5th Semester

Theory No: 2

Subject: Structural Design - I (CET 501)

		•	Jubjece.	Sciuctura	n Design - I (CEI 301)	
	Week	Per	riod	Numbers of		
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks
1	W 1	15-07-19	20-07-19	5	1.1 - Objectives of design and detailing .state the different methods of design of concrete structures	
2	W 2	22-07-19	27-07-19	5	1.2 - Introduction to reinforced concrete,R.C sections their behaviour, grades of concrete and steel.Permissible stresses,assumptionin W.S.M	
3	W 3	29-07-19	03-08-19	5	1.3 - Basic concept of under reinforced, over reinforced and balanced setion, flexural design & analysis of singly and doubly reinforced rectangular sections. 2.1 - Definition.types of limit states, partial safety factors for materials strength, characteristic strength characteristic load, design loading on structure as per LS	

5th Semester Theory No: 2 Subject: Structural Design - I (CET 501) Period Numbers of Week Classes to be S1 No Topics to be covered Remarks No To From Scheduled 2.2-I.S specification regarding spacing of reinforcement in slab, cover to reinforcement in slab ,beam column & footin ,minimum reinforcement in slab beam column lapping anchorage, effective W 4 05-08-19 10-08-19 5 4 span for beam and slab. 3.1- Limit state of collapse (flexure), Assumptions, stress-strain relationship for concrete and steel,neutral axis, stress block diagram and strain diagram for singly reinforced section 3.2 - Concept of under reinforced, over reinforced and limiting 12th and 15th Aug'19 are 12-08-19 5 W 5 17-08-19 5 section, neutral axis co-efficient, limiting value of miment of holiday 3.3- Numerical problems on determining design constants, moment 5 W 6 19-08-19 of resistance and area of steel for rectangular sections.4.1- General 23rd Aug'19 is Holiday 24-08-19 features, necessity of providing doubly reinforced section. Numerical problems on finding moment of resistance and design of beam sections.5.1- Nominal shear stress in RC section, design W 7 26-08-19 31-08-19 5 7 shear strength of concrete, maximum shear stress, design of shear reinforcement, minimum shear reinforcement, forms of shear reinforcement 2nd and 3rd Sept'19 are 5.2 - Bond and types of bond, bond stress, check for bond stress, development length in tension and compression, anchorage value for hooks 900 bend and 450 bend standards lapping of bars, check for development length.5.3 - Numerical problems on deciding whether shear reinforcement is required or not, check for adequacy of the 5 W 8 02-09-19 07-09-19 section in shear. Design of shear reinforcement; Minimum shear reinforcement in beams; Determination of Development length required for tension reinforcement of cantilevers beam and slab, check for development length.6.1 General features, advantages, effective width of flange as per IS: 456-2000 code provisions 6.2 Analysis of singly reinforced T-Beam, strain diagram & stress diagram, depth of neutral axis, moment of resistance of T-beam 9th and 14th Sept'19 are section with neutral axis lying within the flange. 9 W 9 09-09-19 14-09-19 5 holiday 6.3 Design of T-beam for moment and shear for neutral axis within

or up to flange bottom.

5th Semester Theory No: 2 Subject: Structural Design - I (CET 501) Numbers of Period Week S1 No Classes to be Topics to be covered Remarks No To From Scheduled 6.4 Simple numerical problems on deciding effective flange width. (Problems only on finding moment of resistance of T-beam section when N.A. lies within or up to the bottom of flange shall be asked in W 10 5 16-09-19 21-09-19 written examination)7.1 Design of simply supported one-way slabs for flexure check for deflection control and shear. 7.2 Design of one-way cantilever slabs and cantilevers chajjas for flexure check for deflection control and check for development length and shear. 28th Sept'19 is holiday W 11 23-09-19 28-09-19 5 11 7.3 Design of two-way simply supported slabs for flexure with corner free to lift. 2nd and 5th Oct'19 is 5 7.4 Design of dog-legged staircase and cantilever staircase. W 12 30-09-19 05-10-19 12 holiday 7.5 Simple numerical problems on design of one-way simply supported slabs cantilever slab, two-way simply supported slab, dog-5 14-10-19 W 13 19-10-19 legged staircase and cantilever staircase.8.1 Assumptions in limit state of collapse- compression 8.2 Definition and classification of columns, effective length of column. Specification for minimum reinforcement; cover, maximum reinforcement, number of bars in rectangular, square and circular sections, diameter and spacing of lateral ties. W 14 21-10-19 26-10-19 5 14 8.3 Analysis and design of axially loaded short, square, rectangular and circular columns with lateral ties only; check for short column and check for minimum eccentricity may be applied. 8.4 Types of footing, Design of isolated square column footing for flexure and shear, Design of Strip footing for walls. 5 W 15 28-10-19 31-10-19 8.5 Simple numerical problems on axially loaded short columns, isolated footings and wall footings Total 15

