



Lesson Plan for the odd sem – 2016

Semester – 7

Subject Code : 10CV71

Subject Name : ENVIRONMENTAL ENGINEERING II

SEMESTER : VII

NAME OF THE FACULTY : Ms.Bhavya K.

BRANCH : CIV

DATE OF COMMENCEMENT : 28-07-2016

SUBJECT : ENVIRONMENTAL ENGG II

DATE OF CLOSING : 19-11-2016

SUBJECT CODE : 10CV71

CLASS STRENGTH : 55

NO OF HRS/ WK : 5

TOTAL HRS : 60

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1		29.07.16	Introduction and syllabus briefing	Chalk & Board		
2	1/1	30.07.16	UNIT 1: Introduction Introduction	„		
3	2/1	01.08.16	Necessity for sanitation	„		
4	3/1	02.08.16	methods of domestic waste water disposal	„		
5	4/1	03.08.16	Types of sewerage systems and their suitability	„		
6	5/1	05.08.16	Dry weather flow, factors affecting dry weather flow	„		
7	6/1	06.08.16	Flow variations and their effects on design of sewerage system	„		

8	7/1	08.08.16	Computation of design flow, estimation of storm flow	”		
9	8/1	09.08.16	Rational method and empirical formulae of design of storm water drain. Time of concentration	Chalk & Board		
10		10.08.16	Revision			
11	½	12.08.16	UNIT 2: Design of Sewers Hydraulic formulae for velocity	”		
12	2/2	16.08.16	Effects of flow variations on velocity	”		
13	3/2	17.08.16	Self cleansing and non scouring velocities	”		
14	4/2	18.08.16	Design of hydraulic elements for circular sewers flowing full and flowing partially full (No derivations)	”		
15	5/2	19.08.16	Design Problems	”		
16	6/2	22.08.16	Design Problems	”		
17	7/2	23.08.16	MATERIALS OF SEWERS: Sewer materials, shapes of sewers, laying of sewers	PPT		
18	8/2	24.08.16	Joints and testing of sewers, ventilation and cleaning of sewers	PPT	Assignment -I	
19		25.08.16	Revision			
20	1/3	26.08.16	UNIT 3: Sewer Appurtenances Catch basins, manholes, Flushing tanks, oil and grease traps	PPT		
21	2/3	29.08.16	Drainage traps. Basic principles of house drainage	PPT		
22	3/3	30.08.16	Typical layout plan showing house drainage connections	Chalk & Board		
23	4/3	31.09.16	Maintenance of house drainage	”		
24		01.09.16	Revision			
25	¼	02.09.16	UNIT 4: Waste Water Characterization Sampling, Significance, techniques and frequency	”		
26	2/4	10.09.16	Physical Characteristics	”		
27	¾	13.09.16	Chemical Characteristics	”		
28	4/4	14.09.16	Biological Characteristics	Chalk & Board		

29	5/4	15.09.16	Aerobic and Anaerobic activity	„		
30	6/4	16.09.16	COD and BOD	„		
31	7/4	19.09.16	CNS Cycles and their significance	„		
32	8/4	20.09.16	Problems	„		
33	9/4	21.09.16	Problems	„	Assignment -II	
34		22.09.16	Revision			

35	1/5	23.09.16	UNIT 5: Disposal of Effluents Disposal of Effluents by dilution, self purification phenomenon	„		
37	2/5	26.09.16	Oxygen sag curve, Zones of purification	„		
38	3/5	27.09.16	Sewage farming, sewage sickness, Effluent Disposal standards for land, surface water and ocean	„		
39	4/5	28.09.16	Numerical Problems on Disposal of Effluents	Chalk & Board		
40	5/5	29.09.16	Numerical Problems on Disposal of Effluents	„		
41		30.09.16	Revision			
42	1/6	03.10.16	UNIT 6: Treatment of Waste water Flow diagram of municipal waste water treatment plant	„		
43	2/6	05.10.16	Preliminary & Primary treatment	„		
44	3/6	06.10.16	Screening, grit chambers. Skimming tanks, primary sedimentation tanks	PPT		
45	4/6	07.10.16	Design criteria & Design examples	Chalk & Board		
46	5/6	08.10.16	Design criteria & Design examples	„	Assignment -III	
47		13.10.16	Revision			
48	1/7	17.10.16	UNIT 7: Secondary Treatment Suspended growth and fixed film bioprocess	„		
49	2/7	18.10.16	Trickling filter – theory and operation	„		
50	3/7	19.10.16	Types and designs	„		
51	4/7	20.10.16	Activated sludge process- Principle and flow diagram	„		
52	5/7	21.10.16	Modifications of ASP	„		

53	6/7	27.10.16	F/M ratio. Design of ASP	„		
54		28.10.16	Revision			
55	1/8	02.11.16	UNIT 8 Anaerobic Sludge digestion	„		
56	2/8	03.11.16	Sludge digestion tanks	„		
57	3/8	04.11.16	Design of Sludge drying beds. Low cost waste treatment method	„		
58	4/8	07.11.16	Septic tank, Oxidation Pond and Oxidation ditches	„		
59	5/8	08.11.16	Design. Reuse and recycle of waste water	„	Assignment -IV	
60	6/8	09.11.16	Revision	„		

Syllabus for Internal Assessment Tests (IAT)*

Sessional #	Syllabus
T1	Class # 01 – 24
T2	Class # 25 – 47
T3	Class # 48 - 60

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Textbook	TB1	Dr. B. C. Punmia. “Wastewater Engineering”	2 nd Edition Laxmi	8131805964, 978813180596 1
Textbook	TB2	S.K . Garg “Sewage disposal and Air Pollution Engineering”	22 nd Edition Khanna	978817409230 4
Reference	RB1	Metcalf & Eddy “Wastewater Engineering: Treatment, Disposal and Reuse ”	5 th Edition McGraw Hill	978007112250 4



Lesson Plan for the odd sem – 2016

Semester – VII

Subject Code : 10CV72

Subject Name : DESIGN OF STEEL STRUCTURES

SEMESTER : VII

NAME OF THE FACULTY : Mohammed Ismail

BRANCH : CIVIL

DATE OF COMMENCEMENT : 26-07-2016

SUBJECT : DESIGN STEEL OF STRUCTURES

DATE OF CLOSING : 20-11-2016

SUBJECT CODE : 10CV72

CLASS STRENGTH : 63

NO OF HRS/ WK : 6

TOTAL HRS : 52

Sessio n No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teachin g Aids	Assignme nts/ Tests planned for the chapter	Topics covere d As per plan
1	1/1	3.08.16	UNIT-1 INTRODUCTION: Advantages and Disadvantages of Steel structures, Loads and Load combinations.	Board, Chalk, Ppt		
2	2/1	5.08.16	Design considerations, Limit State Method (LSM) of design.	„		
3	3/1	7.08.16	Failure criteria for steel, Codes, Specifications and section classification.	„		
4	3/1	8.08.16	Code, Specifications			
5	3/1	10.08.16	Codes, Specifications and section classification.			
4	1/2	12.08.16	UNIT-2 BOLTED CONNECTIONS: Introduction, Behaviour of Bolted joints,	„		
5	2/2	14.08.16	Design strength of ordinary Black Bolts,	„	Assignme nt -I	

