Name of the Faculty	**:**	Mr.ManojPoonia
Discipline	**:**	B.Tech in Civil Engineering
Semester	**:**	V (3rd Year)
Subject	**:**	CVE – 301-L, Structural Analysis - III
Lesson Plan Duration	**:**	15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.)	**:**	Lectures – 04

	4	Influence lines for three hinged and two hinged arches	
2nd	5	Influence lines for three hinged and two hinged arches	
	6	Load position for Max.S.F. and B.M. at a section in the span	
	7	Load position for Max.S.F. and B.M. at a section in the span	
	8	**Influence Line for statically indeterminate Beams**	
3rd	9	Muller-Breslau Principle	
	10	Muller-Breslau Principle	
	11	I.L. for B.M. & S.F. for continuous Beams.	
	12	I.L. for B.M. & S.F. for continuous Beams.	
4th	13	**Fixed Arches**	
	14	Expression for H and B.M. at a section	
	15	Expression for H and B.M. at a section	
	16	Elastic centre	
5th	17	Elastic centre	
	18	**Rolling Loads:** Introduction	
	19	Single concentrated load	
	20	Uniformly distributed load longer than span	
6th	21	Shorter than span	
	22	Two point loads, several point loads	
	23	Max.B.M. and S.F.Absolute	
	24	Max.B.M.	
7th	**1st Minor Test**		
8th	25	**Kani's Method**	
	26	Analysis of continuous beams and simple frames	
	27	Analysis of continuous beams and simple frames	
	28	Analysis of continuous beams and simple frames	
9th	29	Analysis of continuous beams and simple frames	
	30	Analysis of frames with different column lengths and end conditions of the bottom storey	

	31	Analysis of frames with different column lengths and end conditions of the bottom storey	
	32	Analysis of frames with different column lengths and end conditions of the bottom storey	
10th	33	Analysis of frames with different column lengths and end conditions of the bottom storey	
	34	Analysis of frames with different column lengths and end conditions of the bottom storey	
	35	Analysis of frames with different column lengths and end conditions of the bottom storey	
	36	Analysis of frames with different column lengths and end conditions of the bottom storey	
11th	37	**Approximate Analysis of frames**	
	38	(i) for vertical loads	
	39	(i) for vertical loads	
	40	(ii) for lateral loads by Portal method & Cantilever method.	
12th	41	(ii) for lateral loads by Portal method & Cantilever method.	
	42	(ii) for lateral loads by Portal method & Cantilever method.	
	43	**Matrix Methods**: Introduction	
	44	Stiffness Coefficients	
13th	45	Flexibility Coefficients	
	46	Development of flexibility & stiffness matrices for plane frame	
	47	Development of flexibility & stiffness matrices for plane frame	
	48	Global axis and local axis	
14th	**2nd Minor test**		
15th	49	Global axis and local axis	
	50	analysis of plane frame	
	51	pin jointed and rigid jointed	
	52	pin jointed and rigid jointed	

Lesson Plan			
Week	**Theory**		
	Lecture Day	**Topic (Including Assignment Test)**	**Date**
1st	1	**Introduction:** Properties of structural steel	
	2	I.S. Rolled sections and I.S. specification	
	3	**Connections:** Importance, various types of connections,	
2nd	4	Simple and moment resistant, riveted connections.	
	5	Bolted connections.	
	6	Bolted connections.	
3rd	7	Welded connections.	
	8	Welded connections.	