5th Semester

Theory No: 4

Subject: Surveying II (CET-503)

		•	Jubjece.	Buiveying	g 11 (CE1-303)	
	Week	Per	riod	Numbers of		Remarks
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	
1	W 1	15-07-19	20-07-19	4	1.1 Purpose of leveling 1.2 Definition of terms used in leveling – concepts of level surface, Horizontal surface, vertical surface, datum, R. L., B.M. 1.3 Description of essential features and uses of different types of leveling instruments 1.4 Concepts of line of collimation, axis of bubble tube, axis of telescope, Vertical axis 1.5 Levelling staff – types, features and use	
2	W 2	22-07-19	27-07-19	4	1.6 Temporary adjustments of level, taking reading with level 1.7 Concept of bench mark, BS, IS, FS, CP, HI 1.8 Principles of leveling – Simple leveling, Differential leveling 1.9 Field data entry – level Book – height of collimation method and Rise & Fall method, comparison, Numerical problems on reduction of levels applying both methods, Arithmetic checks 1.10 Different types of leveling, uses and methods – Fly leveling, check leveling, Profile leveling – longitudinal sections and cross-sections 1.11 Plotting of profiles	
3	W 3	29-07-19	03-08-19	4	1.12 Effects of curvature and refraction, numerical problems on application of correction 1.13 Reciprocal leveling – principles, methods, numerical problems, precise leveling 1.14 Difficulties in leveling, errors in leveling and precautions 1.15 Sensitiveness of bubble tube, determination of sensitiveness	

5th Semester Theory No: 4 Subject: Surveying II (CET-503) Period Numbers of Week S1 No Classes to be Topics to be covered Remarks No To From Scheduled 1.16 Permanent adjustments of different types of levels. 1.17 Setting grades and stakes, setting out grades of sewers and related problems 2.1 Definitions of related terms, concepts of contours, 4 W 4 05-08-19 10-08-19 4 characteristics of contours 2.2 Methods of contouring, plotting contour maps 2.3 Interpretation of contour maps, toposheets. 2.4 Use of contour maps on civil engineering projects – drawing cross-sections from 12th and 15th Aug'19 are 5 W 5 12-08-19 17-08-19 4 contour maps, locating proposal routes of roads / railway / canal on holiday a contour map, computation of volume of earthwork from contour man for simple structure 3.1 Purpose, definition of terms 3.2 Description of features, component parts of a transit theodolite 3.3 Fundamental axes of a theodolite, concept of vernier, reading a vernier 3.4 Temporary 23rd Aug'19 is Holiday W 6 19-08-19 24-08-19 4 adjustment of theodolite 3.5 Concept of transiting - swinging, faceleft, face right, changing face 3.6 Measurement of horizontal angles with theodolite by repetition and reiteration method 3.7 Measurement of vertical angles with theodolite 3.8 Determination of magnetic bearings with theodolite 3.9 W 7 26-08-19 31-08-19 4 Measurement of deflection angle, direct angle, setting out angles, prolonging a straight line with theodolite 3.10Errors in Theodolite observations 4.1Methods of traversing with theodolite - inclined angle method, deflection angle method, bearing method 4.2Plotting the traverse by coordinate method 4.3Checks for open and closed traverse 4.4 Traverse computation - consecutive coordinates, latitude and 2nd and 3rd Sept'19 are 02-09-19 07-09-19 8 W 8 4 departure, Gale's traverse table, Numerical problems on omitted holiday measurement of lengths & bearings 4.5Closing error – adjustment of angular errors, adjustment of bearings, numerical problems 4.6Balancing of traverse - Bowditch's method, transit method, graphical method, axis method 4.7Calculation of area of closed 9th and 14th Sept'19 are traverse 5.1 Principles, stadia constants determination 5.2 Stadia 9 W 9 09-09-19 14-09-19 holiday tacheometry with staff held vertical and with line of collimation horizontal or inclined, numerical problems

