



**EASTERN UNIVERSITY, SRI LANKA**

**Third Year, First Semester Examination in Agriculture-2007/2008**

**ACH 3101- Soil Fertility and Plant Nutrition (3:30/30)**

Time – Two hour

Answer all Questions

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1. Compare and contrast the main pools and processes of nitrogen, phosphorus and Potassium in soil and the key factors determining nitrogen and phosphorus availability.
2. a) Explain how chelates (organometallic complexes) are used to increase bioavailability of plant nutrients.  
b) How does the C: N ratio of a decomposing organic substrate related to the nitrogen availability in soil.
3. a) How does the nutrients in the soil solution taken into the plants?  
b) Briefly describe the fertility characteristics of fruit growing soils of wet zone of Sri Lanka and the appropriate management practices adopted for the reclamation for above mentioned soils.
4. Write short notes on the following;
  - a) Foliar application of fertilizer.
  - b) Plant analysis to identify the nutrient deficiency symptoms.
  - c) Ways to minimize the soil pollution.

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