6	3/2	17.08.16	Design strength of High Strength Friction Grip bolts (HSFG). Theory	”		
7	4/2	20.08.16	Design strength of High Strength Friction Grip bolts (HSFG). Pin Connections, Simple Connections.	”		
8	4/2	22.08.16	Design strength of High Strength Friction Grip bolts (HSFG). Moment resistant connections, Beam to Beam connections,	”		
9	5/2	24.08.16	Design strength of High Strength Friction Grip bolts (HSFG). Theory Beam and Column splices, Semi rigid connections	Board, Chalk, PPT		
10	1/3	27.08.16	UNIT-3 WELDED CONNECTIONS: Introduction, Welding process, Welding electrodes, Advantages of Welding,	”	Assignme nt –II	
11	2/3	29.08.16	Types and Properties of Welds, Types of joints, Weld symbols,	”		
12	3/3	31.08.16	Weld specifications, Effective areas of welds, Design of welds, Simple joints,	”		
13	4/3	01.09.16	Moment resistant connections, Continuous Beam to Column connections,	”		
14	5/3	03.09.16	Continuous Beam to Beam connections,	”		
15	6/3	7.09.16	Beam Column splices, Tubular connections.	”		
16	1/4	8.09.16	UNIT-4 Plastic Behaviour of Structural Steel: Introduction, Plastic theory, Plastic hinge concept.	”		
17	2/4	9.09.16	Plastic collapse load, conditions of plastic analysis, Theorem of Plastic collapse,	”		
18	3/4	11.09.16	Methods of Plastic analysis, Plastic analysis of continuous beams.	”	Assignme nt –III	
19	4/4	18.09.16	Methods of Plastic analysis, Plastic analysis of continuous beams, problems.	”		
20	5/4	21.09.16	Methods of Plastic analysis, Plastic analysis of frame.			
21	6/4	22.09.16	Methods of Plastic analysis, Plastic analysis of frame.problems			
20	1/5	25.09.16	UNIT-5 Design of Tension Members: Introduction, Types of tension members,	”		
21	2/5	28.09.16	Design of strands, Slenderness ratio, Behaviour of tension members,	”		

22	3/5	29.09.16	Modes of failure, Factors affecting the strength of tension members,	„		
23	4/5	30.09.16	Design of Angles under tension, Other sections,	„		
24	5/5	5.10.16	Design of tension member, Lug angles, Splices, Gussets.	„		
25	6/5	7.10.16	Design of Lug angles,.	Board, Chalk, PPT		
26	7/5	8.10.16	Design of Splices.	„		
27	8/5	9.10.16	Design of Gussets.	„		
28	1/6	10.10.16	UNIT-6 Design of Compression Members: Introduction, Failure modes, Behaviour of compression members.	„	Assignme nt -IV	
29	2/6	13.10.16	Behaviour of Elastic buckling of slender compression members.	„		
30	3/6	15.10.16	Behaviour of Effective length of compression members Sections used for compression members,	„		
31	4/6	16.10.16	Design of compression members, Built up compression members.	„		
32	1/7	17.10.16	UNIT-7 Design of Column Bases: , Design of simple slab base and gusseted base: Theory	„		
33	2/7	20.10.16	Design of simple slab base and gusseted base: Theory	„		
33	3/7	31.10.16	Continuation of Design of simple slab base	„		
34	4/7	2.11.16	Design of simple gusseted base	Board, Chalk, PPT		
35	5/7	2.11.16	Continuation of Design of simple gusseted base	„		
36	1/8	2.11.16	UNIT-8 Design of Beams: Introduction, Beam types, , Lateral stability of beams,	„	Assignme nt -V	
37	2/8	3.11.16	factors affecting lateral stability, Behaviour of simple and built-up beams in bending(without vertical stiffeners),	„		

38	3/8	3.11.16	Design strength of laterally supported beams in Bending,	”		
39	4/8	4.11.16	Design strength of laterally unsupported beams,	”		
40	5/8	4.11.16	Shear strength of steel beams, Maximum deflection,	”		
41	6/8	07.11.16	Design of beams	”		
42	7/8	07.11.16	Design of beams	”		
43	8/8	08.11.16	Design of purlins	”		



Session wise – Course Plan

Department of Civil Engineering

SEMESTER	: 7th A	NAME OF THE FACULTY	: Mr. Shivakumara.M J
BRANCH	: Civil Engineering	DATE OF COMMENCEMENT	: 01/08/2016
SUBJECT	: Estimation & Valuation	DATE OF CLOSING	: 09/11/2016
SUBJECT CODE	: 10CV73	CLASS STRENGTH	: 51
NO OF HRS/WK	: 6	TOTAL HRS	: 68

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	01.08.16	Unit-1 Introduction	Board, chalk, duster		
2	2/1	01.08.16	Study of various drawings with estimates,	„		
3	3/1	04.08.16	Units of measurement,	„		
4	4/1	04.08.16	Abstract Methods of taking out quantities and cost – center line method, long and short wall method or crossing method.	„		
5	5/1	05.08.16	Abstract Methods of taking out quantities and cost –	„		

			center line method, long and short wall method or crossing method, Problems.			
6	6/1	06.08.16	Abstract Methods of taking out quantities and cost – center line method, long and short wall method or crossing method, Problems	„		
7	7/1	08.08.16	„	„		
8	8/1	08.08.16	„	Board, chalk, duster		
9	9/1	11.08.16	„	„		
10	10/1	11.08.16	„	„		
11	11/1	12.08.16	„	„		
12	12/1	16.08.16	„	„		
13	13/1	17.08.16	„	„		
14	14/1	17.08.16	„	„		
15	15/1	20.08.16	„			
16	16/1	20.08.16	„	PPT		
17	17/1	22.08.16	„	PPT		
18	18/1	23.08.16	„	Board, Chalk	Assignment1	
19	19/1	24.08.16	Estimate of RC structures.	„		
20	20/1	24.08.16	Estimate of RC structures.	„		
21	21/1	27.08.16	Estimate of RC structures.	„		
22	22/1	27.08.16	Estimate of RC structures.	„		
23	23/1	29.08.16	Estimate of RC structures.			
24	24/1	30.08.16	Estimate of RC structures.	Board, chalk, duster		

25	25/1	31.08.16	Estimate of RC structures.	PPT/Seminar		
26	25/1	31.08.16	Estimate of RC structures.	„		
27	1/2	09.09.16	Introduction to Unit-2	„		
28	2/2	09.09.16	Different type of estimates,	„		
29	3/2	10.09.16	Approximate methods of estimating buildings, cost of materials.	„		
30	4/2	13.09.16	Approximate methods of estimating buildings, cost of materials.	„		
31	5/2	14.09.16	Estimation of wooden joineries such as doors.	„	Assignment2	
32	6/2	14.09.16	Estimation of wooden joineries such as windows, ventilators.			
33	7/2	17.09.16	Estimation of wooden joineries such as windows, ventilators.	Board, chalk, duster		
34	1/3	17.09.16	Estimate of Steel truss (Fink and Howe truss)	„		
35	2/3	19.09.16	Estimate of Steel truss (Fink and Howe truss)	„		
36	3/3	20.09.16	Estimate of Manhole and septic tanks.	„		
37	4/3	21.09.16	Estimate of Manhole and septic tanks..	„		
38	5/3	21.09.16	Estimate of Manhole and septic tanks.	„		
39	6/3	24.09.16	Estimate of RCC Culverts.	PPT/Seminar		
40	7/3	24.09.16	Estimate of RCC Culverts.	„		

41	8/3	26.09.16	Unit test on Unit-3	„		
42	1/4	27.09.16	Introduction to Unit-4	„		
43	2/4	28.09.16	Definition of specifications, objective of writing specifications.	„		
44	3/4	28.09.16	Definition of specifications, objective of writing specifications.	„	Assignment3	
45	4/4	04.10.16	Essentials in specifications.	„		
46	5/4	04.10.16	General and detail specifications of common item of works in buildings.	„		
47	6/4	05.10.16	General and detail specifications of common item of works in buildings.	„		
48	7/4	06.10.16	General and detail specifications of common item of works in buildings.	„		
49	8/4	07.10.16	Unit test	Board, chalk, duster		
50	1/5	07.10.16	Introduction to Unit-5	„		
51	2/5	14.10.16	Definition and purpose.	„	Assignment4	
52	3/5	14.10.16	Working out quantities and rates for earth work in different types of soils.	„		
53	4/5	17.10.16	Working out quantities and rates for cement concrete of different mixes.			
54	5/5	18.10.16	Working out quantities and rates for bricks and stone masonry.			

