

EASTERN UNIVERSITY, SRI LANKA  
THIRD EXAMINATION IN AGRICULTURE (300 SERIES) – 2000/2001  
AGRICULTURAL CHEMISTRY ( 304 )

Answer SIX questions selecting atleast TWO from Section II.  
Questions 1 and 6 are compulsory.  
Use separate answer books for each section.  
Answer should be written in English.

Time allowed : 3 Hrs.

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SECTION I

1.
  - a. Explain the effects of organic manure on soil properties.
  - b. Discuss the mechanism by which plant nutrients reach the root surface.
  - c. List the major problems related to applied potassium in soils.
  
2.
  - a. Briefly describe the chemical changes that occur when soils are submerged.
  - b. Discuss the usage of biofertilizer in agriculture.
  
3. Write short notes on any THREE of the following.
  - a. Chelates
  - b. Buffer capacity of soils.
  - c. Fertilizer application techniques.
  - d. Role of micro nutrients in plants.
  
4. Discuss the following.
  - a. Environmental pollution due to application of inorganic fertilizers.
  - b. Beneficial effects of soil micro organisms to higher plants.
  
5.
  - a. Explain the transformations of nitrogen in soils.
  - b. Discuss the ways that can be adopted to control the loss of nitrogen from the soil.
  - c. Write the principle involved in the production of super phosphate from rock phosphate.