



The Open University of Sri Lanka  
Faculty of Engineering Technology  
Final Examination- 2005  
**AEX3232 Plant and soil science**

Date : 26-03-2006  
Time : 0930 - 1230  
Duration : Three (03) hours

---

**SECTION 2: Answer only four (04) questions**

1. (a) Define "soil structure".  
(b) Briefly describe the factors influencing granule formation and development of soil structure.
2. Describe the importance of organic matter in soil and the factors affecting the decomposition of organic matter in the soil.
3. (a) Briefly describe the physical and chemical processes involved in the weathering of rocks.  
(b) Outline briefly the factors affecting weathering of rocks.
4. (a) Discuss the role of three major essential nutrient elements in plant growth and their deficiency symptoms.
5. (a) Describe the different methods of fertiliser applications in Sri Lanka.  
(b) Briefly describe how to determine the fertiliser need of a crop.
6. Write short notes on any three (03) of the following
  - (a) Nitrification
  - (b) Lime requirement in acidic soils
  - (c) Ion exchange in soil
  - (d) Carbon cycle in nature
  - (e) Organic fertilizer