



Uva Wellassa University
BSc in Export Agriculture
BSc in Tea Technology & Value Addition



End Semester Examination – February/March 2011
Year II Semester I

Irrigation and Water Management (EAG 231-2) - Repeat

Instructions

Answer **all** questions (Each bears equal marks)

No. of questions : Four (04)

No. of pages : Two (02)

Time : Two (02) hours

Total marks allocated : 100%

Index No:
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Question 01

- I. Define the following terms
 - a) Irrigation
 - b) Infiltration
 - c) Deep percolation
 - d) Surface run off
- II. Briefly discuss the factors that affect on absorption, conduction and transpiration of water in plants.

Question 02

- I. What is a watershed?
- II. How do the human activities affect on watersheds?
- III. Briefly discuss the watershed management strategies.

Question 03

- I. Briefly discuss the advantages & disadvantages of different methods of water application.
- II. Discuss the factors that are considered in selecting an irrigation method.

Question 04

- I. "Irrigation scheduling is the major part of any irrigation method". Comment .

- II. Following data were obtained during a field test in a particular farm land.
 - Available land size – 2ha
 - Field capacity of the soil – 24%
 - Root zone depth – 1.0m.
 - Bulk density of the soil - 1.5 g/cm^3
 - Water application efficiency - 70%.
 - Peak rate of moisture use by the crop - 18mm/day.
 - **Assume:** irrigation is done when 50% of the moisture at field capacity in the root zone is depleted.

Calculate,

- a. Net Irrigation Requirement(NIR)
- b. Gross Irrigation Requirement(NIR)
- c. Irrigation Interval