Course Title: Bu	ilding planning and Drawing	
Section : Sec B	Date:	Page No: 01 of 03
Revision No : 00	Prepared By: R.DURGARAO	Approved By : HOD

Tools: Black h	poard, PPTs	Approved	by . Hob
No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I	Building Byelaws and Regulations		
1	Introduction	18-11-2019	
. 2	terminology	19-11-2019	
3	objectives of building byelaws	21-11-2019	
4	floor area ratio	21-11-2019	
5	floor space index	22-11-2019	
. 6	principles under laying building bye laws	25-11-2019	
7	classification of buildings	26-11-2019	
8	open space requirements	27-11-2019	
9	built up area limitations	27-11-2019	
10	Height of buildings	28-11-2019	
11	wall thickness	29-11-2019	
12	lightening and ventilation requirements	02-12-2019	
13	Tutorial	04-12-2019	Ī
14	Tutorial	6-12-2019	
UNIT –II			1986 S
15	Minimum standards for various parts of buildings	06-12-2019	
16	Requirements of different rooms	10-12-2019	
17	their grouping	10-12-2019	
18	characteristics of various types of residential buildings	17-12-2019	
19	relationship between plan, elevation and forms and	18-12-2019	Lecture
	functions	3	interspersed
20	relationship between plan, elevation and forms and	19-12-2019	with
	functions bank building		discussions
21	relationship between plan, elevation and forms and functions office building	20-12-2019	lightening and
22	Tutorial	23-12-2019	ventilation
23	Tutorial	· · · · · · · · · · · · · · · · · · ·	requiremen
UNIT –III		3-01-2020	S
24	Planning of educational institutions	28-01-2020	
25	hospitals	30-01-2020	
26	dispensaries	31-01-2020	
27	office buildings	4-2-2020	
28	banks	6-2-2020	
. 29	industrial buildings	12-2-2020	
30	hotels and motels	13-2-2020	- T
31	buildings for recreation		Lecture
32	Landscaping requirements	14-2-2020	interspersed
33	Tutorial	15-2-2020	with
34	Tutorial	25-2-2020	discussions
	ign Conventions And Bonds	5-3-2020	

35	Driels stone plaster and filing	21-11-2019	
33	Brick, stone, plaster, sand filling	10-12-2019	
36	concrete, glass, steel, cast iron		
37	copper alloys, aluminium alloys etc.,	14-12-2019	Lecture
38	lead, zinc, tin etc	15-12-2019	intersperse
39	earth, rock, timber and marbles.	16-12-2019	d with
40	English bond and Flemish bond	18-2-2020	discussion
41	odd and even courses for one	25-2-2020	
42	one and half brick walls in thickness at the junction of a corner	26-2-2020	
43	two and two and half brick walls in thickness at the junction of a corner	10-3-2020	
44	Tutorial	14-3-2020	
UNIT –V	Doors, Windows, Ventilators And Roofs		
45	Panelled door, panelled	18-2-2020	Lecture
46	Glazed door, glazed windows	25-2-2020	intersperse
47	panelled windows, swing ventilators, fixed ventilators	29-2-2020	d with discussion
48	coupled roof, collar roofs	10-3-2020	
49	King Post truss, Queen Post truss	17-3-2020	
50	Sloped and flat roof and buildings	18-3-2020	
51	drawing plans, Elevations	19-3-2020	
52	Cross Sections of given sloped and flat roof buildings.	20-3-2020	
UNIT -VI	Planning And Designing Of Buildings		
53	Draw the Plan, Elevation and Sections of a Residential building from the given line diagram.	24-12-2019 to 30-12-2019	Lecture
. 54	Draw the Plan, Elevation and Sections of a public building from the given line diagram	6-1-2020 to 28-1-2020	d with discussion
.55	Draw the Plan, Elevation and Sections of office building from the given line diagram	04-2-2020	
56	Tutorial	11-2-2020	

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Dama No. 01 -602
Page No: 01 of 03
Approved By: HOD

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT -I	Building Byelaws and Regulations		
1	Introduction	18-11-2019	
2	terminology	19-11-2019	
3	objectives of building byelaws	21-11-2019	
4	floor area ratio	21-11-2019	
5	floor space index	22-11-2019	
. 6	principles under laying building bye laws	25-11-2019	
7.	classification of buildings	26-11-2019	
8	open space requirements	27-11-2019	
9	built up area limitations	27-11-2019	
10	Height of buildings	28-11-2019	
11	wall thickness	29-11-2019	
12	lightening	02-12-2019	
13	ventilation requirements	04-12-2019	
14	Tutorial	04-12-2019	
15	Tutorial	05-12-2019	
UNIT -II	Residential Buildings		
16	Minimum standards for various parts of buildings	06-12-2019	
17	Requirements of different rooms	10-12-2019	
18	their grouping	10-12-2019	
19	characteristics of various types of residential buildings	17-12-2019	Lecture
20	relationship between plan, elevation and forms and functions residential building	18-12-2019	interspersed
21	relationship between plan, elevation and forms and functions bank building	19-12-2019	discussions
22	relationship between plan, elevation and forms and functions office building	20-12-2019	
23	Tutorial	23-12-2019	
24	Tutorial	3-01-2020	
UNIT –II	I Public Buildings		
25	Planning of educational institutions	28-01-2020	
26	hospitals	30-01-2020	
27	dispensaries	31-01-2020	
28	office buildings	4-2-2020	
29	banks	6-2-2020	
30	industrial buildings	12-2-2020	
31	hotels and motels	13-2-2020	Lecture
32	buildings for recreation	14-2-2020	interspersed
33	Landscaping requirements	15-2-2020	with
34	Tutorial		discussions
35	Tutorial	25-2-2020	uiscussions

35	Brick, stone, plaster, sand filling	01:11:0015	
	Brick, stone, plaster, sand ming	21-11-2019 10-12-2019	
36	concrete, glass, steel, cast iron	10-12-2019	
37	copper alloys, aluminium alloys etc.,	14-12-2019	Lastum
38	lead, zinc, tin etc	15-12-2019	Lecture interspers
39	earth, rock, timber and marbles.	16-12-2019	d with
40	English bond and Flemish bond	18-2-2020	discussion
41	odd and even courses for one	25-2-2020	
42	one and half brick walls in thickness at the junction of a corner	26-2-2020	
43	two and two and half brick walls in thickness at the junction of a corner	10-3-2020	100
44	Tutorial	14-3-2020	
JNIT –V 45	Doors, Windows, Ventilators And Roofs	91	
	Panelled door, panelled	18-2-2020	Lecture
46	Glazed door, glazed windows	25-2-2020	intersperse
47	panelled windows, swing ventilators, fixed ventilators	29-2-2020	d with discussion
48	coupled roof, collar roofs	10-3-2020	1
49	King Post truss, Queen Post truss	17-3-2020	
50	Sloped and flat roof and buildings	18-3-2020	1000
51	drawing plans, Elevations	19-3-2020	
52	Cross Sections of given sloped and flat roof buildings.	20-3-2020	
NIT –VI	Planning And Designing Of Buildings		·
53	Draw the Plan, Elevation and Sections of a Residential building from the given line diagram.	24-12-2019 to 30-12-2019	Lecture
54	Draw the Plan, Elevation and Sections of a public building from the given line diagram	6-1-2020 to 28-1-2020	intersperse d with
55	Draw the Plan, Elevation and Sections of office building from the given line diagram	04-2-2020	discussion
56	Tutorial	11-2-2020	
57	Tutorial		

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SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108

Course Title	Strength	of Materials-II	R1621012
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	Date: 18-11-19	Page No: 01 of 03
Revision No: 00	Prepared By: Dr V.Karthik	
10:00	Trepared by . Dr V. Kartinik	Approved Ry · HOD

Tools: Black board, PPTs, Model

No. of	TODIC		
	TOPIC	Date	Mode of
Periods			
UNIT -I PRINCIPAL S	NIT -I PRINCIPAL STDESSES AND STDAING AND THE		Delivery

AL STRESSES AND STRAINS AND THEORIES OF FAILURES

CO1 The student will be able to understand the basic concepts of Principal stresses and strains developed in the cross section of the beams on the cross section and stresses on any inclined plane. To impart concepts of failures in the material.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publications

1	Introduction	18-11-19
2	Stresses on an inclined section of a bar under axial loading	21-11-19
3	compound stresses	25-11-19
4	Normal and tangential stresses on an inclined plane for biaxial stresses	27-11-19
5	Two perpendicular normal stresses accompanied by a state of simple shear	28-11-19
6	Mohr's circle of stresses	29-12-19
7	Principal stresses and strains	30-11-19
8	Analytical and graphical solutions.	02-12-19
9	Theories of Failures: Introduction	04-12-19,
10	Maximum Principal stress theory	05-12-19 06-12-19
11	Maximum Principal strain theory	
12	Maximum shear stress theory	07-12-19
13	Maximum strain energy theory	09-12-19
14	Maximum shear strain energy theory.	11-12-19
15	Tutorial Tutorial	12-12-19
10	Tuoria	13-12-19

Lecture interspersed with discussions

UNIT -II SHEAR FORCE AND BENDING MOMENT

CO2 The student will be able to draw the diagrams indicating the variation of the key performance features like bending moment and shear forces

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publications

16	Theory of pure torsion	16 10 10
17	Derivation of Torsion equations: $T/J = q/r = N\phi/L$	16-12-19
18	Assumptions made in the start f	18-12-19
19	Assumptions made in the theory of pure torsion	19-12-19
and the same	Torsional moment of resistance –	19-12-19
20	Polar section modulus	20-12-19
21	Power transmitted by shafts	21-12-19
22	Combined bending and torsion and end thrust	21-12-19
23	Design of shafts according to theories of failure	22-12-19

24	Springs: Introduction	23-12-19	
25	Types of springs ·	24-12-19	
26	deflection of close coiled helical springs under axial	24-12-19	
	pull	25 12 10	
27	deflection of open coiled helical springs under axial	25-12-19	
	pull	25-12-19	Lecture
28	deflection of close coiled helical springs under	23-12-19	interspersed
20	axial couple	26-12-19	with discussion
29	deflection of open coiled helical springs under axial	20-12-19	
20	couple	26-12-19	
30	springs in series and parallel. Tutorial	26-12-19	
31	Tutoriai	20-12-17	
and bending sections	FLEXURAL STRESSES & SHEAR STRESSES adent will have knowledge of stresses developed in the cross equations, calculation of section modulus of section for death of Materials by S.S Bhavikatti,		
	n of Materials by S.S Bhavikatti, n of Materials by R.K Bansal, Lakshmi Publication		
32	Columns and Struts	02-01-20	
33	: Introduction	04-01-20	
34	Types of columns	04-01-20	
35	- Short, medium and long columns	04-01-20	
36	Axially loaded compression members	06-01-20	Lecture
37	Crushing load	07-01-20	interspersed with
38	Euler's theorem for long columns	09-01-20	discussions
39	Euler's theorem for long columns	10-01-20	
40	assumptions	10-01-20	
41	derivation of Euler's critical load formulae for	11-01-2020	Dec.
	various end conditions		
42	derivation of Euler's critical load formulae for	27.01.2020	
	various end conditions	27-01-2020	.tip
43	derivation of Euler's critical load formulae for	29-01-2020	1
	various end conditions		
44	derivation of Euler's critical load formulae for	30-01-2020	
	various end conditions		5 7 7 10
45	Equivalent length of a column	01-02-2020	
46	slenderness ratio	03-02-2020	
	Euler's critical stress	04-02-2020	
47			
48	Limitations of Euler's theory –	05-02-2020	
49	Limitations of Euler's theory –	11-02-2020	Lecture
50	Rankine – Gordon formula	12-02-2020	interspersed
51	Long columns subjected to eccentric loading -	17-02-2020	with
52	Long columns subjected to eccentric loading –	24-02-2020	discussions
53	Secant formula	25-02-2020	
54	Secant formula	25-02-2020	- prod 2
55	Empirical formulae	25-02-2020	
56	Straight line formula –	26-02-2020	

26-02-2020

56

Straight line formula -

1 57	Prot. Perry's formula	26-02-2020
58	Tutorial	26-02-2020

UNIT - IV DEFLECTION OF BEAMS

CO4 The student will be able to calculate the deflections in beams under various loading and support conditions.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publication

59	Stresses under the combined action of direct loading	27-02-2020	
60	B.M. Core of a section	27-02-2020	
61	determination of stresses in the case of chimneys	28-02-2020	Lecture
62	retaining walls	28-02-2020	interspersed
63	dams	02-03-2020	with
64	conditions for stability	02-03-2020	discussions
65	stresses due to direct loading	02-03-2020	
66	B.M. about both axis	04-03-2020	
67	stresses due to direct loading and B.M. about both axis.	04-03-2020	
68	Tutorial	04-03-2020	

UNIT-V THIN AND THICK CYLINDERS

CO5 The student will be able to classify cylinders based on their thickness and to derive equations for measurement of stresses across the cross section when subjected to external pressure.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publication

69	Introduction	05-03-2020	
70	Centroidal principal axes of section	05-03-2020	
71	Graphical method for locating principal axes	06-03-2020	
72	Moments of inertia referred to any set of rectangular axes	06-03-2020	
73	Stresses in beams subjected to unsymmetrical bending	07-03-2020	Lecture
74	Principal axes	07-03-2020	interspersed
75	Resolution of bending moment into two rectangular axes through the centroid	09-03-2020	with discussions
76	Location of neutral axis	10-03-2020	discussions
77	Deflection of beams under unsymmetrical bending.	12-03-2020	
78	Shear Centre: Introduction	12-03-2020	
79	Shear center for symmetrical and unsymmetrical sections	12-03-2020	

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Course Title: Strength of Materials-II R1621012

Section : Sec BDate : 18-11-19Page No : 01 of 03Revision No : 00Prepared By : Anuradha,GApproved By : HOD

Tools: Black board, PPTs, Model

No. of	TOPIC	Date	Mode of
Periods	TOTIC	Date	
LINIT I DDING	DAI CEDEGGEG AND CED AND CED		Delivery

UNIT -I PRINCIPAL STRESSES AND STRAINS AND THEORIES OF FAILURES

CO1 The student will be able to understand the basic concepts of Principal stresses and strains developed in the cross section of the beams on the cross section and stresses on any inclined plane. To impart concepts of failures in the material.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publications

1	Introduction	18-11-19
2	Stresses on an inclined section of a bar under axial loading	21-11-19
3	compound stresses	25-11-19
4	Normal and tangential stresses on an inclined plane for biaxial stresses	27-11-19
5	Two perpendicular normal stresses accompanied by a state of simple shear	28-11-19
6	Mohr's circle of stresses	29-12-19
7	Principal stresses and strains	30-11-19
8	Analytical and graphical solutions.	02-12-19
9	Theories of Failures: Introduction	04-12-19, 05-12-19
10	Maximum Principal stress theory	06-12-19
11	Maximum Principal strain theory	07-12-19
12	Maximum shear stress theory	09-12-19
13	Maximum strain energy theory –	11-12-19
14	Maximum shear strain energy theory.	12-12-19
15	Tutorial	13-12-19

Lecture interspersed with discussions

UNIT -II SHEAR FORCE AND BENDING MOMENT

CO2 The student will be able to draw the diagrams indicating the variation of the

key performance features like bending moment and shear forces

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publications

16	Theory of pure torsion	16-12-19
17	Derivation of Torsion equations: $T/J = q/r = N\phi/L$	18-12-19
18	Assumptions made in the theory of pure torsion	19-12-19
19	Torsional moment of resistance –	19-12-19
20	Polar section modulus	20-12-19
21	Power transmitted by shafts	21-12-19
22	Combined bending and torsion and end thrust	21-12-19
23	Design of shafts according to theories of failure	22-12-19

24	Springer Introduction	00.10.10	
25	Springs: Introduction Types of springs	23-12-19	4
26	deflection of close coiled helical springs under axial	24-12-19	
	pull	24-12-19	
27	deflection of open coiled helical springs under axial pull	25-12-19	
28	deflection of close coiled helical springs under axial couple	25-12-19	Lecture interspersed
29	deflection of open coiled helical springs under axial couple	26-12-19	with discussion
30	springs in series and parallel.	26-12-19	
31	Tutorial	26-12-19	
and bending sections	FLEXURAL STRESSES & SHEAR STRESSES dent will have knowledge of stresses developed in the croequations, calculation of section modulus of section for denoted of Materials by S.S Bhavikatti,		
T2 Strength	of Materials by R.K Bansal, Lakshmi Publication		
32	Columns and Struts	02-01-20	
33	: Introduction	04-01-20	
34	Types of columns	04-01-20	
35	- Short, medium and long columns	04-01-20	
36	Axially loaded compression members	06-01-20	Lecture
37	Crushing load	07-01-20	interspersed
38	Euler's theorem for long columns	09-01-20	discussions
39	Euler's theorem for long columns	10-01-20	
40	assumptions	10-01-20	
	derivation of Euler's critical load formulae for		-
41	various end conditions	11-01-2020	
41		27-01-2020	
	various end conditions derivation of Euler's critical load formulae for		ane.
42	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for	27-01-2020	- Carte
42	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for	27-01-2020 29-01-2020	
42 43 44	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions	27-01-2020 29-01-2020 30-01-2020 01-02-2020	
42 43 44 45	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column	27-01-2020 29-01-2020 30-01-2020 01-02-2020	
42 43 44 45 46 47	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio	27-01-2020 29-01-2020 30-01-2020 01-02-2020	
42 43 44 45 46 47 48	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory —	27-01-2020 29-01-2020 30-01-2020 01-02-2020	
42 43 44 45 46 47 48 49	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020	Lecture
42 43 44 45 46 47 48	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory —	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 05-02-2020 11-02-2020	
42 43 44 45 46 47 48 49	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory — Limitations of Euler's theory — Rankine — Gordon formula	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 11-02-2020 12-02-2020	interspersed
42 43 44 45 46 47 48 49 50	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory — Limitations of Euler's theory — Rankine — Gordon formula Long columns subjected to eccentric loading —	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 11-02-2020 12-02-2020 17-02-2020	interspersed with
42 43 44 45 46 47 48 49 50 51 52	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory — Limitations of Euler's theory — Rankine — Gordon formula Long columns subjected to eccentric loading — Long columns subjected to eccentric loading —	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 11-02-2020 12-02-2020 17-02-2020 24-02-2020	interspersed
42 43 44 45 46 47 48 49 50 51 52 53	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory — Limitations of Euler's theory — Rankine — Gordon formula Long columns subjected to eccentric loading — Long columns subjected to eccentric loading — Secant formula	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 11-02-2020 12-02-2020 17-02-2020 24-02-2020 25-02-2020	interspersed with
42 43 44 45 46 47 48 49 50 51 52	various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions derivation of Euler's critical load formulae for various end conditions Equivalent length of a column slenderness ratio Euler's critical stress Limitations of Euler's theory — Limitations of Euler's theory — Rankine — Gordon formula Long columns subjected to eccentric loading — Long columns subjected to eccentric loading —	27-01-2020 29-01-2020 30-01-2020 01-02-2020 03-02-2020 04-02-2020 11-02-2020 12-02-2020 17-02-2020 24-02-2020	interspersed with

57 .	Prof. Perry's formula	26-02-2020
58	Tutorial	26-02-2020

UNIT - IV DEFLECTION OF BEAMS

CO4 The student will be able to calculate the deflections in beams under various loading and support conditions.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publication

59	Stresses under the combined action of direct loading	27-02-2020	/
60	B.M. Core of a section	27-02-2020	
61	determination of stresses in the case of chimneys	28-02-2020	Lecture
62	retaining walls	28-02-2020	interspersed
63	dams	02-03-2020	with
64	conditions for stability	02-03-2020	discussions
65	stresses due to direct loading	02-03-2020	
66	B.M. about both axis	04-03-2020	
67	stresses due to direct loading and B.M. about both axis.	04-03-2020	
68	Tutorial	04-03-2020	

UNIT -V THIN AND THICK CYLINDERS

CO5 The student will be able to classify cylinders based on their thickness and to derive equations for measurement of stresses across the cross section when subjected to external pressure.

