



The Open University of Sri Lanka
 Faculty of Engineering Technology
 Technology (Agricultural Engineering) Program
 Final Examination- 2011/2012
AEX6233 Hydrology

SECTION 2: Answer any four (04) questions. All questions carry equal marks.

1. (a) Briefly discuss the importance of forecasting with statistical concepts in hydrology.
- (b) Use the following data and calculate the Pearson's correlation coefficient and discuss the results.

x	y
1.3	151.6
0.9	105.6
1.8	200.0
2.1	221.3
1.5	170.0
7.5	742.2

2. (a) Write a brief note on Unit Hydrograph.
- (b) Briefly discuss the factors affecting the shape of a hydrograph of river discharge at a gauging station Vs time.
3. (a) Write a brief note on "Evapotranspiration".
- (b) Briefly explain the factors affecting the evapotranspiration and the role of evaporation on water resources planning.
4. (a) Write a brief note on the operation and maintenance of drip Irrigation systems.
- (b) Explain the importance of moisture distribution patterns and uniformity of coverage in drip irrigation systems.
5. Briefly describe five major water resources projects recently planned in Sri Lanka and their positive and negative aspects.

6. Write brief notes on any three (03) of the following
- (a) Infiltration
 - (b) Groundwater pollution
 - (c) Nitrogen Cycle
 - (d) Natural Protection of groundwater

End of Paper