

DRONACHARYA

College of Engineering

KHENTAWAS, FARRUKHNAGAR, GURGAON, HR

Department: Civil Engineering

Academic Session: 2017-18 (Jan-June 2018)

Lesson Plan for the Semester started w.e.f 08.01.2018

Subject with code: Design of Concrete Structures- I (CE-206-F)

Name of Faculty with designation : Gaurav Thakur (Assistant Prof.)

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment	
January	08.01.2018 Monday	IV-CE	I (Section-A)	Introduction to the subject, Application of the subject and its various units, syllabus, books to be referred, Introduction to Unit-I			
January	09.01.2018 Tuesday	IV-CE	I	Physical requirements of cement, aggregate		Assignment of 02 Ques.	
January	10.01.2018 Wednesday	IV-CE	I	Admixtures and reinforcement		Assignment of 02 Ques.	
January	15.01.2018 Monday	IV-CE	I	Strength and durability, shrinkage and creep		Assignment of 02 Ques.	
January	16.01.2018 Tuesday	IV-CE	I	Design of concrete mixes, acceptability criterion, I.S. specifications		Assignment of 02 Ques.	
January	17.01.2018 Wednesday	IV-CE	II (Section-A)	Design Philosophies in Reinforced Concrete: Working stress and limit state methods (45 min.)		Class Test-1 on Unit-I (45 min. duration)	
January	22.01.2018 Monday	Basant Panchmi					
January	23.01.2018 Tuesday	IV-CE	II	Limit state v/s working stress method, building code, Normal distribution curve, characteristic strength		Assignment of 02 Ques.	
January	24.01.2018 Wednesday	IV-CE	II	Characteristic loads, design values, partial safety factors and factored loads, stress-strain relationship for concrete		Assignment of 02 Ques.	

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment	
January	29.01.2018 Monday	IV-CE	II & III (Section-B)	Stress-strain relationship for steel, Start of 3rd Unit- Working Stress Method - basic assumptions, permissible stresses in concrete and steel, design of singly and reinforced rectangular beams in flexure (1 hour)		Class Test-2 on Unit-II (30 min. duration)	
January	30.01.2018 Tuesday	IV-CE	III	Design of doubly reinforced rectangular beams in flexure		Assignment of 02 Ques.	
January	31.01.2018 Wednesday	IV-CE	III	Design of singly reinforced flanged beams in flexure			
February	05.02.2018 Monday	IV-CE	III	Design of doubly reinforced flanged beams in flexure		Assignment of 02 Ques.	
February	06.02.2018 Tuesday	IV-CE	III	Steel beam theory, inverted flanged beams and design examples		Assignment of 02 Ques.	
February	07.02.2018 Wednesday	IV-CE	IV (Section-B)	Limit State Method: Basic assumptions, analysis and design of singly reinforced rectangular flanged beams (1 hour)		Class Test-3 on Unit-III (30 min. duration)	
February	12.02.2018 Monday	IV-CE	1st Sessional Examinations				
February	13.02.2018 Tuesday	IV-CE					
February	14.02.2018 Wednesday	IV-CE					
February	19.02.2018 Monday	IV-CE	IV	Analysis and design of doubly reinforced rectangular flanged beams		Assignment of 02 Ques.	
February	20.02.2018 Tuesday	IV-CE	IV	Minimum and maximum reinforcement requirements, design examples		Assignment of 02 Ques.	
February	21.02.2018 Wednesday	IV-CE	V (Section-B)	Analysis and Design of Sections in Shear, Bond and Torsion: Diagonal tension, shear reinforcement, development length (45 min.)		Class Test-4 on Unit-IV (45 min. duration)	

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February	26.02.2018 Monday	IV-CE	V	Anchorage and flexural bond, torsional stiffness, equivalent shear, torsional reinforcement		Assignment of 02 Ques.	
February	27.02.2018 Tuesday	IV-CE	V	Design examples		Assignment of 02 Ques.	
February	28.02.2018 Wednesday	IV-CE	VI (Section-C)	Requirements of good detailing, cover to reinforcement, spacing of reinforcement, reinforcement splicing (45 min.)		Class Test-5 on Unit-V (45 min. duration)	
March	05.03.2018 Monday	IV-CE	VI	Anchoring reinforcing bars in flexure and shear, curtailment of reinforcement		Assignment of 02 Ques.	
March	06.03.2018 Tuesday	IV-CE	VII (Section-C)	Serviceability Limit State - Control of deflection, cracking, slenderness and vibrations, deflection and moment relationship for limiting values of span to depth ratio (1 hour)		Class Test-6 on Unit-VI (30 min. duration)	
March	07.03.2018 Wednesday	IV-CE	VII	Limit state of crack width, design examples		Assignment of 02 Ques.	
March	12.03.2018 Monday	IV-CE	VIII (Section-C)	One way and two way slabs : General considerations, design of one way slabs for distributed and concentrated loads (1 hour)		Class Test-7 on Unit-VII (30 min. duration)	
March	13.03.2018 Tuesday	IV-CE	VIII	Design of two way slabs for distributed and concentrated loads		Assignment of 02 Ques.	
March	14.03.2018 Wednesday	IV-CE	VIII	Non-rectangular slabs, openings in slabs, Design examples		Assignment of 02 Ques.	
March	19.03.2018 Monday	IV-CE	2nd Sessional Examinations				
March	20.03.2018 Tuesday	IV-CE					
March	21.03.2018 Wednesday	IV-CE					
March	26.03.2018 Monday	IV-CE	IX (Section- D)	Columns and Footings : Effective length, minimum eccentricity, design of short columns under axial compression (1 hour)		Class Test-8 on Unit-VIII (30 min. duration)	
March	27.03.2018 Tuesday	IV-CE	IX	Uniaxial and biaxial bending, slender columns		Assignment of 02 Ques.	
March	28.03.2018 Wednesday	IV-CE	IX	Design of slender columns- design example		Assignment of 02 Ques.	

Month	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Academic activity	Test / assignment
April	02.04.2018 Monday	IV-CE	IX	Isolated and wall footings, Design examples		Assignment of 02 Ques.
April	03.04.2018 Tuesday	IV-CE	X (Section-D)	Retaining walls- classification (45 min.)		Class Test-9 on Unit-IX (45 min. duration)
April	04.04.2018 Wednesday	IV-CE	X	Forces on retaining walls, design criteria		Assignment of 02 Ques.
April	09.04.2018 Monday	IV-CE	X	Stability requirements, proportioning of cantilever retaining walls		Assignment of 02 Ques.
April	10.04.2018 Tuesday	IV-CE	X	Counterfort retaining walls, criteria for design of counterforts		Assignment of 02 Ques.
April	11.04.2018 Wednesday	IV-CE	X	Design examples		Assignment of 02 Ques.
April	16.04.2018 Monday	IV-CE	Pre-University Examinations			
April	17.04.2018 Tuesday	IV-CE				
April	18.04.2018 Wednesday	IV-CE				
April	23.04.2018 Monday	IV-CE	Revision of each units or(and) completion of syllabus (if incomplete due to unforeseen conditions) will be done in these three days accompanied by class tests (including Class Test-10 on Unit IX) and assignments.			
April	24.04.2018 Tuesday	IV-CE				
April	25.04.2018 Wednesday	IV-CE				
May	May 01 to 10, 2018	IV-CE	External Practical Exams			
May	14.05.2018 Onwards	IV-CE	University Theory Examinations			

NOTE: Other industrial visits (which are not mentioned in the session plan) will be conducted on Saturdays due to time constraint to complete the syllabus