

### Bridge Engineering (3-1-0) 4 credits

Lecture nos. including tutorial	Title of lecture
1-4	Introduction, Planning, Aesthetics and Bridge
5-8	Road bridges, Loading and IRC codes
9-12	Slab Bridges and RCC T Beam Bridges
13-16	Different analysis techniques-finite element, finite strip, finite difference. Grillage analysis
17-20	Prestressed Concrete I Girder Bridges, Box Girder Bridges and Segmental Box Girder Bridges
21-24	Substructures including Abutments
25-28	Railway Bridges and IRS codes
29-32	Steel bridges : Truss Bridges and Plate Girder Bridges
33-36	Steel Concrete Composite Bridges
37-40	Introduction to high speed railway bridges
41-44	Cable stayed bridges and Suspension bridges
45-48	Bridge Commissioning, Maintenance and Closure