T1 Strength of Materials by S.S Bhavikatti,

T2 Strength of Materials by R.K Bansal, Lakshmi Publication

69	Introduction	05-03-2020
70	Centroidal principal axes of section	05-03-2020
71	Graphical method for locating principal axes	06-03-2020
72	Moments of inertia referred to any set of rectangular axes	06-03-2020
73	Stresses in beams subjected to unsymmetrical bending	07-03-2020
74	Principal axes	07-03-2020
75	Resolution of bending moment into two rectangular axes through the centroid	09-03-2020
76	Location of neutral axis	10-03-2020
77	Deflection of beams under unsymmetrical bending.	12-03-2020
78	Shear Centre: Introduction	12-03-2020
79	Shear center for symmetrical and unsymmetrical sections	12-03-2020

Lecture interspersed with discussions

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7			
UNIT-III			
CO3 The stud	dent will be able to understand the basic concepts. Din	nensional	
	luid flow problems and apply the principals of dimens	ional analysis	
	e in hydraulic model testing.		
	Fluid mechanics and hydraulic machines, R. K. Bansal	, Laxmi	
Publications 1			
T2 Fluid Flo	w in Pipes and Channels, G.L. Asawa, CBS.		
30	chanics, Modi and Seth, Standard book house. Dimensional analysis	21-12-19	
31	Rayleigh's method	23-12-19	
	Buckingham's pi theorem	24-12-19	
32		26-12-19	
33	study of Hydraulic models	27-12-19	
34	Geometric, kinematic	28-12-19	
35	Dynamic similarities dimensionless numbers	30-12-19	Lecture
36		31-12-19	interspersed
37	model and prototype relations.	2-1-20	with
38	Problems	3-1-20	discussions
39	Problems	4-1-20	
40	Problems	6-1-20	
41	Problems BASICS OF TURBO MACHINERY	0-1-20	
T2 Fluid Fl	f Fluid mechanics and hydraulic machines, R. K. Bansa ow in Pipes and Channels, G.L. Asawa, CBS.	l, Laxmi Publicati	ons New Delhi.
	echanics, Modi and Seth, Standard book house.	27-1-20	
42	Hydrodynamic force of jets on stationary		
43	moving flat	28-1-20	
44	inclined and curved vanes	30-1-20	Lecture
45	jet striking centrally and at tip	3-2-20	interspersed
46	velocity triangles at inlet and outlet,	4-1-20	with
47	expressions for work done and efficiency	5-1-20	discussions
48	Angular momentum principle	6-2-20	
49	Problems	7-2-20	
50	problems .	8-2-20	
51	problems	10-2-20	
UNIT -V	HYDRAULIC TURBINES		
CO5 The stu working prin Understand	ndent will be able to understand the basic concepts. To neiples of various types of hydraulic machines the working principles of various hydraulic machineric of Fluid mechanics and hydraulic machines, R. K. Bansa	es	
Publications T2 Fluid F	New Delhi. low in Pipes and Channels, G.L. Asawa, CBS. lechanics, Modi and Seth, Standard book house.		Lecture interspersed with discussions
52	Layout of a typical Hydropower installation	11-2-20	
53	Heads and efficiencies	12-2-20	
54	classification of turbines	13-2-20	-
. 55	Pelton wheel	14-2-20	
56	Francis turbine	15-2-20	
57	Kaplan turbine	17-2-20	
58	working, working proportions	24-2-20	
	velocity diagram, work done and efficiency		

59		25-2-20	
39	hydraulic design, draft tube, theory and efficiency		
60	Governing of turbines ,surge tanks-unit	26-2-20	
61	specific quantities, selection of turbines,	27-2-20	
62	performance characteristics	28-2-20	
63	geometric similarity-cavitations.	29-2-20	
64	Problems	2-3-20	
working prine Understand the T1 A text of Publications 1 T2 Fluid Flo	dent will be able to understand the basic concepts. To use ciples of various types of pumps. The working principles of various pumps of Fluid mechanics and hydraulic machines, R. K. Bansal, New Delhi. We in Pipes and Channels, G.L. Asawa, CBS. Schanics, Modi and Seth, Standard book house		
65	Pump installation details	3-3-20	
66	classification Work done- Manometric head	4-3-20	
67	Work done- Manometric head	5-3-20	
07	Work Cond Manager	6220	

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minimum starting speed

NPSH- Cavitation.

losses and efficiencies-specific speed

multistage pumps-pumps in parallel and series

performance of pumps-characteristic curves

RECIPROCATING PUMPS: Introduction

classification components, working

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6-3-20

7-3-20

8-3-20

10-3-20

11-3-20

12-3-20

13-3-20

SRK Institute of Technology ENIKEPADU. VIJAYAWADA-521 108

Course Title: H&HM			
Section: Sec b Date: 18-11-2019		Page No: 01 of 03	
Revision No : 00 Prepared		Approved By : HOD	

Tools: Black board, PPTs,	Moodle		
No. of Periods	TOPIC	Date	Mode of Delivery

UNIT -I Introduction: UNIFORM FLOW IN OPEN CHANNELS

CO1 The student will be able to understand the basic concepts. To study about uniform flows in open channel and also to learn about the characteristics of hydraulic jump. Solve uniform open channel flow problems

- T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi Publications New Delhi.
- T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.
- T3 Fluid Mechanics, Modi and Seth, Standard book house.

1	UNIFORM FLOW IN OPEN CHANNELS:	
2	Types of channels	18-11-19
3	Types of flows	19-11-19
4	Velocity distribution	20-11-19
5	Energy and momentum correction factors	21-11-19
6	Chezy's formulae for uniform flow	22-11-19
7	Manning's formulae for uniform flow	23-11-19
8	Most Economical sections	25-11-19
9	Critical flow: Specific energy	26-11-19
10	critical depth	27-11-19
11	computation of critical depth	28-11-19
12	Problems	29-11-19
13	Problems	30-11-19
14	Problems	2-12-19
15	Problems	3-12-19

UNIT -II NON-UNIFORM FLOW IN OPEN CHANNELS:

- CO2 The student will be able to understand the basic concepts. To study about non-uniform flows in open channel and also to learn about the characteristics of hydraulic jump Solve non uniform open channel flow problems
- T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi Publications New Delhi.
- T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.
- T3 Fluid Mechanics, Modi and Seth, Standard book house.

16	Steady Gradually Varied flow	4-12-19
17	Dynamic equation slope	5-12-19
18	Mild, Critical slope	6-12-19
19	Steep, horizontal	7-12-19
20	adverse slope	9-12-19
21	surface profiles	10-12-19
22	Profiles direct step method	11-12-19
23	Rapidly varied flow	12-12-19
24	hydraulic jump	13-12-19
25	energy dissipation	16-12-19
26	Problems	17-12-19
27	Problems	18-12-19
28	Problems	19-12-19
29	Problems	20-12-19

Lecture interspersed with discussions

UNIT -III HYDRAULIC SIMILITUDE

CO3 The student will be able to understand the basic concepts. Dimensional analysis for fluid flow problems and apply the principals of dimensional analysis and similitude in hydraulic model testing.

- T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi Publications New Delhi.
- T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.
- T3 Fluid Mechanics, Modi and Seth, Standard book house.

30	Dimensional analysis	21-12-19	
31	Rayleigh's method	23-12-19	
32	Buckingham's pi theorem	24-12-19	
33	study of Hydraulic models	26-12-19	
34	Geometric, kinematic	27-12-19	
35	Dynamic similarities	28-12-19	
36	dimensionless numbers	30-12-19	Lecture
37	model and prototype relations.	31-12-19	interspersed
38	Problems	2-1-20	with
39	Problems	3-1-20	discussions
40	Problems	4-1-20	
41	Problems	6-1-20	

UNIT IV BASICS OF TURBO MACHINERY

CO4 The student will be able to understand the basic concepts of impact of jet in the direction and angular momentum.

- T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi Publications New Delhi.
- T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.

T3 Fluid Mechanics, Modi and Seth, Standard book house.

42	Hydrodynamic force of jets on stationary	27-1-20	
43	moving flat	28-1-20	
44	inclined and curved vanes	30-1-20	Lecture
45	jet striking centrally and at tip	3-2-20	interspersed
46	velocity triangles at inlet and outlet,	4-1-20	with
47	expressions for work done and efficiency	5-1-20	discussions
48	Angular momentum principle	6-2-20	
49	Problems	7-2-20	
50	problems	8-2-20	
51	problems	10-2-20	

UNIT-V HYDRAULIC TURBINES

CO5 The student will be able to understand the basic concepts. To understand the working principles of various types of hydraulic machines

Understand the working principles of various hydraulic machineries

T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi

Publications New Delhi.

- T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.
- T3 Fluid Mechanics, Modi and Seth, Standard book house.

Lecture interspersed with discussions

52	Layout of a typical Hydropower installation	11-2-20
53	Heads and efficiencies	12-2-20
54	classification of turbines	13-2-20
55	Pelton wheel	14-2-20
56	Francis turbine	15-2-20
57	Kaplan turbine	17-2-20
58	working, working proportions velocity diagram, work done and efficiency	24-2-20

59	hydraulic design, draft tube, theory and	25-2-20	
60	Governing of turbines ,surge tanks-unit	26-2-20	
61	specific quantities, selection of turbines,	27-2-20	
62	performance characteristics	28-2-20	
63	geometric similarity-cavitations.	29-2-20	
64	Problems	2-3-20	
INIT_VI	CENTRAIFUGAL-PUMPS		

CO6 The student will be able to understand the basic concepts. To understand the working principles of various types of pumps.

Understand the working principles of various pumps

T1 A text of Fluid mechanics and hydraulic machines, R. K. Bansal, Laxmi Publications New Delhi.

T2 Fluid Flow in Pipes and Channels, G.L. Asawa, CBS.

14	riulu	riow in 1 ipes and Channels, 6121 12211,	
T3	Fluid	Mechanics, Modi and Seth, Standard book house	_

65	Pump installation details	3-3-20
66	Classification, Work done- Manometric head	4-3-20
67	minimum starting speed, losses and efficiencies-specific speed	5-3-20
68	multistage pumps-pumps in parallel ,series	6-3-20
69	performance of pumps-characteristic curves, NPSH- Cavitation.	7-3-20
70	RECIPROCATING PUMPS: Introduction	8-3-20
71	Classification, components, working	10-3-20
72	work done and slip.	11-3-20
73	Problems	12-3-20
74	Problems	13-3-20

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TENTATIVE LESSON PLAN: CIVIL R1622014

	Course Title: CONCRETE TECHNOL	OGY
Section: Sec A	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By: A.KRISHNA PRIYA	Approved By: HOD

Tools: Black board, power point presentations

UNIT 1 CEMENT, AGGREGATES & ADMIXTURES

CO1: To make students understand concepts hydration, setting time of cement, fineness of cement, tests for physical properties, grades of cement, admixtures

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

No. of Periods	ТОРІС	Tentative Dates	MODE OF DELIVERY
1	Introduction To Cement, Portland Cement	18-11-19	
2	Chemical Composition, Hydration Of Cement, Setting Time Of Cement	21-11-19	
3	Fineness Of Cement &Structure Of Hydrated Cement	25-11-19	
4	Test For Physical Properties Of Cement	27-11-19	
5	Different Grades Of Cement , Admixtures: mineral and chemical admixtures	28-11-19	Lecture
6	Accelerators, Retarders	29-12-19	intersperse
7	Plasticizers, Super Plasticizers, air entrainers	30-11-19	with
8	Fly ash, Silica Fume	02-12-19	discussion
9	Classification Of Aggregates based on Particle Shape & Texture	04-12-19, 05-12-19	
10	Bond & Strength Of aggregates & other mechanical properties of aggregates	06-12-19	
11	Bulk Density, Specific Gravity ,Porosity	07-12-19	
12	Adsorption ,Moisture Content Of Aggregates	09-12-19	
13	Bulking Of Sand, Deleterious Substances In Aggregates	11-12-19	Section 2
14	Soundness Of Aggregates , Alkali Aggregate Reaction	12-12-19	
15	Thermal properties of aggregates, Sieve Analysis	13-12-19	
16	Grading curves, Fineness modulus	16-12-19	
17	Grading Of Fine & Coarse Aggregate	18-12-19	
18	Gap Graded And Well Graded Aggregate, Maximum Aggregate Size & Quality Of Mixing Water	19-12-19	
19	Tutorial	19-12-19	

UNIT 2 FRESH CONCRETE

CO 2: To make students understand mixing, placing, compaction, finishing, curing, properties, workability, segregation & bleeding

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delh

20	Introduction, Steps In Manufacture Of Concrete-	20-12-19	V Deim
21	proportion Mixing, placing, compaction, finishing Curing methods, Including Various Types In	21-12-19	

	Each Stage		
22	Properties Of Fresh Concrete	22-12-19	
23	Workability, Factors affecting on Workability	23-12-19	Lecture
24	Measurement Of Workability By Different Tests	24-12-19	interspersed
25	Setting Times Of Concrete, Effect Of Time And Temperature On Workability	25-12-19	with discussions
26	Segregation & bleeding, Mixing and vibration of concrete	26-12-19	
27	Ready mixed concrete, Shotcrete.	26-12-19	
28	Tutorial	26-12-19	

UNIT 3 Hardened Concrete

CO 3: To make students understand W/C ratio, gel space ratio, nature of strength of concrete, curing methods

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

29	Introduction: W / C ratio, Abram's Law -Gel space ratio	02-01-20	
30	Factors affecting strength	04-01-20	
31	Nature of strength of concrete	04-01-20	Lecture
32	Maturity concept	04-01-20	interspersed
33	Strength in tension & compression	06-01-20	with
34	Relation between compression & tensile strength	07-01-20	discussions
35	Testing of Hardened Concrete: Compression tests, Tension tests ,Flexure tests	09-01-20	1
36	Splitting tests	10-01-20	
37	Nondestructive testing methods, codal Provisions for NDT.	10-01-20	
38	Tutorial	11-01-2020	

UNIT 4 Elasticity, Creep & Shrinkage

CO 4:To make student understand modulus of elasticity, poisons ratio, creep of concrete, shrinkage concepts

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

39	Introduction ,Modulus of elasticity	27-01-2020	
40	Dynamic modulus of elasticity & Poisson's ratio	29-01-2020	Lecture interspersed with discussions
41	Creep of concrete & Factors influencing creep,	30-01-2020	
42	Relation between creep & time	01-02-2020	
43	Nature of creep & Effects of creep	03-02-2020	
44	Shrinkage & types of shrinkages	04-02-2020	
45	Tutorial	05-02-2020	

UNIT 5 Mix Design

CO 5: To make students understand durability of concrete, quality of concrete, mix design

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

46	Introduction: Factors in the choice of mix proportions	11-02-2020	
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47	Durability of concrete ,Quality Control of concrete	12-02-2020	Lecture
48	Statistical methods & Acceptance criteria	17-02-2020	interspersed with discussions
49	Concepts Proportioning of concrete mixes by various methods	24-02-2020	
50	BIS method of mix design	25-02-2020	
51	Tutorial	26-02-2020	+
TIMIT CC-	orial Co.		

UNIT 6 Special Concretes

CO 6: To make students understand concepts of special concrete

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

52	Ready mixed concrete, Shotcrete.	27-02-2020	
53	Light weight aggregate concrete	28-02-2020	+
54	Cellular concrete	02-03-2020	
55	No-fines concrete, High density concrete	04-03-2020	Lecture
56	Fibre reinforced concrete, Different types of fibres - Factors affecting properties of F.R.C	05-03-2020	interspersed with discussions
57	Polymer concrete – Types of Polymer concrete, Properties	06-03-2020	
58	High performance concrete	07-03-2020	
59	Self consolidating concrete, SIFCON, self healing concrete	09-03-2020	
60	Tutorial class :FRC	10-03-2020	1
61	Previous question papers revision	12-03-2020	1

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TENTATIVE LESSON PLAN: CIVIL R1622014

	Course Title: CONCRETE TECHNOLO	OGY
Section: Sec B	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By: A.KRISHNA PRIYA	Approved By: HOD

Tools: Black board, power point presentations

UNIT 1 CEMENT, AGGREGATES & ADMIXTURES

CO1: To make students understand concepts hydration, setting time of cement, fineness of cement, tests for physical properties, grades of cement, admixtures

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

No. of Periods	TOPIC	Tentative Dates	MODE OF DELIVERY
1	Introduction To Cement, Portland Cement	18-11-19	
2	Chemical Composition, Hydration Of Cement, Setting Time Of Cement	21-11-19	
3	Fineness Of Cement &Structure Of Hydrated Cement	25-11-19	
4	Test For Physical Properties Of Cement	27-11-19	
5	Different Grades Of Cement , Admixtures: mineral and chemical admixtures	28-11-19	Lecture
6	Accelerators, Retarders	29-12-19	interspersed
7	Plasticizers, Super Plasticizers, air entrainers	30-11-19	with
8	Fly ash, Silica Fume	02-12-19	discussions
9	Classification Of Aggregates based on Particle	04-12-19,	
,	Shape & Texture	05-12-19	
10	Bond & Strength Of aggregates & other mechanical properties of aggregates	06-12-19	
11	Bulk Density, Specific Gravity ,Porosity	07-12-19	
12	Adsorption , Moisture Content Of Aggregates	09-12-19	
13	Bulking Of Sand, Deleterious Substances In Aggregates	11-12-19	
14	Soundness Of Aggregates , Alkali Aggregate Reaction	12-12-19	
15	Thermal properties of aggregates, Sieve Analysis	13-12-19	
16	Grading curves, Fineness modulus	16-12-19	
17	Grading Of Fine & Coarse Aggregate	18-12-19	
18	Gap Graded And Well Graded Aggregate, Maximum Aggregate Size & Quality Of Mixing Water	19-12-19	
19	Tutorial	19-12-19	

UNIT 2 FRESH CONCRETE

CO 2: To make students understand mixing, placing, compaction, finishing, curing, properties, workability, segregation & bleeding

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

20	Introduction, Steps In Manufacture Of Concrete- proportion Mixing, placing, compaction, finishing	20-12-19	
21	Curing methods, Including Various Types In	21-12-19	

	Each Stage		
22	Properties Of Fresh Concrete	22-12-19	
23	Workability, Factors affecting on Workability	23-12-19	Lecture
24	Measurement Of Workability By Different Tests	24-12-19	interspersed
25	Setting Times Of Concrete, Effect Of Time And Temperature On Workability	25-12-19	with discussions
26	Segregation & bleeding, Mixing and vibration of concrete	26-12-19	
27	Ready mixed concrete, Shotcrete.	26-12-19	
28	Tutorial	26-12-19	

UNIT 3 Hardened Concrete

CO 3: To make students understand W/C ratio, gel space ratio, nature of strength of concrete, curing methods

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

29	Introduction: W / C ratio, Abram's Law –Gel space ratio	02-01-20	
30	Factors affecting strength	04-01-20	
31	Nature of strength of concrete	04-01-20	Lecture
32	Maturity concept	04-01-20	interspersed with discussions
33	Strength in tension & compression	06-01-20	
34	Relation between compression & tensile strength	07-01-20	
35	Testing of Hardened Concrete: Compression tests, Tension tests ,Flexure tests	09-01-20	
36	Splitting tests	10-01-20	
37	Nondestructive testing methods, codal Provisions for NDT.	10-01-20	
38	Tutorial	11-01-2020	

UNIT 4 Elasticity, Creep & Shrinkage

CO 4:To make student understand modulus of elasticity, poisons ratio, creep of concrete, shrinkage concepts

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

39	Introduction ,Modulus of elasticity	27-01-2020	
40	Dynamic modulus of elasticity & Poisson's ratio	29-01-2020	1
41	Creep of concrete & Factors influencing creep,	30-01-2020	1_
42	Relation between creep & time	01-02-2020	Lecture
43	Nature of creep & Effects of creep	03-02-2020	interspersed with
44	Shrinkage & types of shrinkages	04-02-2020	discussions
45	Tutorial	05-02-2020	

UNIT 5 Mix Design

CO 5: To make students understand durability of concrete, quality of concrete, mix design

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

46 Introduction: I proportions	actors in the choice of mix	11-02-2020
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47	Durability of concrete ,Quality Control of concrete	12-02-2020	Lecture
48	Statistical methods & Acceptance criteria	17-02-2020	interspersed
49	Concepts Proportioning of concrete mixes by various methods	24-02-2020	with discussions
50	BIS method of mix design	25-02-2020	
51	Tutorial	26-02-2020	1

UNIT 6 Special Concretes

CO 6: To make students understand concepts of special concrete

TB: "A Textbook of Concrete Technology by M.S.SHETTY-S.CHAND Publishers", New Delhi

52	Ready mixed concrete, Shotcrete.	27-02-2020	
53	Light weight aggregate concrete	28-02-2020	
54	Cellular concrete	02-03-2020	
55	No-fines concrete, High density concrete	04-03-2020	Lecture
56	Fibre reinforced concrete, Different types of fibres - Factors affecting properties of F.R.C	05-03-2020	interspersed with
57	Polymer concrete –Types of Polymer concrete, Properties	06-03-2020	discussions
58	High performance concrete	07-03-2020	
59	Self consolidating concrete, SIFCON, self healing concrete	09-03-2020	
60	Tutorial class :FRC	10-03-2020	
61	Previous question papers revision	12-03-2020	

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SRK Institute of Technology ENIKEPADU. VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: (R1622015)

	Course Title: Structural Analysis-1 (R16	522015)
Section : Sec A Date : 18/11/2019		Page No: 01 of 04
Revision No: 00	Prepared By: K. CHANDRA PADMAKAR	Approved By : HOD

Tools: Black board, PPTs, Model

T1 Theory of S T2 Structural A T3 Theory of S	OPPED CANTILEVER BEAMS ent will be able Distinguish the determinate and indeter Structures by S. Ramamrutham & R. Narayan, Analysis by V. S. Prasad Structures by R. S. Khurmi	rminate structu	ires.
T1 Theory of S T2 Structural A T3 Theory of S	Structures by S. Ramamrutham & R. Narayan, Analysis by V. S. Prasad	minate structu	ires.
T2 Structural A	Analysis by V. S. Prasad		
T3 Theory of S			
	Structures by R. S. Khurmi		
1		PLUL II	
	INTRODUCTION TO PROPPED CANTILEVER BEAMS	18/11/19	
2	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD-SF	18/11/19	
3	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD-BMD	19/11/19	
1	ANALYSIS OF PROPPED CANTILEVER BEAM POIND LOAD DEFLECTION	19/11/19	
5	ANALYSIS OF PROPPED CANTILEVER BEAM UDL-SF	20/11/19	Lecture
6	ANALYSIS OF PROPPED CANTILEVER BEAM UDL- BMD	20/11/19	interspersed
	ANALYSIS OF PROPPED CANTILEVER BEAM UDL-SF	21/11/19	with discussion
X 1	ANALYSIS OF PROPPED CANTILEVER BEAM- DEFLECTION	21/11/19	
0	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD PROBLEM	22/11/19	
10	ANALYSIS OF PROPPED CANTILEVER BEAM UDL- PROBLM	22/11/19	
11	ANALYSIS OF PROPPED CANTILEVER BEAM COMBINATION OF LOAD CONDITION-PROBLEM	23/11/19	
CO2 The stude expected loads T1 Theory of T2 Structural	ent will be able to Identify the behaviour of structures is, including the moving loads, acting on the structure Structures by S. Ramamrutham & R. Narayan, Analysis by V. S. Prasad	due to the	Lecture
	Structures by R. S. Khurmi - INTRODUCTION TO FIXED BEAMS	26/11/19	interspersed with discussion
12	ANALYSIS OF FIXED BEAM CARRYING TWO	30/11/19	with discussion
14	UNSYMMETRICAL LOAD ANALYSIS OF FIXED BEAM CARRYING POINT LOAD AT CENTRE	2/12/19	
15	ANALYSIS OF FIXED BEAM CARRYING ECENTRIC POINT LOAD	3/12/19	
16	ANALYSIS OF FIXED BEAM CARRYING UDL	5/12/19	
17	ANAYLYSIS OF FIXED BEAM CARRYING UVL	6/12/19	

