



TENTATIVE LESSON PLAN: CIVIL R194201B

Course Title: Design and Drawing of Irrigation Structures (CIVIL)		
Section : Sec A	Date : 05.12.2022	Page No : 01 of 03
Revision No : 00	Prepared By : A.KRISHNA PRIYA	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
DESIGN-I			
CO1: The student must be able to design surplus weir.			
TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers			
1.	Design of Surplus Weir	05.12.2022	Lecture interspersed with discussions
2.	Design of Surplus Weir	06.12.2022	
3.	Design of Surplus Weir	07.12.2022	
4.	Design of Surplus Weir	08.12.2022	
5.	Design of Surplus Weir	09.12.2022	
6.	Design of Surplus Weir	12.12.2022	
7.	Design of Surplus Weir	13.12.2022	
8.	Design of Surplus Weir	14.12.2022	
9.	Drawing of Surplus Weir	15.12.2022	
10.	Drawing of Surplus Weir	15.12.2022	
11.	Drawing of Surplus Weir	15.12.2022	
12.	Drawing of Surplus Weir	22.12.2022	
13.	Drawing of Surplus Weir	22.12.2022	
14.	Drawing of Surplus Weir	22.12.2022	
15.	Tutorial	16.12.2022	
DESIGN-II			
CO2: The student must be able to design Tank sluice with towerhead			
TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers			
16.	Design of Tank Sluice with a tower head	17.12.2022	Lecture interspersed with discussions
17.	Design of Tank Sluice with a tower head	19.12.2022	
18.	Design of Tank Sluice with a tower head	20.12.2022	
19.	Design of Tank Sluice with a tower head	21.12.2022	
20.	Design of Tank Sluice with a tower head	23.12.2022	
21.	Design of Tank Sluice with a tower head	26.12.2022	
22.	Design of Tank Sluice with a tower head	27.12.2022	
23.	Drawing of Tank Sluice with a tower head	29.12.2022	
24.	Drawing of Tank Sluice with a tower head	29.12.2022	
25.	Drawing of Tank Sluice with a tower head	29.12.2022	
26.	Tutorial	28.12.2022	



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DESIGN-III

CO3: The student must be able to design Canal drop-Notch type

TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers

27.	Design of Canal drop-Notch Type	30.12.2023	Lecture interspersed with discussions
28.	Design of Canal drop-Notch Type	31.12.2023	
29.	Design of Canal drop-Notch Type	02.01.2023	
30.	Design of Canal drop-Notch Type	03.01.2023	
31.	Design of Canal drop-Notch Type	04.01.2023	
32.	Design of Canal drop-Notch Type	06.01.2023	
33.	Design of Canal drop-Notch Type	09.01.2023	
34.	Drawing of Canal drop-Notch Type	05.01.2023	
35.	Drawing of Canal drop-Notch type	05.01.2023	
36.	Drawing of Canal drop-Notch type	05.01.2023	
37.	Tutorial	10.01.2023	

DESIGN-IV

CO4: The student must be able to design Canal Regulator

TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers

38.	Design of Canal regulator	11.01.2023	Lecture interspersed with discussions
39.	Design of Canal regulator	13.01.2023	
40.	Design of Canal regulator	18.01.2023	
41.	Design of Canal regulator	20.01.2023	
42.	Design of Canal regulator	21.01.2023	
43.	Design of Canal regulator	23.01.2023	
44.	Design of Canal regulator	24.01.2023	
45.	Design of Canal regulator	25.01.2023	
46.	Design of Canal regulator	27.01.2023	
47.	Design of Canal regulator	28.01.2023	
48.	Design of Canal regulator	30.01.2023	
49.	Drawing of canal regulator	12.01.2023	
50.	Drawing of canal regulator	12.01.2023	
51.	Drawing of canal regulator	12.01.2023	
52.	Drawing of canal regulator	19.01.2023	
53.	Drawing of canal regulator	19.01.2023	
54.	Drawing of canal regulator	19.01.2023	
55.	Tutorial	19.01.2023	



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DESIGN-V

CO5: The student must be able to design Under tunnel

TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers

56.	Design of Under tunnel	14.02.2023	Lecture interspersed with discussions
57.	Design of Under tunnel	15.02.2023	
58.	Design of Under tunnel	17.02.2023	
59.	Design of Under tunnel	20.02.2023	
60.	Design of Under tunnel	21.02.2023	
61.	Design of Under tunnel	22.02.2023	
62.	Design of Under tunnel	23.02.2023	
63.	Design of Under tunnel	24.02.2023	
64.	Drawing of Under tunnel	16.02.2023	
65.	Drawing of Under tunnel	16.02.2023	
66.	Drawing of Under tunnel	16.02.2023	
67.	Tutorial	27.02.2023	

DESIGN-VI

CO6: The student must be able to design Syphon aqueduct type III

TB: Water Resources Engineering-Principles and Practice- C.Satyanarayana Murthy, New age International Publishers

68.	Design of Syphon aqueduct type III	28.02.2023	Lecture interspersed with discussions
69.	Design of Syphon aqueduct type III	01.03.2023	
70.	Design of Syphon aqueduct type III	03.03.2023	
71.	Design of Syphon aqueduct type III	06.03.2023	
72.	Design of Syphon aqueduct type III	08.03.2023	
73.	Design of Syphon aqueduct type III	10.03.2023	
74.	Drawing of Syphon aqueduct type III	02.03.2023	
75.	Drawing of Syphon aqueduct type III	02.03.2023	
76.	Drawing of Syphon aqueduct type III	02.03.2023	
77.	Drawing of Syphon aqueduct type III	09.03.2023	
78.	Drawing of Syphon aqueduct type III	09.03.2023	
79.	Drawing of Syphon aqueduct type III	09.03.2023	
80.	Tutorial	13.03.2023	

Signature of the Faculty

Signature of the HOD

5/12/23



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TENTATIVE LESSON PLAN: R1942011

Course Title: Ground Improvement Techniques(R1942011)			
Section: Sec A	Date: 5/1/2/2022	Page no : 01 of 03	
RevisionNo:00	Prepared By: K.Kiran	Approved By : HOD	
Tools: Black Board, PPTs, Model			
No. of Periods	TOPIC	Implemented Dates	Mode of Delivery
UNIT –I DENSIFICATION			
CO1: Make the student to understand need for different ground improvement methods for improving the properties of remolded and in-situ densification T1: Ground Improvement Techniques by Purushotham Raj, Lakshmi Publications,New Delhi. T2: Principles Of Ground Modification by Hausman,H.R,McGraw-Hill Book Company. T3: Reinforced Earth and its engineering applications by Swamy Saran,I.K International Pvt.Ltd.			
1	Introduction on ground improvement methods	From: 5/1/2/2022 To: 24/12/2022	Lecture interspersed with discussions
2	Insitu densification of granular soils: Blasting		
3	Vibratory probe, vibratory compactors		
4	Vibro displacement :displacement piles		
5	Vibroflotation techniques		
6	Dynamic (or) impact compaction at ground		
7	Dynamic (or) impact compaction at depth		
8	Insitu densification of cohesive soils: preloading ,surcharge		
9	Vertical drains: sand drains		
10	Vertical drains: geo drains		
11	Stone columns		
12	Vertical drain design		
13	Dynamic (or) impact compaction(T)		
14	Tutorial		
UNIT –II DEWATERING			
CO2: Make the student to understand about for improving the properties of remolded and in-situ soils by adopting different techniques such as in-situ densification and dewatering methods. T1: Ground Improvement Techniques by Purushotham Raj, Lakshmi Publications,New Delhi. T2: Principles Of Ground Modification by Hausman,H.R,McGraw-Hill Book Company. T3: Reinforced Earth and its engineering applications by Swamy Saran,I.K International Pvt.Ltd.			
15	Introduction on dewatering		
16	Ground water and seepage control		
17	Open sumps		
18	Intersective Ditching		



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19	Well point systems-single stage	From: 26/12/2022 To: 20/1/2023	Lecture interspersed with discussions
20	Well point systems-multi stage		
21	Well points in braced excavation		
22	Vacuum dewatering system		
23	Horizontal wells		
24	Electro osmosis		
25	Drains: open drains		
26	closed drains		
27	Foundation drains		
28	Blanket Drains		
29	Criteria for choice of filler material around drains		
30	Tutorial		

UNIT -III SOIL STABILIZATION

CO3: Make the student to understand W how the reinforced earth technology.

