

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR SECOND SEMESTER EXAMINATION IN AGRICULTURE- 2006/2007

(July 2015)

AEN 3201 –WATER MANAGEMENT TECHNIQUES AND METEOROLOGY (2:15/30)

(Repeat)

Answer all questions.

Time: Two hours

01. (a) Explain Gravimetric method of soil moisture determination.
(b) How will you determine the bulk density of soil? Explain.
(b) Calculate the bulk density, water content of a soil on weight basis as well as on volume basis when a soil core of 10cm diameter and 8 cm length weighs 1110.50 g immediately after sampling and 981.58 g after oven drying at 105°C.
02. (a) Differentiate an air dry soil from oven dry soil.
(b) A soil sample was drawn with a core having dimension of 3cm radius and 10 cm height. The initial weight and oven dry weight of the soil were 537.6g and 495.4g respectively. Calculate the moisture percentage on volume basis.
(c) A fresh soil sample weighs 250g and after it is dried in an oven at 105°C. The weight of dry soil was 180g. Calculate the moisture content on dry weight basis.
03. (a) Define Field capacity and permanent wilting point
(b) Give the procedure for the determination of field capacity at the field.
04. (a) Distinguish between climate and weather
(b) Give the layout of a typical meteorological station
(c) Comment on the factors considered in selecting a site for a meteorological field station.
(d) Briefly comment on how the location of Batticaloa meteorological field station will affect the quality of data being gathered.
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