

17 OCT 2007  
EASTERN UNIV.

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE- 2006/2007

(June/July 2014)

AEN 3102 - SOIL AND WATER CONSERVATION (1:15/00)

External Degree - (REPEAT) / proper

Answer all questions

Time allowed: One hour

1. (a) Define the term Erodibility and erosivity.  
(b) List the methods to estimate erosivity from rainfall data.  
(c) Calculate the EI 30 index of Rain fall erosivity for the storm data given below

Intensity(mm/hr)	0-25	25-50	50-75	>75
Depth (mm)	35	30	25	20

(Note:  $KE = 11.9 + 8.7 \log I$ ,  $I_{30} = 20$  mm/hr, when KE of RF in  $J/m^2$ )

- (d) Give the universal soil loss equation (USLE) with its variable.  
(e) What are the uses of USLE?  
(f) Find the soil loss by using the following data.  
Rainfall index is 300, Soil erodibility factor is 0.5, slope length factor is 1.0  
conservation practices factor is 0.5, and crop management factor is 0.2.

2. (a) Differentiate Geologic erosion and accelerated erosion.  
(b) Write short notes on the followings:  
(i) The factors affecting erosion caused by water.  
(ii) Agronomic practices to control erosion.

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