	9	**Design of Tension Members:** Introduction, types of tension members,	
4th	10	net sectional areas,	
	11	design of tension members,	
	12	design of tension members,	
5th	13	lug angles	
	14	Splices	
	15	**Design of Compression Members:** Introduction, effective length and slenderness ratio,	
6th	16	various types of sections used for columns, built up columns, necessity,	
	17	design of built up columns,	
	18	design of built up columns,	
7th	19	**MINOR TEST 1**	
	20		
	21		
8th	22	laced and battened columns including the design of lacing and battens,	
	23	laced and battened columns including the design of lacing and battens,	
	24	Design of eccentrically loaded compression members.	
9th	25	**Column Bases and Footings:** Introduction, types of column bases,	
	26	Design of slab base and gusseted base - specifications	
	27	Design of gussested base subjected to eccentrically loading	
10th	28	Design of grillage foundations	
	29	Design of grillage foundations	
	30	Introduction, types of sections, general design criteria for beams,	
11th	31	design of laterally supported and unsupported beams,	
	32	design of laterally supported and unsupported beams,	
	33	design of built up beams,	
12th	34	Web buckling, web crippling and diagonal buckling.	
	35	Design of gantry girder.	
	36	Design of gantry girder.	
13th	37	Introduction, elements of plate girder, design steps of a plate girder	
	38	necessity of stiffeners in plate girder, various types of stiffeners	
	39	web and flange splices (brief introduction)	
14th	40	**MINOR TEST II**	
	41		
	42		
15th	43	Curtailment of flange plates, design beam to column connections	
	44	design beam to column connections	
	45	Introduction, design of framed and seat connection.	

Name of the Faculty : Mr.Sumeet
Discipline : B.Tech in Civil Engineering
Semester : V (3rd Year)
Subject : CVE – 305-L, Design of Concrete Structures - I
Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 04

Name of the Faculty : Mr.Sumeet
Discipline : B.Tech in Civil Engineering
Semester : V (3rd Year)
Subject : CVE – 305-L, Design of Concrete Structures - I
Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 04
Name of the Faculty : Mr.Sumeet
Discipline : B.Tech in Civil Engineering
Semester : V (3rd Year)
Subject : CVE – 305-L, Design of Concrete Structures - I
Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 04

Name of the Faculty : Mr. Sumeet
Discipline : B.Tech in Civil Engineering

Semester : V (3rd Year)
Subject : CVE – 305-L, Design of Concrete Structures - I
Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 04

Lesson Plan			
Week	**Lecture Day**	**Topic (Including Assignment Test)**	**Date**
1st	1	**Elementary treatment of concrete technology:** Physical requirements of cement, aggregate, admixture and reinforcement	
	2	Strength and durability, shrinkage and creep. Design of concrete mixes, Acceptability criterion, I.S. Specifications,	
	3	**Design Philosophies in Reinforced Concrete:** Working stress and limit state methods, Limit state v/s working stress method,	
	4	**Design Philosophies in Reinforced Concrete:** Working stress and limit state methods, Limit state v/s working stress method,	
2nd	5	Building code, Normal distribution curve, characteristic strength and characteristics loads, design values, Partial safety factors and factored loads,	
	6	stress -strain relationship for concrete and steel	
	7	**Working Stress Method:** Basic assumptions, permissible stresses in concrete and steel,	
	8	**Working Stress Method:** Basic assumptions, permissible stresses in concrete and steel,	
3rd	9	Design of singly and doubly reinforced rectangular and flanged beams in flexure,	
	10	Design of singly and doubly reinforced rectangular and flanged beams in flexure,	
	11	Design of singly and doubly reinforced rectangular and flanged beams in flexure,	
	12	Design of singly and doubly reinforced rectangular and flanged beams in flexure,	
4th	13	Design of singly and doubly reinforced rectangular and flanged beams in flexure,	
	14	Steel beam theory, inverted flanged beams, design examples.	
	15	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
	16	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
5th	17	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
	18	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
	19	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
	20	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
6th	21	**Limit State Method:** Basic assumptions, Analysis and design of singly and doubly reinforced rectangular flanged beams,	
	22	minimum and maximum reinforcement requirement, design examples	
	23	**Analysis and Design of Sections in shearbond and torsion:** Diagonal tension, shear reinforcement,	