5th Semester Theory No: 4 Subject: Surveying II (CET-503) Period Numbers of Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled 5.3 Elevations and distances of staff stations – numerical problems 6.1 compound, reverse and transition curve, Purpose & use of W 10 16-09-19 4 10 21-09-19 different types of curves in field 6.2 Elements of circular curves, numerical problems 6.3 Preparation of curve table for setting out 6.4 Setting out of circular curve by chain and tape and by instrument angular methods (i) offsets from long chord, (ii) successive bisection of arc, 28th Sept'19 is holiday W 11 23-09-19 28-09-19 4 11 (iii) offsets from tangents, (iv) offsets from chord produced, (v) Rankine's method of tangent angles 6.5 Obstacles in curve ranging point of intersection inaccessible 7.1Methods of computations, formula for different types of cross sections 7.2Calculation of volumes by prismoidal formula and trapezoidal formula, Prismoidal corrections, curvature correction for volumes. 7.3Measurement of volumes from spot levels, Contours and 2nd and 5th Oct'19 is W 12 30-09-19 05-10-19 4 calculation of reservoir capacities. 7.4Mass haul diagram, holiday construction & characteristics, use of mass diagram. 8.1 Principles, features and use of (i) Micro-optic theodolite, digital theodolite, 8.2 Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from 13 W 13 14-10-19 19-10-19 4 total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation 21-10-19 26-10-19 14 W 14 Revision 4 W 15 15 28-10-19 31-10-19 4 Revision **Total** 15 60

Department of Civil Engineering 5th Semester Theory No: 5 Subject: Concrete Technology (CET-504) Numbers of Period Week Classes to be Topics to be covered S1 No Remarks No To From Scheduled 1.1 Grades of concrete. 1.2 Advantages and disadvantages of W 1 15-07-19 20-07-19 4 concrete. 2.1 Composition, hydration of cement, water cement ratio and compressive strength. fineness of cement, setting time, soundness, types of cement. 3.1 22-07-19 27-07-19 2 W 2 4 Classification and characteristics of aggregate, deleterious substances in aggregates, fineness modulus, grading of W 3 29-07-19 03-08-19 3 4 aggregate,

5th Semester Theory No: 5 **Subject:** Concrete Technology (CET-504) Period Numbers of Week S1 No Classes to be Topics to be covered Remarks No To From Scheduled I.S.383 4.1 Quality of water for mixing and curing. 5.1 Important W 4 05-08-19 10-08-19 4 functions, classification of admixtures, I.S 9103, accelerating admixtures. admixtures, water reducing admixtures, air containing admixtures. 12th and 15th Aug'19 are 12-08-19 17-08-19 W 5 4 holiday Concept of fresh concrete, workability, slump test, compacting factor test, V-bee consistency test and flow W 6 19-08-19 24-08-19 4 test, requirement of workability, I.S. 1199. 7.1 Cube and cylinder 23rd Aug'19 is Holiday compressive strengths, flexural strength of concrete. stress-strain and elasticity, phenomena of creep and shrinkage, 26-08-19 31-08-19 W 7 4 permeability, durability of concrete, sulphate, chloride and acid attack on concrete, efflorescence. 8.1 a) 2nd and 3rd Sept'19 are 02-09-19 07-09-19 4 W 8 holiday Introduction b) Data or input required for mix design. c) Nominal mix concrete 9th and 14th Sept'19 are W 9 09-09-19 14-09-19 4 holiday &design mix concrete. d) Basic consideration for concrete mix design, Methods of proportioning concrete mix – I.S Code method of mix 16-09-19 W 10 21-09-19 4 design(I.S.10262) 9.1 Batching of materials, mixing of concrete 10 materials, transportation, placing of concrete, compaction of concrete compaction methods vibrators curing when to start and time of curing ,formwork-requirements and types stripping of forms. 10.1 Quality control of Concrete as per I.S.456, Factors causing the variations in the quality of concrete, field quality 28th Sept'19 is holiday W 11 23-09-19 28-09-19 4 11 control, Sampling &acceptance criteria as per Clause 15&16 of IS:456. 10.2 Mixing, Transporting, Placing &curing requirements of Concrete as per IS 456 10.3 Inspection and Testing as per Clause 17 of IS:456. 10.4 2nd and 5th Oct'19 is Durability requirements of Concrete as per I.S:456. 11.1 W 12 30-09-19 05-10-19 4 12 holiday Introduction to ready mix concrete, high performance concrete fume concrete, , shot-crete concrete or gunitting 12.1 Types of W 13 14-10-19 19-10-19 4 13 deterioration prevention of concrete deterioration, corrosion of reinforcement, effects and prevention. 13.1 Symptom, cause and prevention and W 14 21-10-19 26-10-19 4 14 remedy of defects during construction, cracking of concrete due to different reasons repair of cracks for different purposes, selection of techniques, W 15 31-10-19 28-10-19 4 polymer based repairs, common types of repairs. And Revision 60