T1: Ground Improvement Techniques by Purushotham Raj, Lakshmi Publications, New Delhi.

T2: Principles Of Ground Modification by Hausman, H.R, McGraw-Hill Book Company.

T3: Reinforced Earth and its engineering applications by Swamy Saran, I.K International Pvt.Ltd.

31	Soil stabilization : Introduction	From: 21/2/2023 To: 28/2/2023	Lecture interspersed with discussions
32	Mechanical stabilization		
33	Chemical stabilization		
34	Lime stabilization		
35	Lime stabilization-factors affecting		
36	Cement stabilization		
37	Bitumen stabilization-factors		
38	Bitumen stabilization-factors affecting		
39	Polymer stabilization		
40	Granulated blast furnace slag		
41	Flyash		
42	Grouting-objectives		
43	Grouts and their applications		
44	Methods of grouting		
45	Stage of grouting		
46	Hydraulic fracturing in soils& rocks		



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47	Post grout tests		
48	Stage of grouting		
49	Tutorial		

UNIT –IV REINFORCED EARTH

CO4: Make the student to understand about soil nailing can obviate the problems posed by the conventional retaining walls

T1: Ground Improvement Techniques by Purushotham Raj, Lakshmi Publications, New Delhi.

T2: Principles Of Ground Modification by Hausman, H.R, McGraw-Hill Book Company.

T3: Reinforced Earth and its engineering applications by Swamy Saran, I.K International Pvt.Ltd.

50	Reinforced earth –principles	From: 1/3/2023 To: 15/3/2023	Lecture interspersed with discussions
51	Components of Reinforced earth		
52	Soil nailing- purpose		
53	Soil nailing- applications		
54	Soil nailing- material & machineries		
55	Soil nailing- design principles		
56	Design principles of Reinforced earth walls		
57	Stability checks		
58	Tutorial		

UNIT –V GEOSYNTHETICS

CO5: Make the student to understand, how geotextiles and geo-synthetics can be used to improve the engineering performance of soils.

T1: Ground Improvement Techniques by Purushotham Raj, Lakshmi Publications, New Delhi.

T2: Principles Of Ground Modification by Hausman, H.R, McGraw-Hill Book Company.

T3: Reinforced Earth and its engineering applications by Swamy Saran, I.K International Pvt.Ltd.

59	Geosynthetics : introduction	From: 16/3/2023 To: 31/3/2023	Lecture interspersed with discussions
60	Classification of Geosynthetics		
61	Geosynthetics: applications & properties		
63	Geotextiles –types		
64	Functions, properties		
65	Geogrids & nets		
66	Geomembrane – properties, manufacturing		
67	Geomembrane- applications, functions		
68	Gabions –properties ,applications		
69	Tutorial		

K. Rajan

T. Lakshmi
15/1/22

TENTATIVE LESSON PLAN: R1942011

Course Title: ESTIMATING, SPECIFICATIONS AND CONTRACTS(R1942011)		
Section: Sec A	Date: 05-12-2022	Page No: 01 of 03
Revision No: 00	Prepared By: G. Sahithi	Approved By: HOD

Tools: Black board

	TOPIC	DATE	MODE OF DELIVERY
UNIT – I INTRODUCTION: GENERAL ITEMS OF WORK IN BUILDINGS CO1: The student will be able to calculate quantity of different components of the buildings and know about types of estimates. TB: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000. TB: 'Estimating and Costing' by G.S. Birdie.			
1.	UNIT-I: Introduction: about estimation, specifications	From: 05-12-2022 To: 21-12-2022	Lectures interspersed with discussions
2.	Purpose of estimation		
3.	General items of work excavation, filling, concrete in foundation		
4.	General items of work soling, damp proof course, masonry, arch masonry, lintels		
5.	General items of work RCC, RB works, flooring, roofing, plastering, pointing, cornice		
6.	General items of works doors, windows, wood work, iron work		
7.	White washing, painting, lumpsum items		
8.	Standard units, principles of working out quantities		
9.	Types of estimates		
10.	Description of detailed estimates		
11.	Description of abstract estimates		
12.	Methods of approximate estimates		
UNIT – II RATE ANALYSIS CO2: The student will be able to find the cost of various building components. TB: 'Estimating and Costing' by B.N. Dutta, UBS publishers, 2000. TB: 'Estimating and Costing' by G.S. Birdie.			
13.	Introduction to rate analysis	From: 23-12-2022 To: 06-01-2023	Lectures interspersed with discussions
14.	Calculation of mazdoor required		
15.	Rate analysis problems on excavation for foundation		
16.	Sand filling in plinth problems		
17.	Rate analysis for cement concrete		
18.	Rate analysis for lime concrete in foundation		
19.	Rate analysis for brick work with standard bricks		
20.	Rate analysis for plastering and pointing		
21.	Rate analysis for cement concrete floor		

22	Rate analysis for painting, varnishing		
23	Rate analysis for mosaic floor finish		
24	Rate analysis for reinforcement, RCC works		
25	Rate analysis for other works		
26	Tutorial		
UNIT-III: EARTHWORK FOR ROADS AND CANALS			
CO3: 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.			
27	Introduction to earth work	From: 07-01-2023 To: 24-01-2023	Lectures interspersed with discussions
28	Embankment, cutting definitions		
29	Reinforcement, bar bending concept		
30	Bar requirement schedules		
31	Methods for earthwork for roads		
32	Problems on mid sectional area method		
33	Problems on mean sectional area method		
34	Problems on Prismoidal formula method		
35	Problems on trapezoidal formula method		
36	Problems on area of side slopes		
37	Problems on earthwork for canals		
38	Earthwork for canals based on Prismoidal formula		
39	Problems on combinations of embankment and cutting		
40	Tutorial		
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	From: 25-01-2023 To: 20-02-2023	Lectures interspersed with discussions
42	Types of contracts		
43	Contract documents		
44	Conditions of contracts		
45	Valuation of building		
46	General specifications of first-class building		
47	General specifications of second-class building		
48	General specification of third-class building		
49	General specification of fourth-class building		
50	Standard specifications of various items of works		
51	Specification for earthwork in foundation, lime concrete in foundation		
52	Specifications for standard bricks		
53	Specifications for plastering, pointing		
54	Tutorial		
UNIT - V DETAILED ESTIMATION OF BUILDINGS USING INDIVIDUAL WALL			

METHOD & CENTERLINE 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.

