

	Ductile detailing of RC building: capacity design concept, IS: 13920, Torsional analysis	
5	Special topics: Introduction to soil liquefaction, structural control & Seismic strengthening.	2
6	Earthquake resistant Masonry features : Un-reinforced Masonry, Basics of masonry: units of masonry, good construction practice, Earthquake resistant features: bands and vertical reinforcement IS 4326, IS 13827, IS 13828.	4
Practical content		
Term work shall consist of Seismic design of RC multi-storey frame building with ductile detailing in A3 CAD drawings, at least 25 problems based on the course under Earthquake Engineering and Preparation of various models of structural systems OR seminar/project		
Text Books		
1	Earthquake Tips 1-23.	
2	A.K.Chopra; Dynamics of structures	
3	Clough & Penzin; Dynamics of structures	
Reference Books		
1	Criteria for earthquake resistant design General provision & Building - IS: 1893 (Part I 2002)	
2	Code of Practice for Ductile Detailing of RC Structures - IS: 13920 (1993).	
3	Code of Practice for earthquake resistant design & Construction of buildings - IS 4326 (1993)	
4	Improving Earthquake Resistance of Earthen Buildings - IS 13827(1993)	
5	Guide lines for Improving Earthquake Resistance low strength masonry buildings - IS 13828 (1993)	
6	Code of practice for structural safety of Buildings Loading standards - IS : 875 (Part –III)	
7	Manish shrikhande&PankajAgrawal; Earth quake resistant design of structures	
8	Park &Pauly; Behavior of RC structure	
9	John M.Biggs; Introduction to Structural Dynamics	
10	PankajAgrawal& Manish Sprikhande, “Earthquake Resistant Design of Structures” 1 st edition, Prentice Hall of India Pvt Ltd, New Delhi,2004.	
11	Skinner R I & Robinson W H, “An Introduction to seismic Isolation John Wiley & sons, New York, 1999.	
12	Relevant Indian Standard Earthquake coded (IS: 1893-2000, 13920-1993, 13828- 1993, 4326 -1996)	
13	Paulay T & Priestley M J N, “Seismic Design of reinforced Concrete & Masonry buildings, John Wiley & Sons, New York, 1999	
14	Penelis G G&Kappos A J, “Earthquake Resistant Concrete Structures”, E & FN Son, UK, 1997	