

## TEACHING PLAN FOR THEORY

**Subject Teacher : Prof. Mhamane V.S.**

<b>Subject: Structural Design III    Class: B.E. SEM-I                      Branch: Civil Engg.                      Year 2017-2018                      Div : A &amp; B</b>			
<b>Lecture No</b>	<b>Scheduled Date</b>	<b>Topics to be covered on the scheduled date</b>	
1	15.06.2017	Syllabus Discussion, Discussion on course objective & course outcome	
<b>Unit -1: Prestressed concrete - Analysis</b>			
2	16.06.2017	Basic concepts	
3	19.06.2017	materials-various	
4	20.06.2017	Pretensioning and post tensioning systems	
5	21.06.2017	concept of losses	
6	22.06.2017	Stress calculations	
7	23.06.2017	concept of cable profile	
8	26.06.2017	Problems	
<b>Unit -II: Prestressed concrete - Design</b>			
9	27.06.2017	Introduction & Design of post tensioned concrete	
10	28.06.2017	Design of prestressed concrete	

11		Design of simply supported rectangular sections
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<b>Lecture No</b>	<b>Scheduled Date</b>	<b>Topics to be covered on the scheduled date</b>
12	<b>30.06.2017</b>	Theory of Design of flanged sections for flexure and shear including end block.
13	<b>03.07.2017</b>	Theory of Design of shear including end block.
14	<b>04.07.2017</b>	Problems on prestressed concrete
15	<b>05.07.2017</b>	Design of flanged sections for flexure and shear including end block.
16	<b>06.07.2017</b>	Problems on Design of shear including end block.
<b>Unit -III : Earthquake force calculation and analysis and design of frames</b>		
17	<b>07.07.2017</b>	Introduction
18	<b>10.07.2017</b>	Review of methods of analysis for frames subjected to gravity and lateral loads
19	<b>11.07.2017</b>	Earthquake loads by seismic coefficient method.
20	<b>12.07.2017</b>	Estimation of combined effect of lateral forces on multi storeyed frames
21	<b>13.07.2017</b>	Estimation of combined effect of vertical loading on multi storeyed frames
22	<b>14.07.2017</b>	Design any intermediate continuous beam of the frames for combined effect of loadings
23	<b>17.07.2017</b>	Problems on Design any intermediate continuous beam of the frames for combined effect of loadings
24	<b>18.07.2017</b>	Problems on Estimation of combined effect of vertical loading on multi storeyed frames

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<b>Unit – IV : Earth retaining structures</b>					
<b>Lecture No</b>	<b>Scheduled Date</b>	<b>Topics to be covered on the scheduled date</b>			
25	19.07.2017	Introduction			
26	20.07.2017	Functions of retaining walls			
27	21.07.2017	Functions and types of retaining walls			
28	24.07.2017	Analysis of RCC cantilever type of retaining wall for various types of backfill conditions.			
29	25.07.2017	Design of RCC cantilever type of retaining wall for various types of backfill conditions.			
30	26.07.2017	Problems on retaining walls			
31	27.07.2017	Problems on RCC cantilever type of retaining wall for various types of backfill conditions.			
32	28.07.2017	Problems on RCC cantilever type of retaining wall for various types of backfill conditions.			
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<b>UNIT – V : Combined footings</b>					
33	31.07.2017	Introduction			
34	01.08.2017	necessity of combined footings			
35	02.08.2017	necessity and types of combined footings			
36	03.08.2017	design of slab type combined footing.			

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37	<b>04.08.2017</b>	design of slab-beam type of combined footing.		
38	<b>07.08.2017</b>	Problems on slab type combined footing		
39	<b>08.08.2017</b>	Problems on slab-beam type of combined footing.		
40	<b>09.08.2017</b>	Problems on footings		
		<b>UNIT – VI : Liquid retaining structures</b>		
41	<b>10.08.2017</b>	Introduction		
42	<b>11.08.2017</b>	types, function, codal provisions		
43	<b>14.08.2017</b>	methods of analysis of circular tanks		
44	<b>16.08.2017</b>	methods of design of circular tanks		
45	<b>17.08.2017</b>	methods of analysis of square water tanks resting on ground.		
46	<b>18.08.2017</b>	methods of design of square water tanks resting on ground.		
47	<b>21.08.2017</b>	methods of analysis of rectangular water tanks resting on ground.		
48	<b>25.08.2017</b>	methods of analysis and design of rectangular water tanks resting on ground.		