

EASTERN UNIVERSITY, SRI LANKA
SECOND YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2012/2013
(March/April 2015)
AE 2101 ENVIRONMENTAL CONSERVATION ENGINEERING

Answer **all** questions
Time: Two hours

01. (a) List the major environmental problems associated with land and water resources in Sri Lanka.
(b) Briefly describe the primary treatment process of wastewater.
(30 Minutes)
02. (a) Briefly discuss the air pollution and its control measures.
(b) Write a brief note on the steps of Environmental Impact Assessment (EIA).
(30 Minutes)
03. (a) List the methods to estimate erosivity from rainfall data.
(b) 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: $KE = 119 + 87.3 \log I$, $I_{30} = 20$ mm/hr, when KE of RF in J/m^2)
- (c) Briefly describe the importance of plants in preventing soil erosion
(30 Minutes)
04. Write short notes on the followings:
- (a) Trickling filter for wastewater treatment
 - (b) Chapman Process of ozone destruction
 - (c) Thermal treatment of solid waste
- (30 Minutes)