Total

15

5th Semester

Theory No: 3

Subject: Highway Engineering (CET-502)

	Subject. Highway Busineering (CD1-002)							
	Week	Per	riod	Numbers of				
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks		
1	W 1	15-07-19	20-07-19	5	1.1 Importance of Highway transportation: importance organizations like Indian roads congress, Ministry of Surface Transport, Central Road Research Institute.1.2 Functions of Indian Roads Congress 1.3 IRC classification of roads 1.4 Organisation of state highway department 2.1 Glossary of terms used in geometric and their importance, right of way, formation width, road margin, road shoulder, carriage way, side slopes, kerbs,			
2	W 2	22-07-19	27-07-19	5	2.2 Design and average running speed, stopping and passing sight distance			
3	W 3	29-07-19	03-08-19	5	2.3 Necessity of curves, horizontal and vertical curves including transition curves and super elevation, Methods of providing super – elevation3.1 Difference types of road materials in use: sol, aggregates, binders 3.2 Function of soil as highway subgrade 3.3 California Bearing Ratio: methods of finding CBR valued in the laboratory and at site and their significance			

5th Semester Theory No: 3 Subject: Highway Engineering (CET-502) Period Numbers of Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled 3.4 Testing aggregates: Abrasion test, impact test, crushing strength test, water absorption test & soundness test 3.5 Aggregates: Availability of road aggregates in India, Requirements of road aggregates as per IS specifications 3.6 Binders : common binders : 5 W 4 05-08-19 10-08-19 cement, bitumen and Tar, propertied as per IS specifications, penetration and viscosity test of bitumen, procedure and a significance of cut back bitumen and bituminous emulsion and their 4.1 Road Pavement: Flexible and rigid pavement, their merits and demerits, typical cross-sections, functions of various components 4.2 Sub-grade preparation: Setting out alignment of road, setting out bench marks, control pegs for embankment and cutting, borrow pits, making profile of embankment, construction of embankment, compaction, 12th and 15th Aug'19 are W 5 12-08-19 17-08-19 5 5 stabilization, preparation of subgrade, methods of checking camber, holiday gradient and alignment as per recommendations of IRC, equipment used for subgrade preparation 4.3 Flexible pavements : necessity of sub base, stabilized sub bade: purpose of stabilization(no designs) Types of stabilization "a Mechanical stabilization b. Lime stabilization c. Cement stabilization d Fly ash stabilization 4.4 Base Course: Preparation of base course a. Brick soling b. Stone soling c. Metalling: Water Bound Macadam and Bituminous Macadam 4.5 Surfacing: Types of surfacing a. Surface dressing b. (i) Premix carpet (ii) Semi dense carpet c. Bituminous concrete d. Grouting Methods of constructions as per 5 23rd Aug'19 is Holiday W 6 19-08-19 24-08-19 Ministry of Surface Transport, specifications and quality control 4.6 Rigid Pavements: Construction of concrete roads as per IRC specifications: From laying, mixing and placing the concrete, compacting and finishing, curing, joints in concrete pavement, equipment used 5.1 Introduction: Typical cross-sections showing all details of a typical hill road in cut, partly in cutting and partly in filling 5.2 W 7 26-08-19 31-08-19 Breast Walls, Retaining walls,