55	6/5	19.10.16	Working out quantities and rates for flooring, plastering. RCC works, centering and form work for different RCC items, wood and steel works for doors, windows and ventilators.			
56	1/6	19.10.16	Introduction to Unit-6			
57	2/6	22.10.16	Methods for computation of earthwork			
58	3/6	22.10.16	Methods for computation of earthwork – cross sections – mid section formula or average 86 end area or mean sectional area,			
59	4/6	27.10.16	Methods for computation of earthwork Trapezoidal & prismoidal formula with and without cross slopes.			
60	5/6	28.10.16	Methods for computation of earthwork Trapezoidal & prismoidal formula with and without cross slopes.			
61	6/6	02.11.16	Unit test			
62	1/7	02.11.16	Introduction to unit-7			
63	2/7	05.11.16	CONTRACTS: Types of contract – essentials of contract agreement			
64	3/7	05.11.16	Legal aspects, penal provisions on breach of contract.			
65	4/7	07.11.16	Definition of the terms – Tender, earnest money deposit, security deposit, tender forms, documents and types.			
66	5/7	08.11.16	Acceptance of contract			

			documents. Termination of contract, completion certificate, quality control, right of contractor, refund of deposit.			
67	6/7	09.11.16	Administrative approval – Technical sanction. Nominal muster roll, measurement books – procedure for recording and checking measurements – preparation of bills. Valuation- Definitions of various terms, method of valuation, Freehold & Leasehold properties, Sinking fund, depreciation and method of estimating depreciation, Outgoings.			
68	7/7	09.11.16	Unit test			

Sessional #	Syllabus
T1	Class # 01 – 24
T2	Class # 25 – 40
T3	Class # 41 - 52



Session wise – Course Plan

Department of Civil Engineering

SEMESTER	: 7th B	NAME OF THE FACULTY	: Mr. Shivakumara.M J
BRANCH	: Civil Engineering	DATE OF COMMENCEMENT	: 02/08/2016
SUBJECT	: Estimation & Valuation	DATE OF CLOSING	: 08/11/2016
SUBJECT CODE	: 10CV73	CLASS STRENGTH	: 54
NO OF HRS/WK	: 6	TOTAL HRS	: 66

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	02.08.16	Unit-1 Introduction	Board, chalk, duster		
2	2/1	03.08.16	Study of various drawings with estimates,	„		
3	3/1	03.08.16	Units of measurement,	„		
4	4/1	05.08.16	Abstract Methods of taking out quantities and cost – center line method, long and short wall method or crossing method.	„		
5	5/1	06.08.16	Abstract Methods of taking out quantities and cost –	„		

			center line method, long and short wall method or crossing method, Problems.			
6	6/1	06.08.16	Abstract Methods of taking out quantities and cost – center line method, long and short wall method or crossing method, Problems	„		
7	7/1	09.08.16	„	„		
8	8/1	10.08.16	„	Board, chalk, duster		
9	9/1	10.08.16	„	„		
10	10/1	12.08.16	„	„		
11	11/1	16.08.16	„	„		
12	12/1	16.08.16	„	„		
13	13/1	18.08.16	„	„		
14	14/1	19.08.16	„	„		
15	15/1	19.08.16	„			
16	16/1	22.08.16	„	PPT		
17	17/1	23.08.16	„	PPT		
18	18/1	23.08.16	„	Board, Chalk	Assignment1	
19	19/1	25.08.16	Estimate of RC structures.	„		
20	20/1	26.08.16	Estimate of RC structures.	„		
21	21/1	26.08.16	Estimate of RC structures.	„		
22	22/1	29.08.16	Estimate of RC structures.	„		
23	23/1	30.08.16	Estimate of RC structures.			
24	24/1	30.08.16	Estimate of RC structures.	Board, chalk, duster		

25	25/1	01.09.16	Estimate of RC structures.	PPT/Seminar		
26	25/1	02.09.16	Estimate of RC structures.	„		
27	1/2	02.09.16	Introduction to Unit-2	„		
28	2/2	10.09.16	Different type of estimates,	„		
29	3/2	13.09.16	Approximate methods of estimating buildings, cost of materials.	„		
30	4/2	13.09.16	Approximate methods of estimating buildings, cost of materials.	„		
31	5/2	15.09.16	Estimation of wooden joineries such as doors.	„	Assignment2	
32	6/2	16.09.16	Estimation of wooden joineries such as windows, ventilators.			
33	7/2	16.09.16	Estimation of wooden joineries such as windows, ventilators.	Board, chalk, duster		
34	1/3	19.09.16	Estimate of Steel truss (Fink and Howe truss)	„		
35	2/3	20.09.16	Estimate of Steel truss (Fink and Howe truss)	„		
36	3/3	20.09.16	Estimate of Manhole and septic tanks.	„		
37	4/3	22.09.16	Estimate of Manhole and septic tanks..	„		
38	5/3	23.09.16	Estimate of Manhole and septic tanks.	„		
39	6/3	23.09.16	Estimate of RCC Culverts.	PPT/Seminar		
40	7/3	26.09.16	Estimate of RCC Culverts.	„		

41	8/3	27.09.16	Unit test on Unit-3	„		
42	1/4	27.09.16	Introduction to Unit-4	„		
43	2/4	29.09.16	Definition of specifications, objective of writing specifications.	„		
44	3/4	03.10.16	Definition of specifications, objective of writing specifications.	„	Assignment3	
45	4/4	03.10.16	Essentials in specifications.	„		
46	5/4	05.10.16	General and detail specifications of common item of works in buildings.	„		
47	6/4	06.10.16	General and detail specifications of common item of works in buildings.	„		
48	7/4	06.10.16	General and detail specifications of common item of works in buildings.	„		
49	8/4	08.10.16	Unit test	Board, chalk, duster		
50	1/5	13.10.16	Introduction to Unit-5	„		
51	2/5	13.10.16	Definition and purpose.	„	Assignment4	
52	3/5	17.10.16	Working out quantities and rates for earth work in different types of soils.	„		
53	4/5	18.10.16	Working out quantities and rates for cement concrete of different mixes.			
54	5/5	18.10.16	Working out quantities and rates for bricks and stone masonry.			

55	6/5	20.10.16	Working out quantities and rates for flooring, plastering. RCC works, centering and form work for different RCC items, wood and steel works for doors, windows and ventilators.			
56	1/6	21.10.16	Introduction to Unit-6			
57	2/6	21.10.16	Methods for computation of earthwork			
58	3/6	27.10.16	Methods for computation of earthwork – cross sections – mid section formula or average 86 end area or mean sectional area,			
59	4/6	28.10.16	Methods for computation of earthwork Trapezoidal & prismoidal formula with and without cross slopes.			
60	5/6	28.10.16	Methods for computation of earthwork Trapezoidal & prismoidal formula with and without cross slopes.			
61	6/6	03.11.16	Unit test			
62	1/7	04.11.16	Introduction to unit-7			
63	2/7	04.11.16	CONTRACTS: Types of contract – essentials of contract agreement			
64	3/7	07.11.16	Legal aspects, penal provisions on breach of contract. Definition of the terms – Tender, earnest money deposit, security deposit, tender forms, documents and types.			
65	4/7	08.11.16	Acceptance of contract documents. Termination of			

			<p>contract, completion certificate, quality control, right of contractor, refund of deposit. Administrative approval – Technical sanction.</p> <p>Nominal muster roll, measurement books – procedure for recording and checking measurements</p>			
66	5/7	08.11.16	<p>– preparation of bills.</p> <p>Valuation- Definitions of various terms, method of valuation, Freehold & Leasehold properties, Sinking fund, depreciation and method of estimating depreciation, Outgoings.</p>			

Sessional #	Syllabus
T1	Class # 01 – 24
T2	Class # 25 – 48
T3	Class # 48 - 66

Lesson Plan for the odd sem – 2016

Semester – 7B

Subject Code: 10CV74

Subject Name: Design of PSC Structures.

