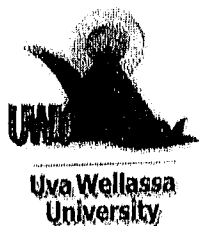


Faculty of Animal Science & Export Agriculture
B.Sc in Export Agriculture



Year II Semester I
End Semester Examination - January 2008

Principles of Agronomy (EAG 211-4)

Essay

Instructions

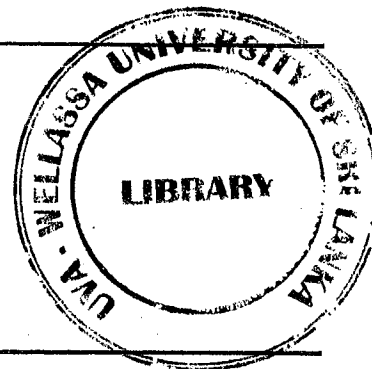
Answer all questions.

No. of questions : Three (03)

No. of pages : Two (02)

Time : One and Half hours (1 1/2 hours)

Total marks allocated : 100%



(1) Write short notes on followings:

- a. Different nursery management practices for rice
- b. Importance of crop growth analysis
- c. Advantages and disadvantages of vegetative propagation
- d. External factors that affect on rooting of cuttings

(2)

- a. What do you mean by soil texture?
- b. Discuss the effect of soil texture on soil behavior and crop growth
- c. What are the measures that can be taken to improve soil texture?

(3)

- a. Define the term "Irrigation".
- b. Describe briefly the factors considered in choosing an irrigation system.
- c. Explain the following
 - i. Irrigation scheduling
 - ii. Infiltration
 - iii. Deep percolation
 - iv. Irrigation efficiency
 - v. Quarter time rule
- d. A stream 140 liters/sec was diverted from a canal and 110 liters/sec was delivered to the field. Area of 1.5 ha was irrigated in 8 hours. The effective depth of root zone was 1.6 m. The runoff loss in the field was 430 m^3 . The depth of water penetration varied linearly from 1.6 m at the head of the field to 1.2 m at the tail end. Available moisture holding capacity of the soil is 25 cm/m depth of soil. Irrigation was started at 50% depletion of available soil moisture.

Determine

- i. Water conveyance efficiency
- ii. Water application efficiency
- iii. Water storage efficiency
- iv. Water distribution efficiency