



FINAL EXAM IN BIO-2104

Exam in : **BIO-2104 Plant structure and function**
Date : **Friday 8.6.2007**
Time : **0900 - 1300**
Place : **Åsgårdveien 9**

Approved remedies : **None**

The exam contains 2 pages including this cover page

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EXAM, BIO-2104
PLANT STRUCTURE AND FUNCTION

FRIDAY, 08.06.2007, 0900-1300

ANSWER FOUR (4) OF FOLLOWING FIVE (5) QUESTIONS.

1.
Explain those anatomic structures in a leaf of a dicot plant, which are of importance for gas exchange. Illustrate with a drawing. Discuss the role of stomata in regulation of transpiration and in uptake of CO₂.
Describe briefly the effects of environmental factors on stomata.
2.
Explain the difference between active and passive uptake of ions.
Describe the apoplastic and the symplastic route from root hair to xylem in the central cylinder.
Explain shortly the main mechanisms for ion transport through a membrane in plant cell.
3.
Describe the basic features for CO₂ assimilation in a C₄ plant. What do we mean with a CO₂ compensation point? Compare this compensation point in a C₃ and a C₄ plant and explain the differences.
4.
Explain the structure and function of the shoot apical meristem (SAM).
5.
Give an overview on the biological effects of abscisic acid. Explain shortly the mode of action of abscisic acid in guard cells.