55	Introduction to detailed estimation	From: 21-02-2023 To: 01-04-2023	Lectures interspersed with discussions
56	Detailed estimation of building		
57	Methods of detailed estimation		
58	Individual wall method		
59	Applications of individual wall method		
60	Problems on individual wall method		
61	Problems on individual wall method		
62	Problems on individual wall method		
63	Problems on individual wall method		
64	Problems on individual wall method		
65	Problems on individual wall method		
66	Problems on individual wall method		
67	Tutorial on individual wall method		
68	Detailed estimation of building		
69	Centre line method		
70	Problems on centre line method		
71	Problems on centre line method		
72	Problems on centre line method		
73	Problems on centre line method		
74	Problems on centre line method		
75	Problems on centre line method		
76	Problems on centre line method		
77	Problems on centre line method		
78	Problems on centre line method		
79	Tutorial on centre line method		

G. Sathya
5/12/2022
SIGNATURE OF FACULTY

V. Sathya
5/12/22
SIGNATURE OF HOD



TENTATIVE LESSON PLAN: CIVIL R2032011

Course Title: Design and Drawing of Steel Structures (CIVIL)		
Section : Sec A	Date : 09-01-2023	Page No : 01 of 03
Revision No : 00	Prepared By : A.KRISHNA PRIYA	Approved By : HOD

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I			
CO1: The student will be able to know about concepts of limit state design and connections			
TB: Steel Structures Design and Practice			
1.	Types of structural steel	09.01.2023	Lecture interspersed with discussions
2.	Mechanical properties of steel	10.01.2023	
3.	Concepts of plasticity – yield strength	11.01.2023	
4.	Loads and Stresses Local buckling behaviour of steel.	12.01.2023	
5.	Concepts of limit State Design	13.01.2023	
6.	Different Limit States -Load combinations for different Limit states	18.01.2023	
7.	Design Strengths, deflection limits	19.01.2023	
8.	Serviceability, stability check	20.01.2023	
9.	Connections: Design of Connections	21.01.2023	
10.	Different types of connections – Bolted connections	23.01.2023	
11.	Design strength– efficiency of joint	23.01.2023	
12.	Welded connections: Advantages and disadvantages	24.01.2023	
13.	Strength of welds, Butt and fillet welds : Permissible stresses	25.01.2023	
14.	IS Code requirements	27.01.2023	
15.	Design of fillet weld subjected to in-plane moment acting in the plane and	28.01.2023	
16.	Design of fillet weld subjected at right angles to the plane of the joints	31.01.2023	
17.	Tutorial	01.02.2023	
UNIT –II			
CO2: The student will be able to design simple beams and compound beams			
TB: Steel Structures Design and Practice			
18.	Plastic Analysis: Plastic moment	02.02.2023	
19.	Plastic section modulus - Plastic analysis of continuous beams	03.02.2023	
20.	Beams: Allowable stresses, design requirements as per IS Code	04.02.2023	



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21.	Design of simple beams, Design of compound beams	06.02.2023	Lecture interspersed with discussions
22.	Curtailement of flange plates, Beam to beam connection	06.02.2023	
23.	check for deflection, shear, buckling, check for bearing,	07.02.2023	
24.	Laterally unsupported beams,	08.02.2023	
25.	Problems	14.02.2023	
26.	Problems	15.02.2023	
27.	Tutorial	16.02.2023	
28.	Plate 1 Detailing of simple beam	13.02.2023	
29.	Plate 2 Detailing of compound beams including curtailement of flange plates	20.02.2023	
30.	Plate 2 Detailing of compound beams including curtailement of flange plates	20.02.2023	
31.	Plate 2 Detailing of compound beams including curtailement of flange plates	20.02.2023	

UNIT –III Compression and Tension Members

CO3: The student will be able to design compression members and different types of connection detailing

TB: Steel Structures Design and Practice

32.	Effective length	21.02.2023	Lecture interspersed with discussions
33.	Slenderness ratio – permissible stresses,	22.02.2023	
34.	Design of compression members, Design of struts,	23.02.2023	
35.	Built up compression members, Design of lacings	24.02.2023	
36.	Design of battens, Design Principles of Eccentrically loaded columns	25.02.2023	
37.	Splicing of columns	27.02.2023	
38.	Problems on lacings	28.02.2023	
39.	Problems on lacings	01.03.2023	
40.	Problems on battens	03.03.2023	
41.	Problems on battens	04.03.2023	
42.	Roof Truss Element: Different types of trusses	15.03.2023	
43.	Design loads – Load combinations as per IS Codes	17.03.2023	
44.	Design of simple roof trusses involving design of purlins	18.03.2023	
45.	Design of rafters and joints – tubular trusses	21.03.2023	
46.	Problems, Tutorial	28.03.2023	
47.	Plate 3 Detailing of Column including lacing and battens	20.03.2023	
48.	Plate 3 Detailing of Column including lacing and battens	20.03.2023	
49.	Plate 3 Detailing of Column including lacing and battens	20.03.2023	
50.	Plate 5 Detailing of steel roof trusses including joint details	27.03.2023	
51.	Plate 5 Detailing of steel roof trusses including joint details	27.03.2023	
52.	Plate 5 Detailing of steel roof trusses including joint details	27.03.2023	



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UNIT –IV Design of Column Foundations

CO4: The student will be able to design Column foundations

TB: Steel Structures Design and Practice

53.	Design of slab base	29.03.2023	Lecture interspersed with discussions
54.	Design of gusseted base, Column bases subjected moment.	31.03.2023	
55.	Problems on slab base	04.04.2023	
56.	Problems on slab base	10.04.2023	
57.	Problems on gusset base	11.04.2023	
58.	Problems on gusset base	12.04.2023	
59.	Tutorial	13.04.2023	
60.	Plate 4 Detailing of column bases–slab base and gusset base	03.04.2023	
61.	Plate 4 Detailing of column bases–slab base and gusset base	03.04.2023	
62.	Plate 4 Detailing of column bases–slab base and gusset base	03.04.2023	

UNIT –V Design of plate Girder and Gantry Girder

CO5: The student will be able to design plate girder and gantry girder with connection detailing

TB: Steel Structures Design and Practice

63.	Design of Plate Girder: Design consideration	15.04.2023	Lecture interspersed with discussions
64.	IS Code recommendations	17.04.2023	
65.	Design of plate girder – Welded	17.04.2023	
66.	Curtailement of flange plates	17.04.2023	
67.	Stiffeners, Splicing and connections.	18.04.2023	
68.	Problems on plate girder	19.04.2023	
69.	Problems on plate girder	20.04.2023	
70.	Problems on plate girder	21.04.2023	
71.	Design of Gantry Girder- impact factors, longitudinal forces	24.04.2023	
72.	Design of Gantry girders.	25.04.2023	
73.	Problems on Gantry girders.	26.04.2023	
74.	Problems on Gantry girders.	27.04.2023	
75.	Tutorial	28.04.2023	
76.	Plate 6 Detailing of plate girder including curtailement, splicing and stiffeners	01.05.2023	
77.	Plate 6 Detailing of plate girder including curtailement, splicing and stiffeners	01.05.2023	
78.	Plate 6 Detailing of plate girder including curtailement, splicing and stiffeners	01.05.2023	
79.	Revision of old que papers	02.05.2023	

CH
9/1/23



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DEPARTMENT OF CIVIL ENGINEERING

TENTATIVE PLAN: R203203J INTRODUCTION TO AUTOMOBILE ENGINEERING

Course Title: INTRODUCTION TO AUTOMOBILE ENGINEERING		Course code: R203203J	
Section: Sec A	Date: 10-01-2023	Page No: 01 to 03	
Revision No: 00	Prepared By: R. KIRAN KUMAR	Approved By: HOD	
Tools: BLACK BOARD, PPT			
No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I INTRODUCTION			
CO1: Explain the basics of an automobile & its components with applications			
TB: "AUTOMOBILE ENGINEERING", Dr KIRPAL SINGH.			
	UNIT-1: Introduction		
1	Introduction: Components of four-wheeler automobile	From 09-01-2023 To 31-01-2023	Lecture interspersed with discussions, PPTs
2	Chassis & body		
3	Power unit- Power transmission		
4	Rear wheel drive & Front wheel drive		
5	Four-wheel drive		
6	Types of Automobile Engines		
7	Engine Construction		
8	Turbo charging		
9	Super charging		
10	Engine Lubrication system		
11	Splash & Pressure lubrication system		
UNIT-II TRANSMISSION SYSTEM			
CO2: Illustrate the concept of Transmission system with different components in an automobile			
TB: "AUTOMOBILE ENGINEERING", Dr R.K. GOVINDAN.			
	UNIT - 2: Transmission system		
12	Clutches, Principle, Types of clutches	From 01-02-2023 To 15-02-2023	Lecture interspersed with discussions, PPTs
13	Cone clutch, single plate clutch & multi-plate clutch		
14	Magnetic & centrifugal clutches		
15	Fluid fly-wheel & types of gear boxes		
16	Sliding mesh & constant mesh gear box		
17	Synchro mesh & Epicyclic gear box		
18	Overdrive torque convertor		