UNIT -III CONTINUOUS BEAM

CO3 The student can be able to estimate the bending moment and shear forces in beams for different fixity conditions.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

18	INTRODUCTION TO CONTINUOUS BEAMS	19/12/19
19	CLAPEYRON'S THEOREM OF THREE MOMENTS	20/12/19
20	ANALYSIS OF CONTINUOUS BEAMS WITH CONSTANT MOMENT OF INERTIA WITH ONE OR BOTH ENDS FIXED	24/12/19
21	CONTINUOUS BEAMS WITH OVERHANG	26/12/19
22	CONTINUOUS BEAMS WITH DIFFERENT MOMENT OF INERTIA FOR DIFFERENT SPANS	27/12/19
23	EFFECTS OF SINKING OF SUPPORTS	2/01/20
24	SHEAR FORCE AND BENDING MOMENT DIAGRAMS.	8/01/20

Lecture interspersed with discussion

UNIT IV SLOPE DEFLECTION METHOD

CO4 Make the student to Analyze the continuous beams using various methods -, three moment method, slope deflection method, energy theorems.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

25	SLOPE-DEFLECTION METHOD-INTRODUCTION	10/01/20	
26	DERIVATION OF SLOPE DEFLECTION EQUATION	17/01/20	Lecture interspersed
27	APPLICATION TO CONTINUOUS BEAMS WITH SUPPORTS	6/02/20	
28	APPLICATION TO CONTINUOUS BEAMS WITHOUT SUPPORTS	8/02/20	with discussions

UNIT - V ENERGY THEOREMS

CO5 Make the student to Analyze the continuous beams using various methods -energy theorems.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

29	ENERGY THEOREMS-INTRODUCTION	10/02/20	
30	STRAIN ENERGY IN LINEAR ELASTIC SYSTEM	11/02/20	
31	EXPRESSION OF STRAIN ENERGY DUE TO AXIAL LOAD	12/02/20	Lecture interspersed
32	BENDING MOMENT AND SHEAR FORCES	13/02/20	with discussions
33	CASTIGLIANO'S FIRST THEOREM	14/02/20	
34	DEFLECTIONS OF SIMPLE BEAMS	15/02/20	
35	PIN JOINTED TRUSSES	13/02/20	

UNIT -VI MOVING LOADS AND INFLUENCE LINES

CO6 Analyze the loads in Pratt and Warren trusses when loads of different types and spans are passing over the truss.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

36	MOVING LOADS AND INFLUENCE LINES- INTRODUCTION	24/02/20	
37	INTRODUCTION MAXIMUM SF AND BM AT A GIVEN SECTION	24/2/20	Lecture
38	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE CONCENTRATED LOAD	25/2/20	interspersed with discussions
39	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE UDL LONGAR THAN SPAN	25/02/20	
40	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE UDL SHORTER THAN SPAN	25/02/20	
41	TWO POINT LOADS WITH FIXED DISTANCE BETWEEN THEM AND SEVERAL POINT LOADS	26/02/20	
42	EQUIVALENT UNIFORMLY DISTRIBUTED LOAD	27/02/20	
43	FOCAL LENGTH.	27/02/20	
44	INFLUENCE LINES- INTRODUCTION	28/02/20	
45	DEFINITION OF INFLUENCE LINE FOR SF	29/02/20	
46	INFLUENCE LINE FOR BM	02/03/20	
47	LOAD POSITION FOR MAXIMUM SF AT A SECTION	03/03/20	
48	POSITION FOR MAXIMUM BM AT A SECTIONS	04/03/20	
49	SINGLE POINT LOAD, U.D. LOAD LONGER THAN THE SPAN	06/03/20	
50	U.D. LOAD SHORTER THAN THE SPAN	07/03/20	
51	INFLUENCE LINES FOR FORCES IN MEMBERS OF PRATT AND WARREN TRUSSES	09/03/20	

Signature of the Faculty 18 11 17

Signature of the HOD
18 119

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SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: (R1622015)

Course Title: Structural Analysis-1 (R1622015)				
Section : Sec B	Date: 18/11/2019	Page No: 01 of 04		
Revision No: 00	Prepared By: K. CHANDRA PADMAKAR	Approved By : HOD		

Tools: Black board, PPTs, Model

No. of Periods	TOPIC	Date	Mode of Delivery
	PROPPED CANTILEVER BEAMS		
	udent will be able Distinguish the determinate and indeter	minate structi	ires.
T1 Theory	of Structures by S. Ramamrutham & R. Narayan,		
T2 Structura	al Analysis by V. S. Prasad		
T3 Theory	of Structures by R. S. Khurmi		
1	INTRODUCTION TO PROPPED CANTILEVER BEAMS	18/11/19	
2	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD-SF	18/11/19	
3	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD-BMD	19/11/19	
4	ANALYSIS OF PROPPED CANTILEVER BEAM POIND LOAD DEFLECTION	19/11/19	
5	ANALYSIS OF PROPPED CANTILEVER BEAM UDL-SF	20/11/19	Lecture
6	ANALYSIS OF PROPPED CANTILEVER BEAM UDL- BMD	20/11/19	interspersed
7	ANALYSIS OF PROPPED CANTILEVER BEAM UDL-SF	21/11/19	with discussions
8	ANALYSIS OF PROPPED CANTILEVER BEAM- DEFLECTION	21/11/19	
9	ANALYSIS OF PROPPED CANTILEVER BEAM WITH POINT LOAD PROBLEM	22/11/19	
10	ANALYSIS OF PROPPED CANTILEVER BEAM UDL- PROBLM	22/11/19	
11	ANALYSIS OF PROPPED CANTILEVER BEAM COMBINATION OF LOAD CONDITION-PROBLEM	23/11/19	
UNIT -II CO2 The st expected lo T1 Theory T2 Structur	Lecture interspersed		
12	of Structures by R. S. Khurmi - INTRODUCTION TO FIXED BEAMS	26/11/19	with discussion
13	ANALYSIS OF FIXED BEAM CARRYING TWO UNSYMMETRICAL LOAD	30/11/19	With discussion
14	ANALYSIS OF FIXED BEAM CARRYING POINT LOAD AT CENTRE	2/12/19	
15	ANALYSIS OF FIXED BEAM CARRYING ECENTRIC POINT LOAD	3/12/19	
15		5/12/19	
16	ANALYSIS OF FIXED BEAM CARRYING UDL	3/12/19	

beams for o	CONTINUOUS BEAM tudent can be able to estimate the bending moment and sh different fixity conditions. of Structures by S. Ramamrutham & R. Narayan,	ear forces in	
	ral Analysis by V. S. Prasad		
	of Structures by R. S. Khurmi	10/10/10	
18	INTRODUCTION TO CONTINUOUS BEAMS	19/12/19	
19	CLAPEYRON'S THEOREM OF THREE MOMENTS	20/12/19	Lastura
20	ANALYSIS OF CONTINUOUS BEAMS WITH CONSTANT MOMENT OF INERTIA WITH ONE OR BOTH ENDS FIXED	24/12/19	Lecture interspersed with discussion
21	CONTINUOUS BEAMS WITH OVERHANG	26/12/19	
22	CONTINUOUS BEAMS WITH DIFFERENT MOMENT OF INERTIA FOR DIFFERENT SPANS	27/12/19	
23	EFFECTS OF SINKING OF SUPPORTS	2/01/20	
24	SHEAR FORCE AND BENDING MOMENT DIAGRAMS.	8/01/20	

UNIT IV SLOPE DEFLECTION METHOD

CO4 Make the student to Analyze the continuous beams using various methods -, three moment method, slope deflection method, energy theorems.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

25	SLOPE-DEFLECTION METHOD-INTRODUCTION	10/01/20	
26	DERIVATION OF SLOPE DEFLECTION EQUATION	17/01/20	T
27	APPLICATION TO CONTINUOUS BEAMS WITH SUPPORTS	6/02/20	Lecture interspersed
28	APPLICATION TO CONTINUOUS BEAMS WITHOUT SUPPORTS	8/02/20	with discussions

UNIT - V ENERGY THEOREMS

CO5 Make the student to Analyze the continuous beams using various methods -energy theorems.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

29	ENERGY THEOREMS-INTRODUCTION	10/02/20	
30	STRAIN ENERGY IN LINEAR ELASTIC SYSTEM	11/02/20	
31	EXPRESSION OF STRAIN ENERGY DUE TO AXIAL LOAD	12/02/20	Lecture interspersed
32	BENDING MOMENT AND SHEAR FORCES	13/02/20	with discussions
33	CASTIGLIANO'S FIRST THEOREM	14/02/20	
34	DEFLECTIONS OF SIMPLE BEAMS	15/02/20	
35	PIN JOINTED TRUSSES	13/02/20	

UNIT -VI MOVING LOADS AND INFLUENCE LINES

CO6 Analyze the loads in Pratt and Warren trusses when loads of different types and spans are passing over the truss.

T1 Theory of Structures by S. Ramamrutham & R. Narayan,

T2 Structural Analysis by V. S. Prasad

T3 Theory of Structures by R. S. Khurmi

36	MOVING LOADS AND INFLUENCE LINES- INTRODUCTION	24/02/20	
37	INTRODUCTION MAXIMUM SF AND BM AT A GIVEN SECTION	24/2/20	Lecture
38	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE CONCENTRATED LOAD	25/2/20	interspersed with discussions
39	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE UDL LONGAR THAN SPAN	25/02/20	
40	ABSOLUTE MAXIMUM S.F. AND B.M DUE TO SINGLE UDL SHORTER THAN SPAN	25/02/20	
41	TWO POINT LOADS WITH FIXED DISTANCE BETWEEN THEM AND SEVERAL POINT LOADS	26/02/20	
42	EQUIVALENT UNIFORMLY DISTRIBUTED LOAD	27/02/20	
43	FOCAL LENGTH.	27/02/20	
44	INFLUENCE LINES- INTRODUCTION	28/02/20	
45	DEFINITION OF INFLUENCE LINE FOR SF	29/02/20	
46	INFLUENCE LINE FOR BM	02/03/20	
47	LOAD POSITION FOR MAXIMUM SF AT A SECTION	03/03/20	
48	POSITION FOR MAXIMUM BM AT A SECTIONS	04/03/20	
49	SINGLE POINT LOAD, U.D. LOAD LONGER THAN THE SPAN	06/03/20	
50	U.D. LOAD SHORTER THAN THE SPAN .	07/03/20	
51	INFLUENCE LINES FOR FORCES IN MEMBERS OF PRATT AND WARREN TRUSSES	09/03/20	

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SRK Institute of Technology
ENIKEPADU, VIJAYAWADA-521 108

Course 7	Title: TRANSPORTATION ENGINEER	NING – I
Section : Sec B	Date: 19-11-19	Page No: 01 of 03
Revision No: 00	Prepared By : A.Tanusree	Approved By: HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
NIT –IHI	GHWAY PLANNINGAND ALIGINEMENT		
1 .	Introduction	19-11-19	
2	Highway development in India	20-11-19	
3	Classification of Roads	20-11-19	
. 4	Road Network Patterns	23-11-19	
5	Necessity for Highway Planning	23-11-19	
6	Different Road Development Plans - First	24-11-19	
7	second	24-11-19	
8	third road	24-11-19	
	development plans		
9	road development vision 2021	24-11-19	
10	Vision 2025	24-11-19	
11 .	Planning Surveys	26-11-19	political of the second
12	Highway Alignment	26-11-19	
13	Factors affecting Alignment	27-11-19	
14	Engineering Surveys	27-11-19	
15	Drawings and Reports	28-11-19	
IT –II I	Highway Geometric Design		
16	Introduction	29-11-19	
17	Importance of Geometric Design	29-11-19	
`18	Design controls and Criteria	29-11-19	

`18	Design controls and Criteria	29-11-18	
19	Highway Cross Section Elements	30-11-18	
20	Sight Distance Elements	30-11-18	Lecture interspersed with
21	Stopping sight Distance	30-11-18	discussions
22	Overtaking Sight Distance	30-11-18	
23	Intermediate Sight Distance	30-11-18	
24	Design of Horizontal Alignment	30-11-18	
25	Design of Super elevation	30-11-18	
26	Extra widening	30-11-18	
27	Design of Transition Curves	01-12-18	
28	Design of Vertical alignment	01-12-18	
29	Gradients	01-12-18	
30	Vertical curves	01-12-18	onder"
UNIT –III	Traffic Engineering		
31	Introduction	03-12-18	
32	Basic Parameters of Traffic	03-12-18	
33	Volume, Speed and Delays	03-12-18	
34	Traffic Volume Studies	03-12-18	
35	Spot speed	03-12-18	
36	Speed & delay studies	03-12-18	
37	Parking Studies	03-12-18	
38	Road Accidents-Causes and Preventive measures - Condition Diagram and Collision Diagrams	04-12-18	Lecture interspersed

39	PCU Factors, Capacity of Highways	05-12-18	with
40	LOS Concepts; Road Traffic Signs	05-12-18	discussions
41	Road markings	06-12-18	
42	Types of Intersections	06-12-18	
43	At-Grade Intersections – Design of Plain, Flared, Rotary and Channelized Intersections	06-12-18	
44	Design of Traffic Signals –Webster Method –IRC Method.	07-12-18	
UNIT IV H	lighway Materials		
45	Introduction	21-01-19	
46	Subgrade soil	21-01-19	
47	Group Index, California Bearing Ratio	22-01-19	
48	Stone aggregates	24-01-19	
49	Bituminous Materials	28-01-19	
50	Marshall Method of Mix Design	29-01-19	
UNIT V	Design Of Pavements		
51	Introduction	12-02-19	
52	Types of pavements	13-02-19	
53	Functions and requirements of different components of pavements	13-02-19	Lecture
54	Flexible Pavement Design Methods, CBR method	18-02-19	interspersed with
55	IRC Method for Low volume Flexible pavements	18-02-19	discussions
56	Rigid Pavements, wheel load stresses	21-02-19	
57	Temperature stresses – Frictional stresses – Combination of stresses	22-02-19	
58	Design of slabs – Design of Joints	25-02-19	
59	Continuously Reinforced Cement Concrete Pavements – Roller Compacted Concrete Pavements	26-02-19	
JNIT-VI H	lighway Construction and Maintenance		

60	Introduction	2-03-19	
61	Types of Highway Construction	5-03-19	
62	Construction of Earth Roads	6-03-19	
63	Gravel Roads	6-03-19	
64	Water Bound Macadam Roads	7-03-19	Lecture
65	Bituminous Pavements and Construction of Cement Concrete Pavements	7-03-19	with discussions
66	Pavement Failures, Maintenance of Highways	12-03-19	
67	pavement evaluation, strengthening of existing pavements.	11-03-19	

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Course T	itle: TRANSPORTATION ENGINEERIN	G-I
Section : Sec A	Date: 19-11-19	Page No: 01 of 03
Revision No: 00	Prepared By : A.Tanusree	Approved By: HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
JNIT –IHIO	GHWAY PLANNINGAND ALIGINEMENT		
1	Introduction	19-11-19	
2	Highway development in India	20-11-19	
3	Classification of Roads	20-11-19	.
4	Road Network Patterns	23-11-19	
5	Necessity for Highway Planning	23-11-19	
6	Different Road Development Plans - First	24-11-19	
7	second	24-11-19	
8	third road	24-11-19	
	development plans		
9	road development vision 2021	24-11-19	
10	Vision 2025	24-11-19	All all and the second
11	Planning Surveys	26-11-19	
12	Highway Alignment	26-11-19	
13	Factors affecting Alignment	27-11-19	
.14	Engineering Surveys	27-11-19	
15	Drawings and Reports	28-11-19	
UNIT –II	Highway Geometric Design		
16	Introduction	29-11-19	
17	Importance of Geometric Design	29-11-19	
`18	Design controls and Criteria	29-11-19	-

19	Highway Cross Section Elements	30-11-19	
20	Sight Distance Elements	30-11-19	Lecture interspersed with
21	Stopping sight Distance	30-11-19	discussions
22	Overtaking Sight Distance	30-11-19	
22	Overtaking Signt Promise		,
23	Intermediate Sight Distance	30-11-19	
24	Design of Horizontal Alignment	30-11-19	
25	Design of Super elevation	30-11-19	
26	Extra widening	30-11-19	
27	Design of Transition Curves	01-12-19	
28	Design of Vertical alignment	01-12-19	
29	Gradients	01-12-19	
30	Vertical curves	01-12-19	
UNIT –III	Traffic Engineering		stant".
31	Introduction	03-12-19	
32	Basic Parameters of Traffic	03-12-19	
33	Volume, Speed and Delays	03-12-19	
34	Traffic Volume Studies	03-12-19	
35	Spot speed	03-12-19	
36	Speed & delay studies	03-12-19	
37	Parking Studies	03-12-19	
38	Road Accidents-Causes and Preventive measures - Condition Diagram and Collision Diagrams	04-12-19	Lecture interspersed with
39	PCU Factors, Capacity of Highways	05-12-19	- with

40	LOS Concepts; Road Traffic Signs	05-12-19	discussions	
41	Road markings	06-12-19		
42	Types of Intersections	06-12-19	6-12-19	
43	At-Grade Intersections – Design of Plain, Flared, Rotary and Channelized Intersections	06-12-19		
Design of Traffic Signals –Webster Method Method.		07-12-19		
JNIT IV H	ighway Materials			
45	Introduction	21-01-19		
46	Subgrade soil	21-01-19		
47	Group Index, California Bearing Ratio	22-01-19		
48	Stone aggregates	24-01-19		
49	Bituminous Materials	28-01-19		
50	Marshall Method of Mix Design	29-01-19		
JNIT V	Design Of Pavements			
51	Introduction	12-02-19		
52	Types of pavements	13-02-19		
53	Functions and requirements of different components of pavements	13-02-19	Lecture	
54	Flexible Pavement Design Methods, CBR method	18-02-19	interspersed with	
55	IRC Method for Low volume Flexible pavements	18-02-19	discussions	
56	Rigid Pavements, wheel load stresses	21-02-19		
57	Temperature stresses – Frictional stresses – Combination of stresses	22-02-19		
58	Design of slabs – Design of Joints	25-02-19		
59	Continuously Reinforced Cement Concrete Pavements – Roller Compacted Concrete Pavements	26-02-19		
JNIT -VI	Highway Construction and Maintenance		L	
60	Introduction	5-03-19	Γ	

61	Types of Highway Construction	5-03-19	
62	Construction of Earth Roads	6-03-19	
63	Gravel Roads	6-03-19	
64	Water Bound Macadam Roads	7-03-19	Lecture
65	Bituminous Pavements and Construction of Cement Concrete Pavements		
66	Pavement Failures, Maintenance of Highways	12-03-19	
67	pavement evaluation,	11-03-19	
	strengthening of existing pavements.		

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SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108

Course Title: DESIGN	NAND DRAWING OF STEEL STE	RUCTURES
Section : Sec A	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By :E.Usha Sree	Approved By : HOD

Tools: Black board

	TOPIC	DATE	MODE OF DELIVERY	
NIT -	I CONNECTIONS			
CO1: fa	miliarize Students with different types of Con	nnections and	relevant IS codes	
B:: 'St	eel Structures Design and Practice' by N.Sub	ramanian, Ox	ford University	
ress.				
TB:: 'D	esign of steel structures' by S.K. Duggal, Tata		and New Delhi	
1	Connections: Introduction - Riveted	18-11-2019		
	connections – definition,			
2	Rivet Strength and capacity	19-11-2019	Lectures	
3	rivet strength and capacity,	20-11-2019	interspersed	
4	Welded connections:	21-11-2019	with	
5	Welded connections: Introduction,	22-11-2019	discussions	
6	Advantages and disadvantages of welding-	23-11-2019	discussions	
7	Strength of welds	24-11-2019		
8	Butt and fillet welds:	25-11-2019		
9	Butt and fillet welds: Permissible stresses –	27-11-2019		
	IS Code requirements.			
10	Design of fillet weld subjected to moment	27-11-2019		
	acting in the plane			
11	Design of fillet weld subjected to moment	27-11-2019		
	acting in the plane			
12	Design of fillet weld subjected to moment	28-11-2019		
	acting d at right angles to the plane of the			
	joints.			
13	Tutorial	28-11-2019		
INIT -	II BEAMS			
	quip student with concepts of design of flexur			
	eel Structures Design and Practice' by N.Sub	ramanian, Ox	ford University	
ress.				
	esign of steel structures' by S.K. Duggal, Tata		and New Delhi	
9	Allowable stresses,	29/11/19		
10	Design requirements as per IS Code	30/11/19	Lectures	
11	Design of simple and compound beams	02/12/19	interspersed	
12	Curtailment of flange plates,	03/12/19	with	
13	Beam to beam connection,	04/12/19		
14	Check for deflection, shear,	04/12/19	discussions	
15	Check for buckling, check for bearing,	10/12/19		
16	Laterally unsupported beams.	10/12/19	1	

TINTERE F	THE PRINT BE	AT BATT	A DEFERRE	BITTO COLUMN	TRANSPIRE	DOTTE CONTERNA
CINE -		THEN VIEW	VIBRICA	NAS CENTE	4 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MEMBERS

CO3: understand Design Concepts of tension and compression members in trusses TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University Press.

TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi

17	Introduction	13/12/19	
18	General Design of members subjected to direct tension.	16/12/19	Lectures
19	General Design of members subjected to direct bending	17/12/19	interspersed with
20	Effective length of columns- Slenderness ratio	18/12/19	discusions
21	Permissible stresses.	19/12/19	
22	Design of compression members	23/12/19	
23	Design of struts etc.	24/12/19	
24	Roof Trusses: Different types of trusses	26/12/19	
25	Design loads – Load combinations as per IS Code recommendations	30/12/19	
26	structural details	04/01/2020	
27	Design of simple roof trusses involving the design of purlins	06/01/2020	
28	Design of members and joints – tubular trusses	07/01/2020	
29	Design of tubular trusses	09/01/2020	

UNIT - IV DESIGN OF COLUMNS

CO4: Familiarize students with different types of Columns and their Design

TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University Press.

30	Design of Built up compression members	27/01/2020	Lectures
31	Design of lacings	28/01/2020	interspersed
32	Design of lacings	29/01/2020	with
33	Design of battens	30/01/2020	
34	Design of battens	01/02/2020	discussions
35	Design Principles of Eccentrically loaded	03/02/2020	
	columns,		
36	Design Principles of Eccentrically loaded	04/02/2020	
	columns,		
37	Design of Splicing of columns	05/02/2020	
38	Design of Splicing of columns	06/02/2020	
39	Tutorial		
TINTET	U DECICN OF COLUMN FORM ATTONIO		

UNIT - V DESIGN OF COLUMN FOUNDATIONS

CO5: Familiarize students with different types of column bases and their Design TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University

Press.

40	Design of slab base	08/02/2020	Lectures
41	Design of slab base	10/02/2020	interspersed
42	Design of slab base	11/02/2020	merspersed

43	Design of gusseted base.	12/02/2020	with
44	Design of Column bases subjected	13/02/2020	discussions
	moment.		WELL RESIDENCE OF THE STATE OF
45	Tutorial	17/02/2020	
IINIT_	VI DESIGN PLATE GIRDER AND GANT	RY GIRDER	
CO6. Fa	miliarize students with Plate girder and Ga	antry Girder and	their Design
TR 'D	sign of steel structures' by S.K. Duggal, Ta	ita Mcgraw Hill, a	ind New Deini
TB:: 'St	eel Structures Design and Practice' by N.St	ibramanian, Oxfo	ord University
Press.			
46	UNIT - VI: Design consideration - I S	24/02/2020	
	Code recommendations		
47	Design of plate girder-Welded	05/03/2021	Lectures
48	Design of plate girder- Curtailment of	07/03/2021	interspersed
	flange plates,		
49	Design of Plate Girder- stiffeners	09/03/2021	with
50	Design of Plate Girder - splicing and	11/03/2021	discussions
	connections.		
51	Design of Gantry Girder: impact factors	13/03/2021	
52		16/03/2021	
34	longitudinal forces	10/03/2021	

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Signature of the HoD/ 18/11/19 PRINCIPAL

SRK Institute of Technology

TENTATIVE LESSON PLAN: R1632011

Course Title: DESIGN	AND DRAWING OF STEEL STE	RUCTURES
Section : Sec B	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By :E.Usha Sree	Approved By : HOD

Tools: Black board

	TOPIC	DATE	MODE OF DELIVERY
UNIT -	I CONNECTIONS		
CO1: fa	miliarize Students with different types of Co	nnections and	relevant IS codes
TB:: 'St	eel Structures Design and Practice' by N.Sul	bramanian, Ox	ford University
Press.			
TB:: 'D	esign of steel structures' by S.K. Duggal, Tat	a Mcgraw Hill.	and New Delhi
1	Connections: Introduction - Riveted	18-11-2019	
	connections – definition,		
2	Rivet Strength and capacity	19-11-2019	Lectures
3	rivet strength and capacity,	20-11-2019	interspersed
4	Welded connections:	21-11-2019	with
5	Welded connections: Introduction,	22-11-2019	
6	Advantages and disadvantages of welding-	23-11-2019	discussions
7	Strength of welds	24-11-2019	
8	Butt and fillet welds:	25-11-2019	
9	Butt and fillet welds: Permissible stresses –	27-11-2019	
	IS Code requirements.		
10	Design of fillet weld subjected to moment	27-11-2019	
	acting in the plane		
11	Design of fillet weld subjected to moment	27-11-2019	
	acting in the plane		
12	Design of fillet weld subjected to moment	28-11-2019	
	acting d at right angles to the plane of the		
	joints.		
13	Tutorial	28-11-2019	
UNIT -	II BEAMS		
	quip student with concepts of design of flexus		
TB:: 'St	eel Structures Design and Practice' by N.Sul	bramanian, Ox	ford University
Press.			
TB:: 'De	esign of steel structures' by S.K. Duggal, Tat	a Mcgraw Hill,	and New Delhi
9	Allowable stresses,	29/11/19	
10	Design requirements as per IS Code	30/11/19	Lectures
11	Design of simple and compound beams	02/12/19	interspersed
12	Curtailment of flange plates,	03/12/19	
13	Beam to beam connection,	04/12/19	with
14	Check for deflection, shear,	04/12/19	discussions
15	Check for buckling, check for bearing,	10/12/19	
16	Laterally unsupported beams.	10/12/19	

UNIT -III TENSION MEMBERS AND COMPRESSION MEMBERS

CO3: understand Design Concepts of tension and compression members in trusses TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University Press.

TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi

17	Introduction	13/12/19	
18	General Design of members subjected to direct tension.	16/12/19	Lectures
19	General Design of members subjected to direct bending	17/12/19	interspersed with
20	Effective length of columns- Slenderness ratio	18/12/19	discusions
21	Permissible stresses.	19/12/19	
22	Design of compression members	23/12/19	
23	Design of struts etc.	24/12/19	
24	Roof Trusses: Different types of trusses	26/12/19	
25	Design loads – Load combinations as per IS Code recommendations	30/12/19	
26	structural details	04/01/2020	
27	Design of simple roof trusses involving the design of purlins	06/01/2020	
28	Design of members and joints – tubular trusses	07/01/2020	
29	Design of tubular trusses	09/01/2020	

UNIT - IV DESIGN OF COLUMNS

CO4: Familiarize students with different types of Columns and their Design

TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi

TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University Press.

30	Design of Built up compression members	27/01/2020	Lectures
31	Design of lacings	28/01/2020	interspersed
32	Design of lacings	29/01/2020	with
33	Design of battens	30/01/2020	discussions
34	Design of battens	01/02/2020	uiscussions
35	Design Principles of Eccentrically loaded	03/02/2020	
	columns,		
36	Design Principles of Eccentrically loaded	04/02/2020	
	columns,		
37	Design of Splicing of columns	05/02/2020	
38	Design of Splicing of columns	06/02/2020	
39	Tutorial		

UNIT - V DESIGN OF COLUMN FOUNDATIONS

CO5: Familiarize students with different types of column bases and their Design

TB:: 'Design of steel structures' by S.K. Duggal, Tata Mcgraw Hill, and New Delhi

TB:: 'Steel Structures Design and Practice' by N.Subramanian, Oxford University

11033.			
40	Design of slab base	08/02/2020	Lectures
41	Design of slab base	10/02/2020	interspersed
42	Design of slab base	11/02/2020	meropersea

43	Design of gusseted base.	12/02/2020	with
44	Design of Column bases subjected	13/02/2020	discussions
	moment.		discussions
45	Tutorial	17/02/2020	
UNIT -	VI DESIGN PLATE GIRDER AND GAN	TRY GIRDER	
CO6: F:	amiliarize students with Plate girder and G	antry Girder and	their Design
TB:: 'D	esign of steel structures' by S.K. Duggal, T	ata Mcgraw Hill,	and New Delhi
TB:: 'St	teel Structures Design and Practice' by N.S	ubramanian, Oxf	ord University
Press.			
46	UNIT – VI: Design consideration – I S	24/02/2020	
	Code recommendations		
47	Design of plate girder-Welded	05/03/2021	Lectures
48	Design of plate girder- Curtailment of	07/03/2021	
	flange plates,		interspersed
49	Design of Plate Girder- stiffeners	09/03/2021	with
50	Design of Plate Girder - splicing and	11/03/2021	discussions
	connections.		
	Connections.		
51	Design of Gantry Girder: impact factors	13/03/2021	
51 52		13/03/2021 16/03/2021	

Signature of the faculty

Tualles

Signature of the HoD

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ENIKEPADU, VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: R1632012

Course Title: GEO	TECHNICAL ENGINEERING-I	
Section : Sec A	Date: 18-11-2019	Page No: 01 of 02
Revision No: 00	Prepared By :P.S.V.BHARATH	
	ook board DDTs	Approved By: HOD

No. of Periods	TOPIC	Date	Mode of Deliver
UNIT –I	Introduction		
CO1: The	student must know the definition of the various paramete	ma malada 14 - 14	
mechanics	and establish their inter-relationships.	is related to soil	
TB: Soil m	echanics and foundation engineering, Dr. K. R. ARORA		
1.	Soil structure and formation	18-11-2019	
2.	Weathering action of rocks	19-11-2019	
3.	Mechanical and chemical weathering	20-11-2019	
4.	Single honey comb structure	21-11-2019	Lecture interspersed
5.	Clay mineral, adsorbed water	22-11-2019	with discussions
6.	2 and 3 phase systems and definitions	22-11-2019	with discussions
7.	Relation between e, s, g	22-11-2019	
8.	Derivations	23-11-2019	
9.	Relation between dry mass and percentage air voids	23-11-2019	
10.	Relative density	25-11-2019	
11.	Derivations	25-11-2019	
12.	Factors effecting compaction	27-11-2019	
10	Comparison office 1		
13.	Compaction effect on soil	28-11-2010	
13.	Compaction effect on soil Problems	28-11-2019	
14. 15. J NIT –II	Problems Tutorial Index properties of soils	29-11-2019 2-12-2019	
14. 15. J NIT –II 20 2: To er	Problems Tutorial	29-11-2019 2-12-2019	it.
14. 15. J NIT –II CO 2: To er B: soil me	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA	29-11-2019 2-12-2019 soil and classify	it.
14. 15. J NIT –II 20 2: To er	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil	29-11-2019 2-12-2019 soil and classify 3 -12-2019	it.
14. 15. JNIT –II 20 2: To er B: soil me	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis	29-11-2019 2-12-2019 soil and classify 3-12-2019 4-12-2019	it.
14. 15. JNIT –II CO 2: To er B: soil median	Tutorial Index properties of soils Table the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019	it.
14. 15. UNIT –II CO 2: To er B: soil median	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019	it.
14. 15. JNIT –II 20 2: To er B: soil median in the soil median in	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019	it.
14. 15. JNIT –II CO 2: To er B: soil med 16. 17. 18. 19. 20.	Problems Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 9-12-2019	in the second se
14. 15. JNIT –II 20 2: To er B: soil me 16. 17. 18. 19. 20. 21.	Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 9-12-2019 10-12-2019	Lecture interspersed
14. 15. JNIT –II 20 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22.	Tutorial Index properties of soils Table the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019	in the second se
14. 15. JNIT –II CO 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22. 23.	Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil Unified soil classification	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019 12-12-2019	Lecture interspersed
14. 15. JNIT –II 20 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22. 23. 24.	Tutorial Index properties of soils Table the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil Unified soil classification Unified soil classification	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019 12-12-2019 13-12-2019	Lecture interspersed
14. 15. JNIT –II O 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22. 23. 24. 25.	Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil Unified soil classification	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019 12-12-2019 13-12-2019 14-12-2019	Lecture interspersed
14. 15. JNIT –II 20 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26.	Tutorial Index properties of soils hable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil Unified soil classification Unified soil classification IS classification IS classification	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019 12-12-2019 13-12-2019 14-12-2019 14-12-2019	Lecture interspersed
14. 15. JNIT –II 20 2: To er B: soil me 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27.	Tutorial Index properties of soils Table the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA Index property of soil Grain size analysis and sieve analysis Hydrometer analysis Consistency limits Determination of liquid limit Determination of plastic and shrinkage limit Definition of plasticity index, etc Classification of soil Unified soil classification Unified soil classification Is classification	29-11-2019 2-12-2019 soil and classify 3 -12-2019 4-12-2019 5-12-2019 6-12-2019 7-12-2019 10-12-2019 11-12-2019 12-12-2019 13-12-2019 14-12-2019	Lecture interspersed

UNIT –III Permeability of soils
CO 3:To impart the concept of seepage of water through soils and determine the discharge of water through soils.

TB: soil mech	anics and foundation engineering, Dr. K.R.ARO	RA	
31.	Introduction to permeability	21-12-2019	
32.	Soil water, one dimensional flow	21-12-2019	
33.	Darcy's law, factors	23-12-2019	Lecture interspersed
34.	Determination of k permeability	24-12-2019	with discussions
35.	Layered systems of permeability	25-12-2019	
36.	Total, neutral and effective stresses	26-12-2019	
37.	Quick sand condition	27-12-2019	
38.	Laplace's equations	28-12-2019	
39.	Seepage through soils	30-12-2019	
40.	Flow net and uses	2-1-2020	
41.	Problems	3-1-2020	
42.	Tutorial	4-1-2020	

UNIT -IV Stress distribution of soils

CO4: The student should be able to know the importance Of soil The soil mechanics and foundation engineering, Dr. K.R.ARORA

43.	Stress induced by applied loads	27-1-2020	
44.	Boussinesqu's equation	28-1-2020	
45.	Westergaard's equation	29-1-2020	Lecture
46.	Newmark's influence chart	30-1-2020	interspersed with discussions
47.	Problems on rectangular area	30-1-2020	- With discussions
48.	Problems on circular area	31-1-2020	
49.	Problems on square area	1-2-2020	
50	Tutorial	3-2-2020	

UNIT -V Consolidation of soils

CO 5: To impart the principles of compaction and consolidation of soils and determine the magnitude and the rate of consolidation settlement.

TB: soil mechanics and foundation engineering, Dr. K.R.ARORA

~			ang W
51.	Consolidation and compressibility	11-2-2020	
52.	e-p and e-log p curves	11-2-2020	
53.	Stress history, concept	12-2-2020	
54.	Spring analogy	13-2-2020	
55.	Terzaghi's theory	14-2-2020	
56.	One-dimensional consolidation equation derivation	15-2-2020	Lecture interspersed
57.	Time rate of consolidation .	18-2-2020	with discussions
58.	Degree of consolidation	19-2-2020	
59.	Determination of coefficient of consolidation	21-2-2020	
60.	Over and normally consolidated clay	22-2-2020	
61.	Problems on consolidation	22-2-2020	
62.	Problems on consolidation	24-2-2020	
63.	Tutorial	25-2-2020	

UNIT - VI Shear Strength of soils

CO 6: To enable the student to understand the concept of shear strength of soils, determine the shear

parameters of	sands and clays and the areas of their application. anics and foundation engineering, Dr. K.R.ARORA		
13. son meen	and foundation engineering, Dr. K.R.ARORA		
64.	Introduction of shear strength	26-2-2020	
65.	Basic mechanism	28-2-2020	
66.	Mohr coloumb's failure, critical void ratio	2-3-2020	
67.	Stress- strain behavior on clay	3-3-2020	
68.	Determination of shear strength by vane shear test	4-3-2020	Lastura interconomana d
69.	Determination of shear strength by direct shear test	5-3-2020	Lecture interspersed with discussions
70.	Determination of shear strength by unconfined shear Test	6-3-2020	and discussions
71.	Determination of shear strength by tri axial test	7-3-2020	
72.	Problems on direct test	9-3-2020	
73.	Drainage condition- one way and two way drainage	10-3-2020	
74.	Problems	11-3-2020	
75.	Tutorial	12-3-2020	

P.S.V. Bharat Signature of the Faculty Signature of the HOD 18/11/19

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TENTATIVE LESSON PLAN: R1632012

Course Title: GEC	TECHNICAL ENGINEERING-I	
Section : Sec B	Date: 18-11-2019	Page No: 01 of 02
Revision No: 00	Prepared By :P.S.V.BHARATH	Approved By: HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
	Table		
UNIT –I	Introduction		
	tudent must know the definition of the various parameter	s related to soil	
	and establish their inter-relationships.		
	echanics and foundation engineering, Dr. K. R. ARORA	140 44 0040	Г
1.	Soil structure and formation	18-11-2019	
2.	Weathering action of rocks	19-11-2019	
3.	Mechanical and chemical weathering	20-11-2019	
4.	Single honey comb structure	21-11-2019	Lecture interspersed
5.	Clay mineral, adsorbed water	22-11-2019	with discussions
6.	2 and 3 phase systems and definitions	22-11-2019	
7.	Relation between e, s, g	22-11-2019	
8.	Derivations	23-11-2019	
9.	Relation between dry mass and percentage air voids	23-11-2019	
10.	Relative density	25-11-2019	
11.	Derivations	25-11-2019	
12.	Factors effecting compaction	27-11-2019	
13.	Compaction effect on soil	28-11-2019	
14.	Problems	29-11-2019	
15.	Tutorial	2-12-2019	
	nable the student to determine the index properties of the chanics and foundation engineering, Dr. K.R.ARORA	soil and classify	it.
16.	Index property of soil	3 -12-2019	
17.	Grain size analysis and sieve analysis	4-12-2019	
18.	Hydrometer analysis	5-12-2019	
19.	Consistency limits	6-12-2019	
20.	Determination of liquid limit	7-12-2019	
21.	Determination of plastic and shrinkage limit	9-12-2019	
22.	Definition of plasticity index, etc	10-12-2019	Lecture interspersed
23.	Classification of soil	11-12-2019	with discussions
24.	Unified soil classification	12-12-2019	

UNIT-III Permeability of soils

Tutorial

IS classification

IS classification

Problems on LL, PL

Unified soil classification

Problems on sieve analysis

25.

26.

27. 28.

29.

30.

CO 3:To impart the concept of seepage of water through soils and determine the discharge of water through soils.

13-12-2019

14-12-2019

16-12-2019

17-12-2019

19-12-2019

20-12-2019

	TB: soil mechanics and	foundation	engineering,	Dr.	K.R.ARORA
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31.	Introduction to permeability	21-12-2019	
32.	Soil water, one dimensional flow	21-12-2019	
33.	Darcy's law, factors	23-12-2019	Lecture interspersed
34.	Determination of k permeability	24-12-2019	with discussions
35.	Layered systems of permeability	25-12-2019	
36.	Total, neutral and effective stresses	26-12-2019	,
37.	Quick sand condition	27-12-2019	
38.	Laplace's equations	28-12-2019	
39.	Seepage through soils	30-12-2019	
40.	Flow net and uses	2-1-2020	
41.	Problems	3-1-2020	
42.	Tutorial	4-1-2020	

UNIT -IV Stress distribution of soils

CO4: The student should be able to know the importance Of soil

TB soil mechanics and foundation engineering, Dr. K.R.ARORA

43.	Stress induced by applied loads	27-1-2020	
44.	Boussinesqu's equation	28-1-2020	
45.	Westergaard's equation	29-1-2020	Lecture interspersed with discussions
46.	Newmark's influence chart	30-1-2020	
47.	Problems on rectangular area	30-1-2020	with discussions
48.	Problems on circular area	31-1-2020	
49.	Problems on square area	1-2-2020	
50.	Tutorial	3-2-2020	

UNIT-V Consolidation of soils

CO 5: To impart the principles of compaction and consolidation of soils and determine the magnitude and the rate of consolidation settlement.

