

EASTERN UNIVERSITY SRILANKA
THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE 2014/2015
(August 2015)
AEN 3101 - HYDRAULICS AND HYDROLOGY (2:30/00)

External Degree (Repeat)

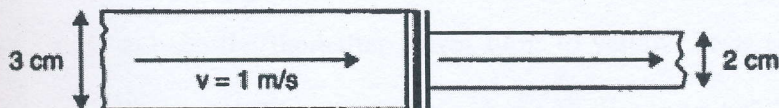
Answer all questions

Time: 2 hours

01. (a) Illustrate the hydrological cycle.
(b) What are the importances of the hydrological studies?
(c) Briefly discuss about the rainfall types.
02. (a) Briefly discuss about the factors affecting the evaporation rate
(b) What are the methods available to estimate the average rainfall for a particular area?
(c) Find the average rainfall using following data.

Polygon	1	2	3	4	5	6	7	8	9	10
Area (km ²)	15.5	45.4	38.2	58	36.7	33.1	33.1	1.8	23	23
Rainfall (Inch)	0.9	1.5	2.8	1.8	2.2	3.1	3.9	3	3.8	4.1

03. A garden hose of interior diameter 3 cm is coupled to another hose of interior diameter 2 cm as shown in the figure below. If the velocity of the water in the larger hose is 1 m/s, what is the velocity of the water in the smaller hose? What is the flow rate?



04. Write short notes on the followings;
- (a) Site selection and placing of rain gauges
 - (b) Forms of precipitation
 - (c) Float method to estimate stream flow