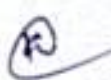
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19	Propeller shaft & Hotch kiss drive		
20	Torque tube drive		
21	Universal joint		
22	Differential rear axles types		
23	Types of wheels & tires and their making		
UNIT-III STEERING SYSTEM & SUSPENSION SYSTEM			
CO3: Analyze the working of steering system and Categorize the concepts of Suspension in an automobile			
TB: "AUTOMOBILE ENGINEERING", Dr R.K. GOVINDAN.			
	UNIT – 3: Steering system		
24	Steering geometry Camber & caster	From 16-02- 2023 To 31-03- 2023	Lecture interspersed with discussions, PPTs
25	King-pin rake		
26	Combined angle toe-in		
27	Center point steering		
28	Types of steering mechanisms		
29	Ackermann steering mechanism		
30	Davis steering mechanism		
31	Types of steering gears		
32	Suspension system introduction		
33	Objects of suspension system		
34	Rigid axle suspension system		
35	Torsion bar & Shock absorber		
36	Independent suspension systems		
UNIT-IV BRAKING SYSTEM & ELECTRICAL SYSTEM			
CO4: Categorize the concepts of Braking systems & Electrical in an automobile			
TB: "AUTOMOBILE ENGINEERING", Dr R.K. GOVINDAN.			
	UNIT – 4 Suspension system, Braking system & Electrical system		
37	Mechanical brake system & Hydraulic brake system	From 01-04- 2023 To 15-04- 2023	Lecture interspersed with discussions, PPTs
38	Master cylinder, wheel cylinder & tandem master cylinder		
39	Requirement of brake fluid brakes		
40	Pneumatic & vacuum brakes		
41	Charging circuit, generator & current		
42	Voltage regulator & starting system		
43	Bendix drive mechanism		
44	Solenoid switch & lighting system		



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45	Horns , Wiper & Fuel guage		
46	Oil pressure guage		
47	Engine temperature indicator system		
UNIT-V ENGINE SPECIFICATION & SAFETY SYSTEMS			
CO5: Demonstrate the basics of Engine specification & safety systems in automobile under different conditions			
TB: "AUTOMOBILE ENGINEERING", Dr R.K. GOVINDAN.			
	UNIT – 5 Engine specification & safety systems		
48	Introduction, Engine specification with regard to power		
49	Speed, torque & No of cylinders and arrangement		
50	Lubrication & Cooling		
51	Introduction, Safety systems		
52	Seat belt, Air bags, Bumber		
53	Anti-lock brake system (ABS), Wind Sheild		
54	Suspension Sensors, Traction Control		
55	Mirrors, Central locking and electric windows		
56	Speed control		


Signature of Faculty


Signature of HoD
10/11/23

TENTATIVE LESSON PLAN: R2032012

Course Title: Water Resources Engineering		
Section : Sec A	Date : 10/01/23	Page No : 01 of 03
Revision No : 00	Prepared By : E.Usha Sree	Approved By : HOD

Tools: Black board, power point presentations

No. of Periods	TOPIC	Implemented Date	Mode of Delivery
UNIT -I Irrigation			
CO 1: To enable the student to estimate the irrigation water requirements			
TB1: Water resources engineering, Dr. K.R. Arora			
1	Irrigation - Introduction	From 16-1-23 To 7-2-23	Lecture interspersed with discussions
2	Necessity and importance		
3	Principal crops and crop seasons		
4	Methods of irrigation		
5	Soil water plant relationship		
6	Soil moisture constants, consumptive use		
7	Estimation of consumptive use		
8	Consumptive use , Crop water requirement		
9	Duty and delta,		
10	Irrigation efficiencies		
11	Factors affecting duty		
12	Depth and frequency of irrigation		
13	Irrigation efficiencies, water logging		
14	Standards and quality of irrigation water - Tutorial		
UNIT -II Canals			
CO 2: To make the student to design irrigation canals and canal network			
TB: Irrigation and water power engineering, B. C. Punmia			
15	Classification of canals	From 8-2-23 To 13-2-23	Lecture interspersed with discussions
16	Design of non erodible canals		
17	Methods of economic section, max permissible velocity		
18	Economics of canal lining		
19	Design of erodible canals – Kennedy’s silt theory		
20	Kennedy’s silt theory		
21	Lacey’s regime theory		
22	Balancing depth		
23	Types of diversion head works		
24	Weirs and barrages		
25	Layout of diversion head works		
26	Components of diversion head works		
27	Causes and failures of weirs on permeable foundations		
28	Bligh’s creep theory		
29	Khosla’s theory		
30	Design of impervious floors for subsurface flow		
31	Tutorial - Exit gradient		
UNIT -III Engineering hydrology and its applications			
CO 3: To make the student to Develop Intensity-Duration-Frequency and Depth-Area Duration curves to design hydraulic structures B. C. Punmia			
32	Introduction : Engineering hydrology and	From 14-3-23 To 28-3-23	Lecture interspersed with discussions
33	its applications, Hydrologic cycle		
34	hydrological data-sources of data.		
35	Precipitation		
36	Types and forms, Frequency (IDF) curves, Depth-Area		
37	measurement, frequency of rainfall, Intensity-Duration		
38	introduction to radar measurement of rain fall,		

39	rain gauge network,		
40	presentation of rainfall data,		
41	average rainfall, continuity and consistency of rainfall data,		
42	Depth-Area-Duration (DAD) curves,		
43	Tutorial - Probable Maximum Precipitation (PMP), design storm		
UNIT –IV Abstractions, Runoff			
CO 4: To make the student to plan and design Develop design storms and carry out frequency analysis.			
TB : Irrigation and water power engineering, B. C. Punmia			
44	Abstractions: Initial abstractions,	From 29-3-23 To 17-4-23	Lecture interspersed with discussions
45	Evaporation: factors affecting,		
46	measurement, estimation, reduction,		
47	Evapotranspiration: factors affecting, measurement,		
48	estimation, control, Infiltration: factors affecting		
49	Infiltration capacity curve, Runoff: Factors affecting runoff,		
50	components, empirical formulae,		
51	tables and curves, stream gauging,		
52	flow mass curve and flow duration curve,		
53	measurement, rating curve		
54	Tutorial - infiltration indices.		
UNIT –V Hydrograph analysis:			
CO 5: To make the student to analyze stability of gravity dams			
TB: Irrigation and water power engineering, B. C. Punmia			
55	Unit – V Hydrograph analysis: Components of hydrograph,	From 18-4-23 To 29-4-23	Lecture interspersed with discussions
56	separation of base flow,		
57	effective rainfall hyetograph and direct runoff hydrograph,		
58	unit hydrograph, assumptions,		
59	derivation of unit hydrograph,		
60	unit hydrographs of different durations,		
61	principle of superposition and hydrograph methods,		
62	limitations and applications of unit hydrograph,		
63	dimensionless unit hydrograph,		
64	synthetic unit hydrograph, introduction to IUH		
65	Tutorial		

Text books:

TB1: Water resources engineering, Dr. K.R. Arora

TB2: Irrigation and water power engineering, B. C. Punmia


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Signature of the HoD
10/1/23

TENTATIVE LESSON PLAN: CE

Course Title: TRAFFIC ENGINEERING (R203201D)

Section : Sec A	Date : 9/1/2023	Page No : 01 of 04
Revision No : 00	Prepared By : K.KIRAN	Approved By : HOD

Tools : Black board, PPTs, Model

S. No	Unit / Topic	Teaching Planned	No of Periods (actual taken)
UNIT- I: Components of The Traffic System			
CO1: To determine various components of traffic system.			
TB: 'Traffic and Transport planning' by Kadiyali L.R., Khanna Publishers			
1	Components of The Traffic System	From: 9/1/2023 To: 31/1/2023	Lecture interspersed with discussions
2	Human-Vehicle-Environment System		
3	Characteristics of Road users		
4	Characteristics of Vehicles		
5	Highways and their classification		
6	Traffic Studies: Inventories		
7	Volume studies		
8	Speed, Travel time and Delay studies		
9	Intersection studies		
10	Pedestrian studies		
11	Parking studies		
12	Accident studies		
13	Tutorial		

UNIT- II: Traffic Characteristics

CO2:To determine characteristics of traffic.