SEMESTER : VII A

NAME OF THE FACULTY : Karthik N M

BRANCH : CV

DATE OF COMMENCEMENT : 28-07-2016

SUBJECT : Design of PSC Structures.

DATE OF CLOSING : 09-11-2016

SUBJECT CODE : 10CV74

CLASS STRENGTH : 64

NO OF HRS/ WK : 5

TOTAL HRS : 55

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments / Tests planned for the chapter
1	1/1	29/07/2016	Unit 1- Materials: High strength steel and concrete, stress strain characteristics	Board, chalk	
2	2/1	30/07/2016	High strength steel and concrete, properties	„	
3	3/1	01/08/2016	Basic principles of pre-stressing: Fundamentals, pre-stressing concept.	Presentatio n, Board, chalk	
4	4/1	02/08/2016	Pre tensioning methods.	Presentatio n, Board, chalk	
5	5/1	03/08/2016	Post tensioning methods.	„	
6	6/1	05/08/2016	Anchorage methods.	„	Assignment -I
7	1/2	06/08/2016	Analysis of sections for flexure: Stresses in concrete due to pre-stress	Board, chalk	

			and loads. Theory.		
8	2/2	08/08/2016	Stresses in concrete due to pre-stress and loads. Problems	„	
9	3/2	09/08/2016	Stresses in concrete due to pre-stress and loads. Problems	„	
10	4/2	10/08/2016	Stresses in concrete due to pre-stress and loads. Problems	„	
11	5/2	12/08/2016	Center of thrust theory and Problems.	„	
12	6/2	16/08/2016	Cable profiles. (Load balancing concept)	„	
13	7/2	17/08/2016	Cable profiles. (Load balancing concept)	„	
14	8/2	18/08/2016	Stresses in steel due to loads.	„	Assignment - II
15	1/3	19/08/2016	Losses of pre-stress: Various losses encountered in pre-tensioning and post tensioning.	„	
16	2/3	22/08/2016	Various losses encountered in pre-tensioning, problems.	„	
17	3/3	23/08/2016	Various losses encountered in post tensioning, problems.	„	
18	4/3	24/08/2016	Various losses encountered in post tensioning, problems.	„	
19	5/3	25/08/2016	Various losses encountered in post tensioning, problems.	„	
20	6/3	26/08/2016	Determination of jacking force	„	Assignment - III
21	1/4	29/08/2016	DEFLECTIONS: Deflection of a pre-stressed member – Short term and long term deflections	„	
22	2/4	30/08/2016	Elastic deflections under transfer loads and due to different cable profiles.	„	
23	3/4	31/08/2016	Deflection limits as per IS 1343. Effect of creep on deflection, load verses deflection curve.	„	
24	4/4	01/09/2016	Elastic deflections under transfer loads and due to different cable profiles.	„	

			Problems.		
25	5/4	02/09/2016	Elastic deflections under transfer loads and due to different cable profiles. Problems.	„	TEST-1
26	6/4	10/09/2016	Elastic deflections under transfer loads and due to different cable profiles. Problems.	„	
27	7/4	13/09/2016	methods of reducing deflection	„	Assignment - IV
28	1/5	14/09/2016	LIMIT STATE OF COLLAPSE: Flexure -IS Code recommendations	„	
29	2/5	15/09/2016	Ultimate flexural strength of sections.	„	
30	3/5	16/09/2016	Ultimate flexural strength of sections.	„	
31	4/5	19/09/2016	Ultimate flexural strength of sections, problems.	„	
32	5/5	20/09/2016	Ultimate flexural strength of sections, problems.	„	Assignment – V
33	1/6	21/09/2016	Shear - IS Code recommendations.	„	
34	2/6	22/09/2016	Shear resistance of sections.	„	
35	3/6	23/09/2016	Shear reinforcement.	„	
36	4/6	26/09/2016	Shear reinforcement. Problems.	„	
37	5/6	27/09/2016	Shear reinforcement. Problems.	„	
38	6/6	28/09/2016	Shear reinforcement. Problems.	„	
39	7/6	03/10/2016	Limit state of serviceability – control of deflections and cracking.	„	Assignment - VI
40	1/7	05/10/2016	DESIGN OF END BLOCKS: Transmission of pre-stress in pre-tensioned members. Transmission length.	„	
41	2/7	06/10/2016	Anchorage stress in post-tensioned members.	„	

42	3/7	07/10/2016	Anchorage stress in post-tensioned members. Problems.	„	
43	4/7	08/10/2016	Bearing stress and bursting tensile force-stresses in end blocks-Methods.	„	
44	5/7	13/10/2016	I.S. Code, provision for the design of end blocks reinforcement.	„	
45	6/7	17/10/2016	I.S. Code, provision for the design of end blocks reinforcement.	„	Assignment - VII
46	1/8	18/10/2016	DESIGN OF BEAMS: Design of pre-tensioned and post-tensioned symmetrical.	„	
47	2/8	19/10/2016	Design of pre-tensioned and post-tensioned symmetrical.	„	
48	3/8	20/10/2016	Design of pre-tensioned and post-tensioned asymmetrical.	„	
49	4/8	21/10/2016	Design of pre-tensioned and post-tensioned asymmetrical sections.	„	TEST-2
50	5/8	27/10/2016	Design of pre-tensioned and post-tensioned asymmetrical sections.	„	
51	6/8	28/10/2016	Permissible stress. Theory and problem	„	
52	7/8	02/11/2016	Design of pre-stressing force and eccentricity.	„	
53	8/8	03/11/2016	Limiting zone of pre-stressing force cable profile.	„	
54		04/11/2016	Revision	„	
55		07/11/2016	Revision	„	
56		08/11/2016	Revision	„	IMPROVEMENT TEST
57		09/11/2016	Revision	„	Assignment - VIII

Literature:

Book Type	Code	Author & Title	Publication info
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			Edition & Publisher	ISBN #
Text Book	TB1	Pre-stressed Concrete- N. Krishna Raju -	Tata Mc. Graw Publishers.	978-1-25-900336-3
Text book	TB1	Pre-stressed Concrete- P. Dayarathnam :	Oxford and IBH Publishing Co.	978 81 204 0045 0
Ref book	RB1	Design of pre-stressed concrete structures- T.Y. Lin and Ned H. Burns	John Wiley & Sons, New York.	
Code book	CB1	IS: 1343:1980		

Session wise – Course Plan

Department of Civil Engineering

SEMESTER :VII NAME OF THE FACULTY : Mrs. Azhaginiyal A
 BRANCH : CIVIL ENGINEERING DATE OF COMMENCEMENT : 01.08.2016
 SUBJECT : Highway Geometric design DATE OF CLOSING : 19.11.2016
 SUBJECT CODE : 10CV755 CLASS STRENGTH : 39
 NO OF HRS/WK : 5 TOTAL HRS : 55

