

**B.Sc in Export Agriculture**  
**Faculty of Animal Science & Export Agriculture**  
**Uva Wellassa University**



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**Year II Semester I**  
**Irrigation and Water Management (EAG 231-2)**

**Uva Wellassa**  
**University**

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**End Semester Examination – January 2010**  
**Structured & Essay Type Questions**

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## Part II

1. A farmer has a 2ha maize cultivation field in 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. (40 marks)

2.

- I. Briefly discuss the types of sprinkler systems, on the basis of the arrangement for spraying. (10 marks)
- II. What are the main components of a typical sprinkler irrigation system? (10 marks)
- III. 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

- a) Calculate Average depth of catch of this sprinkler head. (10marks)
- b) Calculate Minimum depth of catch of this sprinkler head. (06 marks)
- c) Calculate Pattern Efficiency of the sprinkler head. (04 marks)