TB: soil mechanics and foundation engineering, Dr. K.R.ARORA

51.	Consolidation and compressibility	11-2-2020	
52.	e-p and e-log p curves	11-2-2020	
53.	Stress history, concept	12-2-2020	
54.	Spring analogy	13-2-2020	
55.	Terzaghi's theory	14-2-2020	
56.	One-dimensional consolidation equation derivation	15-2-2020	Lecture interspersed
57.	Time rate of consolidation .	18-2-2020	with discussions
58.	Degree of consolidation	19-2-2020	
59.	Determination of coefficient of consolidation	21-2-2020	
60.	Over and normally consolidated clay	22-2-2020	
61.	Problems on consolidation	22-2-2020	
62.	Problems on consolidation	24-2-2020	
63.	Tutorial	25-2-2020	

UNIT - VI Shear Strength of soils

CO 6: To enable the student to understand the concept of shear strength of soils, determine the shear

parameters of TB: soil mech	sands and clays and the areas of their application. anics and foundation engineering, Dr. K.R.ARORA		
64.	Introduction of shear strength	26-2-2020	Ι
65.	Basic mechanism	28-2-2020	+
66.	Mohr coloumb's failure, critical void ratio	2-3-2020	
67.	Stress- strain behavior on clay	3-3-2020	
68.	Determination of shear strength by vane shear test	4-3-2020	
69.	Determination of shear strength by direct shear test	5-3-2020	Lecture interspersed with discussions
70.	Determination of shear strength by unconfined shear Test	6-3-2020	with discussions
71.	Determination of shear strength by tri axial test	7-3-2020	
72.	Problems on direct test	9-3-2020	
73.	Drainage condition- one way and two way drainage	10-3-2020	
74.	Problems	11-3-2020	
75.	Tutorial	12-3-2020	

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TENTATIVE LESSON PLAN: CIVIL R1632013

ENVIRONMENTAL ENGINEERING-I

Course	Title: ENVIRONMENTAL ENGINEERIN	G-I (CIVIL)
Section: Sec A	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By: Dr. T SATYANARAYANA	Approved By: HOD

Tools: Black board, power point presentations

No. of Periods	ТОРІС	Tentative date	Mode of Delivery
	UNIT 1: WATER QUANTITY ESTIMATION & POPUL.	ATION FORECAST	ING
	CO1: PLAN AND ESTIMATE WATER QUANTITY REQUIREM	MENT FOR DOMES	ΓIC USAGE
	TB: WATER SUPPLY & SANITATION ENGINEERING BY	J.S.BIRDIE & B.S.I	BIRDIE
. 1	Introduction to Environmental Engg	25/11/2019	
2	Introduction, Importance of WSS	26/11/2019	The second subsection of the second second
3	Necessity of WSS and features	27/11/2019	
4	Water borne diseases	28/11/2019	
5	Flow chart of WSS and objectives	29/11/2019	
6	Role of environmental engineer and agency activities	30/11/2019	Lecture interspersed
7	Estimation of WD for city, Water demand- design period	02/12/2019	with
8	Types of water demand	02/12/2019	discussions
9	Factors affecting the WD, Variation of WD	03/12/2019	discussions
10	Population forecasting methods	04/12/2019	
11	PFC- Methods	05/12/2019	
12	Master plan & Numerical Problems	06/12/2019	
13	Numerical Problems	07/12/2019	
	UNIT 2: SOURCES & CONVEYANCE OF CO2: IDENTIFY THE WATER SOURCE AND SELECT PROTES: WATER SUPPLY & SANITATION ENGINEERING BY	PER INTAKE STRU	
14	Sources of water	10/12/2019	
15	Collection- criteria, suitability	12/12/2019	
16	Comparison of sources- surface and Ground water sources	13/12/2019	
17	Capacity of storage reservoir, Pollution	16/12/2019	
18	Mass curve analysis, Intakes	17/12/2019	
19	Selection Criteria	18/12/2019	
20	Intakes- types	19/12/2019	
21	Water Conveyance through wells	20/12/2019	Lecture interspersed
22	Water Conveyance through pipes	21/12/2019	with discussions
23	pipes – types- materials	23/12/2019	
24	pipes corrosion and control	24/12/2019	
25	Pipes joints - types	26/12/2019	
26	Design considerations	27/12/2019	
			the same property and the

30/12/2019

Laying of pipelines

27

	UNIT 3: WATER QUALITY ASSESM	IENT	
	CO3: CHARACTERISATION OF WA		
of the second	TB: WATER SUPPLY & SANITATION ENGINEERING BY	J.S.BIRDIE & B.S	BIRDIE
28	Characteristics of water- sources and pollution	31/12/2019	
29	Analysis of water- common impurities	02/01/2020	
30	Standards of drinking water- IS & WHO	03/01/2020	T
31	Tests on water- physical	04/01/2020	Lecture intersperse with discussions
32	Tests on water- chemical	06/01/2020	with discussions
33	Tests on water- bacteriological	07/01/2020	
34	Comparisons of sources and tests on water- physical	09/01/2020	
	UNIT 4: PRIMARY WATER TREATM	MENT	
	CO4: SELECTION OF SUITABLE TREATMENT FLOW FOR	RAW WATER TRI	EATMENTS
	TB: WATER SUPPLY & SANITATION ENGINEERING BY	J.S.BIRDIE & B.S	BIRDIE
35	Objectives – flow chart & function of a WTP	27/01/2020	
36	Theory, purpose & design of a Sedimentation tank	28/01/2020	
37	Types of Sedimentation tank	29/01/2020	
38	Theory, purpose & design of a Coagulation tank- flocculation	31/01/2020	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
39	Feeding & mixing devices, Types of coagulants- jar test	01/02/2020	
40	Numerical Problems	03/02/2020	٦
41	Theory, types of Filtration tank	04/02/2020	Lecture intersperse
42	Slow sand filters, Rapid sand filters	05/02/2020	with discussions
43	Pressure filters	06/02/2020	
44	Design problems	07/02/2020	
45	Comparison btw filters	10/02/2020	
46	Merits & Demerits- Tutorial	11/02/2020	
	UNIT 5: DISINFECTION & OTHER TREATME	ENT METHODS	
	CO5: SELECTION OF SUITABLE TREATMENT FLOW FOR	RAW WATER TRI	EATMENTS
	TB: WATER SUPPLY & SANITATION ENGINEERING BY	Y J.S.BIRDIE & B.S	S.BIRDIE
47	Disinfection of water	12/02/2020	
48	Need, methods & Chlorination	13/02/2020	
49	Action & application of chlorine	14/02/2020	
50	Forms of Chlorination	15/02/2020	
51	Break Point Chlorination	17/02/2020	
52	Tests for residual chlorine	24/02/2020	
53	Water softening- types of hardness	25/02/2020	
54	Need of Water Softening & removal of TH	26/02/2020	Lecture intersperse
55	removal of TH-lime soda, zeolite process	27/02/2020	with
56	Demineralisation	28/02/2020	discussions
57	Iron- manganese removal	29/02/2020	
58	miscellaneous methods	29/02/2020	
59	removal of colour, odour and taste-	02/03/2020	
	Aeration methods	03/03/2020	
60	T1 '1 11'4' 0 1	04/03/2020	
61	Fluorides- addition & removal		
- Committee	Salts removal methods-RO Electra dialysis, Ultrafiltration,	05/03/2020	

CO6: SELECT THE APPROPRIATE APPURTENANCES, PLAN AND DESIGN THE WATER DISTRIBUTION NETWORKS

TB: WATER SUPPLY & SANITATION ENGINEERING BY J.S.BIRDIE & B.S.BIRDIE

64	Water Distribution System - Need and requirements	06/03/2020	
65	WSS, Layouts, Systems of supply, types of reservoirs	07/03/2020 -	
66	Water Wastage- Leakage tests and control	09/03/2020	Lacture interenersed
67	Types and pressure in WDS and its maintenance	09/03/2020	Lecture interspersed with discussions
68	Valves and Pipe fittings types	10/03/2020	
69	Equivalent method- parallel & series	11/03/2020	
70	Design & analysis of Pipe Networks	12/03/2020	
71	Hardy Cross method-Numerical problems- Tutorial	13/03/2020	

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TENTATIVE LESSON PLAN: CIVIL R1632013

ENVIRONMENTAL ENGINEERING-I

Course	Title: ENVIRONMENTAL ENGINEERIN	G-I (CIVIL)
Section: Sec B	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By: J PURNA CHANDRA RAO	Approved By: HOD

Tools: Black board, power point presentations

No. of Periods	TOPIC	Tentative date	Mode of Delivery
	UNIT 1: WATER QUANTITY ESTIMATION & POPULA		
	CO1: PLAN AND ESTIMATE WATER QUANTITY REQUIREM		
	TB: WATER SUPPLY & SANITATION ENGINEERING BY	J.S.BIRDIE & B.S.	BIRDIE
1	Introduction to Environmental Engg	18/11/2019	
2	Importance of Environmental Engg- public health & safety	19/11/2019	
3	Introduction, Importance of WSS	20/11/2019	
4	Necessity of WSS and features	21/11/2019	
5	Water borne diseases	21/11/2019	
6	Flow chart of WSS and objectives	23/11/2019	
7	Role of environmental engineer and agency activities	25/11/2019	Lecture interspersed
8	Estimation of WD for city, Water demand- design period	26/11/2019	with
9	Types of water demand	27/11/2019	discussions
10	Factors affecting the WD, Variation of WD	30/11/2019	discussions
11	Population forecasting methods	02/12/2019	
12	PFC- Methods	03/12/2019	
13	Master plan & Numerical Problems	04/12/2019	
14	Numerical Problems	05/12/2019	
15	Tutorial-I	07/12/2019	
	. UNIT 2: SOURCES & CONVEYANCE OF CO2: IDENTIFY THE WATER SOURCE AND SELECT PROTB: WATER SUPPLY & SANITATION ENGINEERING BY	PER INTAKE STR	
16	Sources of water	09/12/2019	
17	Collection- criteria, suitability	10/12/2019	
18	Comparison of sources- surface and Ground water sources	12/12/2019	Lecture interspersed
19	Capacity of storage reservoir, Pollution	12/12/2019	with discussions
20	Mass curve analysis, Intakes- selection	16/12/2019	
21	Intakes- types	17/12/2019	
22	Water Conveyance through wells	17/12/2019	
23	Water Conveyance through pipes	18/12/2019	
24	8/42/20 pipes – types- materials	18/12/2019	
25	19.12-2 pipes corrosion and control	19/12/2019	I Daniel
26	19/12/2019 Laying of pipelines	19/12/2019	
20	Laying of pipelines	19/12/2019	

	27	Pipes joints - types	21/12/2019	
	28	Design considerations	21/12/2019	
	29	Tutorial	23/12/2019	gr - a
		UNIT 3: WATER QUALITY ASSESMICOS: CHARACTERISATION OF WATER WATER SUPPLY & SANITATION ENGINEERING BY	TER	.BIRDIE
3	30	Water quality assessment	26/12/2019	
	31	Characteristics of water- sources and pollution	26/12/2019	
	32	Analysis of water- common impurities	30/12/2019	
	33	Comparisons of sources and tests on water- physical	30/12/2019	
	34	Tests on water-physical	02/01/2020	
	35	Tests on water- chemical	04/01/2020	Lecture interspersed
	36	Tests on water- chemical	04/01/2020	with discussions
	37	Tests on water- bacteriological	06/01/2020	
-	38	Tests on water- bacteriological	08/01/2020	_
	39		09/01/2020	
		Standards of drinking water- IS & WHO		
	40	Tutorial UNIT 4: PRIMARY WATER TREATM	09/01/2020	
	41	TB: WATER SUPPLY & SANITATION ENGINEERING BY Primary Water Treatment	J.S.BIRDIE & B.S 27/01/2020	S.BIRDIE
				_
_	42	Objectives – flow chart & function of a WTP	28/01/2020	
	44	Theory, purpose & design of a Sedimentation tank Types of Sedimentation tank	30/01/2020	-
	45	Theory, purpose & design of a Coagulation tank- flocculation	31/01/2020	
	46	Feeding & mixing devices,	01/02/2020	
	47	Types of coagulants- jar test	03/02/2020	
	48	Numerical Problems	04/02/2020	Lecture intersperse
	49	Theory, types of Filtration tank	05/02/2020	with discussions
	50	Slow sand filters	06/02/2020	
	51	Rapid sand filters	10/02/2020	
	52	Pressure filters	11/02/2020	
	53	Design problems	12/02/2020	
	54	Comparison btw filters	13/02/2020	
	55	Merits & Demerits- Tutorial	15/02/2020	
		UNIT 5: DISINFECTION & OTHER TREATMENT COS: SELECTION OF SUITABLE TREATMENT FLOW FOR FINE: WATER SUPPLY & SANITATION ENGINEERING BY	RAW WATER TRI	S.BIRDIE
	56	Disinfection of water	17/02/2020	Lecture intersperse
	57.	Need, methods & Chlorination	18/02/2020	with discussions
	58	Action & application of chlorine	19/02/2020	
	59	Forms of Chlorination	20/02/2020	
	60	Break Point Chlorination & Tests for residual chlorine	24/02/2020	· ·
55	61	Water softening- types of hardness	25/02/2020	<u> </u>
	62	Need of Water Softening & removal of TH	28/02/2020	the state of the s

63	removal of TH, Iron- manganese removal	29/02/2020	
64	removal of colour, odour and taste- miscellaneous methods	02/03/2020	
. 65	Fluorides & Salts removal methods	03/03/2020	
66	Electra dialysis, Ultrafiltration, Tutorial	04/03/2020	

UNIT 6: WATER DISTRIBUTION SYSTEM

CO6: SELECT THE APPROPRIATE APPURTENANCES, PLAN AND DESIGN THE WATER DISTRIBUTION NETWORKS

TB: WATER SUPPLY & SANITATION ENGINEERING BY J.S.BIRDIE & B.S.BIRDIE

67	Water Distribution System- Introduction & methods	05/03/2020	
68	Need and requirements of distribution	06/03/2020	
69	WSS, Layouts, Systems of supply, types of reservoirs	07/03/2020	
70	Water Wastage- Leakage tests and control	09/03/2020	
71	Types and pressure in WDS and its maintenance	11/03/2020	Lecture interspersed
72	Valves and Pipe fittings types	12/03/2020	with discussions
73	Equivalent method- parallel & series	13/03/2020	
74	Design & analysis of Pipe Networks	14/03/2020	
75	Pipes-types, joints, laying (Revision)	16/03/2020	
76	Hardy Cross method-Numerical problems- Tutorial	17/03/2020	

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TENTATIVE LESSON PLAN

Section : Sec	Date: 19-11-2019 Page No: 01 o		of 03
Revision No :	00 Prepared By: N.KRANTHI REKHA	Approved By : HOD	
Tools: Bla	ack board, power point presentations		
No. of Periods	TOPIC	Date	Mode of Delivery
T2: ENVIRO	SUPPLY & DESCRIPTION ENGINEERING BY NMENTAL ENGINEERING BY N.N.BASAK. w about collection and conveyance of industrial waste		mp; B.S.BIRDII
1	BASIC THERIES OF IWWM	19-11-19	
2	IWS	20-11-19	
3	MEASUREMENT OF IWW	21-11-19	
4	IWW GENERATION RATES	22-11-19	
5	IWW SAMPLING	23-11-19	
6	IWW PRESERVATION	24-11-19	
7	WW CHARECTERISATION	26-11-19	
8	TOXICITY OF IWW	27-11-19	
9	TREATMENT OF WW	28-11-19	Lecture
10	UNIT OPERATIONS	29-11-19	interspersed
11	UNIT PROCESSES	1-12-19	with
12	VOLUME REDUCTION	3-12-19	discussions
13	CTDENTH DEDUCTION	4-12-19	
1.4	STRENTH REDUCTION	5-12-19	
14	NEUTRALIZATION	6-12-19	
15	EQUALIZATION	07-12-19	
16	PROPORTIONING PROVOLE DELICE DESCRIPCES DECOVEDY	07-12-19	
17 UNIT IV	RECYCLE,REUSE,RESOURCES RECOVERY	07-12-19	
	SUPPLY & DESCRIPTION ENGINEERING BY IRDIE.	J.S.BIRDIE	Lecture
T2: ENVIRO CO 2: To kno	NMENTAL ENGINEERING BY N.N.BASAK. w about collection and conveyance of industrial waste		interspersed with
T2: ENVIRO CO 2: To kno	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT	11-12-19	with
T2: ENVIRO CO 2: To kno	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES-		with
T2: ENVIRO CO 2: To kno	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS	11-12-19 12-12-19	with
T2: ENVIRO CO 2: To kno 19 19	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES	11-12-19 12-12-19 13-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS	11-12-19 12-12-19 13-12-19 14-12-19	with
19 19 20 21 22	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23 24	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS CETP-ADVANTAGES,DISADVANTAGES	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19	
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23 24 25	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19 21-12-19 22-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23 24 25 26	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS CETP-ADVANTAGES,DISADVANTAGES CETP-LIMITATIONS, CHALLENGES	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19 21-12-19 22-12-19	with
T2: ENVIRO CO 2: To kno 19 19 20 21 22 23 24 25	w about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS CETP-ADVANTAGES,DISADVANTAGES	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19 21-12-19 22-12-19	with

UNIT II

T1: WATER SUPPLY & DISTRICT SANITATION ENGINEERING BY J.S.BIRDIE

& amp; B.S.BIRDIE.

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

CO 3: To know about preliminary and primary treatment of industrial waste

29	MISCELLANOUS TREATMENTS	4-01-19	
30	USE OF MWW IN INDUSTRIES	5-01-19	
31	ADVANCED WWT PROCESSES	7-01-19	Lecture
32	R.O	8-01-19	interspersed
33	U.F	9-01-19	with discussions
34	FREEZING	9-01-19	
35	ION EXCHANGE	10-01-19	
36	ELUTRIATION	24-1-19	
37	REMOVAL OF COLOUR,ODOUR	25-1-19	
38	REMOVAL OF IRON AND MANGANESE	14-2-19	
39	ADSORPTION	15-2-19	

UNIT I

T1: WATER SUPPLY & DESCRIPTION ENGINEERING BY J.S.BIRDIE & DIE.

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

CO 4: To know about biological treatment of waste water of industrial waste water.

40	IWW QUALITY AND QUANTITY	16-2-19	
	REQUIREMENTS		
41	BOILER AND COOLING WATERS	19-2-19	
42	TEXTILE INDUSTRY- PROCESS	19-2-19	
43	FOOD PROCESSING INDUSTRY- PROCESS	20-2-19	
44	BREWERY INDUSTRY- PROCESS	21-2-19	
45	POWERPLANTS INDUSTRY- PROCESS	22-2-19	Lastura
46	FERTILIZERS INDUSTRY- PROCESS	23-2-19	Lecture interspersed with discussions
47	SUGAR MILLS INDUSTRY- PROCESS	25-2-19	
40	IWW QUALITY AND QUANTITY	26-2-19	
	REQUIREMENTS		
41	BOILER AND COOLING WATERS	28-2-19	

Lecture interspersed

with discussions

UNIT V

T1: WATER SUPPLY & DESCRIPTION ENGINEERING BY J.S.BIRDIE

& amp; B.S.BIRDIE.

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

5: To know 48	about advanced treatments of industrial waste wate	r. 4-3-19
49	FERTILIZERS INDUSTRY	5-3-19
50	TEXTILE INDUSTRY	6-3-19
51	PAPER AND PULP	7-3-19
52	OIL REFINERIES	8-3-19
53	COAL AND GAS BASED POWER PLANTS	11-3-19

T1: WATER SUPPLY & DESCRIPTION ENGINEERING BY J.S.BIRDIE & DIE.

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

54	TANNERIES INDUSTRY WW -TREATMENT	16-3-19	
55	SUGAR MILLS INDUSTRY WW – TREATMENT	16-3-19	Lecture interspersed with discussions
56	DISTILLERS INDUSTRY WW -TREATMENT	17-3-19	With discussions
57	DAIRY INDUSTRY WW -TREATMENT	17-3-19	
58	FOOD PROCESSING INDUSTRY WW – TREATMENT	18-3-19	
59	PHARMACEUTICAL PLANTS INDUSTRY WW -TREATMENT	18-3-19	

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TENTATIVE LESSON PLAN

		T 27 61	0.00
Section : Sec	B Date: 19-11-2019	Page No: 01	of 03
Revision No : 0	0 Prepared By: N.KRANTHI REKHA	Approved By	: HOD
Tools: Bla	ck board, power point presentations		
No. of Periods	TOPIC	Date	Mode of Delivery
T2: ENVIRON	UPPLY & DESCRIPTION ENGINEERING BY MENTAL ENGINEERING BY N.N.BASAK. Tabout collection and conveyance of industrial waste		mp; B.S.BIRDII
1	BASIC THERIES OF IWWM	19-11-19	
2	IWS	20-11-19	
3	MEASUREMENT OF IWW	21-11-19	
4	IWW GENERATION RATES	22-11-19	
5	IWW SAMPLING	23-11-19	
6	IWW PRESERVATION	24-11-19	
7	WW CHARECTERISATION	26-11-19	
8	TOXICITY OF IWW	27-11-19	
9	TREATMENT OF WW	28-11-19	Lecture
10	UNIT OPERATIONS	29-11-19	interspersed
11	UNIT PROCESSES	1-12-19	with
12	VOLUME REDUCTION	3-12-19	discussions
13	STRENTH REDUCTION	4-12-19	
14	NEUTRALIZATION	5-12-19	
15	EQUALIZATION	6-12-19	
16	PROPORTIONING	07-12-19	
17	RECYCLE, REUSE, RESOURCES RECOVERY	07-12-19	
UNIT IV T1: WATER S	SUPPLY & DEPT. SANITATION ENGINEERING BY	J.S.BIRDIE	It
& B.S.BI T2: ENVIRON CO 2: To know	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste		Lecture interspersed with
& amp; B.S.BI T2: ENVIRON CO 2: To know	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT	11-12-19	interspersed with
& B.S.BI T2: ENVIRON CO 2: To know	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES-		interspersed with
& amp; B.S.BI T2: ENVIRON CO 2: To know 19	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS	11-12-19 12-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON CO 2: To know 19 19 20	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES	11-12-19 12-12-19 13-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS	11-12-19 12-12-19 13-12-19 14-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23 24	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23 24 25	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19 21-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23 24	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19	interspersed
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23 24 25	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS CETP-ADVANTAGES,DISADVANTAGES	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 19-12-19 20-12-19 21-12-19	interspersed with
& amp; B.S.BI T2: ENVIRON 19 19 20 21 22 23 24 25	MENTAL ENGINEERING BY N.N.BASAK. v about collection and conveyance of industrial waste IWW DISPOSAL MANAGEMENT DISCHARGES INTO WATER BODIES- STREAMS,SEAS DISCHARGES INTO WATER BODIES-LAKES DISCHARGES INTO WATER BODIES-RIVERS LAND TREATMENT CETP- PROCESS CETP-TREATMENT UNITS CETP-ADVANTAGES,DISADVANTAGES	11-12-19 12-12-19 13-12-19 14-12-19 17-12-19 20-12-19 21-12-19 22-12-19	interspersed with

UNIT II

T1: WATER SUPPLY & DANITATION ENGINEERING BY J.S.BIRDIE

& B.S.BIRDIE.

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

CO 3: To know about preliminary and primary treatment of industrial waste

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water.		4-01-19	The second secon
29	MISCELLANOUS TREATMENTS		_
30	USE OF MWW IN INDUSTRIES	5-01-19	
31	ADVANCED WWT PROCESSES	7-01-19	Lecture
32	R.O	8-01-19	interspersed
33	U.F	9-01-19	with discussions
34	FREEZING	9-01-19	
35	ION EXCHANGE	10-01-19	
36	ELUTRIATION	24-1-19	
37	REMOVAL OF COLOUR, ODOUR	25-1-19	
38	REMOVAL OF IRON AND MANGANESE	14-2-19	
39	ADSORPTION	15-2-19	

UNIT I

T1: WATER SUPPLY & DESCRIPTION ENGINEERING BY J.S.BIRDIE & DESCRIPTION ENGINEERING BY

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

CO 4: To know about biological treatment of waste water of industrial waste water.

