VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

Semester: 6th

Session: 2015-16

LESSON PLAN

Subject: STRUCTURAL ANALYSIS –II

Theory/ Sessional

Branch/ Course: Civil Engineering/ B.Tech   **Name of the Faculty Members:** B. B. Mukharjee & L.Sinha

Period	Module/ Number	Topic to be covered	Remarks/ Sign. of Faculty Member
1	**Module-I**	Introduction to structural analysis , types of structures, support	
2		Introduction to Force method of structural analysis	
3		Introduction Displacement methods of structural analysis	
4		**slope defection method:** Analysis of continuous beam	
5		Analysis of continuous beam	
6		Analysis of plane frame	
7		Analysis of plane frame	
8		**Moment distribution method:** Analysis of continuous beam	
9		Analysis of continuous beam	
10		Analysis of plane frame	
11		Analysis of plane frame	
12	**Module-II**	**Kani's method:** Analysis of continuous beam	
13		Analysis of continuous beam	
14		simple portals	
15		simple portals	
16		simple portals	
17		**Two hinged Arches:**Analysis of two pinned arches with loads	
18		Analysis of two pinned arches with loads	
19		Analysis of two fixed arches with dead and live loads	
20		Analysis of two pinned and fixed arches with dead and live loads	
21		suspension cable with two pinned stiffening girders	
22		suspension cable with two pinned stiffening girders	
23	**Module-III**	**Plastic Analysis:** Plastic modulus, shear factor	
24		Plastic modulus, shear factor	
25		plastic moment of resistance	
26		plastic moment of resistance	
27		load factor, Application of upper and lower bound theorems	
28		plastic analysis of continuous beam and simple rectangular portals	
29		plastic analysis of continuous beam and simple rectangular portals	
30		plastic analysis of simple rectangular portals	
31		plastic analysis of simple rectangular portals	
32	**Module-IV**	**Matrix flexibility method of analysis :** Introduction	
33		flexibility matrix	
34		Application to simple trusses	
35		Application to simple trusses	
36		Application to beams	
37		Application to beams	
38		**Matrix stiffness method of analysis :** Introduction	
39		stiffness matrix	
40		Application to simple trusses	
41		Application to simple trusses	
42		Application to beams	
43		Application to beams	

Signature of Faculty Member:

Date: **Counter Signature of H.O.D.**