

AEX4237 Irrigation and Drainage Engineering

The Open University of Sri Lanka
Technology / Industrial Studies Programme
Faculty of Engineering Technology



Final Examination- 2007

AEX4237 Irrigation and drainage engineering

Date : 14-05-2008
Time : 0930-1230 hours

SECTION II

- (1) (a) Briefly explain the best irrigation system suitable for the sandy soils and justify your answer.
(b) Explain how you could advice on the selection of best irrigation system for Sri Lankan farmers.
- (2) (a) List the main purposes of irrigation.
(b) Discuss how irrigation development effect to the public health.
- (3) (a) Discuss the factors affecting the evaporation over free water surface?
(b) Explain the importance of geology and the rock foundation of the area for selection of sites for Dams.
- (4) (a) Write a brief note on "Irrigation efficiency"?
(b) Differentiate conveyance efficiency and application efficiency in irrigation.
(c) A farm turn-out has a delivery capacity of 12 litres/second. Each farm turnout irrigates 1.5ha. Compute the duration of irrigation to apply a Net Irrigation Requirement (NIR) of 75 mm to a 1.5 ha farm. Assume application efficiency as 75%.
- (5) (a) Write an essay on "History of Irrigation in Polonnaruwa period".
(b) Briefly explain how excess water affects the agricultural production.
- (6) Write short notes on any three (03) of the following.
 - (a) Inland salinity.
 - (b) New irrigation policy.
 - (c) Turn outs in irrigation systems.
 - (d) Net Irrigation requirement.