IV B.Tech II Semester

15ACE82-DESIGN AND DRAWING OF IRRIGATION STRUCTURES

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Course objectives:

1. *To understand the basic types of irrigation, irrigation standards and crop water assessment.*
2. *To study the different aspects of design of hydraulic structures.*
4. *To provide knowledge on various hydraulic structures such as energy dissipaters, head and cross regulators, canal falls and structures involved in cross drainage works.*
5. *To understand the analysis of seepage and hydraulic jump.*
6. *To design different types of dams.*

DESIGN AND DRAWING OF THE FOLLOWING IRRIGATION STRUCTURES.

UNIT-I: Surplus weir

UNIT-II: Tank sluice with tower head

UNIT-III: Trapezoidal notch fall.

UNIT-IV: Canal regulator.

UNIT-V: Sloping glacis weir.

Final Examination pattern:

Any two questions of the above five designs may be asked out of which the candidate has to answer one question. The duration of examination will be three hours.

Course Outcomes:

On completion of the course, the students will be able to:

- *design various irrigation structures like head and cross regulator structures*
- *identify various types of reservoirs and their design aspects*

TEXT BOOKS:

1. Design of minor irrigation and canal structures by C.Satyanarayana Murthy, Wiley eastern Ltd.
2. Irrigation Engineering & Hydraulic Structures by Garg S K ,Khanna Publishers, Delhi, 1995.