		development length,	
	24	**Analysis and Design of Sections in shearbond and torsion:** Diagonal tension, shear reinforcement, development length,	
7th		**MINOR TEST 1**	
8th	25	Anchorage and flexural bond, Torsional, stiffness, equivalent shear, Torsional reinforcement, Design examples.	
	26	Design examples	
	27	**Columns and Footings:** Effective length, Minimum eccentricity, short columns under axial compression	
	28	**Columns and Footings:** Effective length, Minimum eccentricity, short columns under axial compression	
9th	29	Uniaxial and biaxial bending, slender columns	
	30	Isolated and wall footings, Design examples.	
	31	**Serviceability Limit State:** Control of deflection, cracking, slenderness and vibrations,	
	32	**Serviceability Limit State:** Control of deflection, cracking, slenderness and vibrations,	
10th	33	Deflection and moment relationship for limiting values of span to depth,	
	34	Limit state of crack width, Design examples.	
	35	Design examples	
	36	Design examples	
11th	37	**Concrete Reinforcement and Detailing:** Requirements of good detailing cover to reinforcement, spacing of reinforcement, reinforcement splicing	
	38	Anchoring reinforcing bars in flexure and shear, curtailment of reinforcement.	
	39	**One way and Two Ways Slabs:** General considerations, Design of one way and two ways slabs for distributed and concentrated loads	
	40	**One way and Two Ways Slabs:** General considerations, Design of one way and two ways slabs for distributed and concentrated loads	
12th	41	Design of one way and two ways slabs for distributed and concentrated loads	
	42	Design of one way and two ways slabs for distributed and concentrated loads	
	43	Design of one way and two ways slabs for distributed and concentrated loads	
	44	Design of one way and two ways slabs for distributed and concentrated loads	
13th	45	Non-rectangular slabs, openings in slabs, Design examples.	
	46	Retaining Walls: Classification, Forces on retaining walls, design criteria, stability requirements,	
	47	Design example	
	48	Design example	
14th		**MINOR TEST II**	
15th	49	Proportioning of cantilever retaining walls, counterfort retaining walls, criteria for design of counter-forts, design examples	
	50	design examples	
	51	design examples	
	52	design examples	

Lesson Plan

Name of the Faculty	:	Mr.Kamaldeep Singh
Discipline	:	B.Tech in Civil Engineering
Semester	:	V (3rd Year)
Subject	:	CVE – 307-L, Hydrology
Lesson Plan Duration	:	15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.)	:	Lectures – 03

		-Duration- Frequency Curves,	
	8	Probable Max. Precipitation, Evaporation & Transpiration: Process, Evaporimeters	
	9	Evaporation & Transpiration: Empirical Relationships, Analytical Method,	
4th	10	Reservoir Evaporation And Methods Of Its Control,	
	11	Transpiration, Evapotranspiration And Its Measurement,	
	12	Penman's Equation And Potential Evapotranspiration. Infiltration: Infiltration Process, Initial Loss, Infiltration Capacity	
5th	13	Measurement Of Infiltration, Infiltration Indices.	
	14	Runoff: Factor Affecting Run-Off,	
	15	Estimation Of Runoff, Rainfall-Run Off Relationships, Measurement Of Stage-Staff Gauge,	
6th	16	Wire Gauge, Automatic Stage Recorder And Stage	
	17	Hydrograph,	
	18	Measurement Of Velocity-Current Meters, Floats, Area Velocity Method,	
7th	19		
	20	**MINOR TEST I**	
	21		
8th	22	Moving Boat And Slope Area Method,	
	23	Electromagnetic, Ultra-Sonic And Dilution Methods Of Stream Flow Measurement,	
	24	Stage Discharge Relationship. Hydrograph: Discharge Hydrograph, Components	
	25	Factors Affecting Shape Of Hydrograph, Effective Rainfall,	
9th	26	Unit Hydrograph And Its Derivation,	
	27	Numerical Problems, Unit Hydrograph Of Different Durations,	
	28	Numerical Problems	
10th	29	Use And Limitations Of UH, Triangular UH,	
	30	Snyder's Synthetic UH, Floods, Rational Methods,	
11th	31	Empirical Formulae, UH Method,	
	32	Flood Frequency Methods,	
	33	Gumbel's Method, Graphical Method, Design Flood.	
	34	Ground Water: Occurrence, Types Of Aquifers,	
12th	35	Compressibility Of Aquifers,	
	36	Water Table And Its Effects On Fluctuations , Wells And Springs, Movement Of Ground Water,	
	37	Darcy's Law,	
13th	38	Numerical Problems	
	39	Permeability And Its Determination, Porosity, Specific Yield And Specific Retention,	
	40		
14th	41	**MINOR TEST II**	
	42		
	43	Storage Coefficient, Transmissibility.	
15th	44	Well Hydraulics: Introduction , Types, Flow	
	45	Steady State Flow To Wells In Unconfined And Confined Aquifers, Numerical Problems	