5th Semester Theory No: 3 Subject: Highway Engineering (CET-502) Period Numbers of Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled different types of bends 6.1 Necessity of road drainage work, cross drainage works 6.2 Surface and sub-surface drains and storm water 2nd and 3rd Sept'19 are 5 8 W 8 02-09-19 07-09-19 holiday drains. Location, spacing and typical details of side drains, side ditches for surface drainage, intercepting drains pipe drains in hill roads, details of drains in cutting embankment, typical cross sections 7.1 Common types of road failures – their 9th and 14th Sept'19 are 5 9 W 9 09-09-19 14-09-19 causes and remedies 7.2 Maintenance of bituminous road such as holiday patch work and resurfacing 7.3 Maintenance of concrete roads – filling cracks, repairing joints, maintenance of shoulders (berm), maintenance of traffic control devices. Output and use of the following plant and equipment:8.1 W 10 16-09-19 21-09-19 5 10 Hot mixing plant8.2 Tipper, tractors (wheel and crawler) scraper, bulldozer, dumpers, shovels, graders, roller dragline8.3 Asphalt mixer and tar boilers 8.4 Road pavers 8.5 Modern construction equipments for roads. 9.1 Basic concept of traffic study 9.2 Traffic safety and traffic control 5 28th Sept'19 is holiday W 11 23-09-19 28-09-19 11 signal 9.3 Road junctions 9.4 Traffic island and refuge island; advantages and disadvantages 10.1 Meaning of landscaping and arboriculture 10.2 Aesthetics in 2nd and 5th Oct'19 is W 12 30-09-19 5 12 05-10-19 holiday road side development 14-10-19 19-10-19 W 13 5 Revision 13 14 W 14 21-10-19 26-10-19 5 Revision 5 15 W 15 28-10-19 31-10-19 Revision **75 Total** 15

5th Semester

Theory No: 1

Subject: Construction Managemant (CET 601)

	Subject: Construction Management (CET 601)								
S1 No	Week		iod	Numbers of Classes to be	Topics to be covered	Remarks			
	No	From	То	Scheduled					
1	W 1	15-07-19	20-07-19	5	1.1 Aims and objectives of construction management. 1.2 Functions of construction management. 1.3 The construction team components-owner, engineer, architect, contractor-their functions and interrelationship and jurisdiction. 1.4 Resources for construction management-men, machines, materials, money 2.1 Importance of Construction Planning 2.2 Developing work breakdown structure for construction work 2.3 Construction Planning stages-Pre-tender stage, Post-tender stage. 2.4 Construction scheduling by Bar charts-preparation of Bar Charts for simple construction works.				
2	W 2	22-07-19	27-07-19	5	2.5 Preparation of schedules for labour materials, machinery, finance for small works 2.6 Limitation of Bar charts 2.7 Construction scheduling by network techniques-defination of terms ,PERT and CPM techniques, advantages and disadvantages of two techniques, network analysis, estimation of time and critical path, application of PERT and CPM techniques in sample construction works. 3.1 Classification of Stores-storage of stock. 3.2 Issue of materials-indent, invoice, bin card				
3	W 3	29-07-19	03-08-19	5	3.3. Stores Accounting Procedure 3.4 Inspection of stores, T&P account's register, procedure of write off 4.1 Job Lay out-Objectives, Review plans, specifications, Lay out of equipments. 4.2 Factors influencing selection, design and layout of temporary facilities and services at construction site.				

