

PCI5I101 STRUCTURAL ANALYSIS-II (3-0-1)

Module - I

Analysis of continuous beams and plane frames by slope deflection method and moment distribution method, analysis of continuous beam and simple portals by Kani's method

Module – II

Analysis of two hinged and fixed arches for dead and live loads, Suspension cables with two hinged stiffening girders

Module - III

Matrix methods of analysis: flexibility and stiffness methods; Application to simple trusses and beams

Module - IV

Plastic Analysis: Plastic modulus, shear factor, plastic moment of resistance, Load factor, Plastic analysis of continuous beam and simple rectangular portals, Application of upper bound and lower bound theorems

Text Books:

1. Structural analysis by C.S. Reddy Mc Graw Hill
2. Structural Analysis by T.S. Thandamoorthy, Oxford University Press
3. Structural analysis a matrix approach by Pandit & Gupta, Mc Graw Hill.
4. Limit Analysis of Structures: Monikaselvam, Dhanpat Ray Publication

Reference Books

1. Indeterminate Structures: J.S.Kinney
2. Indeterminate Structural Analysis: C.K.Wang ,Mc Graw Hill
3. Structural Analysis by D.S.Prakash Rao, Universities Press
4. Matrix Analysis of Structures by P.K.Singh, Cengage Learning