Name of the Faculty : Mr. Harish Kumar

Discipline : B.Tech in Civil Engineering

Semester : V (3rd Year)

Subject : CVE – 309-L, Geotechnology - 1

Lesson Plan Duration : 15 Weeks (from Aug, 2018 to Dec, 2018)

Work Load (Lecture / Practical) per week (in hrs.) : Lectures – 03

	6	**Drainage & Dewatering:** Introduction, Ditches And Sumps,	
3rd	7	Well Point Systems, Shallow Well System, Deep Well Drainage,	
	8	Well Point Systems, Shallow Well System, Deep Well Drainage	
	9	Vacuum Method, Electro-Osmosis, Consolidation By Sand Piles.	
4th	10	Shallow Foundations-I : Introduction	
	11	Design Criteria For Structural Safety Of Foundation (I) Location Of Footing,(II) Shear Failure (III) Settlement	
	12	Ultimate Bearing Capacity, Modes Of Shear Failure,	

5th	13	Rankine's Analysis, Bearing Capacity Calculation	
	14	Tergazi's Theory, Bearing Capacity Calculation	
	15	Skempton's Formula, Bearing Capacity Calculation	
6th	16	Effect Of Fluctuation Of G.W.T. , Effect Of Eccentricity On Bearing Capacity, Inclined Load, I.S Code Recomm.	
	17	Factors Affecting Bearing Capacity,Methods Of Improving Bearing Capacity	
	18	**Shallow Foundations-II:** Various Causes Of Settlement Of Foundation, Allowable Bearing Pressure Based On Settlement, Settlement Calculation	
7th	19	**MINOR TEST-I**	
	20		
	21		
8th	22	Elastic And Consolidation Settlement, Allowable Settlement According To I.S. Code	
	23	Plate Load Test And Its Interpretation, Bearing Capacity From Penetration Tests, Design Bearing Capacity	
	24	**Shallow Foundations-III:** Situation Suitable For Shallow Foundations, Types, Their Relative Merits,	
9th	25	Depth Of Foundation, Footing On Slopes, Uplift Of Footings,	
	26	Conventional Procedure Of Proportioning Of Footings	
	27	Combined Footings, Raft Foundations, Bearing Capacity Of Raft In Sands And Clays	
10th	28	Various Methods Of Designing Rafts, Floating Foundations	
	29	**Pile Foundations-I:** Introduction, Necessity Of Pile Foundations, Classification Of Piles	
	30	Load Capacity, Static Analysis, Analysis Of Pile Capacity In Sands And	
11th	31	Analysis Of Pile Capacity In Clays, Dynamic Analysis, Pile Load Tests	
	32	Negative Skin Friction, Batter Piles, Lateral Load Capacity, Uplift Capacity Of Single Pile, Under-Reamed Pile	
	33	**Pile Foundations-II:** Group Action In Piles, Pile Spacing	
12th	34	Pile Group Capacity, Stress On Lower Strata, Settlement Analysis	
	35	Design Of Pile Caps, Negative Skin Friction Of Pile Group	
	36	Uplift Resistance Of Pile Group, Lateral Resistance, Batter Pile Group	
13th	37	**Drilled Piers And Caisson Foundations:** Drilled Piers-Types, Uses Drilled Piers - Bearing Capacity, Settlement	
	38	Drilled Piers- Construction Procedure.	
	39	Caissons-Types, Bearing Capacity And Settlement, Caissons - Construction Procedure.	
14th	40	**MINOR TEST-II**	
	41		
	42		
15th	43	Well Foundations-Shapes, Depth Of Well Foundations, Components,	
	44	Factors Affecting Well Foundation Design Lateral Stability, Construction Procedure	
	45	Sinking Of Wells, Rectification Of Tilts And Shifts, Recommended Values Of Tilts & Shifts As Per I.S.3955	

