



THE OPEN UNIVERSITY OF SRI LANKA
B.Sc./B.Ed./ B. Ind. STUDIES DEGREE PROGRAMME 2007/2008
BOTANY -LEVEL 05
ASSESSMENT TEST I - OPEN BOOK TEST
BTU 3103/BTE 5103 - PLANT GROWTH AND DEVELOPMENT

DURATION : ONE (01) HOUR

Registration No: -----

DATE : 02nd September 2007

TIME: 11.00 a.m. - 12.00 noon

No of Questions - 03

No. of Pages: 03

ANSWER ALL QUESTIONS ON THE SPACE PROVIDED.

01. Indicate the appropriate hormone for each of the following.
- a) First detected in foolish seedling disease
 - b) Promotes fruit ripening (softening, colour change etc.)
 - c) Obtained from coconut milk
 - d) Used to increase size and spacing in grapes
 - e) Promotes the cell cycle of DNA replication and cell division
 - f) Stimulates amylase production in cereal grains.....
 - g) Stimulates a membrane-bound Proton Pump
 - h) Involved ⁱⁿ closing stomata
 - i) Responsible for gravitropic curvature
 - j) Prevent leaf senescence and maintain greenness
 - k) Induces the production of cellulase in the abscission zone of senescent leaves
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 - l) Found in commercial rooting preparations

02. Fill in the blanks with the most appropriate word/words.

- a) Auxin is transported in a _____ direction in shoots through _____ cells in contact with vascular bundles.
- b) A synthetic _____ 2,4 - D is used as a selective herbicide.
- c) One main difference between natural hormones and synthetic ones is that the latter are more _____.
- d) In fasciation disease, the diseased plant gets a flattened appearance due to the growth of _____ promoted by bacterial _____.
- e) The amino acid _____ is the precursor in the biosynthesis of IAA.
- f) Ethad is an _____ releasing substance.
- g) Requirement of low temperature for germination by some seeds is referred to as _____.
- h) Picloram is a synthetic auxin which is used as a _____.

03. a) Give an explanation for the fact that root grows downwards and stem grows upwards.

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b) What is graviperception?

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c) Explain the current theory that accounts for geotropism in plants.

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d) Define the following terms.

i. Climacteric peak.

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ii. Epinasty

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iii. Senescence factor

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iv. Bolting

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