40	IWW QUALITY AND QUANTITY	16-2-19	
10	REQUIREMENTS		
41	BOILER AND COOLING WATERS	19-2-19	
42	TEXTILE INDUSTRY- PROCESS	19-2-19	
43	FOOD PROCESSING INDUSTRY- PROCESS	20-2-19	
44	BREWERY INDUSTRY- PROCESS	21-2-19	
45	POWERPLANTS INDUSTRY- PROCESS	22-2-19	Lecture
46	FERTILIZERS INDUSTRY- PROCESS	23-2-19	interspersed
47	SUGAR MILLS INDUSTRY- PROCESS	25-2-19	with discussions
40	IWW QUALITY AND QUANTITY REQUIREMENTS	26-2-19	
41	BOILER AND COOLING WATERS	28-2-19	

UNIT V

T1: WATER SUPPLY & DANITATION ENGINEERING BY J.S.BIRDIE & B.S.BIRDIE.

: To know	MENTAL ENGINEERING BY N.N.BASAK. about advanced treatments of industrial waste wate	r.	
48	STEEL PLANTS	4-3-19	
49	FERTILIZERS INDUSTRY	5-3-19	
50	TEXTILE INDUSTRY	6-3-19	
51	PAPER AND PULP	7-3-19	
52	OIL REFINERIES	8-3-19	
53	COAL AND GAS BASED POWER PLANTS	11-3-19/	

Lecture interspersed

UNIT VI

T1: WATER SUPPLY & DESCRIPTION ENGINEERING BY J.S.BIRDIE & DESCRIPTION ENGINEERING BY

T2: ENVIRONMENTAL ENGINEERING BY N.N.BASAK.

54	TANNERIES INDUSTRY WW -TREATMENT	16-3-19	
55	SUGAR MILLS INDUSTRY WW – TREATMENT	16-3-19	Lecture
56	DISTILLERS INDUSTRY WW -TREATMENT	17-3-19	with discussion
57	DAIRY INDUSTRY WW -TREATMENT	17-3-19	
58	FOOD PROCESSING INDUSTRY WW – TREATMENT	18-3-19	
59	PHARMACEUTICAL PLANTS INDUSTRY WW -TREATMENT	18-3-19	

Signature of the Faculty

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ENIKEPADU, VIJAYAWADA-521 108

Course III	e: WATER RESOURCES ENGINEERING-I (R1632	014)	
Section:	Sec B Date: 19/11/2019	Page No:	01 of 02
Revision No.			By: HOD
No. of	board, PPTs, Model		
Periods	TOPIC	Tentative Date	Implemente Date
UNIT I Inti	roduction to Hydrology		
CO1: Have	a thorough understanding of the theories and princip	les governing	the
nyurologic	processes		
TBI:: Engi New Delhi	neering Hydrology, Jayarami Reddy, P., Laxmi Pu	blications Pvi	t. Ltd., (2013
HEW DEIII			
Kumar Jair	tion and Water Power Engineering, B. C. Punmia, Pa a and Arun Kumar Jain, Lakshmi Publications (P) Lt	inde B. B. Lal	, Ashok
1	Engineering hydrology and its applications,	19-11-19	T
2			
	Hydrologic cycle	20-11-19	
3	Hydrological data-sources of data.	21-11-19	
4	Precipitation: Types and forms	22-11-19	
5	Measurement of rain fall	23-11-19	Lecture
6	Raingauge network	24-11-19	interspersed with
7	Presentation of rainfall data	26-11-19	discussions
8	Average rainfall over a basin	27-11-19	
9	Continuity and consistency of rainfall data	28-11-19	
10	Frequency of rainfall,	29-11-19	
11	Intensity-Duration-Frequency (IDF) curves,	1-12-19	
12	Depth-Area-Duration (DAD) curves,	3-12-19	2744P-17
13	Probable Maximum Precipitation (PMP), design	4-12-19	
	storm		
NIT-II Abs	stractions from Precipitation		
CO2: develop	Intensity-Duration-Frequency and Depth-Area Duration of	urves to design	hydraulic
uuctules alla	be able to develop design storms and carry out frequence	v analysis	
BI:: Engin	eering Hydrology, Jayarami Reddy, P., Laxmi Pub	lications Pvt.	Ltd., (2013)
ich Delli			
DZ::IFFIgat Tumar Jain	ion and Water Power Engineering, B. C. Punmia,	Pande B. B	. Lal, Ashol
14	and Arun Kumar Jain, Lakshmi Publications (P) Ltd	6-12-19	
15	Initial abstractions.	7-12-19	Lastres
16	Evaporation: factors affecting	10-12-19	Lecture interspersed
17	Evaporation: Measurement & reduction	11-12-19	with
19	Evapotranspiration: factors affecting	12-12-19	discussions
19	Evapotranspiration: measurement, control	13-12-19	- Jacono
20	Infiltration: factors affecting,	14-12-19	

UNIT-III Runoff and Hydrograph analysis

CO3: Be able to determine storage capacity and life of reservoirs and develop unit hydrograph and synthetic hydrograph

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013),

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok

Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd.

24	Runoff: Catchment characteristics	21-12-19	T.
25	Factors affecting runoff	22-12-19	
26	Runoff : components, computation	26-12-19	
27	Runoff :empirical formulae ,tables and curves	27-12-19	
28	Runoff :stream gauging, rating curve,	24-1-19	
29	Flow mass curve and flow duration curve.	25-1-19	
30	Hydrograph analysis: Components of hydrograph	28-1-19	
31	Separation of base flow	29-1-19	
32	Effective rainfall hyetograph and direct runoff hydrograph	30-1-19	
33	Unit hydrograph - assumptions	31-1-19	
34	Derivation of unit hydrograph	1-2-19	
35	Unit hydrographs of different durations	2-2-19	
36	Principle of superposition and S-hydrograph methods	5-2-19	
37	Limitations and applications of unit hydrograph,	6-2-19	
38	Limitations and applications of synthetic unit hydrograph	16-2-19	at the second se

UNIT-IV Floods

CO4: be able to estimate flood magnitude and carry out flood routing

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013), New Delhi

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok

Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd.

39	Causes and effects of floods	19-2-19	
40	Frequency analysis- Gumbel's and Log-Pearson type III distribution methods	20-2-19	
41	Standard Project Flood (SPF)	21-2-19	
42	Probable Maximum Flood (MPF),	22-2-19	Lecture interspersed
43	Flood control methods and management.	23-2-19	with discussions

44	Flood Routing: Hydrologic routing,	25-2-19	
45	Channel and reservoir routing	26-2-19	
46	Muskingum and Pulse methods of routing.	27-2-19	

UNIT-V Groundwater

CO5:Be able to determine aquifer parameters and yield of wells

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013), New Delhi

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok

Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd.

47	Groundwater: Occurrence	1-3-19	
48	types of aquifers,	2-3-19	Lecture
49	aquifer parameters,		interspersed
50	Porosity, specific yield, permeability, transmissivity and storage coefficient.	5-3-19	with discussions
51	Types of wells,	6-3-19	
52	Darcy's law,	7-3-19	
53	Dupuit's equation	8-3-19	
54	Steady radial flow to wells in confined and unconfined aquifers,	11-3-19	
55	Yield of a open well-recuperation test	12-3-19	

UNIT VI Advanced Topics in Hydrology

CO6: Be able to model hydrologic processes

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013),

New Delhi

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok

Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd.

56	Rainfall-runoff Modelling,	14-3-19	T
57	Instantaneous unit hydrograph (IUH)	15-3-19	- 15000 m²
58	Conceptual models	16-3-19	Lecture interspersed
59	Clark and Nash models,	19-3-19	with
60	General hydrological models	19-3-19	discussions
61	Chow - Kulandaiswamy model.	20-3-19	-

Signature of the HOD 19/11/19

SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108

Course Liti	e: WATER RESOURCES ENGINEERING-I (R1632	014)	
Section:	Sec A Date: 19/11/2019	Page No:	01 of 02
Revision No	p: 00 Prepared By: K.KIRAN	Approved	
No. of	board, PPTs, Model TOPIC		
Periods	TOPIC	Tentative	Implement
	roduction to Hydrology	Date	Date
TB1:: Engi New Delhi TB2::Irriga	neering Hydrology, Jayarami Reddy, P., Laxmi Pu	blications Pvt	. Ltd., (201
<u>Numar Jair</u> 1	and Arun Kumar Jain, Lakshmi Publications (P) Lt Engineering hydrology and its applications,	d.	
2	Hydrologic cycle		
		20-11-19	
3	Hydrological data-sources of data.	21-11-19	
4	Precipitation: Types and forms	22-11-19	
5	Measurement of rain fall	23-11-19	Lecture
6	Raingauge network	24-11-19	intersperse with
7	Presentation of rainfall data	26-11-19	discussion
8	Average rainfall over a basin	27-11-19	
9	Continuity and consistency of rainfall data	28-11-19	
10	Frequency of rainfall,	29-11-19	¥
11	Intensity-Duration-Frequency (IDF) curves,	1-12-19	
12	Depth-Area-Duration (DAD) curves,	3-12-19	
13	Probable Maximum Precipitation (PMP), design storm	4-12-19	CLIAN C
O2: develo _] ydraulic str	stractions from Precipitation p Intensity-Duration-Frequency and Depth-Area Durati uctures and be able to develop design storms and carr	my out fundament	
ew Delhi B2::Irrigat	ion and Water Power Engineering, B. C. Punmia	lications Pvt.	Ltd., (2013
umar Jain 14	and Arun Kumar Jain, Lakshmi Publications (P) Ltd		
15	Initial abstractions.	6-12-19	
16	Evaporation: factors affecting	7-12-19 10-12-19	Lecture
17	Evaporation: Measurement & reduction	11-12-19	interspersed
19	Evapotranspiration: factors affecting	12-12-19	with discussions
19	Evapotranspiration: measurement, control	13-12-19	discussions
20	Infiltration: factors affecting,		
20	Title ation. Idelois affecting.	14-12-19	

22	Infiltration: measurement	19 12 10	
23	Infiltration indices	18-12-19 19-12-19	
UNIT-III	Runoff and Hydrograph analysis		
CO3: Be hydrogra TB1:: En New Delh TB2::Irri	e able to determine storage capacity and life of ph and synthetic hydrograph agineering Hydrology, Jayarami Reddy, P., Laxmi P ii gation and Water Power Engineering, B. C. Punmain and Arun Kumar Jain, Lakshmi Publications (P) I	ublications	Pvt. Ltd., (20
24	Runoff: Catchment characteristics	21-12-19	T
25	Factors affecting runoff	22-12-19	
26	Runoff: components, computation	26-12-19	-
27	Runoff: empirical formulae, tables and curves	27-12-19	
28	Runoff :stream gauging, rating curve,	24-1-19	
29	Flow mass curve and flow duration curve.	25-1-19	
30	Hydrograph analysis: Components of hydrograph	28-1-19	
31	Separation of base flow	29-1-19	
32	Effective rainfall hyetograph and direct runoff hydrograph		
33	Unit hydrograph - assumptions	31-1-19	
34	Derivation of unit hydrograph	1-2-19	
35	Unit hydrographs of different durations	2-2-19	
36	Principle of superposition and S-hydrograph methods	5-2-19	
37	Limitations and applications of unit hydrograph,	6-2-19	
38	Limitations and applications of synthetic unit hydrograph	16-2-19	Section 2.
w Delhi 2::Irriga	loods le to estimate flood magnitude and carry out flood rou neering Hydrology, Jayarami Reddy, P., Laxmi Pub tion and Water Power Engineering, B. C. Punmia, Par and Arun Kumar Jain, Lakshmi Publications (P) Ltd Causes and effects of floods	lications Pv ide B. B. La	t. Ltd., (2013)
40		19-2-19	
	Frequency analysis- Gumbel's and Log-Pearson type III distribution methods	20-2-19	
41	Standard Project Flood (SPF)	21-2-19	
42	Probable Maximum Flood (MPF),	22-2-19	Lecture interspersed
43	Flood control methods and management.	23-2-19	with discussions

45	Champel		
73	Channel and reservoir routing	26-2-19	
46	Muskingum and Pulse methods of routing.	20 2 19	
IINIT V.C	reading and I disc methods of routing.	27-2-19	

UNIT-V Groundwater

CO4; Be able to determine aquifer parameters and yield of wells

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013), New Delhi

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok

Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd

47	Groundwater: Occurrence	1-3-19	T
48	types of aquifers,	2-3-19	+
49	aquifer parameters,	4-3-19	Lecture interspersed
50	Porosity, specific yield, permeability, transmissivity and storage coefficient.		with
51	Types of wells,	6-3-19	_
52	Darcy's law,	7-3-19	
53	Dupuit's equation	8-3-19	
54	Steady radial flow to wells in confined and unconfined aquifers,	11-3-19	
55	Yield of a open well-recuperation test	12-3-19	

UNIT VI Advanced Topics in Hydrology

CO6: Be able to model hydrologic processes

TB1:: Engineering Hydrology, Jayarami Reddy, P., Laxmi Publications Pvt. Ltd., (2013),

New Delhi

TB2::Irrigation and Water Power Engineering, B. C. Punmia, Pande B. B. Lal, Ashok Kumar Jain and Arun Kumar Jain, Lakshmi Publications (P) Ltd.

56	Rainfall-runoff Modelling,	14-3-19	T
57	Instantaneous unit hydrograph (IUH)	15-3-19	
58	Conceptual models	16-3-19	Lecture interspersed
59	Clark and Nash models,	19-3-19	with
60	General hydrological models	19-3-19	discussions
61	Chow - Kulandaiswamy model.	20-3-19	

PRINCIPAL

SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: R1642011

Course Title: ESTIMA	ATING, SPECIFICATIONS AND	CONTRACTS(R1642011)
Section : Sec A	Date: 18-11-2020	Page No: 01 of 03
Revision No: 00	Prepared By :G.Sahithi	Approved By : HOD

Tools: Black board

Т	OPIC	DATE	MODE OF
1	Of IC		DELIVERY
INIT_II	INTRODUCTION: GENERAL ITEMS OF WO	RK IN BUIL	DINGS
CO1: The	student will be able to calculate quantity of differ	rent componen	ts of the building
and know a	about types of estimates.		
TR. 'Esti	mating and Costing' by B.N. Dutta, UBS publis	hers, 2000.	
TR: Esti	imating and Costing' by G.S. Birdie.		
1. U	NIT-I:Introduction: about estimation,	19/11/2019	
	pecifications		
2. P	urpose of estimation	19/11/2019	
3. · G	General items of work excavation, filling,	20/11/2019	
	oncrete in foundation	7	
4. G	General items of work soling ,dam proof	21/11/2019	
	ourse,masonary,arch masonary,lintels		Lectures
	General items of work RCC,RB	22/11/2019	interspersed
V	works, flooring, roofing, plastering, pointing, cornice		with
6.	General items of works doors, windows, wood	25/11/2019	discussions
	vork,iron work		
7. V	White washing, painting, lumpsump items	26/11/2019	
8. S	Standard units, principles of working out	27/11/2019	
	uantities		
9. T	Types of estimates	28/11/2019	
	Description of detailed estimates	29/11/2019	
11. I	Description ob abstract estimates	2/12/2019	
12. N	Methods of approximate estimates	2/12/2019	
	RATE ANALYSIS		
	student will be able to find the cost of various built		ents.
	imating and Costing' by B.N. Dutta, UBS publi	shers, 2000.	
	timating and Costing' by G.S. Birdie.	1	
	ntroduction to rate analysis	3/12/2019	
	Calculation of mazdoor required	4/12/2019	
	Rate analysis problems on excavation for	5/12/2019	T .
	Coundation		Lectures
	Sand filling in plinth problems	6/12/2019	interspersed
	Rate analysis for cement concrete	7/12/2019	with
	Rate analysis for lime concrete in foundation	10/12/2019	discussions
	Rate analysis for brick work with standard bricks	11/12/2019	Lootures
20 F	Rate analysis for plastering and pointing	12/12/2019	Lectures

21	Rate analysis for cement concrete floor	13/12/2019	interspersed
22	Rate analysis for painting, varnishing	16/12/2019	with
23	Rate analysis for mosaic floor finish	17/12/2019	discussions
24	Rate analysis for reinforcement, RCC works	18/12/2019	
25	Rate analysis for other works	18/12/2019	
26	Tutorial	19/12/2019	

UNIT-III: EARTHWORK FOR ROADS AND CANALS

CO2: The student will have knowledge of calculation of earthwork for roads and canals and bar bending schedules

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

	8 9 1		
27	Introduction to earth work	19/12/2019	
28	Embankment, cutting definitions	20/12/2019	
29	Reinforcement, bar bending concept	23/12/2019	
30	Bar requirement schedules	26/12/2019	
31	Methods for earthwork for roads	27/12/2019	Lectures
32	Problems on mid sectional area method	28/12/2019	interspersed
33	Problems on mean sectional area method	30/12/2019	with
34	Problems on Prismodial formula method	2/1/2020	discussions
35	Problems on trapezoidal formula method	3/1/2020	
36	Problems on area of side slopes	4/1/2020	
37	Problems on earthwork for canals	6/1/2020	
38	Earthwork for canals based on Prismodial	9/1/2020	
	formula		
39	Problems on combinations of embankment and	9/1/2020	
The Laboratory	cutting		
40	Tutorial	9/1/2020	

UNIT-IV CONTRACTS

CO4: The student will know various specifications and components of buildings and types of contracts.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

41	Introduction to contracts	24/1/2020	
42	Types of contracts	25/1/2020	
43	Contract documents	27/1/2020	
44	Conditions of contrac5ts	28/1/2020	
45	Valuation of building	29/1/2020	Lectures
46	Genral specifications of first class building	30/1/2020	interspersed
47	General specifications of second class building	3/2/2020	with
48	General specification of third class building	4/2/2020	discussions
49	General specification of fourth class building	6/2/2020	
50	Standard specifications of various items of works	7/2/2020	
51	Specification for earthwork in foundation, lime concrete in foundation	8/2/2020	
52	Specifications for standard bricks	10/2/2020	
53	Specifications for plastering, pointing	10/2/2020	
54	Tutorial	10/2/2020	

$\begin{array}{l} \textbf{UNIT-V DETAILED ESTIMATION OF BUILDINGS USING INDIVIDUAL WALL} \\ \textbf{METHOD} \end{array}$

CO5 The student will be able to do the Detailed Estimation of Buildings using individual wall method.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

55	Introduction to detailed estimation	12/2/2020	3
56	Detailed estimation of building	13/2/2020	
57	Methods of detailed estimation	17/2/2020	
58	Individual wall method	18/2/2020	Lectures
59	Applications of individual wall method	24/2/2020	interspersed
60	Problems on individual wall method	24/2/2020	with
61	Problems on individual wall method	25/2/2020	discussions
62	Problems on individual wall method	26/2/2020	
63	Problems on individual wall method	26/2/2020	
64	Problems on individual wall method	26/2/2020	

UNIT – VI DETAILED ESTIMATION OF BUILDINGS USING CENTERLINE METHOD

CO6: The student will be able to do the Detailed Estimation of Buildings using centerline method.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

65	Detailed estimation of building	25/2/2020	
66	Centre line method	5/3/2020	
67	Problems on centre line method	6/3/2020	Lectures
68	Problems on centre line method	7/3/2020	interspersed
69	Problems on centre line method	9/3/2020	with
70	Problems on centre line method	11/3/2020	discussions
71	Problems on centre line method	13/2/2020	
72	Tutorial on centre line method	16/3/2020	
73	Tutorial on centre line method	16/3/2020	

SIGNATURE OF FACULTY

PRINCIPAL

SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: R1642011

Course Title: ESTIMA	TING, SPECIFICATIONS AND	CONTRACTS(R1642011)
Section : Sec B	Date: 18-11-2020	Page No : 01 of 03
Revision No: 00	Prepared By :G.Sahithi	Approved By : HOD

Tools: Black board

1	TOPIC	DATE	MODE OF DELIVERY
UNIT-I	INTRODUCTION: GENERAL ITEMS OF WO	RK IN BUILI	DINGS
CO1: The	e student will be able to calculate quantity of differ	ent component	ts of the building
and know	about types of estimates.		
TB:: 'Est	imating and Costing' by B.N. Dutta, UBS publis	hers, 2000.	
TB:: Est	timating and Costing' by G.S. Birdie.	10/11/2010	
	UNIT-I:Introduction: about estimation,	19/11/2019	
15	specifications		
		10/11/2010	
	Purpose of estimation	19/11/2019	
	General items of work excavation, filling,	20/11/2019	
	concrete in foundation	01/11/2010	
	General items of work soling ,dam proof	21/11/2019	Lectures
	course,masonary,arch masonary,lintels	22/11/2010	interspersed
5.	General items of work RCC,RB	22/11/2019	with
	works,flooring,roofing,plastering,pointing,cornice	25/11/2010	discussions
	General items of works doors, windows, wood	25/11/2019	discussions
	work,iron work	26/11/2010	
	White washing,painting,lumpsump items	26/11/2019	
8.	Standard units, principles of working out	27/11/2019	
	quantities	20/11/2010	
	Types of estimates	28/11/2019	
	Description of detailed estimates	29/11/2019	
	Description ob abstract estimates	2/12/2019	
12.	Methods of approximate estimates	2/12/2019	
UNIT-1	II RATE ANALYSIS		
CO2: Th	e student will be able to find the cost of various bui	lding compone	ents.
TB:: 'Es	timating and Costing' by B.N. Dutta, UBS publi	shers, 2000.	
	stimating and Costing' by G.S. Birdie.		
13	Introduction to rate analysis	3/12/2019	
	Calculation of mazdoor required	4/12/2019	
15	Rate analysis problems on excavation for	5/12/2019	т.
	foundation		Lectures
16	Sand filling in plinth problems	6/12/2019	interspersed
	Rate analysis for cement concrete	7/12/2019	with
18	Rate analysis for lime concrete in foundation	10/12/2019	discussions
19	Rate analysis for brick work with standard bricks	11/12/2019	T
20	Rate analysis for plastering and pointing	12/12/2019	Lectures
21	Rate analysis for cement concrete floor	13/12/2019	interspersed

22	Rate analysis for painting, varnishing	16/12/2019	with
23	Rate analysis for mosaic floor finish	17/12/2019	discussions
24	Rate analysis for reinforcement, RCC works	18/12/2019	
25	Rate analysis for other works	18/12/2019	
26	Tutorial	19/12/2019	

UNIT-III: EARTHWORK FOR ROADS AND CANALS

CO2: The student will have knowledge of calculation of earthwork for roads and canals and bar bending schedules

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

A ADOS	Dotting and Costing by G.G. Dilute,		
27	Introduction to earth work	19/12/2019	
28	Embankment, cutting definitions	20/12/2019	
29	Reinforcement, bar bending concept	23/12/2019	
30	Bar requirement schedules	26/12/2019	
31	Methods for earthwork for roads	27/12/2019	Lectures
32	Problems on mid sectional area method	28/12/2019	interspersed
33	Problems on mean sectional area method	30/12/2019	with
34	Problems on Prismodial formula method	2/1/2020	discussions
35	Problems on trapezoidal formula method	3/1/2020	
36	Problems on area of side slopes	4/1/2020	
37	Problems on earthwork for canals	6/1/2020	
38	Earthwork for canals based on Prismodial formula	9/1/2020	
39	Problems on combinations of embankment and cutting	9/1/2020	
40	Tutorial	9/1/2020	

UNIT-IV CONTRACTS

CO4: The student will know various specifications and components of buildings and types of contracts.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

41	Introduction to contracts	24/1/2020	
42	Types of contracts	25/1/2020	
43	Contract documents	27/1/2020	
44	Conditions of contrac5ts	28/1/2020	
45	Valuation of building	29/1/2020	Lectures
46	Genral specifications of first class building	30/1/2020	interspersed
47	General specifications of second class building	3/2/2020	with
48	General specification of third class building	4/2/2020	discussions
49	General specification of fourth class building	6/2/2020	
50	Standard specifications of various items of works	7/2/2020	
51	Specification for earthwork in foundation, lime concrete in foundation	8/2/2020	
52	Specifications for standard bricks	10/2/2020	
53	Specifications for plastering, pointing	10/2/2020	
54	Tutorial	10/2/2020	

UNIT - V DETAILED ESTIMATION OF BUILDINGS USING INDIVIDUAL WALL **METHOD**

CO5 The student will be able to do the Detailed Estimation of Buildings using individual wall method.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

Introduction to detailed estimation	12/2/2020	
Detailed estimation of building	13/2/2020	
	17/2/2020	
	18/2/2020	Lectures
	24/2/2020	interspersed
	24/2/2020	with
	25/2/2020	discussions
	26/2/2020	
	26/2/2020	
	26/2/2020	
	Introduction to detailed estimation Detailed estimation of building Methods of detailed estimation Individual wall method Applications of individual wall method Problems on individual wall method	Detailed estimation of building Methods of detailed estimation Individual wall method Applications of individual wall method Problems on individual wall method 26/2/2020

UNIT - VI DETAILED ESTIMATION OF BUILDINGS USING CENTERLINE

METHOD

CO6: The student will be able to do the Detailed Estimation of Buildings using centerline method.

