

BRIDGE ENGINEERING

Module I:

Introduction and selection of type of bridges, longitudinal arrangement and economical span, bridge components, Design preliminaries: Layout, types of loads including wind and seismic loads, standard specifications for road bridges, substructures, superstructures, IRC provisions on loads and stresses, specification for single/double multi lane railway and road bridges, Abutments, piers and their foundations .

Module II:

Design of reinforced concrete slab culvert, box culvert bridge.

Module III:

Tee beam and slab bridge deck, design of prestressed concrete bridge.

Module IV:

Design of balanced cantilever bridge, design of continuous bridge, Introduction to long span bridges.

Books:

- 1) N.K.Raju, " Design of bridges", Oxford & IBH Publishing Co. pvt. ltd. D.J.Victor, " Essentials of bridge engineering", Oxford &IBH Publishing Co. pvt. ltd. Indian Road Congress Codes No.5,6,18,21,24, Jamnagar House, Shah Jahan Road, New Delhi.