

Uganda Martyrs University

Faculty of Agriculture

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

Course Unit: Introductory Soil Science

Time: 9:30 am -12:30 pm

Date: Tuesday, 9th December, 2014

Instructions:

Answer any four questions

Do not write anything on a question paper

Time: Three hours

1. a) Describe how the following factors in a given soil influence the infiltration rate of that soil.
 - I) Soil texture
 - II) Soil moisture content
 - III) Soil structure

b) Outline the importance of soil texture in crop growth
2. a) Describe briefly the different types of soil erosion by water and suggest how they can be averted on the farm.

b) What are the characteristics of soil separates in a given soil sample
3. Explain the importance of the components of a given farm soil
What are the causes of organic matter loss in a given farm soil
4. What are the factors that influence the acidity of the soil?
Describe how the pH of the soil can be determined by the colorimetric method
5. What are clay minerals?
Describe the types of clay minerals important in soils.
6. What is understood by the following terms as applied to soil?
 - i) Field capacity
 - ii) Wilting point
 - iii) Particle density
 - iii) Bulk density