

**EASTERN UNIVERSITY SRILANKA**  
**Third Year First Semester Examination in Agriculture –2010/2011**  
**ACH 3101 – Soil Fertility and Plant Nutrition (3:30/30)**  
**(Dec /Jan – 2012/2013)**

Time – Two hours

Answer All Questions.

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1. a. Explain the methods mainly involved in the transportation of ions into the plant system.  
b. Discuss the transformation process of phosphorus in soils.
2. a. Discuss the soil pollution and its control measures.  
b. “Dissolved metal concentration in soil with very low organic matter can be lower than necessary for adequate plant growth” :Discuss.
3. a. With suitable illustrations explain the fate of  $\text{NH}_4^+$  in soil.  
b. Briefly discuss the impact of C:N ratio on nitrogen availability in soils.
4. Write short notes on the following;  
a. Sorption and desorption of potassium.  
b. Major components of organic matter  
c. Sulphur oxidation and reduction in soils.

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