Name of the Faculty	**:**	Mr.ManojPoonia
Discipline	**:**	B.Tech in Civil Engineering
Semester	**:**	V (3rd Year)
Subject	**:**	CVE – 301-L, Structural Analysis - III
Lesson Plan Duration	**:**	15 Weeks (from Aug, 2018 to Dec, 2018)
Work Load (Lecture / Practical) per week (in hrs.)	**:**	Lectures – 04

	4	Influence lines for three hinged and two hinged arches	
2nd	5	Influence lines for three hinged and two hinged arches	
	6	Load position for Max.S.F. and B.M. at a section in the span	
	7	Load position for Max.S.F. and B.M. at a section in the span	
	8	**Influence Line for statically indeterminate Beams**	
3rd	9	Muller-Breslau Principle	
	10	Muller-Breslau Principle	
	11	I.L. for B.M. & S.F. for continuous Beams.	
	12	I.L. for B.M. & S.F. for continuous Beams.	
4th	13	**Fixed Arches**	
	14	Expression for H and B.M. at a section	
	15	Expression for H and B.M. at a section	
	16	Elastic centre	
5th	17	Elastic centre	
	18	**Rolling Loads:** Introduction	

	19	Single concentrated load	
	20	Uniformly distributed load longer than span	
6th	21	Shorter than span	
	22	Two point loads, several point loads	
	23	Max.B.M. and S.F.Absolute	
	24	Max.B.M.	
7th	**1st Minor Test**		
8th	25	**Kani's Method**	
	26	Analysis of continuous beams and simple frames	
	27	Analysis of continuous beams and simple frames	
	28	Analysis of continuous beams and simple frames	
9th	29	Analysis of continuous beams and simple frames	
	30	Analysis of frames with different column lengths and end conditions of the bottom storey	
	31	Analysis of frames with different column lengths and end conditions of the bottom storey	
	32	Analysis of frames with different column lengths and end conditions of the bottom storey	
10th	33	Analysis of frames with different column lengths and end conditions of the bottom storey	
	34	Analysis of frames with different column lengths and end conditions of the bottom storey	
	35	Analysis of frames with different column lengths and end conditions of the bottom storey	
	36	Analysis of frames with different column lengths and end conditions of the bottom storey	
11th	37	**Approximate Analysis of frames**	
	38	(i) for vertical loads	
	39	(i) for vertical loads	
	40	(ii) for lateral loads by Portal method & Cantilever method.	
12th	41	(ii) for lateral loads by Portal method & Cantilever method.	
	42	(ii) for lateral loads by Portal method & Cantilever method.	
	43	**Matrix Methods**: Introduction	
	44	Stiffness Coefficients	
13th	45	Flexibility Coefficients	
	46	Development of flexibility & stiffness matrices for plane frame	
	47	Development of flexibility & stiffness matrices for plane frame	
	48	Global axis and local axis	
14th	**2nd Minor test**		

Lesson Plan

Name of the Faculty : Mr. ManojPoonia

Discipline : B.Tech in Civil Engineering

Semester : V (3rd Year)

Subject : CVE – 301-P STRUCTURAL MECHANICS – II (P)

Lesson Plan Duration : 15 Weeks (from AUG, 2018 to DEC, 2018)

Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Practical		
	Day	**Topics / Experiments**	**Date**
1st	1	Exp. 1 - Experiment on a two hinged arch for horizontal thrust & influence line for Horizontal thrust (Group 1)	
	2	Exp. 1 - Experiment on a two hinged arch for horizontal thrust & influence line for Horizontal thrust (Group 2)	
2nd	3	Exp. 2 - Experimental and analytical study of a 3-bar pin-jointed Truss (Group 1)	
	4	Exp. 2 Experimental and analytical study of a 3-bar pin-jointed Truss (Group 2)	
3rd	5	Exp. 3 - Experimental and analytical study of deflections for unsymmetrical bending of a Cantilever beam (Group 1)	
	6	Exp. 3 - Experimental and analytical study of deflections for unsymmetrical bending of a Cantilever beam (Group 2)	
4th	7	Exp. 4 - Begg'sdeformeter- verification of Muller Breslau principle (Group 1)	
	8	Exp. 4 - Begg'sdeformeter- verification of Muller Breslau principle (Group 2)	
5th	9	Exp. 5 - Experimental and analytical study of an elastically coupled beam (Group 1)	
	10	Exp. 5 - Experimental and analytical study of an elastically coupled beam (Group 2)	
6th	11	Exp. 6 - Sway in portal frames - demonstration (Group 1)	
	12	Exp. 6 - Sway in portal frames - demonstration (Group 2)	
7th	13	**MINOR TEST I**	
	14		
8th	15	**VIVA – VOCE Group - 1**	
	16	**VIVA – VOCE Group - 2**	
9th	17	Exp. 7 - To study the cable geometry and statics for different loading conditions (Group 1)	
	18	Exp. 7 - To study the cable geometry and statics for different loading conditions (Group 2)	
10th	19	Exp. 8 - To plot stress-strain curve for concrete.(Group 1)	
	20	Exp. 8 - To plot stress-strain curve for concrete.(Group 2)	
11th	21	Exp. 9 - Experiment on a two hinged arch for horizontal thrust & influence line for Horizontal thrust (Group 1)	
	22	Exp. 9 - Experiment on a two hinged arch for horizontal thrust & influence line for Horizontal thrust (Group 2)	
12th	23	Exp. 10 - Experimental and analytical study of deflections for unsymmetrical bending of a Cantilever beam.(Group 1) – Circular Base Plate	
	24	Exp. 10 - Experimental and analytical study of deflections for unsymmetrical bending of a Cantilever beam.(Group 2) – Circular Base Plate	
13th	25	Exp. 10 - To plot stress-strain curve for concrete.(– Rectangular Base Plate	
	26	Exp. 10 - To plot stress-strain curve for concrete.(– Rectangular Base Plate	
14th	27	**MINOR TEST II**	
	28		
15th	29	**VIVA – VOCE Group - 1**	
	30	**VIVA – VOCE Group - 2**	

Name of the Faculty : Mr.Sumeet/Ms. ManjuGodara
Discipline : Civil Engineering
Semester : V (3rd Year)
Subject : CVE-305-P CONCRETE LAB (P)
Lesson Plan Duration : 15 Weeks (from AUG, 2018 to DEC, 2018)
Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Lecture day	Topics / Experiments	Date
1st	1	Exp. 1 - Standard consistency of cement using Vicat's apparatus. (Group 1)	
	2	Exp. 1 - Standard consistency of cement using Vicat's apparatus. (Group 2)	
2nd	3	Exp. 2 - Soundness of cement by Le-Chatelier's apparatus.(Group 1)	
	4	Exp. 2 - Soundness of cement by Le-Chatelier's apparatus.(Group 2)	
3rd	5	Exp. 3 - Setting time of cement, initial and final.(Group 1)	
	6	Exp. 3 - Setting time of cement, initial and final.(Group 2)	
4th	7	Exp. 4 - Compressive strength of cement.(Group 1)	
	8	Exp. 4 - Compressive strength of cement. (Group 2)	
5th	9	Exp. 5 - Fineness modulus of coarse and fine aggregates.(Group 1)	
	10	Exp. 5 - Fineness modulus of coarse and fine aggregates.(Group 2)	
6th	11	Exp. 6 - Moisture content and bulking of fine aggregate (Group 1)	
	12	Exp. 6 - Moisture content and bulking of fine aggregate (Group 2)	
7th	13	**MINOR TEST I**	
	14		
8th	15	**VIVA – VOCE Group - 1**	
	16	**VIVA – VOCE Group - 2**	
9th	17	Exp. 7 - Workability of cement concrete by (a) Slump test, (b) Compaction factor test, (c) Flow table test, (Group 1)	
	18	Exp. 7 - Workability of cement concrete by (a) Slump test, (b) Compaction factor test, (c) Flow table test (Group 2)	
10th	19	Exp. 8 - Compressive strength of concrete by (a) Cube test, (b)Cylinder test (Group 1)	
	20	Exp. 8 - Compressive strength of concrete by (a) Cube test, (b)Cylinder test (Group 2)	
11th	21	Exp. 9 - Indirect tensile strength of concrete-split cylinder test. (Group 1)	
	22	Exp. 9 - Indirect tensile strength of concrete-split cylinder test (Group 2)	
12th	23	Exp. 10 - Modulus of rupture of Concrete by flexure test (Group 1)	
	24	Exp. 10 - Modulus of rupture of Concrete by flexure test (Group 2)	
13th	25	Exp. 10 - Bond strength between steel bar and concrete by pull-out test (Group 1)	
	26	Exp. 10 - Bond strength between steel bar and concrete by pull-out test (Group 2)	
14th	27	**MINOR TEST II**	
	28		
15th	29	**VIVA – VOCE Group - 1**	
	30	**VIVA – VOCE Group - 2**	