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics cover ed As per plan
1	1/1	02.08.2016	Introduction : Geometric control factors- topography	Board, chalk, duster		
2	2/1	03.08.2016	Design speed, Design vehicle	PPT		
3	3/1	04.08.2016	Traffic. Capacity , Volume	„		
4	4/1	04.08.2016	Environment and other factors as per IRC	„		
5	5/1	05.08.2016	Environment and other factors as per AASHTO	„		
6	6/1	09.08.2016	PCU concept, Factors controlling PCU for different design purpose	„		
7	1/2	10.08.2016	Cross Sectional elements: Pavement surface characteristics, Light reflecting	PPT		

			characteristics			
8	2/2	11.08.2016	Camber – objectives and types, Methods of providing cambers in the field	„		
9	3/2	11.08.2016	Carriage way, Kerb and median, Shoulders, Bus Bays Parking lanes, service roads	„		
10	4/2	12.08.2016	Cycle tracks and drive ways	„		
11	5/2	18.08.2016	Right of way, factors influencing right of way	„		
12	6/2	19.08.2016	Design of road humps as per latest IRC provisions	„	Assignment- I	
13	1/3	20.08.2016	Sight distance: Importance	Chalk and Board		
14	2/3	20.08.2016	Types of sight distance	„		
15	3/3	22.08.2016	Sight distance at uncontrolled intersections			
16	4/3	25.08.2016	Derivation of sight distance, Factors affecting sight distance			
17	5/3	26.08.2016	IRC standards and AASHTO standards			
18	6/3	27.08.2016	Problems on Sight distance	„		
19	1 / 4	27.08.2016	Horizontal Alignment : Definition, checking the stability of vehicle while moving on horizontal curve	„		
20	2/4	29.08.2016	Super elevation, Ruling minimum And maximum radius, Assumptions – problems	„		
21	3 / 4	01.09.2016	Method of providing super Elevation for different curves	„		
22	4/4	02.09.2016	Extra widening of pavement on curves , Objectives – Mechanical widening – psychological widening	„		
23	5/4	09.09.2016	Transition Curve Objectives –			

			Ideal requirements – Types of transition curve			
24	6/4	09.09.2016	Method of evaluating length of transition curve	Board, chalk, duster		
25	7/4	10.09.2016	Set back distance on horizontal curve and problems on above	„		
26	8/4	15.09.2016	Problems – VTU questions	„	Assignment- II	
27	1/5	16.09.2016	Gradient –Vertical curve design criteria-	„		
28	2/5	17.09.2016	Types of summit and valley curves	„		
29	3/5	17.09.2016	Design of vertical curves based on SSD – OSD	„		
30	4/5	19.09.2016	Night visibility considerations	„		
31	5/5	22.09.2016	Design standards for hilly roads	„		
32	6/5	23.09.2016	Problems on above.	„		
33	1/6	24.09.2016	Principle	Board, chalk, duster		
34	2/6	24.09.2016	At grade Junctions	„		
35	3/6	26.09.2016	Grade separated Junctions	„		
36	4/6	29.09.2016	Channelization , Features of Channelising Island	„		
37	5/6	03.10.2016	Median opening	„		
38	6/6	04.10.2016	Gap in median at junction	„		
39	1/7	04.10.2016	Rotary Intersection: Elements –	„		
40	2/7	05.10.2016	Advantages – Disadvantages	„		

41	3/7	08.10.2016	Design guide lines	„		
42	4/7	13.10.2016	Problem on the above – Grade separated intersection	„		
43	5/7	14.10.2016	Three legged inter section – Diamond inter change	„		
44	6/7	14.10.2016	Half clover leaf, clover leaf - Disadvantages and disadvantages	„	Assignment- III	
45	1/8	17.10.2016	Highway Drainage: Importance – sub surface drainage –surface Drainage	„		
46	2/8	20.10.2016	Design of cross sections	„		
47	3/8	21.10.2016	Hydrological – Hydraulically Considerations	„		
48	4/8	22.10.2016	Design of filter media	„		
49	5/8	22.10.2016	Design of cross section- problems on above	Board, chalk, duster		
50	6/8	27.10.2016	Design of cross section- problems on above	„		
51		03.11.2016	REVISION	„		
52		04.11.2016	REVISION	„		
53		05.11.2016	REVISION	„		
54		05.11.2016	REVISION	„		
55		07.11.2016	REVISION	„		

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Syllabus for Internal Assessment Tests (IAT)*

IAT #	Syllabus
IAT-1	1-19
IAT-2	20-44

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Highway Engineering, Khanna, S.K., and Justo, C.E.G., : Nem	10 th Chand and Bros. Roorkee	13-9788185240633
Text Book	TB2	Principles and Practices of Highway Engineering, Dr.L.R.Khadyali, N.B.Lal	6 th edition , Khanna Publishers	9788174091659
References	RB1	Transportation Engineering – K P Subramaniam	1st edition, Scitech Publications, Chennai	9788188429066
References	RB2	IRC 37 -2001, IRC 58-2002	2nd Revision, Indian Roads Congress	NA

Relevant IRC codes and MoRT & H specifications.

Session wise – Course Plan

Department of Civil Engineering

SEMESTER :VII NAME OF THE FACULTY : Mrs. Azhaginiyal A
 BRANCH : CIVIL ENGINEERING DATE OF COMMENCEMENT : 01.08.2016
 SUBJECT : Pavement Materials and Construction DATE OF CLOSING : 19.11.2016
 SUBJECT CODE : 10CV763 CLASS STRENGTH : 30
 NO OF HRS/WK : 5 TOTAL HRS : 55

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covere d As per plan
1	1/1	02.08.2016	UNIT 1 AGGREGATES Introduction to pavements, types of pavements and requirements.	Board, chalk, duster		
2	2/1	03.08.2016	Aggregates: Origin, classification, requirements, properties Tests on road aggregates	„		
3	3/1	04.08.2016	Tests on road aggregates	„		
4	4/1	04.08.2016 continue	„		
5	5/1	05.08.2016	Concepts of size and gradation – design gradation,maximum aggregate size	„		
6	6/1	09.08.2016	Aggregate blending by different methods to meet specification.	„		

7	1/2	10.08.2016	UNIT II BITUMEN AND TAR Bitumen : Origin and preparation	„		
8	2/2	11.08.2016	Properties and chemical constitution of bitumen	Board, chalk, duster		
9	3/2	11.08.2016	Requirements of bitumen to be used as road binding materials	„		
10	4/2	12.08.2016	Tests on bitumen	„		
11	5/2	18.08.2016 Continued	„		
12	6/2	19.08.2016	TAR : origin preparation and properties	„	Assignment- I	
13	¼	20.08.2016	UNIT-IV BITUMINOUS MIXES Mechanical properties, dense and open textured mixes,	„		
14	2/4	20.08.2016	Flexibility and brittleness of mixes	„		
15	¾	22.08.2016	Bituminous mix, design methods using Rothfuch's Method and specifications			
16	4/4	25.08.2016	Marshall mixed design criteria			
17	5/4	26.08.2016	Marshall mix design criteria			
18	6/4	27.08.2016	Voids in mineral aggregates, voids in total mix Density, flow, stability, Percentage voids filled with bitumen.	„		
19	7/4	27.08.2016	Numerical examples on bituminous mix	„		
20	1/3	29.08.2016	UNIT-III BITUMINOUS EMULSIONS AND CUTBACKS Preparation of emulsion and cutbacks	„		
21	2/3	01.09.2016	characteristics, uses	„		
22	3/3	02.09.2016	Tests on emulsions and cutbacks	„		

