Week	Lecture Day	Lesson Plan Design of Concrete Structures-II(Theory) PC/CE/17-T Topic(Including Assignment Test)	Date
1st	1	**Continuous Beams:** Basic assumptions, Moment of inertia, settlements, Modification of moments,	
	2	Maximum moments and shear, beams curved in plan-analysis for torsion,	
	3	Redistribution of moments for single and multi-span beams, design examples.	
2nd	4	Prestressed Concrete: Basic principles, classification of prestressed members	
	5	various prestressing systems, losses in prestress, initial and final stress conditions,	
	6	analysis and design of sections for flexure and shear, load balancing concept, I:S:Specifications	
3rd	7	End blocks-Analysis of stresses, Magnel's method, Guyon's method,	
	8	Design Examples	
	9	Bursting and spalling stresses, design examples.	
4th	10	Flat slabs and staircases:Advantages of flat slabs, general design considerations,	
	11	approximate direct design method, design of flat slabs,	
	12	Design Examples	
5th	13	Openings in flat slab	
	14	Design examples.	
	15	Design of various types of staircases Design Examples	
6th	16	Foundations: Combined footings, raft foundation, Design Examples	
	17	Design of pile cap and piles, under-reamed piles, design examples.	
	18	Design Examples	
7th	19-21	**MINOR TEST-I**	
8th	22	**Water Tanks, Silos and Bunkers:**Estimation of Wind and earthquake forces, design requirements, rectangular and cylindrical underground and overhead tanks,	
	23	Design Examples	
	24	Intze tanks, design considerations, design examples.	
	25	Design Examples	
9th	26	Silos and Bunkers-Various theories, Bunkers with sloping bottoms and with high side walls, battery of bunkers, design examples	
	27	Silos and Bunkers-Various theories, Bunkers with sloping bottoms and with high side walls, battery of bunkers, design examples	
10th	28	Silos and Bunkers-Various theories, Bunkers with sloping bottoms and with high side walls, battery of bunkers, design examples	
	29	Design Examples	
	30	Building Frames: Introduction, Member stiffnesses, Loads,	
11th	31	Analysis for vertical and lateral loads, Torsion in buildings,	
	32	Ductility of beams, design and detailing for ductility, design examples.	
	33	Design Examples	
12th	34	Yield Line Theory:Basic assumptions, Methods of analysis, yield line patterns and failure mechanisms,	
	35	Numerical Problems	
	36	analysis of one way and two way rectangular and non-rectangular slabs,	
13th	37	analysis of one way and two way rectangular and non-rectangular slabs,	
	38	Numerical Problems	
	39	Numerical Problems	
14th	40-42	**MINOR TEST-II**	
15th	43	Effect of top corner steel in square slabs, design examples.	
	44	Numerical Problems	
	45	Numerical Problems	