

# Uganda Martyrs University

Faculty of Agriculture

B. Agriculture I, Semester 1 Final Assessment: 2014/2015

Course Unit: Soil Fertility and Plant Nutrition

Time: 9:30 am -12:30 pm

Date: Monday, 8<sup>th</sup> December, 2014

## **Instructions:**

*Answer any four questions*

*Do not write anything on a question paper*

*Time: Three hours*

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1. Discuss the effects of the following on soil productivity
  - a) Organic matter (**10 marks**)
  - b) Soil structure (**5 marks**)
  - c) Microorganisms (**5 marks**)
  - d) Plant and animals (**5 marks**)
2. Explain the causes of soil degradation and fertility decline in Uganda (**25 marks**)
3. a) Define organic manure. (**5 marks**)  
  
b) What benefits can be reaped from organic manure application to the soil? (**10 marks**)  
  
c) What are the limitations of using organic matters? (**10 marks**)
4. Discuss the factors that influence fertilizer use efficiency (**25 marks**)
5. Discuss the factors that causes of soil acidity (**25 marks**)
6. What are the important considerations in choosing the soil conservation measures to use (**25 marks**)
7. Explain the following:
  - a) Causes of soil acidity (**10 marks**)
  - b) Characteristics of good liming material (**15 marks**)