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EASTERN UNIVERSITY  
30 SEP 2014

**EASTERN UNIVERSITY SRILANKA**  
**Third Year First Semester Examination in Agriculture –2010/2011**  
**ACH 3101 – Soil Fertility and Plant Nutrition (2:20/20)**  
**(Aug /Sept – 2014) - Repeat**

Time – Two hours  
Answer All Questions.

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1. a. Explain the fate of  $\text{NH}_4^+$  in soil.  
b. Explain about active and passive transportation of ions in plant root system.
  
2. a. Discuss the beneficial and harmful effects of soil microorganism in the soil  
b. Briefly explain about broad casting and side band application of solid fertilizers in soil.
  
3. Write short notes on the following;
  - a. Movement of nutrients from soil to plant roots.
  - b. Nitrification in soil.
  - c. Impact of C:N ratio on nitrogen availability in soils.
  
4. a. Briefly discuss the slow releasing fertilizers and its importance in soil fertility management.  
b. Write an account on the impact of pH on phosphorus availability.

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