

Roll No.

Total Pages : 02

BT-7/D-19

37230

IRRIGATION ENGINEERING-II

CE-403N

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. Assume any missing data.

Unit I

1. (a) What is meant by 'Canal Falls' and where are they located ? 5
 (b) Discuss briefly various types of falls with neat sketches. Also discuss the suitability of each type. 10
2. Design a 1.5 metres Sarda type fall for a canal having a discharge of 12 cumecs, with the following data : 15
 Bed level v/s - 103 m
 Side slope of channel - 1:1 m
 Bed level d/s - 101.5 m
 Full supply level v/s - 104.5 m
 Bed width v/s and d/s - 1.0 m
 Soil - Good loam
 Assume Bligh's coefficient - 6

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Unit II

3. (a) Explain Canal Escapes and also discuss its types. 7
 (b) What is Canal Outlet ? Also discuss the requirements of a Good module. 8
4. Write short notes on the following : 15
 (a) Aqueduct
 (b) Level crossing
 (c) Syphon aqueduct.
 Draw neat sketch for each.

Unit III

5. (a) Define Dam. Explain various types of Dams with sketch. 8
 (b) Discuss factors governing the selection of particular type of dam. 7
6. (a) Differentiate Homogeneous Embankment type and Diaphragm type Earthen Dam. 6
 (b) Discuss the design criteria for earth dams. 9

Unit IV

7. (a) What is spill way gate ? Discuss use of spillway gate and list its types. 10
 (b) Write a short note on energy dissipators. 5
8. Explain with sketch 'Chute Spillway' and discuss its design considerations. 15

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