TB: 'Traffic and Transport planning' by Kadiyali L.R., Khanna Publishers

14	Traffic Characteristics		
15	Microscopic and macroscopic flow characteristics		

16	Time headways	From: 1/2/2023 To: 25/2/2023	Lecture interspersed with discussions
17	Temporal, spatial and model flow patterns		
18	Interrupted and Un interrupted traffic		
19	Microscopic and macroscopic speed characteristics		
20	Vehicular speed Trajectories		
21	Speed characteristics – Mathematical distribution		
22	Speed and travel time variations		
23	Travel time and delay studies.		
24	Microscopic and Macroscopic density characteristics		
25	Distance headway characteristics		
26	Car following theories		
27	Density measurement techniques		
28	Density contour maps		
29	Tutorial		

UNIT- III: Traffic Control Devices & Highway Safety

CO3:To apply various traffic control devices and principles of highway safety

TB: 'Traffic and Transport planning' by Kadiyali L.R., Khanna Publishers

30	Traffic Control Devices & Highway Safety	From: 26/2/2023 To: 25/3/2023	Lecture interspersed with discussions
31	Traffic signs & Markings		
32	Signal Warrants		
33	Signal phasing and Development of phase plans		
34	Fixed and Vehicle activated signals		
35	Webster method		
36	ARRB method		
37	Drew's Method		
38	IRC method		
39	Signal coordination		
40	Area Traffic control.		
41	Accident characteristics – Road – Driver – Vehicle		
42	Accident recording and Analysis		

43	Highway Safety Improvement Program		
44	Safety Audit		
45	Tutorial		
UNIT- IV: Environmental Considerations			
CO4: To understand the detrimental effects of traffic on environment			
TB: 'Traffic and Transport planning' by Kadiyali L.R., Khanna Publishers			
46	Environmental Considerations	From: 26/3/2023 To: 15/4/2023	Lecture interspersed with discussions
47	Air pollution		
48	Kinds of pollutants		
49	Air pollution standards		
50	Measures of air quality		
51	Modelling and control		
52	Noise pollution		
53	Measurement of sound levels		
54	Acceptable limits		
55	Prediction of noise levels		
56	Traffic noise control		
57	Air and Noise pollution mitigation measures.		
58	Tutorial		
UNIT- V: Highway Capacity and Level of Service			
CO5: To carry out highway capacity and level of service analysis and to learn about intelligent vehicle highway systems			
TB: 'Traffic and Transport planning' by Kadiyali L.R., Khanna Publishers			
59	Highway Capacity and Level of Service		

60	Capacity and level of service	From: 16/4/2023 To: 30/4/2023	Lecture interspersed with discussions
61	Factors affecting Capacity and LOS		
63	Capacity of Rural Highways		
64	Capacity of Urban Roads		
65	HCM and IRC standards.		
66	Intelligent Vehicle – Highway Systems		
67	Traffic surveillance and monitoring		
68	IVHS programs		
69	Role of IVHS, IVHS categories		
70	Benefits and Costs of IVHS.		
71	Categories of ITS		
72	Tutorial		

K. Ramesh
 Faculty/ Date

T. Lakshmi
 HOD/Date
 9/1/23



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 Department Of Civil Engineering

TENTATIVE LESSON PLAN: R2032013
 Geotechnical engineering -II

Course Title: Geotechnical engineering -II(R2031013)		
Section : Sec A	Date : 6-01-2023	Page No : 01 of 03
Revision No : 00	Prepared By : B.SAIKUMAR REDDY	Approved By : HOD

Tools : Black board, PPTs, Model

No. of Periods	TOPIC	Date	Mode of delivery
UNIT-I SOIL EXPLORATION			
CO1: The Student Will Be Able To know the methods of soil exploration			
T1: Gopal Ranjan and A.S.R.Rao, "Basic and Applied Soil Mechanics", New Age International Publishers			
T2: V.N.S.Murthy, "Soil Mechanics and Foundation Engineering", CBS publishers 3. M.Palani Kumar, "Soil Mechanics", PHI Learning			
1	Gt-1 recall and Gt-2 Introduction	From: 9-01-2023 To: 24-01-2023	Lecture interspersed with discussions ppt
2	Need And Methods Of Soil Exploration		
3	Boring And Sampling Methods		
4	Boring And Sampling Methods		
5	Field Tests		
6	Penetration Tests		
7	Pressure Meter Test		
8	Planning Of Program And Preparation Of Soil Investigation Report.		
9	tutorial		
UNIT-II Earth and earth retaining structures			
CO2: student will be able understand the stability of slope and earth pressure theories.			
T1: Gopal Ranjan and A.S.R.Rao, "Basic and Applied Soil Mechanics", New Age International Publishers			
T2: V.N.S.Murthy, "Soil Mechanics and Foundation Engineering", CBS publishers 3. M.Palani Kumar, "Soil Mechanics", PHI Learning			
10	Stability of slopes introduction		Lecture
11	Infinite slopes		
12	infinite slopes		
13	Finite slopes		
14	Types of failure		

15	Factor of safety of infinite slopes	From: 30-1-2023 To: 21-02-2023	interspersed with discussions ppt
16	Stability analysis of Swedish arc method		
17	Method of slices		
18	Taylor stability method		
19	Coulombs theory of earth pressure		
20	Rankin's theory of earth pressure		
21	Problems		
22	Tutorial		
UNIT –III Shallow Foundations – Bearing Capacity Criteria CO3: The Student will be able to understand the different types of shallow foundations and decide on their location based on soil characteristics. T1: Gopal Ranjan and A.S.R.Rao, “Basic and Applied Soil Mechanics”, New Age International Publishers T2: V.N.S.Murthy, “Soil Mechanics and Foundation Engineering”, CBS publishers 3. M.Palani Kumar, “Soil Mechanics”, PHI Learning			
23	Types of failures	From: 23-2-2023 To: 21-03-2023	Lecture interspersed with discussions ppt
24	Bearing capacity		
25	Criteria for determination of bearing capacity		
26	Analytical methods		
27	Terzaghi theory		
28	IS methods		
29	Problems		
30	Problems		
31	tutorial		
UNIT – IV shallow foundations –settlement criteria CO4 The student will be able to compute the magnitude of foundation settlement T1: Gopal Ranjan and A.S.R.Rao, “Basic and Applied Soil Mechanics”, New Age International Publishers T2: V.N.S.Murthy, “Soil Mechanics and Foundation Engineering”, CBS publishers 3. M.Palani Kumar, “Soil Mechanics”, PHI Learning			
32	SBC value based on N-value	From: 23-2-2023 To: 10-04-23	Lecture interspersed with discussions ppt
33	Allowable B.C		
34	Problems		
35	Tutorial		
UNIT –V Deep Foundations CO5: The Student Will Be Able to apply the principles of bearing capacity of piles and design them accurately T1: Gopal Ranjan and A.S.R.Rao, “Basic and Applied Soil Mechanics”, New			

