



The Open University of Sri Lanka
Faculty of Engineering Technology

Final Examination- 2006

AEX4237 Irrigation and drainage engineering

Date : 29-03-2007
Time : 0930-1230 hours

SECTION II

- (1) (a) Briefly outline the advantages of drip irrigation over surface irrigation.
(b) What are the factors which limit the use of drip irrigation among Sri Lankan farmers?
- (2) (a) List the main purposes of irrigation.
(b) "Rehabilitation of existing irrigation schemes is necessary to increase agricultural production" comment on this statement.
- (3) (a) Discuss briefly the importance of estimating evapotranspiration in irrigation scheduling.
(b) What are the practical constraints of irrigation scheduling?
- (4) (a) What are the differences between Net Irrigation Requirement (NIR) and Crop water requirement?
(b) A farm turn-out has a delivery capacity of 10 litres/second. Each farm turnout irrigates 1 ha. Compute the duration of irrigation to apply a NIR of 75 mm to a 1 ha farm. Assume application efficiency as 75%.
- (5) (a) Briefly outline the drainage problems in Sri Lanka.
(b) How does excess water affect on agricultural production.
- (6) Write short notes on any three (03) of the following.
 - (a) Inland salinity
 - (b) Permanent Wilting Point
 - (c) Effective rainfall
 - (d) Irrigation water management
 - (e) Conveyance losses