5th Semester Theory No: 1 **Subject:** Construction Management (CET 601) **Numbers of** Period Week S1 No Classes to be Topics to be covered Remarks No To From Scheduled 4.3 Principles of storing material at site. 4.4 Location of equipment, 5 W 4 05-08-19 10-08-19 organizing labour at site. 4.5 Job lay out for different construction sites. 12th and 15th Aug'19 are 5 W 5 12-08-19 17-08-19 holiday 5.1 Introduction – Characteristics, Structure, importance. 5.2 Organization types-line and staff, functions and their characteristics 5 23rd Aug'19 is Holiday W 6 19-08-19 6 24-08-19 5.3 Principles of organization- meaning and significance of termscontrol, authority, responsibility, job & task. 5.4 Leadership-necessity, styles of leadership, role of leader 5.5 Principles of effective supervision 5.6 Human relations-relations with subordinates, peers, Supervisors, characteristics of group behavior, W 7 26-08-19 31-08-19 5 mob psychology, handling of grievances, absenteeism, labour welfare. 5.7 Conflicts in organization-genesis of conflicts, typesintrapersonal, interpersonal, intergroup, resolving conflicts. 6.1 Drengring I abour schedule 6.2 Essential steps for optimum labour output 6.3 Labour characteristics 6.4 Wages & their payment 6.5 Labour incentives 6.6 2nd and 3rd Sept'19 are W 8 02-09-19 07-09-19 5 holiday Motivation- Classification of motives, different approaches to motivation. 6.7 Morale 6.8 Relevant labour laws and case studies related to 9th and 14th Sept'19 are 9 W 9 09-09-19 14-09-19 5 labour disputes 7.1 Preparing the equipment schedule holiday 7.2 Identification of different alternative equipment 7.3 Importance of Owning & operating costs in making decisions for hiring & purchase of equipment 7.4 Inspection and testing of 5 10 W 10 16-09-19 21-09-19 equipment 7.5 Equipment maintenance and minor repairs 23-09-19 28-09-19 8.1 Concept of quality in construction 28th Sept'19 is holiday W 11 5 11 8.2 Quality Standards-during construction, after construction, 2nd and 5th Oct'19 is 5 W 12 30-09-19 05-10-19 12 holiday destructive & non destructive methods. 9.1 Programme and progress 5 14-10-19 19-10-19 W 13 13 9.2 Work study 9.3 Analysis and control of physical and financial W 14 21-10-19 26-10-19 progress corrective measures. 10.1 Importance of safety

	5th Semester									
		The	ory No:	1						
		5	Subject:	Construc	Construction Managemant (CET 601)					
	Week Period		riod	Numbers of						
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks				
15	W 15	28-10-19	31-10-19		10.2 causes and effects of accidents in construction works 10.3 Safety measures in worksites for excavation, scaffolding, formwork, fabrication and errection, demolition. 10.4 Development of safety consciousness 10.5 Safety legislation- Workman's compensation act, contract labour act					
Total	15			75						

	Department of Civil Engineering								
	5th Semester								
	Practical: 2								
	Subject: CADD Lab (CEP502)								
	Week	Period		Numbers of					
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks			
1 W 1 15-07-19 20-07-19			20-07-19	6	Revit Architecture Software: basics -				
2	2 W 2 22-07-19 27-07-19			6	Modify,wall,door,window,component,Room,roof,floor,grid,lines,dimension,secti				
3	3 W 3 29-07-19 03-08-19 6 on,leve				on, level, text, view. Modelling - Ramp, Railing, Stair. Site-Topo surface - Parking				

5th Semester Practical: 2 Subject: CADD Lab (CEP502) Period Numbers of Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled component,Site component,Align,split,trim,offset,match type,line 05-08-19 10-08-19 W 4 6 work,paint,scale,unit,3D view,preparation of approval drawing of a double 12th and 15th Aug'19 are 12-08-19 17-08-19 W 5 6 storied residential building from given specifications with its 3D view using holiday above commands. 23rd Aug'19 is Holiday 19-08-19 24-08-19 6 W 6 6 26-08-19 31-08-19 W 7 6 2nd and 3rd Sept'19 are W 8 02-09-19 07-09-19 8 6 holiday 9th and 14th Sept'19 are 09-09-19 14-09-19 9 W 9 6 holiday Introduction to STAAD Pro Software: 2D modelling of structures, use of W 10 16-09-19 21-09-19 6 10 structure wizard, geometry, property, support, loads and combinations 28th Sept'19 is holiday W 11 23-09-19 28-09-19 11 6 analysis. Analysis of a continous beam with more than two span subjected to 2nd and 5th Oct'19 is 05-10-19 W 12 30-09-19 6 12 udl and point load. holiday W 13 14-10-19 19-10-19 13 6 14 W 14 21-10-19 26-10-19 6 15 W 15 28-10-19 31-10-19 6 **15** 90 **Total**

Department of Civil Engineering 5th Semester Practical: 1 Subject: CE Lab II (CEP 501) Numbers of Period Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled 1.1 Determination of Specific gravity of Soil by Pycnometer/Density 15-07-19 20-07-19 6 W 1 1.2 Determination of Field Density of Soil by Core Cutter Method.

