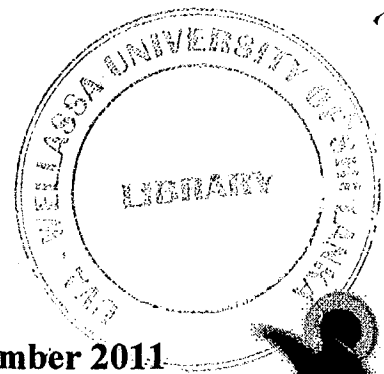


**Uva Wellassa University
BSc in Export Agriculture**



**End Semester Examination – August/September 2011
Year 1 Semester II**



**Principles of Soil Science (EAG 171-2) & Repeat
Structured & Essay Type Questions**

Instructions

Answer all questions

No. of questions : Four (04)

No. of pages : Five (05)

Time : One hour

Total marks allocated : 60/100

Index No:

.....

501

PART III (Essay)

Question 03

- I. Write short notes on **only two** of the followings, (20 marks)
- a. Synthesis of humus according to lignin and polyphenole theories.
 - b. Factors affect on organic matter decomposition .
 - c. Role of organic matter on soil fertility
- II. Explain the process of formation of soil horizons with suitable sketches. (20 marks)

Question 04

- I. Write short notes on followings ,
- a. Soil Moisture Constants. (10 marks)
 - b. Soil Water Release Curve (soil moisture characteristic Curve) for different soil textures. (10 marks)
- II. The data obtained from a practical conducted to assess the properties of a particular soil are as follows.

Diameter of the core sampler	=5cm
Height of the core sampler	= 6cm
Weight of the empty core sampler	= 350g
Weight of the core sampler with wet soil	= 500g
Weight of empty crucible	= 25g
Weight of the crucible with some amount of wet soil	=60g
Weight of the crucible with above soil after oven drying	= 50g
True density of the soil	= 2.54 g/cm ³

Calculate,

- a) Moisture Content (dry basis) % (05 marks)
- b) Bulk density (wet basis) (05 marks)
- c) Porosity % (05 marks)
- d) Void ratio (05 marks)