

EASTERN UNIVERSITY, SRI LANKA

First Year, First Semester Examination in Science - 2013/2014 (October, 2015)

BT- 102, Plant Physiology



Time: 2 hours

Answer all questions

- a. Explain the term "Water potential" 20 marks
- b. Explain how water gets transferred from soil to xylem cells? 40 marks
- c. Write the importance of transpiration in plants. 40 marks
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- a. Diagrammatically Illustrate the typical structure of **stomata** with suitable example. 30 marks
- b. List out the importance of stomata in plants? 20 marks
- c. Write briefly **K<sup>+</sup> ion** mechanism of stomatal action. 50 marks

Briefly explain the following

- a. Mechanism of Sugar translocation in plants. 50 marks
- b. Dark reactions in **C4 Plants**. 50 marks

Write short notes on the following:

- a. Guttation and Imbibition 30 marks
- b. Symplast and Apoplast 30 marks
- c. Adhesive and Cohesive Forces 40 marks