



Uva Wellassa University
Faculty of Animal Science & Export Agriculture
BSc in Palm & Latex Technology & Value Addition



End Semester Examination – March/April 2013
Year I Semester II

Water Management Technology (PLT 232-2)

Instructions

Answer **all** questions

No. of questions : Two (02)

No. of pages : One (01)

Time : Thirty (30) minutes

Total marks allocated : 20%

Index No:

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PART III – Essay

Question 01

- I. Briefly discuss the suitability of using pot irrigation method in irrigating coconut lands. (10 marks)
- II. Briefly discuss the importance of water management in rubber cultivation. (10 marks)

Question 02

- I. In an experimental plot (1m x 1m x 1m) in a land having a rubber nursery, initial moisture content of the soil was 25% dry basis. After 14 days, the moisture content of the soil was also 25% dry basis. Irrigation supplied during this period was 150 mm, while the amount of drainage water collected was 60 mm. Calculate the **average crop evapotranspiration rate** of the rubber plants in this land. (10 marks)
- II. During **another 14 days** of the experiment conducted using the same plot in the rubber land, following data have obtained.
 - Initial moisture content of the soil was 25% dry basis.
 - Final moisture content of the soil was 26 % dry basis.
 - Rainfall received was 20 mm.
 - Irrigation amount was 150 mm.
 - Collected drainage volume was 50 L.
 - Collected runoff volume was 5 L.
 - Bulk density of the soil was 1.5 g/cm³.

If the plot area is totally sealed from the outside soil conditions, calculate the **average crop evapotranspiration rate** of the rubber plants during this latter part of the experimental period. (10 marks)