23	4/3	09.09.2016	Adhesion of Bituminous Binders to Road aggregates:			
24	5/3	09.09.2016	Adhesion failure, mechanism of stripping	Board, chalk, duster		
25	6/3	10.09.2016	Tests and methods of improving adhesion.	„	Assignment- II	
26	1/6	15.09.2016	UNIT-V EQUIPMENT IN HIGHWAY CONSTRUCTION: Various equipment for excavation	„		
27	1/5	16.09.2016	Excavation equipment working principle advantages and limitations	„		
28	2/5	17.09.2016	Various equipment for grading	„		
29	3/5	17.09.2016	Grading equipments working principle advantages and limitations	„		
30	4/5	19.09.2016	Compaction equipments – their working principle, advantages and limitations.	„		
31	5/5	22.09.2016	Special equipment for bituminous Cement concrete pavement	„		
32	6/5	23.09.2016	Special equipment for bituminous stabilized soil road construction	„		
33	1/6	24.09.2016	UNIT-VI SUBGRADE: Earthwork grading and construction of embankments	Board, chalk, duster		
34	2/6	24.09.2016	Earthwork grading and construction of embankments	„		
35	3/6	26.09.2016	Earthwork grading and construction in cuts	„		
36	4/6	29.09.2016	Preparation of subgrade for pavement	„		
37	5/6	03.10.2016	Quality control tests on subgrade	„		

38	6/6	04.10.2016	Quality control tests on subgrade	„		
39	1/7	04.10.2016	UNIT-VII FLEXIBLE PAVEMENTS: Specifications of materials	„		
40	2/7	05.10.2016	Construction method for flexible pavements	„		
41	3/7	08.10.2016	Construction method for flexible pavements	„		
42	4/7	13.10.2016	Construction method for flexible pavements	„		
43	5/7	14.10.2016	Field control checks on pavements	„		
44	6/7	14.10.2016	Field control checks on pavements	„	Assignment- III	
45	1/8	17.10.2016	UNIT VIII CEMENT CONCRETE PAVEMENTS: Specifications	„		
46	2/8	20.10.2016	Method of cement concrete pavement construction	„		
47	3/8	21.10.2016	Method of cement concrete pavement construction	„		
48	4/8	22.10.2016	Quality control tests	„		
49	5/8	22.10.2016	Quality control tests	Board, chalk, duster		
50	6/8	27.10.2016	Construction of various types of joints.	„		
51		03.11.2016	Discussion on old VTU Question papers	„		
52		04.11.2016	Discussion on old VTU Question papers	„		
53		05.11.2016	Discussion on old VTU Question papers	„		
54		05.11.2016	Discussion on old VTU Question papers	„		

55		07.11.2016	Discussion on old VTU Question papers	„		
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Syllabus for Internal Assessment Tests (IAT)*

IAT #	Syllabus
IAT-1	1-19
IAT-2	20-44

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Highway Engineering, Khanna, S.K., and Justo, C.E.G., : Nem	10 th Chand and Bros. Roorkee	
Text Book	TB2	Principles and Practices of Highway Engineering, Dr.L.R.Khadyali, N.B.Lal	6 th edition , Khanna Publishers	
References	RB1	Bituminous Materials in Road Construction’,	HMSO Publication	
References	RB2	Soil Mechanics for Road Engineers	HMSO Publication.	

Relevant IRC codes and MoRT & H specifications.

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Department of Civil Engineering

SEMESTER :VII NAME OF THE FACULTY : Mr Naresh Dixit P S
 BRANCH : CIVIL ENGINEERING DATE OF COMMENCEMENT : 01.08.2016
 SUBJECT : Matrix method of structural analysis DATE OF CLOSING : 19.11.2016
 SUBJECT CODE : 10CV751 CLASS STRENGTH : 39
 NO OF HRS/WK : 5 TOTAL HRS : 55

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1		29.07.16	Basics of structural analysis	Board, chalk, duster		
2		1.08.16	Basics of structural analysis	PPT		
3		2.08.16	Basics of structural analysis	„		
4		3.08.16	Basics of structural analysis	„		
5		5.08.16	Basics of structural analysis	„		
6		6.08.16	Basics of structural analysis	„		
7		8.08.16	Basics of structural analysis	PPT		
8		9.08.16	Basics of structural analysis	„		
9		10.08.16	Introduction to flexibility matrix	„		
10		12.08.16	Introduction to flexibility matrix	„		

11		16.08.16	Introduction to flexibility matrix	„		
12		17.08.16	Transformation matrix	„	Assignment- I	
13		18.08.16	Analysis of Rigid joint continuous beams	Chalk and Board		
14		19.08.16	Analysis of Rigid joint continuous beams	„		
15		22.08.16	Analysis of Rigid joint continuous beams			
16		23.08.16	Analysis of Rigid joint continuous beams			
17		24.08.16	Analysis of Rigid joint portal frames			
18		25.08.16	Analysis of Rigid joint portal frames	„		
19		26.08.16	Analysis of Rigid joint portal frames	„		
20		29.08.16	Analysis of Rigid joint portal frames	„		
21		30.08.16	Analysis of Rigid joint portal frames	„		
22		1.09.16	Analysis of Rigid joint portal frames	„		
23		2.09.16	Analysis of Rigid joint portal frames			
24		10.09.16	Analysis of Rigid joint portal frames	Board, chalk, duster		
25		13.09.16	Analysis of Rigid joint portal frames	„		
26		14.09.16	Introduction to stiffness method	„	Assignment- II	
27		15.09.16	Stiffness matrix	„		
28		16.09.16	Displacement transformation matrix	„		
29		19.09.16	Analysis of truss	„		

30		20.09.16	Analysis of truss	„		
31		21.09.16	Analysis of truss	„		
32		22.09.16	Analysis of truss	„		
33		23.09.16	Analysis of truss	Board, chalk, duster		
34		26.09.16	Analysis of rigid joint frames and continuous beams	„		
35		27.09.16	Analysis of rigid joint frames and continuous beams	„		
36		28.09.16	Analysis of rigid joint frames and continuous beams	„		
37		29.09.16	Analysis of rigid joint frames and continuous beams	„		
38		3.10.16	Analysis of rigid joint frames and continuous beams	„		
39		5.10.16	Analysis of rigid joint frames and continuous beams	„		
40		6.10.16	Analysis of rigid joint frames and continuous beams	„		
41		7.10.16	Direct stiffness method	„		
42		8.10.16	Direct stiffness method	„		
43		13.10.16	Analysis of beams frames and truss by direct stiffness method	„		
44		17.10.16	Analysis of beams frames and truss by direct stiffness method	„	Assignm ent- III	
45		18.10.16	Analysis of beams frames and truss by direct stiffness method	„		
46		19.10.16	Analysis of beams frames and truss by direct stiffness	„		

			method			
47		20.10.16	Analysis of beams frames and truss by direct stiffness method	„		
48		21.10.16	Introduction to matlab	„		
49		27.10.16	Introduction to matlab	Board, chalk, duster		
50		28.10.16	Introduction to matlab	„		
51		2.11.16	Introduction to matlab	„		
52		3.11.16	Introduction to matlab	„		
53		4.11.16	Introduction to matlab	„		
54		7.11.16	Introduction to matlab	„		
55		8.11.16	Introduction to matlab	„		
		9.11.16	Introduction to matlab			

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Syllabus for Internal Assessment Tests (IAT) *

IAT #	Syllabus
IAT-1	1-19
IAT-2	20-44

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Matrix analysis of framed structures	CBS Publisher	9788123911519
Text Book	TB2	Computational structural mechanics	6 th edition , Khanna Publishers	9788120317345
References	RB1	Structural analysis- Matrix approach	Mc Graw hill	9780070667358

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Department of Civil Engineering

