

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc./B.Ed. DEGREE PROGRAMME 2007/2008

BOTANY –LEVEL 05

ASSESSMENT TEST II –( NO BOOK TEST)

BTU 3103/BTE 5103 – PLANT GROWTH AND DEVELOPMENT



DURATION : ONE (01) HOUR

Reg. No.....

DATE : 29<sup>th</sup> September 2007

TIME: 11.00 a.m. – 12.00 noon

No of Questions - 02

No. of Pages: - 03

ANSWER ALL QUESTIONS ON THE SPACE PROVIDED.

01. a) Briefly describe the structure of the phytochrome molecule.

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b) Indicate the transformation of phytochrome in response to light.

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c) Give four (04) differences between the two forms of phytochrome.

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d) Name five (05) processes in plants that are under the control of phytochrome.

- i. ....
- ii. ....
- iii. ....
- iv. ....
- v. ....

e) Discuss the role of phytochrome in the development of dicot seedlings.

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02. a) Distinguish between vernalisation and devernalisation.

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b) What is the role of gibberellic acid in vernalisation?

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c) Briefly explain the regulation of flowering by "florigen"

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d) Briefly explain the relationship of the critical night length of plants and the state of the phytochrome pigment.

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e) Define the following terms.

i. Circadian rhythms in plants.

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ii. Photomorphogenesis

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iii. Reproductive photoperiodism

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