Lesson Plan

Name of the Faculty : Mr. Harish Kumar

Discipline : B.Tech in Civil Engineering

Semester : V (3rd Year)

Subject : CVE-309-P GEOTECHNOLOGY (P)

Lesson Plan Duration : 15 Weeks (from AUG, 2018 to DEC, 2018)

Work Load (Lecture / Practical) per week (in hrs.) : Practical – 02

Week	Lecture day	Topics / Experiments	Date
1st	1	Exp. 1 - Grain Size Analysis-Hydrometer method (Group 1)	
	2	Exp. 1 - Grain Size Analysis-Hydrometer method (Group 2)	
2nd	3	Exp. 2 - Shrinkage Limit Determination (Group 1)	
	4	Exp. 2 - Shrinkage Limit Determination (Group 2)	
3rd	5	Exp. 3 - Relative Density of Granular Soils (Group 1)	
	6	Exp. 3 - Relative Density of Granular Soils (Group 2)	
4th	7	Exp. 4 - Consolidated Drained (CD) Triaxial Test (Group 1)	
	8	Exp. 4 - Consolidated Drained (CD) Triaxial Test (Group 2)	
5th	9	Exp. 5 - Consolidated Undrained (CU) Triaxial Test with Pore Water Pressure measurement (Group 1)	
	10	Exp. 5 - Consolidated Undrained (CU) Triaxial Test with Pore Water Pressure measurement (Group 2)	
6th	11	Exp. 6 - Consolidation Test (Group 1)	
	12	Exp. 6 - Consolidation Test (Group 2)	
7th	13	**MINOR TEST I**	
	14		
8th	15	**VIVA – VOCE Group - 1**	
	16	**VIVA – VOCE Group - 2**	
9th	17	Exp. 7 - Undisturbed Sampling (Group 1)	
	18	Exp. 7 - Undisturbed Sampling (Group 2)	
10th	19	Exp. 8 - Standard Penetration Test (Group 1)	
	20	Exp. 8 - Standard Penetration Test (Group 2)	
11th	21	Exp. 9 - Dynamic Cone Penetration Test (Group 1)	
	22	Exp. 9 - Dynamic Cone Penetration Test (Group 2)	
12th	23	Exp. 10 - Model Plate Load Test (Group 1) – Circular Base Plate	

	24	Exp. 10 - Model Plate Load Test (Group 2) – Circular Base Plate	
13th	25	Exp. 10 - Model Plate Load Test (Group 1) – Rectangular Base Plate	
	26	Exp. 10 - Model Plate Load Test (Group 2) – Rectangular Base Plate	
14th	27	**MINOR TEST II**	
	28		
15th	29	**VIVA – VOCE Group - 1**	
	30	**VIVA – VOCE Group - 2**	