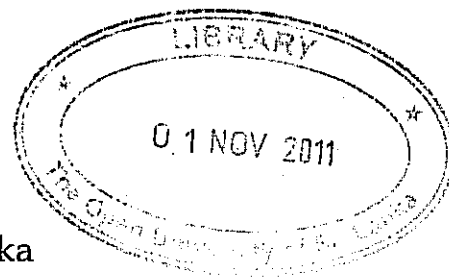




The Open University of Sri Lanka
 Faculty of Engineering Technology
 Industrial Studies (Agriculture) Programme
 Final Examination 2010/2011
AEI6132 Groundwater resources management



Date : 03-04-2011
Time : 1400-1700 hours
Duration : Three (03) hours

SECTION 2

Answer any four (4) questions. All questions carry equal marks.

1. (a) Briefly discuss the significance of groundwater for domestic use.
 (b) Write a brief description on the bacteriological safety of groundwater
2. (a) Write a brief note on the operation and maintenance of sprinkler systems.
 (b) Explain the importance of moisture distribution patterns and uniformity of coverage in sprinkler irrigation system.
3. (a) Briefly discuss the impact of high concentration of nitrate and fluoride in drinking water on human health.
 (b) Describe how the groundwater chemistry changes when water pass through the soil zone.
4. (a) Write a brief note on ground water protection.
 (b) Discuss the methods of delineating groundwater protection zone.
5. Describe the importance of aquifer system management classification and aquifer contamination susceptibility map in maintaining groundwater quality.
6. Write a brief note on any three (03) of the following
 - (a) Regional Flow model for Groundwater modelling
 - (b) Drilling methods of tube well
 - (c) Components of Drip irrigation system
 - (d) Natural Protection of Groundwater