SEMESTER :VII	NAME OF THE FACULTY : Mrs Namitha.B
BRANCH : Civil	DATE OF COMMENCEMENT : 29.07.2016
SUBJECT : Solid Waste Management	DATE OF CLOSING : 9.11.2016
SUBJECT CODE : 10CV757	CLASS STRENGTH : 29
NO OF HRS/WK : 5	TOTAL HRS : 56

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	29.07.16	Unit-1: Introduction to SWM	Board, chalk, duster		
2	1/1	1.08.16	Definition– scope and importance of solid waste management,	„		
3	1/1	2.08.16	Classification and characteristics – municipal, commercial & industrial waste	„		
4	1/1	3.08.16	Land pollution definition ,importance	„		
5	1/1	5.08.16	Properties of solid waste- Physical, Chemical properties	„		
6	1/1	6.08.16	Problems on Properties of SWM	„		
7	1/1	8.08.16	Energy content in solid waste and its calculation.	„	Assignm ent- I	

8	1/1	9.08.16	Functional elements of solid waste management	Board, chalk, duster		
9	1/1	10.08.16	Sources of SWM	„		
10	½	12.08.16	UNIT:2 Collection & transport introduction	„		
11	½	16.08.16	Collection services	„		
12	1/2	17.08.16	Types of collection system	„		
13	1/2	18.08.16	Transfer Means & methods	„	Assignment -II	
14	1/2	19.08.16	Transfer station-Definition, Types	„		
15	1/2	22.08.16	Effects of transfer station			
16	1/2	23.08.16	Route Optimization, Types & Rules			
17	1/2	24.08.16	Garbage chutes, Bailing and compaction			
18	1/2	25.08.16	Problems	„		
19	1/3	26.08.16	UNIT:3 Treatment/ Processing techniques Introduction	„		
20	1/3	29.08.16	Disposal Methods	„		
21	1/3	30.08.16	Components separation	„		
22	1/3	1.09.16	Volume reduction	„		
23	1/3	2.09.16	Size reduction			
24	1/3	10.09.16	Chemical reduction	Board, chalk, duster	Assignment –III	
25	1/4	13.09.16	UNIT4: Composting Introduction , Methods	„		
26	1/4	14.09.16	Aerobic and Anaerobic	„		
27	1/4	15.09.16	Factors affecting composting	„		
28	1/4	16.09.16	Indore & Bangalore process	„		

29	1/4	19.09.16	Mechanical composting process	„		
30	1/4	20.09.16	Semi Mechanical composting process	„	Assignment –IV	
31	1/4	21.09.16	Vermi composting ,Introduction	„		
32	1/5	22.09.16	UNIT 5:Sanitary land filling: introduction	„		
33	1/5	23.09.16	Different types	Board, chalk, duster		
34	1/5	26.09.16	Trench area, method	„		
35	1/5	27.09.16	Ramp and Pit methods	„		
36	1/5	28.09.16	Site pollution and Prevention	„		
37	1/5	29.09.16	Leachate & Gas collection	„		
38	1/5	3.10.16	Control methods	„		
39	1/5	5.10.16	Geosynthetic fabrics in land fills	„		
40	1/6	6.10.16	UNIT6: Disposal methods, open dumping, ocean dumping	„		
41	1/6	7.10.16	Incineration, pyrolysis	„	Assignment -V	
42	1/6	8.10.16	Sanitary land filling, Merits ,Demerits	„		
43	1/6	13.10.16	Biomedical waste disposal	„		
44	1/6	17.10.16	Composting	„		
45	1/7	18.10.16	UNIT7:Recycle and Reuse: Introduction	„		
46	1/7	19.10.16	Material and energy recovery option	„		
47	1/7	20.10.16	Reuse in other industries	„		
48	1/7	21.10.16	Plastic waste and recovery	„		

49	1/7	27.10.16	Environmental significance and reuse	Board, chalk, duster		
50	1/8	28.10.16	UNIT8 :Incineration process, Design criteria	„		
51	1/8	2.11.16	Factors affecting Incineration process	„		
52	1/8	3.11.16	Incinerators types, Prevention	„		
53			of air pollution	„		
53		4.11.16	Revision of Unit -1 & 2	„		
54		7.11.16	Revision of Unit –3 & 4	„		
55		8.11.16	Revision of Unit –5 & 6	„		
56		9.11.16	Revision of Unit –7 & 8	„		

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Sessional #	Syllabus
T1	Class # 01 – 23
T2	Class # 24 – 48
T3	Class # 48 - 56

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	S.K Garg.Environmental engineering2	16th edition Khanna Publisher,2006	81-7409-057-6
Reference Book	RB1	TCHOBANOGLOUS,Integrated solid waste management	2nd Edition, Tata McGraw Hill, 2005.	978-0-07-066724-2
Reference Book	RB1	B.C Punmia,A.K JAIN Environmental engineering 2	Lakshmi publication	978-81-318-0596-1

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CMR INSTITUTE



Department of Civil Engineering

SEMESTER : VII NAME OF THE FACULTY : Mrs. Namitha B
 BRANCH : CV DATE OF COMMENCEMENT : 29.7.2016
 SUBJECT : Air pollution and Control DATE OF CLOSING : 7.11.2016
 SUBJECT CODE : 10CV765 CLASS STRENGTH : 25
 NO OF HRS/WK : 5 TOTAL HRS : 56

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	29.07.16	Definition – classification of air pollution	Board, chalk, duster		
2	1/1	2.08.16	Characterization of air pollutants	„		
3	1/1	3.08.16	Emission sources, behavior and fate of air pollutants	„		
4	1/1	4.08.16	Chemical reactions in the atmosphere	„		
5	1/1	4.08.16	Photochemical smog	„		
6	1/1	5.08.16	Coal-induced smog, Air Pollution Inventories	„		
7	1/2	9.08.16	Effects On Human Health	„	Assignment- I	
8	1/2	10.08.16	Effects on Animals,	Board, chalk, duster		
9	1/2	11.08.16	Effects on Plants and Materials	„		

10	1/2	11.08.16	Major Environmental Air Pollution Episodes – London Smog,	„		
11	1/2	12.08.16	Los Angeles Smog	„		
12	1/2	18.08.16	Bhopal Gas Tragedy.	„		
13	1/2	19.08.16	Introduction – Meteorological Variables	„	Assignment -II	
14	1/3	20.08.16	Primary and Secondary Lapse Rate	„		
15	1/3	20.08.16	Inversions			
16	1/3	22.08.16	Stability Conditions, Windrose			
17	1/3	25.08.16	General Characteristics of Stack Plumes			
18	1/3	26.08.16	Meteorological Models	„		
19	1/3	27.08.16	Factors to be considered in Industrial Plant Location and Planning	„		
20	1/3	27.08.16	Factors to be considered in Industrial Plant Location and Planning	„		
21	1/4	29.08.16	Factors to be considered in Industrial Plant Location and Planning	„		
22	1/4	1.09.16	Noise pollution – sources	„		
23	1/4	2.09.16	Noise pollution –measurement units, effects			
24	1/4	9.09.16	Noise pollution – control	Board, chalk, duster		
25	1/4	9.09.16	Sampling and Measurement of Gaseous and Particulate matter	„	Assignment –III	
26	1/4	10.09.16	Stack Sampling, Analysis of Air Pollutants, Smoke and Smoke Measurement	„		