Age International Publishers**T2: V.N.S.Murthy, "Soil Mechanics and Foundation Engineering", CBS publishers 3. M.Palani Kumar, "Soil Mechanics", PHI Learning**

36	Types of piles	From: 11-04-23 To: 6-05-23	Lecture interspersed with discussions ppt
37	Load carrying capacity of piles		
38	Based on their static pile formulae		
39	Problems		
40	Problems		
41	Dynamic pile formulae		
42	Dynamic pile formulae		
43	Pile load tests		
44	Pile load tests		
45	Load carrying capacity of piles in sands		
46	Load carrying capacity of piles in sands		
47	Well foundation different shapes of wells		
48	Components of well		
49	Functions of well foundation		
50	Design criteria		
51	Tilt and shift		
52	tutorial		

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6/1/23Signature of the HOD
6/1/23



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DEPARTMENT OF CIVIL ENGINEERING

TENTATIVE LESSON PLAN

Course/Code: Complex Variables & Statistical Methods / R2022011

Year / Semester : II/II

Section: I

A.Y: 2022-23

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT- I: FUNCTIONS OF A COMPLEX VARIABLE AND COMPLEX INTEGRATION CO1: To apply Cauchy-Riemann equations to complex functions in order to determine whether a given continuous function is analytic and find the differentiation and integration of complex functions used in engineering problems. TBI :: Complex Variables and Statistical Methods By Dr. T.V.K. Iyengar, S. Chand & Company Pvt. Ltd., 2014.			
1	Introduction	From: 30/01/2023 To 17/02/2023	Lecture interspersed with discussions
2	Definition of Continuity, Differentiability, Problems		
3	Analyticity, Problems		
4	Cauchy-Riemann equations in Cartesian, Problems		
5	Problems		
6	Cauchy-Riemann equations polar Coordinates, Problems		
7	Harmonic and conjugate harmonic functions		
8	Problems		
9	Milne –Thompson method Problems		
10	Problems		
11	Complex integration: Line integral Problems		
12	Problems		
13	Cauchy's integral theorem Problems		
14	Problems		
15	Cauchy's integral formula Problems		
16	Problems		
17	Generalized integral formula (all without proofs).Problems		
18	Problems		
UNIT- II : SERIES EXPANSIONS AND RESIDUE THEOREM CO2: To make use of the Cauchy residue theorem to evaluate certain integrals TBI :: Complex Variables and Statistical Methods By Dr. T.V.K. Iyengar, S. Chand & Company Pvt. Ltd., 2014.			
19	Radius of convergence		
20	Expansion in Taylor's series, Problems		
21	Maclaurin's series, Problems		
22	Laurent series, Problems		

23	Problems	From 20/02/2023 To 10/03/2023	Lecture interspersed with discussions
24	Types of Singularities: Isolated, Problems		
25	pole of order m Problems		
26	Essential Problems		
27	Residues Problems		
28	Residue theorem (without proof) Problems		
29	Problems		
30	Evaluation of real integral of the type $\int f(x) dx$ Problems		
31	Problems		

UNIT III- PROBABILITY AND DISTRIBUTION

CO3 : To provide mathematical background and sufficient experience so that the student can read, write, and understand sentences in the language of discrete and Continuous Probability theory. To introduce students to the basic methodology of “probabilistic thinking” and to apply it to problems.

TB1 :: Complex Variables and Statistical Methods By Dr. T.V.K. Iyengar, S. Chand & Company Pvt. Ltd., 2014.

34	Review of probability and Baye’s theorem	From 11/03/2023 To 08/04/2023	Lecture interspersed with discussions
35	Baye’s theorem- Problems		
36	Discrete random variables		
37	Problems		
38	Continuous random variables		
39	Problems		
40	Distribution function and properties		
41	Mathematical Expectation & Properties		
42	Variance & Properties		
43	Binomial Distribution-p.m.f, Properties,		
44	Problems		
45	Poisson Distribution-p.m.f, Properties		
46	Problems		
47	Uniform Distribution- p.d.f., properties		
48	Normal Distribution- p.d.f., properties		
49	Problems		
50	Normal Approximation to Binomial distribution		

UNIT – IV SAMPLING THEORY

CO4 : To the aim of this course is to cover sampling design and analysis methods that would be useful for research and management in many field. A well designed sampling procedure ensures that we can summarize and analyze data with a minimum of assumptions and complications.

TBI :: Complex Variables and Statistical Methods By Dr. T.V.K. Iyengar, S. Chand & Company Pvt. Ltd., 2014.

51	Introduction- Population, Sample, Types of Sampling, Parameter & Statistic		
52	Sampling Distribution of Mean with Known Variance, Problems		
53	Problems		
54	Central Limit theorem		
55	Problems		

56	Sampling Distribution of Mean with Unknown Variance, Problems	From 10/04/2023 To 26/04/2023	Lecture interspersed with discussions
57	t - distribution - Problems		
58	F- distribution - Problems		
59	Chi- Square Distribution - Problems		
60	Point Estimation, Maximum Error Estimate - Problems		
61	Interval Estimation - Problems		
62	Maximum error of estimate - Problems		

UNIT -V TESTS OF HYPOTHESIS

CO 5: One of the most important uses of statistics is to be able to make conclusions and test Hypothesis. Your conclusions can never be absolutely sure but you can quantify of your measure of confidence in the results.

TBI :: Complex Variables and Statistical Methods By Dr. T.V.K. Iyengar, S. Chand & Company Pvt. Ltd., 2014.

63	Introduction – Hypothesis – Null and Alternative Hypothesis	From 27/04/2023 To 13/05/2023	Lecture interspersed with discussions
64	Type I and Type II errors – Level of significance		
65	One tail and two-tail tests		
66	Large Sample tests - Test for Single Mean, Problems		
67	Test for Two Means, Problems		
68	Test for Single Proportion, Problems		
69	Test for Two Proportion, Problems		
70	Small Sample tests: t - Test for Single Mean, Problems		
71	Problems		
72	t - Test for Two Means, Problems		

V. Prasanth
Signature of Faculty
31/1/23

T. Lakshmi
Signature of HOD
31/1/23

TENTATIVE LESSON PLAN: R2022012

Course Title: Strength of Materials-II R2022012		
Section: Sec A	Date: 07-03-2022	Page No: 01 of 03
Revision No: 00	Prepared By : G.Sahithi	Approved By: HOD

Tools : Black board, PPTs, Model

No. of Periods	TOPIC	Date	Mode of 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	From: 30-01-2023 To: 20-02-2023	Lecture interspersed with discussions
2	Stresses on an inclined section of a bar under axial loading		
3	compound stresses		
4	Normal and tangential stresses on an inclined plane for biaxial stresses		
5	Two perpendicular normal stresses accompanied by a state of simple shear		
6	Mohr's circle of stresses		
7	Principal stresses and strains		
8	Analytical and graphical solutions.		
9	Theories of Failures: Introduction		
10	Maximum Principal stress theory		
11	Maximum Principal strain theory		
12	Maximum shear stress theory		
13	Maximum strain energy theory		
14	Maximum shear strain energy theory. (T)		
UNIT –II TORSION OF CIRCULAR SHAFTS AND SPRINGS CO2 The student will be able understand the concepts of torsion and governing torsion equation, and there by calculate the power transmitted by shafts and springs and design the cross section when subjected to loading using different theories of failures. T1 Strength of Materials by S.S Bhavikatti, T2 Strength of Materials by R.K Bansal, Lakshmi Publications			
15	Theory of pure torsion	From: 22-02-2023 To: 08-03-2023	Lecture interspersed with discussion
16	Derivation of Torsion equations: $T/J = q/r = N\phi/L$		
17	Assumptions made in the theory of pure torsion		
18	Torsional moment of resistance –		
19	Polar section modulus		
20	Power transmitted by shafts		
21	Combined bending and torsion and end thrust		
22	Design of shafts according to theories of failure		

