g) What are somatic hybrids ?

h) Why are they important ?

i) Briefly explain the methods involve in verifying somatic hybrids.

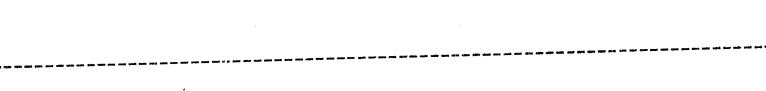
[illegible]

3.

a) What are seed production practices ?

b) Why do we apply seed production practices ?

c) What are the two assumptions generally made in the development of seed production practices ?

The image displays four sets of horizontal dashed lines, each consisting of a single line. These lines are arranged vertically and are slightly slanted upwards from left to right, providing a guide for letter height and placement in handwriting practice.

d) How many classes of certified seeds you can identify ?

1000 900 800 700 600 500 400 300 200 100 0

e) What are they ? Briefly explain.

[illegible]