## Department Of Civil Engineering M TECH. (STRUCTURAL ENGINEERING) Scheme of Instruction and Examination (with effect from 2015-16 academic year)

## <u>I – SEMESTER</u>

Code No.	Course title	Scheme of Instruction		Scheme of Examination		Total	Credits		
		Lec	Tut	Total	Exam (hrs)	Ext	Sess		
ST 1.1	Theory of Elasticity	4		4	3	70	30	100	4
ST 1.2	Advanced Reinforced Concrete Design	4		4	3	70	30	100	4
ST 1.3	Matrix methods of Structural Analysis	4		4	3	70	30	100	4
ST 1.4	Industrial Structures	4		4	3	70	30	100	4
ST 1.5	<ul><li>a) Advanced Foundation Engineering</li><li>b) Wind Analysis and Design of Tall Structures</li><li>c) Experimental Stress analysis</li></ul>	4		4	3	70	30	100	4
ST 1.6	<ul><li>a) Advanced Concrete Technology</li><li>b) Bridge Engineering</li><li>c) Structural Dynamics</li></ul>	4		4	3	70	30	100	4
ST 1.7	Computer applications in Structural Engineering		3	3	Viva	50	50	100	2
ST 1.8	Design of Structures		3	3	Viva	50	50	100	2
Total		24	6	30		520	280	800	28

## <u>II – SEMESTER</u>

Code No.	Course title	Scheme of Instruction			Scheme of Examination		Total	Credits	
		Lec	Tut	Total	Exam (hrs)	Ext	Sess		
ST 2.1	Theory of Plates and Shells	4		4	3	70	30	100	4
ST 2.2	Structural Stability	4		4	3	70	30	100	4
ST 2.3	Finite Element Methods of Analysis	4		4	3	70	30	100	4
ST 2.4	Earthquake Engineering	4		4	3	70	30	100	4
ST 2.5	<ul><li>a) Ground Improvement Techniques</li><li>b) Optimization Techniques</li><li>c) Reliability Analysis and Design</li></ul>	4		4	3	70	30	100	4
ST 2.6	<ul> <li>a) Prestressed Concrete</li> <li>b) Design of steel bridges</li> <li>c) Inelastic Design of Slabs</li> </ul>	4		4	3	70	30	100	4
ST 2.7	Repair and Rehabilitation of Structures		3	3	Viva	50	50	100	2
ST 2.8	Advanced Design of Structures		3	3	Viva	50	50	100	2
Total		24	6	30		520	280	800	28

## **III and IV SEMESTERS**

Code No	Course title	Scheme of Examination	Total Marks	Credits
ST3.1	Dissertation (Preliminary)	Viva-voce	100	10
ST4.1	Dissertation (Final)	Defence and Viva-voce	100	14