



**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)**

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NO

### Part III – Essay

#### Question 01

- I. Briefly discuss the advantages of rain water harvesting technology in both surface & ground water management. (10 marks)
- II. Write an essay on **Ground Water Recharge and Discharge**. (10 marks)
- III. How does a drainage system help in preventing the **water logging condition** & the **salinity problem**? (10 marks)

#### Question 02

- I. “A farmer has a 2ha maize cultivation in a field with a gentle slope terrain in Badulla district. He wants to irrigate this field using an effective furrow irrigation method. But he has a problem in deciding the appropriate furrow length & he is willing to get your instructions for this matter”.

Describe the important points that you should explain him to select suitable furrow length to have an effective furrow irrigation system. (10 marks)



II. The data obtained during a Can experiment (using 24 Cans) conducted to determine the Pattern Efficiency of a sprinkler head as follows.

Can No.	Collected water (cm)	Can No.	Collected water (cm)
1	10.5	13	10.0
2	11.0	14	11.5
3	12.5	15	12.0
4	9.0	16	9.5
5	10.5	17	10.0
6	8.0	18	8.5
7	10.0	19	10.5
8	9.5	20	9.5
9	8.0	21	8.5
10	7.0	22	7.0
11	11.5	23	11.0
12	10.5	24	10.0

Calculate,

- a) Average depth of catch (05 marks)
- b) Minimum depth of catch (05 marks)
- c) Pattern Efficiency (05 marks)
- d) Uniformity co-efficient (05 marks)