

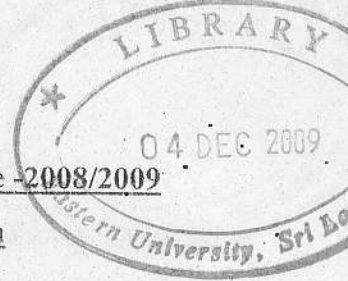
EASTERN UNIVERSITY, SRI LANKA

Third Year, First Semester Examination in Agriculture -2008/2009

ACH-3101 Soil Fertility and Plant Nutrition

Time – Two hours

Answer all Questions



1. a. Soil testing is used to make decision about the management of land system for productivity, profitability and resource protection. Discuss how they influence soil management decisions. (30 marks)
- b. Discuss about C: N ratio and its impact on decomposition rate and nitrogen availability in soil. (40 marks)
- c. Briefly discuss the slow releasing fertilizers and its importance in soil fertility management. (30 marks)
2. a. Characterize the Non Calcic Brown soils (NCB) in the dry zone of Sri Lanka and suggest appropriate management practices to improve fertility status of such soil.
- b. Explain the role of micro organisms in soil sulphur cycle.
3. a. Explain the nutrient transformations of soil and fertilizer nitrogen. (60 marks)
- b. Write an account on humus formation process and its importance on soil fertility. (40 marks)
4. Write short notes on the followings.
  - a. Pesticide pollution.
  - b. Factors affecting micronutrient availability in soil.
  - c. Methods involved in the transportation of ions into the plant system.

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