

### Specimen of lesson Plan

**Name of the Faculty** Mr. J.P. Bindra  
**Discipline** CIVIL ENGG.  
**Semester** 4TH  
**Subject** RCC DESIGN  
**Lesson Plan Duration** 15 weeks(from January, 2018 to April,2018)

Week	Lecture Day	Theory Topic (including assignment/test)
1st	1st	Introduction:- Concept of Reinforced Cement Concrete (RCC)
	2nd	Reinforcement Materials: - Suitability of steel as reinforcing material
	3rd	Properties of mild steel and HYSD steel
	4th	Loading on structures as per IS: 875
	5th	Revision
2nd	6th	Introduction to following methods of RCC design:- Working stress method
	7th	Working stress method
	8th	Limit state method
	9th	Limit state method
	10th	Revision
3rd	11th	Shear and Development Length
	12th	Shear as per IS:456-2000 by working stress method:- Shear strength of concrete without shear reinforcement
	13th	Maximum shear stress
	14th	Shear reinforcement
	15th	Revision
4th	16th	Singly Reinforced Beam (Working stress method):-
	17th	Basic assumptions and stress strain curve,
	18th	Neutral axis, balanced, underreinforcement and over reinforced beams,
	19th	Moment of resistance for singly reinforced beam.
	20th	Revision/Assignment
5th	21st	Design of singly reinforced beam including sketches showing reinforcement details.
	22nd	Design of singly reinforced beam including sketches showing reinforcement details.

	23rd	Concept of Limit State Method:- Definitions and assumptions made in limit state of collapse (flexure)
	24th	Partial factor of safety for materials
	25th	Revision
6th	26th	Partial factor of safety for loads
	27th	Design loads
	28th	Stress block, parameters
	29th	Stress block, parameters
	30th	Revision
7th	31st	Singly Reinforced beam
	32nd	Singly Reinforced beam
	33rd	Theory and design of singly reinforced beam by Limit State Method
	34th	Theory and design of singly reinforced beam by Limit State Method
	35th	Revision
8th	36th	Doubly Reinforced Beams:- Theory and design of simply supported doubly reinforced rectangular beam by Limit State Method
	37th	Doubly Reinforced Beams:- Theory and design of simply supported doubly reinforced rectangular beam by Limit State Method
	38th	Doubly Reinforced Beams:- Theory and design of simply supported doubly reinforced rectangular beam by Limit State Method
	39th	Doubly Reinforced Beams:- Theory and design of simply supported doubly reinforced rectangular beam by Limit State Method
	40th	Revision/Assignment
9th	41st	Behaviour of T beam,
	42nd	Inverted T beam,
	43rd	Isolated T beam
	44th	'L' beams
	45th	Revision
10th	46th	One Way Slab:-Theory and design of simply supported one way slab including sketches showing reinforcement details (plan and section) by Limit State Method..
	47th	One Way Slab:-Theory and design of simply supported one way slab including sketches showing reinforcement details (plan and section) by Limit State Method..

	48th	One Way Slab:-Theory and design of simply supported one way slab including sketches showing reinforcement details (plan and section) by Limit State Method..
	49th	One Way Slab:-Theory and design of simply supported one way slab including sketches showing reinforcement details (plan and section) by Limit State Method..
	50th	Revision
11th	51st	Two Way Slab:-Theory and design of two-way simply supported slab with corners free to lift, no provisions for torsional reinforcement by Limit State Method including sketches showing reinforcement details (plan and two sections)
	52nd	Two Way Slab:-Theory and design of two-way simply supported slab with corners free to lift, no provisions for torsional reinforcement by Limit State Method including sketches showing reinforcement details (plan and two sections)
	53rd	Two Way Slab:-Theory and design of two-way simply supported slab with corners free to lift, no provisions for torsional reinforcement by Limit State Method including sketches showing reinforcement details (plan and two sections)
	54th	Two Way Slab:-Theory and design of two-way simply supported slab with corners free to lift, no provisions for torsional reinforcement by Limit State Method including sketches showing reinforcement details (plan and two sections)
	55th	Revision
12th	56th	Axially Loaded Column:- Definition and classification of columns
	57th	Effective length of column,
	58th	Specifications for longitudinal
	59th	lateral reinforcement
	60th	Revision
13th	61st	Design of axially loaded square,
	62nd	rectangular and circular short columns by Limit State Method including sketching of reinforcement(sectional elevation and plan)
	63rd	rectangular and circular short columns by Limit State Method including sketching of reinforcement(sectional elevation and plan)
	64th	rectangular and circular short columns by Limit State Method including sketching of reinforcement(sectional elevation and plan)
	65th	Revision
14th	66th	Prestressed Concrete
	67th	Concept of pre-stressed concrete
	68th	Concept of pre-stressed concrete
	69th	Methods of pre-stressing : pre-tensioning a
	70th	Revision

15th	71st	Advantages and disadvantages of prestressing
	72nd	Advantages and disadvantages of prestressing
	73rd	Losses in pre-stress
	74th	Losses in pre-stress
	75th	Revision/Assignment