

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2009/2010

(JUNE/JULY - 2011)

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



Answer all questions

Time: One hour

01. (a) What are the designing principles of mechanical protection works to prevent runoff in hilly areas.

(b) Write short notes on the followings;

- (i) Irrigation with limited water supplies
- (ii) Universal Soil Loss Equation

02. (a) Define the followings

- (i) Thirty minutes intensity (I_{30})
- (ii) Erosivity

(b) Estimate the erosivity for the following rainfall data using EI_{30} and $KE > 25$ methods

Amount of rain (mm)	6.1	2.1	14.1	11.8	9.8	6	5.5
Time interval (hr)	0.34	0.33	0.66	0.31	0.24	0.18	0.18

($e = 118.9 + 87.3 \log_{10} I$) where 'e' is energy in J/ha-mm