27	1/5	15.09.16	Air Pollution Control Methods – Particulate, Emission Control, Gravitational Settling Chambers, Cyclone Separators, Fabric Filters, Electrostatic Precipitators,	„		
28	1/5	16.09.16	Wet Scrubbers, Selection of a Particulate Collecting Equipment,	„		
29	1/5	17.09.16	Control of Gaseous Emissions	„		
30	1/5	17.09.16	Adsorption by Liquids, Adsorption by Solids, Combustion Odours and their control.	„		
31	1/5	19.09.16	Air Pollution due to Gasoline Driven and Diesel Driven Engines	„		
32	1/5	22.09.16	Air Pollution due to Gasoline Driven and Diesel Driven Engines	„		
33	1/6	23.09.16	Air Pollution due to Gasoline Driven and Diesel Driven Engines	Board, chalk, duster	Assignment –IV	
34	1/6	24.09.16	Effects, Direct and Indirect Methods of control	„		
35	1/6	24.09.16	Effects, Direct and Indirect Methods of control	„		
36	1/6	26.09.16	Effects, Direct and Indirect Methods of control	„		
37	1/6	29.09.16	Acid Rain	„		
38	1/6	3.10.16	Acid Rain	„		
39	1/6	4.10.16	Global Warming	„		
40	1/7	4.10.16	Global Warming	„		
41	1/7	5.10.16	Ozone Depletion in Stratosphere	„		

42	1/7	8.10.16	Ozone Depletion in Stratosphere	„		
43	1/7	13.10.16	Indoor Air Pollution	„		
44	1/7	14.10.16	Indoor Air Pollution	„		
45	1/7	14.10.16	Environmental Policy	„		
46	1/8	17.10.16	Environmental Policy	„		
47	1/8	20.10.16	Environmental Acts	„	Assignment -V	
48	1/8	21.10.16	Environmental Acts	„		
49	1/8	22.10.16	Water, Air and Noise Pollution Standards.	Board, chalk, duster		
50	1/8	22.10.16	Water, Air and Noise Pollution Standards.	„		
51	1/8	27.10.16	Water, Air and Noise Pollution Standards.	„		
52	1/8	3.11.16	Water, Air and Noise Pollution Standards.	„		
53		4.11.16	Revision of Unit -1 & 2	„		
54		5.11.16	Revision of Unit – 3 & 4	„		
55		5.11.16	Revision of Unit – 5 & 6	„		
56		7.11.16	Revision of Unit –7 & 8	„		

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Sessional #	Syllabus
T1	Class # 01 – 23
T2	Class # 24 – 50
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Text Book	TB1	S.K Garg.Environmental engineering2	16th edition Khanna Publisher,2006	81-7409-057-6
Reference Book	RB1	B.C Punmia,A.K JAIN Environmental engineering 2	Lakshmi publication	978-81-318-0596- 1

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Session wise – Course Plan

Department of Civil Engineering

SEMESTER :VII
 BRANCH : CV
 SUBJECT : DDB
 SUBJECT CODE : 10CV766
 NO OF HRS/WK : 02(T) + 3(D)

NAME OF THE FACULTY : Mrs. K Shijina
 DATE OF COMMENCEMENT : 25.07.2016
 DATE OF CLOSING : 19.11.2016
 CLASS STRENGTH : 25
 TOTAL HRS : 54

Session No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	29.07.16	Unit-1-Introduction To Bridge Preliminaries	Board, chalk, duster		
2	2/1	02.08.16	Definition, Classification of bridges, Components of bridges	Board, chalk, duster		
3	3/1	04.08.16	Loads on bridges, IRC standards	PPT		
4	4/1	04.08.16	Hydraulic design : Methods of finding design discharge	„		
5	5/1	05.08.16	Hydraulic design : Methods of finding design discharge (numerical problem)	Board, chalk, duster		
6	6/1	09.08.16	Natural, artificial and linear water ways, afflux, economic span	Board, chalk, duster		
7	7/1	10.08.16	Substructures and foundations: Types of abutments, piers and wing	PPT		

			walls,			
8	8/1	11.08.16	Forces to be considered on abutments and piers for the design, depth of scour.	„		
9	1/2	11.08.16	Unit -2 General design consideration in design of RC slab culvert for Class AA	Board, chalk, duster		
10	2/2	12.08.16	Problem on design of RC slab culvert for Class AA tracked vehicle	Board, chalk, duster		
11	3/2	18.08.16	Problem on design of RC slab culvert for Class AA tracked vehicle	„	Assignment -I	
12	4/2	19.08.16	Problem on design of RC slab culvert for Class AA wheeled vehicle	„		
13	5/2	20.08.16	Problem on design of RC slab culvert for Class AA wheeled vehicle	„		
14	6/2	20.08.16	Problem on design of RC slab culvert for Class A wheeled vehicle	„		
15	7/2	22.08.16	Problem on design of RC slab culvert for Class A wheeled vehicle	„	Assignment -II	
16	8/2	25.08.16	Problem on design of Pipe culvert for IRC Class loading	„		
17	9/2	26.08.16	Problem on design of Pipe culvert for IRC Class loading	„		
18	10/2	27.08.16	Drawing of slab culvert	„		
19	11/2	27.08.16	Drawing of slab culvert	„		
20	12/2	29.08.16	Drawing of pipe culvert	„		
21	13/2	01.09.16	Drawing of pipe culvert	„		
22	14/2	01.09.16	Revision	„		
06.09.16 to 08.09.16 – Internal Assessment test - 1						
23	14/2	09.09.16	Drawing of Pipe culvert	„		

24	14/2	09.09.16	Drawing of Pipe culvert	„		
25	1/3	10.09.16	Design of RC T beam bridges with cross beams – Piegaud’s method - Procedure	„		
26	2/3	15.09.16	Design of RC T beam bridges with cross beams – Piegaud’s method - Problems	„		
27	3/3	16.09.16	Design of RC T beam bridges with cross beams – Piegaud’s method - Problems	„	Assignment -III	
28	4/3	17.09.16	Drawing of RC T beam bridge	„		
29	5/3	17.09.16	Drawing of RC T beam bridge	„		
30	6/3	19.09.16	Design of RC T beam bridges with cross beams – Courbon’s method - Procedure	„		
31	7/3	22.09.16	Design of RC T beam bridges with cross beams – Courbon’s method - Problem	„		
32	8/3	23.09.16	Empirical design of substructures and foundations	„	Assignment -IV	
33	9/3	24.09.16	Drawing of RC T beam bridge	„		
34	10/3	24.09.16	Drawing of RC T beam bridge	„		
35	1/4	26.09.16	Design steps of composite bridges	„		
36	2/4	29.09.16	Design of composite bridges - Problem	„		
37	3/4	03.10.16	Design of composite bridges - Problem	„		
38	4/4	04.10.16	Design of composite bridges - Problem	„		
39	5/4	05.10.16	Design of composite bridges - Problem	„		
40	6/4	08.10.16	Design of composite bridges - Problem	„		
41	7/4	13.10.16	Design of composite bridges - Problem	„		
42	8/4	14.10.16	Drawing of composite bridges	„		

43	9/4	14.10.16	Drawing of composite bridges	„		
44	10/4	17.10.16	Shear connector design	„		
45	11/4	20.10.16	Shear connector design	„	Assignment -V	
46	12/4	21.10.16	Revision of unit 4	„		
47	1/5	22.10.16	Typical design and detailing of approach slab	„		
48	2/5	22.10.16	Typical design and detailing of hand rails	„		
24.10.16 to 26.10.16 – Internal Assessment test - II						
49	3/5	27.10.16	Design and detailing of slab culvert as per MOT standards	„		
50	4/5	03.11.16	Design and detailing of slab culvert as per MOT standards	„		
51	5/5	04.11.16	Design and detailing of girder bridges as per MOT standards	„		
52	6/5	05.11.16	Design and detailing of girder bridges as per MOT standards	„		
53	7/5	05.11.16	Design and detailing of girder bridges as per MOT standards	„	Assignment -VI	
54	8/5	07.11.16	Revision	„		

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