TB:: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000.

TB:: Estimating and Costing' by G.S. Birdie.

65	Detailed estimation of building	25/2/2020	
66	Centre line method	5/3/2020	
67	Problems on centre line method	6/3/2020	Lectures
68	Problems on centre line method	7/3/2020	interspersed
69	Problems on centre line method	9/3/2020	with
70	Problems on centre line method	11/3/2020	discussions
71	Problems on centre line method	13/2/2020	
72	Tutorial on centre line method	16/3/2020	
73	Tutorial on centre line method	16/3/2020	

PRINCIPAL

SRK Institute of Technology ENIKEPADU. VIJAYAWADA-521 108

TENTATIVE LESSON PLAN: Œ R164-2012

	CONSTRUCTION TECHNOLOGY AND MANAG	Page No: 01	of 02
Section : Se		Approved By	
	: 00 Prepared By :A.ANOOP KUMAR	Approved by	: HOD
l'ools: Black	board, PPTs		
NI. of	TOPIC	Date	Mode of
No. of	TOFIC	Date	Delivery
Periods			Delivery
UNIT -I	laming and control with DEPT AND CPM		
	lanning and control with PERT AND CPM stion engineering and management.		
CO1. To intr	oduce students about construction project management	including netwo	rk drawing ar
monitoring.	outee students about community project management	Ü	
1.	Construction project management and its relevance	18-11-2019	
2.	Qualities of a project manager	19-11-2019	
3.	Project planning	20-11-2019	
4.	Coordination	21-11-2019	Lecture
5.	scheduling	23-11-2019	interspersed
6.	Monitoring	25-11-2019	with
7.	Bar charts	26-11-2019	discussions
8.	Milestone charts	27-11-2019	
9.	Critical path method-applications	29,30-11-	
		2019,	
		1,2,3,4-12- 2019	
TB: Construction	ction engineering and management. roduce students about project evaluation, project structure	·e.	
10.	Project evaluation and review technique	6 to 14-12-	Lecture
10.	1	2019	interspersed
11.	Cost analysis	15-12-2019	
12.	Cost alialysis		with
	Updating	16-12-2019	
13.		16-12-2019 17-12-2019	
13. 14.	Updating Crashing for optimum cost Crashing for optimum resources	16-12-2019 17-12-2019 18-12-2019	
	Updating Crashing for optimum cost	16-12-2019 17-12-2019 18-12-2019 19,20-12-	
14. 15.	Updating Crashing for optimum cost Crashing for optimum resources	16-12-2019 17-12-2019 18-12-2019	
14. 15. UNIT –III	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources	16-12-2019 17-12-2019 18-12-2019 19,20-12-	
14. 15. UNIT –III TB: Constru	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management.	16-12-2019 17-12-2019 18-12-2019 19,20-12-	
14. 15. UNIT –III TB: Constru TB: Constru	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods.	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019	discussions
14. 15. UNIT –III TB: Constru TB: Constru CO3: To int	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, the	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019	discussions
14. 15. UNIT –III TB: Constru TB: Constru CO3: To interpret 16.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, the Construction equipment	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc	discussions
14. 15. UNIT –III TB: Constru TB: Constru CO3: To interest 16. 17.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, the Construction equipment Economical conditions	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc 21-12-2019 22-12-2019	discussions
14. 15. UNIT –III TB: Constru TB: Constru CO3: To interest 16. 17. 18.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, the Construction equipment Economical conditions Earthquake equipment	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc 21-12-2019 22-12-2019 23-12-2019	ulation.
14. 15. UNIT –III TB: Constru TB: Constru CO3: To interest 16. 17. 18.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, to Construction equipment Economical conditions Earthquake equipment Trucks and handling equipment	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc 21-12-2019 22-12-2019 23-12-2019 24-12-2019	ulation.
14. 15. UNIT –III TB: Constru TB: Constru CO3: To inte 16. 17. 18. 19. 20.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, the Construction equipment Economical conditions Earthquake equipment Trucks and handling equipment Rear dump trucks	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc 21-12-2019 22-12-2019 23-12-2019 24-12-2019 25-12-2019	ulation. Lecture intersperse with
14. 15. UNIT –III TB: Constru TB: Constru CO3: To interest 16. 17. 18.	Updating Crashing for optimum cost Crashing for optimum resources Allocation of resources ction engineering and management. ction planning, equipment, and methods. roduce students about various construction equipment, to Construction equipment Economical conditions Earthquake equipment Trucks and handling equipment	16-12-2019 17-12-2019 18-12-2019 19,20-12- 2019 heir capacity calc 21-12-2019 22-12-2019 23-12-2019 24-12-2019	ulation. Lecture intersperse

to 3-1-2020

23.	Compaction equipment	4-1-2020	
24.	Types of compaction rollers	5-1-2020	

UNIT-IV

TB: Construction engineering and management.

TB: Construction planning, equipment, and methods

CO4: To introduce students about various earthwork equipment.

25.	Hoisting and Earthwork Equipment	27-1-2020	
26.	Hoists	29-1-2020].
27.	Cranes	29-1-2020	Lecture
28.	Tractors	30-1-2020	with
29.	Bulldozers	30-1-2020	discussions
30.	Graders	30-1-2020	
31.	Scrapers	1-2-2020	
32.	Draglines	3-2-2020	
33.	Clamshell Buckets.	4-2-2020	

UNIT-V

TB: Construction planning, equipment, and methods.

CO5: To introduce students about concreting equipment, crushing of aggregates, mixing and placing

of concrete, consolidating and finishing.

Concreting Equipment	11-2-2020	Lecture
Crushers	11-2-2020	
Jaw Crushers	12-2-2020	interspersed with
Gyratory Crushers	12-2-2020	discussions
Impact Crushers	17-2-2020	
Selection Of Crushing Equipment	17-2-2020	
Screening Of Aggregate	24-2-2020	
Concrete Mixers	24-2-2020	
Mixing And Placing Of Concrete	25-2-2020	
Consolidating And Finishing	25-2-2020	
	Crushers Jaw Crushers Gyratory Crushers Impact Crushers Selection Of Crushing Equipment Screening Of Aggregate Concrete Mixers Mixing And Placing Of Concrete	Concreting Equipment 11-2-2020 Jaw Crushers 12-2-2020 Gyratory Crushers 12-2-2020 Impact Crushers 17-2-2020 Selection Of Crushing Equipment 17-2-2020 Screening Of Aggregate 24-2-2020 Concrete Mixers 24-2-2020 Mixing And Placing Of Concrete 25-2-2020

UNIT-VI

TB: Construction planning, equipment, and methods, IS:9000

CO6: To introduce students about how to do earthwork, piling work and importance of safety measures.

44.	Construction Methods	26-2-2020	
45.	Earthwork	28-2-2020	-
46.	Piling	2-3-2020	Lecture
47.	Placing Of Concrete	4-3-2020	interspersed with
48.	Form Work	6-3-2020	discussions
49.	Fabrication And Erection	10-3-2020	
50.	Quality control & Safety engineering	12-3-2020	

Signature of the Faculty

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TENTATIVE LESSON PLAN: EE

v ~	CONSTRUCTION TECHNO	LOGI AND MINUN		of 02
Section : Se		WIN CAD	Page No: 01 of 02 Approved By: HOD	
	00 Prepared By: A.ANOOF	KUMAR	Approved By	y: HOD
Fools: Black	ooard, PPTs			
No. of Periods	TOPIC		Date	Mode of Delivery
UNIT -I				
TB: Project p	anning and control with PERT in a construction engineering and management duce students about construction	nt by Seetharaman		ork drawing a
1.	Construction project managem	ent and its relevance	18-11-2019	
2.	Qualities of a project manager		19-11-2019	
3.	Project planning		20-11-2019	Lecture
4.	Coordination		21-11-2019	intersperse
5.	scheduling		23-11-2019	with
6.	Monitoring		25-11-2019	discussion
7.	Bar charts		26-11-2019	
8.	Milestone charts		27-11-2019	
9.	Critical path method-application	ons	29,30-11- 2019, 1,2,3,4-12- 2019	
TB: Project p TB: Construction CO2: To intr	anning and control with PERT ion engineering and management duce students about project eva	ent. Iluation, project structur	re.	-
TB: Project p TB: Construct CO2: To intr 10.	ion engineering and manageme duce students about project eva Project evaluation and review	ent. Iluation, project structur	12-12-2019	Lecture
TB: Project p TB: Construc CO2: To intr 10.	ion engineering and manageme duce students about project eva Project evaluation and review Cost analysis	ent. Iluation, project structur	12-12-2019 17-12-2019	intersperse
TB: Project p TB: Construct CO2: To intr 10. 11.	ion engineering and management duce students about project evan Project evaluation and review Cost analysis Updating	ent. Iluation, project structur	12-12-2019 17-12-2019 18-12-2019	intersperse with
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13.	ion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost	ent. Iluation, project structur technique	12-12-2019 17-12-2019 18-12-2019 19-12-2019	intersperse with
TB: Project p TB: Construct CO2: To intruct 10. 11. 12. 13. 14.	ion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource	ent. Iluation, project structur technique	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019	intersperse with
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14.	ion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost	ent. Iluation, project structur technique	12-12-2019 17-12-2019 18-12-2019 19-12-2019	intersperse with
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct TB: construct	rion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and management duce the students of the stud	ent. Iduation, project structur technique es ent. aethods.	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019	intersperse with discussion
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct CO3: To intr CO3: To intr	rion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and moduce students about various controls.	ent. Iduation, project structur technique es ent. aethods.	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019	intersperse with discussion culation.
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct TB: construct	Crashing for optimum resource Allocation of resources tion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and moduce students about various complete to construction equipment	ent. Iduation, project structur technique es ent. aethods.	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019 heir capacity calc	intersperse with discussion
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct CO3: To intr CO3: To intr	rion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and moduce students about various controls.	ent. Iduation, project structur technique es ent. aethods.	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019	intersperse with discussion
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct TB: construct CO3: To intr 16.	Crashing for optimum resource Allocation of resources tion engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and moduce students about various complete to construction equipment	ent. Iduation, project structur technique es ent. aethods.	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019 heir capacity calc	intersperse with discussion culation.
TB: Project p TB: Construct CO2: To intr 10. 11. 12. 13. 14. 15. UNIT -III TB: Construct CO3: To intr 16. 17.	ropic evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources tion engineering and management on planning, equipment, and meduce students about various cost Construction equipment Economical conditions	ent. duation, project structure technique es ent. nethods. nstruction equipment, to	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019 heir capacity calcompleted by the capacity can be capac	eulation. Lecture interspers
TB: Construction CO2: To intraction 10. 11. 12. 13. 14. 15. UNIT –III TB: Construction TB: construction CO3: To intraction 16. 17. 18.	con engineering and management duce students about project evaluation and review Cost analysis Updating Crashing for optimum cost Crashing for optimum resource Allocation of resources con engineering and management	ent. duation, project structure technique es ent. nethods. nstruction equipment, to	12-12-2019 17-12-2019 18-12-2019 19-12-2019 21-12-2019 24-12-2019 heir capacity calcompleted by the capacity can be capacity capacity can be capacity capacity can be capacity c	eulation. Lecture interspers with

22.	Calculation of truck production	27-12-2019
		to 3-1-2020
23.	Compaction equipment	4-1-2020
24.	Types of compaction rollers	5-1-2020

TB: Construction engineering and management.

TB: Construction planning, equipment, and methods

CO4: To introduce students about various earthwork equipment.

25.	Hoisting and Earthwork Equipment	27-1-2020	
26.	Hoists	29-1-2020	
27.	Cranes	29-1-2020	Lecture interspersed
28.	Tractors	30-1-2020	with
29.	Bulldozers	30-1-2020	discussions
30.	Graders	30-1-2020	
31.	Scrapers	1-2-2020	
32.	Draglines	3-2-2020	
33.	Clamshell Buckets.	4-2-2020	

UNIT-V

TB: Construction planning, equipment, and methods.

CO5: To introduce students about concreting equipment, crushing of aggregates, mixing and placing

of concrete, consolidating and finishing.

34.	Concreting Equipment	11-2-2020	
35.	Crushers	11-2-2020	
36.	Jaw Crushers	12-2-2020	
37.	Gyratory Crushers	12-2-2020	Lecture
38.	Impact Crushers	17-2-2020	interspersed
39.	Selection Of Crushing Equipment	17-2-2020	with discussions
40.	Screening Of Aggregate	24-2-2020	
41.	Concrete Mixers	24-2-2020	
42.	Mixing And Placing Of Concrete	25-2-2020	
43.	Consolidating And Finishing	25-2-2020	

UNIT - VI

TB: Construction planning, equipment, and methods, IS:9000

CO6: To introduce students about how to do earthwork, piling work and importance of safety measures.

44.	Construction Methods	26-2-2020	
45.	Earthwork	28-2-2020	
46.	Piling	2-3-2020	Lecture
47.	Placing Of Concrete	4-3-2020	interspersed with discussions
48.	Form Work	6-3-2020	
49.	Fabrication And Erection	10-3-2020	
50.	Quality control & Safety engineering	12-3-2020	

Signature of the Faculty

SRK Institute of Technology ENIKEPADU, VIJAYAWADA-521 108 Signature of the HOD

18/11/19

TENTATIVE LESSON PLAN: R1642013

	Sec A Date: 18-112019	Page No: 0	1 of 03
Revision No	p: 00 Prepared By : Ch.Mallika Chowdary	Approved 1	
No. of Periods	board, PPTs, Model TOPIC	Date	Mode of
	D : ange		delivery
UNIT -I	Basic concepts of PSC		
1	stressed Concrete b N.Krishna Raju		
2	Introduction of concrete and prestressed concrete	18-11-2019	
3	Centroid problems of T,L,I Sections	19-11-2019	
	Basic Concepts of Prestressing and Applications of PSC	20-11-2019	
4	Reinforced concrete and high strength steel and	21-11-2019	PPT& BLACK
5	concrete ,Advantages of PSC		BOARD
6	Need for HSC and HSS	22-11-2019	
	High strength concrete properties and classification of PSC members	23-11-2019	
7	High strength steel and its properties	25-11-2019	
UNIT -II	Prestressing systems and analysis of prestressed Concrete by N.Krishna Raju	tress	
12	Introduction and Principles about tensioning devices	Top 44 2010	
13	Principles of Tensioning devices	27-11-2019	
14	Hoers long line system of tensioning and	28-11-2019	
	pretensioning devices	29-11-2019	. /
15	Introduction and brief description of the pretensioning and post tensioning members	2-12-2019	
16	Introduction about the analysis of prestress and bending stress	3 -12-2019	
17	Basic assumptions of the analysis of prestress	4 12 2010	au a
18	Resultant stress at a section	4-12-2019	
19	Problems on the Resultant stress on a Rectangular section	5-12-2019	
20	Problems on the Resultant stress on a Rectangular section	6-12-2019	
21	Problems on I-Section and their resultant stresses	7-12-2019	
22	Calculations the stresses and also determination of the magnitudes and their moments	9-12-2019 10-12-2019	PPT&BLACK BOARD
23	Concept of pressure line and introduction of problems	12-12-2019	
24	Introduction of pressure line and problems of rectangular section	13-12-2019	
25	Problems of Poster sular C		
26	Problems of Rectangular Section Problems of I-Section	14-12-2019	
27		16-12-2019	
28	Concept of load balancing	17-12-2019	
	Problems of concept of load balancing for triangle sections	19-12-2019	
29	Problems on the Resultant stress on a Rectangular	20 12 2010	
	section and trapezoidal sections	20-12-2019	
30	Problems of concept of load balancing	21 12 2010	
NIT-III	LOSSES OF PRESTRESS	21-12-2019	

	Introduction of losses and problems of Elastic Deformation of concrete	21-12-2019	
32	Problems on losses of creep, shrinkage	23-12-2019	T .
33	Problems on losses of creep, shrinkage	24-12-2019	
34	Problems on loss due to friction	25-12-2019	
35	Problems on loss due to friction for three cables	26-12-2019	+
36	Problems on loss due to friction for three cables	27-12-2019	PPT&BLACE
37	Introduction to the Anchorage Slip	28-12-2019	BOARD
38	Introduction to the Relaxation of the stress in steel	30-12-2019	
39	Problems on the Anchorage slip and Relaxation of stress in steel.	2-1-2020	,
40	Problems on the total losses with calculation of the percentage of the losses	3-1-2020	
UNIT IV	Flexural strength of PSC members & Defle	ctions of the	
PSC mem	here	ctions of the	
Text book Pre	stressed Concrete b N.Krishna Raju		
41	Introduction of Flexural Strength	27.1.0000	· ·
42	Introduction of design methods	27-1-2020	
43	Problems on design of flexure	28-1-2020	
44	Problems of Rectangular sections when xu <d< td=""><td>29-1-2020</td><td></td></d<>	29-1-2020	
45	Problems of flowers man and David	30-1-2020	
	Problems of flexure moment Rectangular sections when xu>d	30-1-2020	
46	Design of flexure for rectangular sections	31-1-2020	
47	Design of flexure for T-Section	1-2-2020	
48	Introduction to the Deflections and Control of the Deflections, Factors influencing Deflections	3-2-2020	PPT&BLACK
49	Design steps for the Design of the Flexure members	11-2-2020	BOARD
50	Problems on short term deflections and long term deflections	11-2-2020	
51	Problems on short term deflections and long term deflections	12-2-2020	
52	Problems on short term deflections and long term deflections	13-2-2020	
	deflections		
53	Problems on short term deflections and long term deflections	14-2-2020	
UNIT V	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and no	es by devdas	menon
UNIT V Text book:Prest	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and no Introduction of shear and torsionsl resistance		menon
UNIT V Text book:Press 54 55	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not long term Introduction of shear and torsionsl resistance Problems on Rectangular sections for shear	otes by devdas	menon
UNIT V Text book:Prest 54 55 56	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not lintroduction of shear and torsional resistance Problems on Rectangular sections for shear Problems on Rectangular sections for shear	es by devdas	menon
UNIT V Text book:Press 54 55 56 57	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not Introduction of shear and torsionsl resistance Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion	15-2-2020 18-2-2020 19-2-2020	PPT&BLACK
UNIT V Text book:Press 54 55 56 57 58	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not introduction of shear and torsionsl resistance Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion	15-2-2020 18-2-2020 19-2-2020 21-2-2020	
UNIT V Text book:Press 54 55 56 57 58 59	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not lectures and	15-2-2020 18-2-2020 19-2-2020	PPT&BLACK
UNIT V Text book:Press 54 55 56 57 58 59	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not lintroduction of shear and torsionsl resistance Problems on Rectangular sections for shear Problems on Rectangular sections for Shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses, End -zone reinforcement Problems on Bond stresses, Flexural stresses	15-2-2020 18-2-2020 19-2-2020 21-2-2020 22-2-2020 24-2-2020	PPT&BLACK BOARD
UNIT V Text book:Press 54 55 56 57 58 59 60 UNIT – VI	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not lectures and	15-2-2020 18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020 24-2-2020 SIONED M	PPT&BLACK BOARD
UNIT V Text book:Press 54 55 56 57 58 59 60 UNIT – VI	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not lectures and	15-2-2020 18-2-2020 19-2-2020 21-2-2020 22-2-2020 24-2-2020 SIONED MI SIONED MI dio lectures and	PPT&BLACK BOARD
UNIT V Text book:Press 54 55 56 57 58 59 60 UNIT – VI AND ANC ext book:Press evdas meno	Problems on short term deflections and long term deflections Shear and Trosional design of PSC member ressed Concrete b N.Krishna Raju and vedio lectures and not limited and the limited and torsional resistance. Introduction of shear and torsional resistance. Problems on Rectangular sections for shear. Problems on Rectangular sections for Shear. Problems on Rectangular section for Torsion. Problems on Rectangular section for Torsion. Problems on Vertical Tensile Stresses, End -zone reinforcement. Problems on Bond stresses, Flexural stresses. TRANSFER OF PRESTRESSIN PRE TENHORAGE ZONE STRESSES IN POSTE TENHORAGE.	15-2-2020 18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020 24-2-2020 SIONED M	PPT&BLACK BOARD