23	Springs: Introduction		
24	Types of springs		
25	deflection of close coiled helical springs under axial pull		
26	deflection of open coiled helical springs under axial pull		
27	deflection of close coiled helical springs under axial couple		
28	deflection of open coiled helical springs under axial couple(T)		
UNIT –III COLUMNS AND STRUTS CO3: The student can asses stresses in different engineering applications like shafts, springs, columns and struts subjected to different loading conditions. T1 Strength of Materials by S.S Bhavikatti, T2 Strength of Materials by R.K Bansal, Lakshmi Publication			
29	Columns and Struts	From: 09-03-2023 To: 28-03-2023	Lecture interspersed with discussions
30	Introduction		
31	Types of columns		
32	– Short, medium and long columns		
33	Axially loaded compression members		
34	Crushing load		
35	Euler’s theorem for long columns		
36	Euler’s theorem for long columns		
37	Assumptions		
38	derivation of Euler’s critical load formulae for various end conditions		
39	derivation of Euler’s critical load formulae for various end conditions		
40	derivation of Euler’s critical load formulae for various end conditions. (T)		
UNIT – IV DIRECT AND BENDING STRESSES CO4: The student will be able to calculate combined effect of direct and bending stresses on different engineering structures. T1 Strength of Materials by S.S Bhavikatti, T2 Strength of Materials by R.K Bansal, Lakshmi Publication			
41	Stresses under the combined action of direct loading	From: 29-03-2023 To: 12-04-2023	Lecture interspersed with discussions
42	B.M. Core of a section		
43	determination of stresses in the case of chimneys		
44	retaining walls		
45	Dams		
46	conditions for stability		
47	stresses due to direct loading		
48	B.M. about both axis (T)		
UNIT –V UNSYMMETRICAL BENDING AND SHEAR CENTRE CO5: The student will be able to understand the concept of unsymmetrical bending in beams, Location of neutral axis, deflection of beams under unsymmetrical bending. T1 Strength of Materials by S.S Bhavikatti, T2 Strength of Materials by R.K Bansal, Lakshmi Publication			

49	Introduction	From: 13-04-2023 To: 10-05-2023	Lecture interspersed with discussions
50	Centroidal principal axes of section		
51	Graphical method for locating principal axes		
52	Moments of inertia referred to any set of rectangular axes		
53	Stresses in beams subjected to unsymmetrical bending		
54	Principal axes		
55	Resolution of bending moment into two rectangular axes through the centroid		
56	Location of neutral axis		
57	Deflection of beams under unsymmetrical bending.		
58	Shear Centre: Introduction		
59	Shear center for symmetrical and unsymmetrical sections		
60	Unsymmetrical bending (T)		
61	Revision of unit-1,2		
62	Revision of unit-3		
63	Revision of unit-4		
64	Discussion of Old question papers		
65	Discussion of Old question papers		

G. Sahithy
30/11/2023
Signature of the Faculty

V. Lakshmi
Signature of the HOD
30/11/23

LESSON PLAN HHM

Course Title: H&HM			
Section : Sec A	Date : 1-2-2023	Page No : 01 of 02	
Revision No : 00	Prepared By : CH .RAJESH	Approved By : HOD	
Tools: Black board, PPTs, Model			
No. of Periods	TOPIC	Date	Mode of delivery
UNIT -I Introduction			
1	UNIFORM FLOW IN OPEN CHANNELS:	01.2.2023 to 23.02.2023	Lecture interspersed with discussions
2	Types of channels		
3	Types of flows		
4	Velocity distribution		
5	Energy and momentum correction factors		
6	Chezy's formulae for uniform flow		
7	Manning's formulae for uniform flow		
8	Most Economical sections		
9	Critical flow: Specific energy		
10	critical depth		
11	computation of critical depth		
12	Problems		
13	Problems		
14	Problems		
15	Problems		
UNIT -II NON-UNIFORM FLOW IN OPEN CHANNELS:			
16	Steady Gradually Varied flow	27.02.2023 To 16.03.2023	Lecture interspersed with discussions
17	Dynamic equation slope		
18	Mild, Critical slope		
19	Steep, horizontal		
20	adverse slope		
21	surface profiles		
22	Profiles direct step method		
23	Rapidly varied flow		
24	hydraulic jump		
25	energy dissipation		
26	Problems		
27	Problems		
28	Problems		
UNIT -III HYDRAULIC SIMILITUDE			
29	Dimensional analysis	18.03.2023 TO 11.04.2023	Lecture interspersed with discussions
30	Rayleigh's method		
31	Buckingham's pi theorem		
32	study of Hydraulic models		
33	Geometric, kinematic		
34	Dynamic similarities		
35	dimensionless numbers		
36	model and prototype relations.		
37	Problems		
38	Problems		

39	Problems		
UNIT IV BASICS OF TURBO MACHINERY HYDRAULIC TURBINES			
40	Hydrodynamic force of jets on stationary	12.04.2023 TO 23.04.2023	Lecture interpersed with discussions
41	moving flat		
42	inclined and curved vanes		
43	jet striking centrally and at tip		
44	velocity triangles at inlet and outlet,		
45	expressions for work done and efficiency		
46	Angular momentum principle		
47	problems		
48	problems		
UNIT -V CENTRAIFUGAL-PUMPS			
49	Layout of a typical Hydropower installation	24.04.2023 TO 22.05.2023	Lecture interpersed with discussions
50	Heads and efficiencies		
51	classification of turbines		
52	Pelton wheel		
53	Francis turbine		
54	Kaplan turbine		
55	working, working proportions velocity diagram, work done and efficiency		
56	hydraulic design, draft tube, theory and efficiency		
57	Governing of turbines ,surge tanks-unit		
58	specific quantities, selection of turbines,		
59	performance characteristics		
60	geometric similarity-cavitations.		
61	Problems		
62	Pump installation details		
63	classification Work done- Manometric head		
64	Work done- Manometric head		
65	minimum starting speed		
66	losses and efficiencies-specific speed		
67	multistage pumps-pumps in parallel and series		
68	performance of pumps-characteristic curves		
70	NPSH- Cavitation.		
71	RECIPROCATING PUMPS: Introduction		
72	classification components, working		
73	Problem		

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TENTATIVE LESSON PLAN: MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

Course Title: MANAGERIAL ECONOMICS & FINANCIAL ACCOUNTANCY		
Section: CE II/II	Date: 31/01/2023	Page No: 01 of 03
Revision No: 00	Prepared By: PRATYUSHA ANNE	Approved By: HOD

Tools: Black board, PPTs,

SL. NO.	TOPIC	Date	Mode of Delivery
UNIT –I INTRODUCTION TO MANAGERIAL ECONOMICS			
CO1: The Learning objectives of this paper are to understand the concept and nature of Managerial Economics and its relationship with other disciplines and also to understand the Concept of Demand and Demand forecasting			
TB: A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.			
1.	Introduction to Managerial Economics, Definitions	From 30-01-2023 to 21-02-2023	Lecture interspersed with discussions
2.	Scope of Managerial Economics and its related to Other subjects		
3.	Introduction to Demand – Meaning & Definition, Features of Demand		
4.	Determinants of Demand		
5.	Law of Demand & Its exceptions, Demand Function		
6.	Elasticity of Demand, Types of Elasticity of Demand		
7.	Types of price Elasticity of Demand		
8.	Measurement of Price Elasticity of Demand		
9.	Introduction: Demand Forecasting		
10.	Importance of Demand Forecasting		
11.	Demand Forecasting Methods		
12.	Concept of Supply, Law of supply		
UNIT –II PRODUCTION & COST ANALYSIS			
CO2: To familiarize about the Production function, Input Output relationship, Cost-Output relationship and Cost-Volume-Profit Analysis			
TB: A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.			
13.	Introduction to Production: Meaning & Definition, Production Function	From 22-02-2023 to 10-03-2023	Lecture interspersed with discussions
14.	Factors of production, production function with one variable factor		
15.	Law of Variable Proportions		
16.	Factors of production, production function with two variable factors		
17.	Concept of Iso-costs, Isoquants		
18.	MRTS, Least Cost Combination		
19.	Cobb-Douglas Production Function		
20.	Economies of Scale & diseconomies of scale		
21.	Returns to Scale & returns to factors		
22.	Concept of cost & Various Cost Concepts		
23.	Introduction to Break Even Analysis		
24.	Determination of Break Even Point with Graph		
25.	Calculation of Break-Even Point (BEP) algebraic method		

