

THE OPEN UNIVERSITY OF SRI LANKA
Faculty of Engineering Technology
Department of Agricultural & Plantation Engineering



Bachelor of Industrial Studies Honors (Agriculture)

Final Examination (2016/2017)
AEI6132-Groundwater Resources Management

Date: 24th November 2017

Time: 9:30 am – 12:30 pm

Index Number:

Instructions

Section 02 – Answer any four (04) out of the six (06) questions. You may use answer books and/or sheets to answer this section.

SECTION 2

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

1. (a) Briefly explain the geophysical methods in groundwater investigations used in Sri Lanka and discuss their advantages and disadvantages

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 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

END OF PAPER