63	Introduction and Problems on Magnel's method	2-3-2020	BOARD
64	Introduction and Problems of Post-tensioned end block	3-3-2020	
65	Problems of Post-tensioned end block	4-3-2020	PPT&
66	Stress Distribution in the End-Block	5-3-2020	BLACK BOARD
67	Problems of the Anchorage zone Reinforcement.	6-3-2020	BOARD

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PRINCIPAL

TENTATIVE LESSON PLAN: R1642013

Section: S		Page No · C	1 of 03
Revision No		Page No: 01 of 03 Approved By: HOD	
	board, PPTs, Model	Approved	by : HOD
No. of Periods	TOPIC	Date	Mode of delivery
UNIT –I	Basic concepts of PSC		1 .
Text book:Pre	stressed Concrete b N.Krishna Raju		
1	Introduction of concrete and prestressed concrete	18-11-2019	
2	Centroid problems of T,L,I Sections	19-11-2019	
3	Basic Concepts of Prestressing and Applications of PSC	20-11-2019	
4	Reinforced concrete and high strength steel and concrete, Advantages of PSC	21-11-2019	PPT& BLACI BOARD
5	Need for HSC and HSS	22-11-2019	
6	High strength concrete properties and classification of PSC members	23-11-2019	
7	High strength steel and its properties	25-11-2019	
UNIT —II Text book:Pres	Prestressing systems and analysis of prest tressed Concrete by N.Krishna Raju	tress	
. 12	Introduction and Principles about tensioning devices	27-11-2019	
13	Principles of Tensioning devices	28-11-2019	
14	Hoers long line system of tensioning and pretensioning devices	29-11-2019	
15	Introduction and brief description of the pretensioning and post tensioning members	2-12-2019	
16	Introduction about the analysis of prestress and bending stress	3 -12-2019	
17	Basic assumptions of the analysis of prestress	4.12.2010	(MARIE)
18	Resultant stress at a section	4-12-2019	
19	Problems on the Resultant stress on a Rectangular section	5-12-2019	
20	Problems on the Resultant stress on a Rectangular section	6-12-2019	
21	Problems on I-Section and their resultant stresses	7-12-2019	
22	Calculations the stresses and also determination of the magnitudes and their moments	9-12-2019 10-12-2019	PPT&BLACK BOARD
23	Concept of pressure line and introduction of problems	12-12-2019	
24	Introduction of pressure line and problems of rectangular section	13-12-2019	
25	Problems of Rectangular Section		
26	Problems of I-Section	14-12-2019	
27	Concept of load balancing	16-12-2019	
28	Problems of concent of land 11 11	17-12-2019	
	Problems of concept of load balancing for triangle sections	19-12-2019	
29	Problems on the Resultant stress on a Rectangular	20-12-2019	
30	section and trapezoidal sections		
NIT –III	Problems of concept of load balancing	21-12-2019	
VII _ []	LOSSES OF PRESTRESS	12 2017	

31	Introduction of losses and problems of Elastic	21-12-2019	1
	Deformation of concrete		
32	Problems on losses of creep, shrinkage	23-12-2019	
33	Problems on losses of creep, shrinkage	24-12-2019	7
34	Problems on loss due to friction	25-12-2019	
35	Problems on loss due to friction for three cables	26-12-2019	
36	Problems on loss due to friction for three cables	27-12-2019	PPT&BLACK
37	Introduction to the Anchorage Slip	28-12-2019	BOARD
38	Introduction to the Relaxation of the stress in steel	30-12-2019	
39	Problems on the Anchorage slip and Relaxation of stress in steel.	2-1-2020	
40	Problems on the total losses with calculation of the percentage of the losses	3-1-2020	
UNIT IV	Flexural strength of PSC members & Defle	ctions of the	
PSC men	ibers	ctions of the	
ext book:Pre	estressed Concrete b N.Krishna Raju		
41	Introduction of Flexural Strength	27-1-2020	+
42	Introduction of design methods	28-1-2020	+
43	Problems on design of flexure	29-1-2020	+
- 44	Problems of Rectangular sections when xu <d< td=""><td></td><td></td></d<>		
45	Problems of flexure moment Rectangular sections	30-1-2020	
46	when xu>d	30-1-2020	
	Design of flexure for rectangular sections	31-1-2020	
47	Design of flexure for T-Section	1-2-2020	
48	Introduction to the Deflections and Control of the Deflections, Factors influencing Deflections	3-2-2020	PPT&BLACK
49	Design steps for the Design of the Flexure members	11-2-2020	BOARD
50	Problems on short term deflections and long term deflections	11-2-2020	
51	Problems on short term deflections and long term deflections	12-2-2020	
52	Problems on short term deflections and long term deflections	13-2-2020	
53	Problems on short term deflections and long term deflections	14-2-2020	
NIT V ext book:Pres	Shear and Trosional design of PSC member tressed Concrete b N.Krishna Raju and vedio lectures and no	rs otes by devdas	menon
54	Introduction of shear and torsionsl resistance	15-2-2020	
55		13-2-2020	
Er	Problems on Rectangular sections for shore		
56	Problems on Rectangular sections for shear Problems on Rectangular sections for shear	18-2-2020 19-2-2020	
57	Problems on Rectangular sections for shear Problems on Rectangular sections for shear	18-2-2020 19-2-2020	DDT 0 DY 1 CV-
	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion	18-2-2020 19-2-2020 21-2-2020	PPT&BLACK
57 58	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion	18-2-2020 19-2-2020	PPT&BLACK BOARD
57 58 59	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses,End -zone reinforcement	18-2-2020 19-2-2020 21-2-2020	
57 58 59 60	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses,End -zone reinforcement Problems on Bond stresses,Flexural stresses	18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020	BOARD
57 58 59 60 NIT – VI ND ANC	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses, End -zone reinforcement Problems on Bond stresses, Flexural stresses TRANSFER OF PRESTRESSIN PRE TEN HORAGE ZONE STRESSES IN POST-TENS ressed Concrete by N. Krishna Rain, S. Pamarana de la concrete de la c	18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020 24-2-2020 SIONED MI	BOARD EMBERS
57 58 59 60 NIT – VI ND ANC st book:Prestr vdas meno 61	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses, End -zone reinforcement Problems on Bond stresses, Flexural stresses TRANSFER OF PRESTRESSIN PRE TEN HORAGE ZONE STRESSES IN POST-TENS ressed Concrete b N.Krishna Raju, S.Ramamrutham and vecin	18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020 24-2-2020 SIONED MI SIONED ME dio lectures and	EMBERS EMBERS I notes by
57 58 59 60 NIT – VI ND ANC st book:Prestr	Problems on Rectangular sections for shear Problems on Rectangular sections for shear Problems on Rectangular section for Torsion Problems on Rectangular section for Torsion Problems on Vertical Tensile Stresses,End -zone reinforcement Problems on Bond stresses,Flexural stresses TRANSFER OF PRESTRESSIN PRE TEN HORAGE ZONE STRESSES IN POST TENN	18-2-2020 19-2-2020 21-2-2020 22-2-2020 22-2-2020 24-2-2020 SIONED MI	BOARD EMBERS

Introduction and Problems on Maria		
The state of and Troolems on Magnel's method	2-3-2020	BOARD
Introduction and Problems of Post-tensioned end block	3-3-2020	
Problems of Post-tensioned end block	4.2.2020	PPT&
Stress Distribution in the Fr. 1 Pl. 1		BLACK
Problems of the And-Block	5-3-2020	BOARD
1 Toblems of the Anchorage zone Reinforcement.	6-3-2020	
	Introduction and Problems on Magnel's method Introduction and Problems of Post-tensioned end block Problems of Post-tensioned end block Stress Distribution in the End-Block Problems of the Anchorage zone Reinforcement.	Introduction and Problems of Post-tensioned end block Problems of Post-tensioned end block 4-3-2020 Stress Distribution in the End-Block 5-3-2020

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TENTATIVE LESSON PLAN: CIVIL R164201C

SOLID & HAZARDOUS WASTE MANAGEMENT

Course Title:	SOLID & HAZARDOUS WASTE MANAC	GEMENT (CIVIL)
Section: Sec A	Date: 18-11-2019	Page No: 01 of 03
Revision No: 00	Prepared By: J PURNA CHANDRA RAO	Approved By: HOD

Tools: Black board, power point presentations

No. of Periods	TOPIC	Tentative date	Mode of Delivery
	UNIT 1: INTRODUCTION TO SW		
СО	1:UNDERSTAND THE IMPACT OF SOLID WASTE ON THE H		
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN	NT BY PM CHERRY	7
1	Introduction to SWM	18/11/2019	
2	Goals and Objectives of Solid Waste Management	25/11/2019	
3	Classification of Solid Waste	26/11/2019	
4	Factors influencing generation of SW	27/11/2019	
5	Sampling and Characterization of Wastes	28/11/2019	Lecture interspersed
6	Characterization of Waste	29/11/2019	with
7	Future changes in waste composition of SW	02/12/2019	discussions
8	Major legislation and monitoring responsibilities	03/12/2019	discussions
9	ISWM terms—WTE, ULB	04/12/2019	
10	TLV, Measurement of NPK and calorific value	05/12/2019	
11	Assignment & Tutorial-I	06/12/2019	
	UNIT 2: BASIC ELEMENTS IN SY	WM	
	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLI	D WASTE OF A TO	WN
	TB: SOLID & HAZARDOUS WASTE MANAGEME	NT BY PM CHERRY	Y
12	Basic elements in SWM	09/12/2019	
13	Functional elements and their interrelationship in SWM	10/12/2019	
14	Principles of SWM	12/12/2019	Lecture interspersed
15	Onsite handling of wastes	13/12/2019	with discussions
16	Storage and Processing of wastes at site	16/12/2019	
17	Types of containers and Collection of solid wastes	17/12/2019	
18	Types of waste Collection systems	17/12/2019	
19	Methods of waste collection-Hauling container system	18/12/2019	
20	Stationary container system	18/12/2019	
		<u> </u>	

Frequency of collection

Analysis of collection system

Optimization of collection routes

Alternative techniques for collection system

19/12/2019

19/12/2019

21/12/2019

21/12/2019

21

22

24

25	Tutorial-II	23/12/2019	
26	Assignment-II	23/12/2019	
CO3:	UNIT 3: TRANSFER, TRANSPORT AND TRANSFORM ACQUIRE THE PRINCIPLES OF TRANSFORMATION OF MUNI TB: SOLID & HAZARDOUS WASTE MANAGEMEN	CIPAL SOLID W.	ASTE TO ENERGY
27	Transfer, Transport and Transformation of wastes	26/12/2019	
28	Need for Transfer Operations	26/12/2019	
29	Compaction of solid waste	30/12/2019	
30	Means and methods of transporting wastes	30/12/2019	
31	Transfer station and types	02/01/2020	Lecture interspersed
32	Design requirements of TS	04/01/2020	with discussions
33	Separation of wastes- Unit operations	04/01/2020	
34	Transformation of wastes	06/01/2020	
35	Shredding of waste materials and sorting	08/01/2020	
	Recovery of materials from wastes- RRPs- Tutorial	09/01/2020	
36	UNIT 4: PROCESSING AND TREATMENT O		a contraction of the contraction
27	CO4: CHARACTERISE THE SOLID WASTE AND DESIGN A TB: SOLID & HAZARDOUS WASTE MANAGEMEN	IT BY PM CHERR	
37	Processing and Treatment of Wastes	27/01/2020	
38	Processing of Solid Wastes	28/01/2020	
39	Waste Transformation through combustion and composting	29/01/2020	
40	Types of composting- yard wastes	30/01/2020	
41	Windrows, warming composting and vermi-composting	31/01/2020	
42	Anaerobic methods of material recovery	01/02/2020	
43	Treatment of wastes	03/02/2020	
44	Energy recovery	04/02/2020	Lecture interspersed
45	Biogas generation	05/02/2020	with discussions
46	Cleaning	06/02/2020	
47	Incineration	10/02/2020	
48	Gasification & pyrolysis	11/02/2020	
49	Tutorial-IV ·	12/02/2020	_
50	Assignment	14/02/2020	
	UNIT 5: DISPOSAL OF SOLID WAS CO5: KNOW THE CRITERIA FOR SELECTION OF LAND		GNING
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN	T BY PM CHERR	XY
51	Disposal of Solid Wastes	16/02/2020	
52	Methods of Disposal	17/02/2020	
53	Site selection for Landfill	18/02/2020	
54	Types of landfill	19/02/2020	
55	Design of Landfill	20/02/2020	Lecture interspersed
56	Operations involved at landfill site	24/02/2020	with discussions
57	Drainage and Leachate collection systems	25/02/2020	
58	Designated waste Landfill remediation Case Studies	28/02/2020	
59	cuse studies	29/02/2020	
60	Case Studies -Assignment & Tutorial-V	02/03/2020	

	UNIT 6: HAZARDOUS WASTE MANAG	EMENT	
CARTAGORIA	CO6: KNOW THE METHOD OF TREATMENT AND DISPOSAL	OF HAZARDOL	JS WASTES.
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN	T BY PM CHERR	Y
61	Sources of HW- characteristics, Collection of HW	03/03/2020	
62	Transport and Treatment of HW	04/03/2020	Lecture interspersed
63	Disposal methods of HW- Biomedical Waste Management	05/03/2020	with discussions
64	Nuclear & E-Waste Management, Env. Laws related to HW	06/03/2020	With discussions
65	Case Studies - Tutorial-VI	07/03/2020	

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TENTATIVE LESSON PLAN: CIVIL R164201C

SOLID & HAZARDOUS WASTE MANAGEMENT

Course Title: SOLID & HAZARDOUS WASTE MANAGEMENT (CIVIL)				
Section: Sec B	Date: 18-11-2019	Page No: 01 of 03		
Revision No: 00	Prepared By: J PURNA CHANDRA RAO	Approved By: HOD		

Tools: Black board, power point presentations

Periods	TOPIC	Tentative date	Mode of Delivery
Sign III and	UNIT 1: INTRODUCTION TO SV		
CO	1:UNDERSTAND THE IMPACT OF SOLID WASTE ON THE F		
	TB: SOLID & HAZARDOUS WASTE MANAGEME	NT BY PM CHERRY	Y
1	Introduction to SWM	18/11/2019	
2	Goals and Objectives of Solid Waste Management	25/11/2019	
3	Classification of Solid Waste	26/11/2019	
4	Factors influencing generation of SW	27/11/2019	
5	Sampling and Characterization of Wastes	28/11/2019	Lecture interspersed
6	Characterization of Waste	29/11/2019	with
7	Future changes in waste composition of SW	02/12/2019	discussions
8	Major legislation and monitoring responsibilities	03/12/2019	discussions
9	ISWM terms—WTE, ULB	04/12/2019	
10	TLV, Measurement of NPK and calorific value	05/12/2019	
11	Assignment & Tutorial-I	06/12/2019	
	UNIT 2: BASIC ELEMENTS IN S		
	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLI TB: SOLID & HAZARDOUS WASTE MANAGEME	D WASTE OF A TO	
12	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLI	D WASTE OF A TO	
12 13	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLI TB: SOLID & HAZARDOUS WASTE MANAGEME	D WASTE OF A TO NT BY PM CHERRY	
	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLITION TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM	D WASTE OF A TO NT BY PM CHERRY 09/12/2019	
13	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLITION TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM	D WASTE OF A TO NT BY PM CHERRY 09/12/2019 10/12/2019	
13 14	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLITION TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM	O WASTE OF A TO NT BY PM CHERRY 09/12/2019 10/12/2019 12/12/2019	
13 14 15	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLITION TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes	O WASTE OF A TO NT BY PM CHERRY 09/12/2019 10/12/2019 12/12/2019 13/12/2019	
13 14 15 16	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLITION TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site	09/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019	
13 14 15 16 17	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes	1D WASTE OF A TO NT BY PM CHERRY 09/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019	Lecture interspersed
13 14 15 16 17 18	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes Types of waste Collection systems	09/12/2019 10/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019	Y
13 14 15 16 17 18 19	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes Types of waste Collection systems Methods of waste collection-Hauling container system	1D WASTE OF A TO NT BY PM CHERRY 09/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019 17/12/2019 18/12/2019	Lecture interspersed
13 14 15 16 17 18 19 20	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes Types of waste Collection systems Methods of waste collection-Hauling container system Stationary container system	09/12/2019 10/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019 17/12/2019 18/12/2019 18/12/2019	Lecture interspersed
13 14 15 16 17 18 19 20 21	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes Types of waste Collection systems Methods of waste collection-Hauling container system Stationary container system Frequency of collection	09/12/2019 10/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019 17/12/2019 18/12/2019 18/12/2019 19/12/2019	Lecture interspersed
13 14 15 16 17 18 19 20 21	CO2: DESIGN THE COLLECTION SYSTEMS OF SOLD TB: SOLID & HAZARDOUS WASTE MANAGEME Basic elements in SWM Functional elements and their interrelationship in SWM Principles of SWM Onsite handling of wastes Storage and Processing of wastes at site Types of containers and Collection of solid wastes Types of waste Collection systems Methods of waste collection-Hauling container system Stationary container system Frequency of collection Analysis of collection system	09/12/2019 10/12/2019 10/12/2019 12/12/2019 13/12/2019 16/12/2019 17/12/2019 17/12/2019 18/12/2019 18/12/2019 19/12/2019 19/12/2019	Lecture interspersed

26	Assignment-II	23/12/2019	
1 Principles	UNIT 3: TRANSFER, TRANSPORT AND TRANSFORM	IATION OF WA	STES
CO3:	ACQUIRE THE PRINCIPLES OF TRANSFORMATION OF MUNI	CIPAL SOLID W.	ASTE TO ENERGY
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN	T BY PM CHERR	Y
27	Transfer, Transport and Transformation of wastes	26/12/2019	
28	Need for Transfer Operations	26/12/2019	
29	Compaction of solid waste	30/12/2019	
30	Means and methods of transporting wastes	30/12/2019	
31	Transfer station and types	02/01/2020	Lecture interspersed
32	Design requirements of TS	04/01/2020	with discussions
33	Separation of wastes- Unit operations	04/01/2020	
34	Transformation of wastes	06/01/2020	
35	Shredding of waste materials and sorting	08/01/2020	
36	Recovery of materials from wastes- RRPs- Tutorial	09/01/2020	
30			
	UNIT 4: PROCESSING AND TREATMENT CO4: CHARACTERISE THE SOLID WASTE AND DESIGN A		ACII ITV
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN		
27			
37	Processing and Treatment of Wastes	27/01/2020 28/01/2020	
39	Processing of Solid Wastes Waste Transformation through combustion and composting	29/01/2020	
40	Types of composting- yard wastes	30/01/2020	
41	Windrows, warming composting and vermi-composting	31/01/2020	,
42	Anaerobic methods of material recovery	01/02/2020	
43	Treatment of wastes	03/02/2020	
44		04/02/2020	Lecture intersperse
45	Energy recovery Biogas generation	05/02/2020	with discussions
46	Cleaning	06/02/2020	
47	Incineration	10/02/2020	
48	Gasification & pyrolysis	11/02/2020	+
49	Tutorial-IV	12/02/2020	+
50	Assignment	14/02/2020	-
	UNIT 5: DISPOSAL OF SOLID WAS		
	CO5: KNOW THE CRITERIA FOR SELECTION OF LAND		GNING
	TB: SOLID & HAZARDOUS WASTE MANAGEMEN		
51	Disposal of Solid Wastes	16/02/2020	
52	Methods of Disposal	17/02/2020	
53	Site selection for Landfill	18/02/2020	
54	Types of landfill	19/02/2020	
55	Design of Landfill	20/02/2020	Lecture intersperse
56	Operations involved at landfill site	24/02/2020	with discussions
57	Drainage and Leachate collection systems	25/02/2020	***************************************
58	Designated waste Landfill remediation	28/02/2020	3 1) 49 a.c. 1
59	Case Studies	29/02/2020	
60	Case Studies - Assignment & Tutorial-V	02/03/2020	scalledges specially

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	CO6: KNOW THE METHOD OF TREATMENT AND DISPOSAL	OF HAZARDOU	JS WASTES.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TB: SOLID & HAZARDOUS WASTE MANAGEMEN	ΓBY PM CHERR	Y-2 - 1
61	Sources of HW- characteristics, Collection of HW	03/03/2020	
62	Transport and Treatment of HW	04/03/2020	Lecture interspersed
63	Disposal methods of HW- Biomedical Waste Management	05/03/2020	with discussions
64	Nuclear & E-Waste Management, Env. Laws related to HW	06/03/2020	with discussions
65	Case Studies - Tutorial-VI	07/03/2020	

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