UNIT - III INTRODUCTION TO MARKETS, THEORIES OF THE FIRM AND PRICING POLICIES

CO3: To understand the nature of markets, Methods of Pricing in the different market structures and to know the different forms of Business organization and the concept of Business Cycles

TB: A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

26.	Introduction to Markets: Meaning & Definition, Features	From 13/03/2023 To 10/04/2023	Lecture interspersed with discussions
27.	Types of markets, market structure		
28.	Price Determination under perfect competition		
29.	Equilibrium-point of firm and industry		
30.	Price Determination under Monopoly		
31.	Equilibrium-point of firm and industry in monopoly		
32.	Price Determination under Monopolistic Competition		
33.	Price Determination under Oligopoly		
34.	Managerial Theories of the Firm		
35.	Marries and Williamson theory of firm		
36.	Pricing, pricing objectives.		
37.	Various Methods of Pricing		
38.	Introduction to Business: Definition, Features		
39.	Sole Proprietorship: Features, Merits, Demerits		
40.	Partnership: Features, Merits, Demerits, kinds of partners		
41.	Joint Stock Company: Features, Merits, Demerits		
42.	Public limited and private limited companies, features		
43.	Public Enterprises: Features, Merits, Demerits		
44.	Phases of Business Cycles		

UNIT - IV INTRODUCTION TO ACCOUNTING & FINANCING ANALYSIS:

CO4: To learn different Accounting Systems, preparation of Financial Statement and uses of different tools for performance evaluation

TB: A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH.

SL. NO.	TOPIC	DATE	Mode of Delivery
45.	Introduction to Accounting: Meaning & Definition, Classification of Accounts	From 11/04/2023 To 30/04/2023	Lecture interspersed with discussions
46.	Accounting Process		
47.	Principles of accounting (GAAP)		
48.	Accounting cycle		
49.	Preparation of Journal: Problems		
50.	Preparation of Ledger: Problems		
51.	Preparation of Trail Balance: Problems		
52.	Final Accounts (Trading, profit & loss A/C, Balance Sheet)		
53.	Final Accounts with Adjustments		
54.	Treatment of adjustments in preparation of final accounts.		
55.	Introduction to Financial Statement Analysis: Importance, Objectives.		
56.	Classification of Ratios: Liquidity Ratios		
57.	Classification of Ratios: Activity Ratios		

58.	Classification of Ratios: Solvency Ratios		
59.	Classification of Ratios: Profitability Ratios		
60.	Preparation of Changes in Working Capital		
61.	Preparation of Funds Flow Statement		
62.	Preparation of Cash Flow Statement		

UNIT – V CAPITAL, CAPITAL BUDGETING

CO5: To understand the concept of Capital, Capital Budgeting and the techniques used to evaluate Capital Budgeting proposals

TB: A.R. Arya Sri, "Managerial Economics & Financial Analysis", 2005, TMH

SL. NO.	TOPIC	DATE	Mode of Delivery
63.	Introduction to Capital Budgeting: Meaning, Definition, and Need.	From 01/05/2023 To 13/05/2023	Lecture interspersed with discussions
64.	Methods of Capital Budgeting: Pay Back Period (PBP).		
65.	Calculation of Accounting Rate of Return (ARR)		
66.	Calculation of Net Present Value (NPV)		
67.	Calculation of Internal Rate of Return (IRR)		
68.	Calculation of Profitability Index		
69.	Merits and Demerits of Capital Budgeting Techniques.		

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LESSON PLAN EE

Course Title: EE		
Section : Sec A	Date : 1-2-2023	Page No : 01 of 03
Revision No : 00	Prepared By : Dr.T.SATYANARAYANA	Approved By : HOD

Tools: Black board, PPTs, Model

No. of Periods	TOPIC	Date	Mode of teaching
UNIT -I INTRODUCTION			
1	Unit – I importance and necessity of protected water supply systems	01.2.2023 TO 16.02.2023	Lecture interspersed with discussions
2	Water born diseases		
3	Flow chart of public water system		
4	Role of environmental engineer		
5	Water Demand Estimation of water demand of a town, percapita demand and design period		
6	Factors effecting the water demand		
7	Population fore casting by using various methods		
8	Population fore casting by using various methods		
9	Sources of water rivers, lakes		
10	Comparison of surface and ground water sources		
11	Springs, wells		
12	Infiltration galleries		
13	Physical, chemical & biological characteristics of water		
14	WHO guide lines for drinking water ISO 10500-2012		
UNIT -II TREATMENT METHODS			
15	Treatment methods theory of sedinmentation	17.02.2023 TO 13.03.2023	Lecture interspersed with discussions
16	Methods of sedimentation and design		
17	Coagulation process		
18	Filtration – slow sand filters		
19	rapid sand filters		
20	Disinfection: Theory of disinfection		
21	methods of chlorination		
22	Other Disinfection methods.		
23	Removal of color and odors-		
24	Removal of Iron and Manganese		
25	Adsorption- Fluoridation		
26	Deflouridation, Reverse Osmosis,		
27	Solar stills, Freezing		
UNIT -III COLLECTION AND CONVEYANCE OF WATER			
28	Factors governing the selection of the intake structure,		
29	Types of Intake Structures		
30	Types of Cnduit Structures		
31	Types of Pipes		
32	Pipe Materials, Pipe joints		

33	Design aspects of pipe lines,		
34	Design of economical diameter of pumping main,	14.03.2023	Lecture interspersed with discussions
35	HP of pump and monthly expenditure for an apartment and a village	11.04.2023	
36	Laying and testing of pipe lines		
37	Capacity of storage reservoirs, Mass curve analysis		
38	Distribution of Water: Methods of Distribution system,		
39	Layouts of Distribution networks, Water main appurtenances		
40	Sluice valves, Pressure relief valves,		
41	air valves, check valves, hydrants,		
42	water meters-Ideal water supply system. Case studies		
UNIT IV : SEWERAGE			
43	Estimation of sewage flow and storm water drainage		Lecture interspersed with discussions
44	fluctuations – types of sewers		
45	design of sewers.		
46	Sewer appurtenances – cleaning and ventilation of sewers.	12.04.2023	
47	Sewage pumps. House Plumbing: Systems of plumbing	TO 22.04.2023	
48	sanitary fittings and other accessories		
49	one pipe and two pipe systems		
50	Design of drainage in Gated communities, Apartments and Hotels.		
51	Septic Tank - working Principles and Design		
UNIT –V SEWAGE CHARACTERISTICS			
52	Characteristics of sewage		Lecture interspersed with discussions
53	BOD equations. ThOD, COD and BOD.		
54	Treatment of Sewage: Primary treatment.		
55	Secondary treatment: Activated Sludge Process, principles, designs, and operational problems		
56	Oxidation ponds, Trickling Filters – classification		
54	design, operation and maintenance problems.	06.05.2023	
55	RBCs. Fluidized bed reactors	TO 27.05.2023	
56	Anaerobic digestion of sludge, Sludge Drying Beds.		

57	Ultimate Disposal of sewage: Methods of disposal into water bodies		
58	Oxygen Sag Curve, Disposal into sea,		
59	Disposal on land, Crown corrosion,		
60	Sewage sickness.		
61	Effluent standards		


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