1.3 Determination of Particle Size gradation of sand/Gravel by sieve

22-07-19

29-07-19

W 2

W 3

2

27-07-19

03-08-19

6

6

analysis.

5th Semester Practical: 1 Subject: CE Lab II (CEP 501) Numbers of Period Week Topics to be covered S1 No Classes to be Remarks No To From Scheduled 1.5 Determination of Liquid Limit by soil by Casagrande"s W 4 05-08-19 10-08-19 6 apparatus. 1.6 Determination of Plastic limit of soil. 1.7 Determination of 12th and 15th Aug'19 are W 5 12-08-19 17-08-19 6 Shrinkage limit of soil. holiday 1.9 Determination of MDD & OMC of soil by using modified Proctor 19-08-19 24-08-19 23rd Aug'19 is Holiday W 6 6 6 1.12 Determination of CBR value using Laboratory CBR Testing 6 W 7 26-08-19 31-08-19 7 device. 1.13 Determination of Swelling Index, Swelling factor & Swelling 2nd and 3rd Sept'19 are 02-09-19 07-09-19 8 W 8 6 holiday pressure of expansion. 2.1 Penetration Test of Bitumen. 2.2 Ductility Test of Bitumen. 9th and 14th Sept'19 are 09-09-19 6 W 9 14-09-19 holiday 2.3 Viscosity Test of Bitumen. 2.5 Softening point Test of Bitumen. W 10 16-09-19 21-09-19 6 10 23-09-19 28-09-19 28th Sept'19 is holiday 2.6 Determination of Bitumen content by centrifuge extractor. 11 W 11 6 3.1 Determination of Turbidity of water Sample using Turbidimeter/Nephlometer/Jackson's Candle Turbidimeter. 3.2 2nd and 5th Oct'19 is 30-09-19 W 12 6 12 05-10-19 holiday Determination of pH of Water sample using (a) pH – meter (b) colour Comparator. 3.6 Determination of Cloride content of a Water sample using

3.8 Determination of Coagulant (Alum) dose requirement for a turbid

3.9 Determination of dissolved Oxygen of water sample collected

method of titration.

water sample by Jar Test.

from the field using Winkler's method.

W 13

W 14

W 15

15

13

15

Total

14-10-19

21-10-19

28-10-19

19-10-19

26-10-19

31-10-19

6

6

6

90

	Department of Civil Engineering								
	5th Semester								
	Practical: 3								
	Subject: Structural Detailing I (CEP 503)								
	Week	Per	riod	Numbers of					
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks			
1	1 W 1 15-07-19 20-07-19			4	(a) Slab, beam and lintel with chaja as in a simple building (Help				
2	2 W 2 22-07-19 27-07-19			from Sections 8&9 of SP 34 may be taken) Plate I					
3	W 3	29-07-19	03-08-19	4					

					5th Semester	
		Pr	actical:	3		
	Week	Per	iod	Numbers of		
S1 No	No	From	То	Classes to be Scheduled	Topics to be covered	Remarks
4	W 4	05-08-19	10-08-19	4		
5	W 5	12-08-19	17-08-19	4		12th and 15th Aug'19 are holiday
6	W 6	19-08-19	24-08-19	4	(b) Columns, column-beam connections with & without splicing, isolated footing, staircase (Help from sections 6, 7, 10 of SP 34 may	23rd Aug'19 is Holiday
7	W 7	26-08-19	31-08-19	4		
8	W 8	02-09-19	07-09-19	4	be taken) Plate 2	2nd and 3rd Sept'19 are holiday
9	W 9	09-09-19	14-09-19	4		9th and 14th Sept'19 are holiday
10	W 10	16-09-19	21-09-19	4		<u>.</u>
11	W 11	23-09-19	28-09-19	4	(c) Cantilever and a Counter fort retaining walls : deflected shapes of	28th Sept'19 is holiday
12	W 12	30-09-19	05-10-19	4	sections at different locations and details of reinforcement (Help from Section 11 and sheet 20 of SP 34 may be taken) – Plate 3	2nd and 5th Oct'19 is holiday
13	W 13	14-10-19	19-10-19	4		
14	W 14	21-10-19	26-10-19	4		
15	W 15	28-10-19	31-10-19	4		
Total	15			60		