

Uva Wellassa University
Faculty of Animal Science and Export Agriculture
BSc in Export Agriculture



End Semester Examination – July/August 2016
Year III Semester I

Hydrology (EAG 348 -0)

Instructions

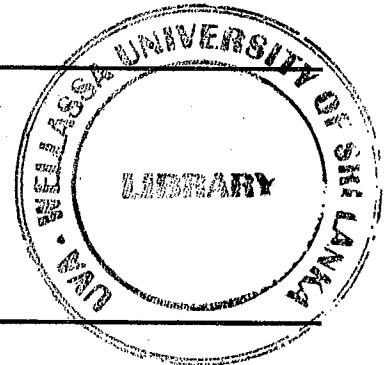
Answer all questions

No. of questions : Two (02)

No. of pages : Two (02)

Time : One (01) Hour

Marks allocated : 100 %



ESSAY

Question 01

Differentiate following terms used in Hydrology using suitable sketches where necessary;

(50 marks)

- 1.1. Monsoon Rains and Inter-monsoon Rains
- 1.2. Winter Monsoon and Summer Monsoon
- 1.3. Interception and Infiltration of water
- 1.4. Throughfall and Throughflow of water
- 1.5. Sub-surface Water Flow and Groundwater Flow
- 1.6. Hydrograph and Unit Hydrograph
- 1.7. Rational Method and Normal Ratio Method used in Hydrological Analysis
- 1.8. Systemic Errors and Random Errors of Rain Gauges
- 1.9. Bifurcation Ratio and Drainage Density of a stream network
- 1.10. Stream Stage Method and Current Meter Method of flow measurement in rivers

Question 02

Obtain a Unit Hydrograph for a basin of 282.6 km^2 of area using the stream flow data tabulated below. (50 marks)

(Note: Consider the base flow value is equal to the flow at the start of the rising limb of the observed hydrograph)

Time (hours)	Observed Hydrograph (m^3/s)
0	160
1	150
2	350
3	800
4	1200
5	900
6	750
7	550
8	350
9	225
10	150
11	150

