

Course Completion unit plan

Department - Civil

Hours / Week -

Lecturer name - Varsha Rani Gupta

Subject - GSC-I

Lab/Week 2

Semester - 5th

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
1	Unit - I					
2	Specification and	04	2/9/24	18/9/24	Mention all topic covered.	
3	approximate estimate					
4	general specification			3/9/24		15/9/24
5	Detailed specification			6/9/24		20/9/24
6	Stage I approximate					
7	estimate					
8	Purpose of estimate		04	9/9/24		23/9/24
9	and its important			13/9/24		03/10/24
10	to the field					
11	detailed estimate.					
12	Unit Method, Plinth	05	16/9/24	7/10/24		
13	area method, cubic			18/9/24	07/10/24	
14	content method			20/9/24	10/10/24	
15	Approximate esti.					
16	of Highways		23/9/24	16/10/24		
17	App. Method for water		25/9/24			
18	supply, sanitary					
9	and electrical		30/9/24	17/10/24		
0	Installation					

No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
21	Approximate					
22	estimate. bridge					
23	culvert, road	} 02	2/10/24	} 18/10/24	}	
24	dam, over head		4/10/24			
25	tank					
26						
27	Unit - 2 Taking out					
28	Quantities		7/10/24	19/10/24		
29	Unit of measurement	} 06			}	Mention all topic covered.
30	diff item of work		9/10/24	23/10/24		
31	long wall and		11/10/24	24/10/24		
32	short wall method		14/10/24	25/10/24		
33	Centerline Method					
34	Taking out Quanti-	} 03	16/10/24	26/10/24	}	
35	ties from					
36	working drawing		18/10/24	9/11/24		
37	of building					
38						
39	Unit - 3					
40	Detail estimate	} 04	21/10/24	5/11/24	}	
41	of building		24/10/24	6/11/24		
42	Classification of		25/10/24	19/11/24		
43	estimate					

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
14	original work special repair work, Additional work, Revised estimate, Annual repair, final estimate.	06	4/11/24	13/11/24		
15						
16						
17						
18						
19						
20	Preparation of detail estimate of small building, small building with pitch roof, Multistoried building, preparation abstract of cost for the above estimate.	06	14/11/24	26/11/24		
51						
52						
53						
54						
55						
56	Unit-4 SOR schedule of Rates labour rate Material rate Transportation rate.	04	22/11/24	3/12/24		
61						
62						
63						
64	labour rate	04	25/11/24	4/12/24		
63						
64						
65	Material rate	04	29/11/24			
64						
66	Transportation rate.	04				
65						
66						

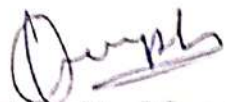
Mention all topic covered.

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
67	Analysis of water.	}	2/12/24	5/12/24	}	
68						
69						
70						
71	Purpose of water analysis	}	3/12/24	6/12/24	}	
72						
73						
74						
75	Material Requirement for major item, Labour requirement for major item.	} 04	4/12/24		}	
76						
77						
78						
79	Unit - 5	}	6/12/24	10/12/24	}	Mention all topic covered.
80						
81						
82						
83	Earthwork and road work estimate	}	9/12/24	11/12/24	}	
84						
85						
86						
87	Calculation of area of c/s for given c/s, fully cutting section,	} 05	12/12/24	12/12/24	}	
88						
89						
90						
91	Mid sectional area Method, Mean sectional area Method	} 04	16/12/24	13/12/24	}	
92						
93						
94						
95	Road estimate.	} 02	18/12/24	2/12/24	}	
96						
97			20/12/24			
98						

Reference

1	Estimating and costing - BN Dutta
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HOD

  
Faculty Name & Sign  
Varsha Rani

  
Principal

Course Completion unit plan

Department - (Cvii)  
Hours / Week -

Subject - ACT  
Lab/Week  
Semester - 5<sup>th</sup>

Lecturer name - Vansha Rani Gupta

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
1	Unit -1					
2	fabric: Use and properties of steel, carbon glass fiber, Plastics → use and properties of PVC RPVC, HDPE, FRP, GFRP properties of aerotics materials, wall cladding plaster boards, micro-silica, water proofing material adhesive, use of waste product, brick, blocks, concrete and mortar	05	2/9/24	18/9/24	All topic covered	
3			3/9/24	19/9/24		
4			6/9/24	20/9/24		
5						
6						
7						
8						
9						
10						
1		Unit-2 Advanced concrete methods & equipments.	02	9/9/24		3/10/24
2	13/9/24			7/10/24		
3						
4	RMC, necessity and use of ready mix	02	18/9/24	8/10/24		
5			20/9/24	10/10/24		


Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
concrete						
Products and equipments for ready mix concrete. plant, conveyer of RMC, transit mixer	03	25/9/24	17/10/24	All topic covered.		
Vibrators for concrete consolidation, Internal needle, form vibration						
Under water concreting procedure and equipments required for streamic method, drop bucket method.		04	2/10/24		23/10/24	
Properties and workability and w/c ratio of the concrete		7/10/24	24/10/24			
scc, foam concrete, shotcrete		11/10/24	26/10/24			
Unit-03						
Construction of bridge and flyover	01	18/10/24	4/11/24			
Construction of solid						

Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
foundation and pile foundation, launching of girders.	05	24/10/24	6/11/24	All topics covered.	
Construction of MSB, pumping of concrete		25/10/24	19/11/24		
slip forms, climbing forms, table forms					
tower cranes, plumb jacks, platform, chute.					
Unit - 04					
Equipment and machines required for foundation and super structure of bridge and flyovers	07	4/11/24	20/11/24	All topics covered.	
Pile driving equipment		5/11/24	22/11/24		
pile hammers. Hoisting equipment		8/11/24	26/11/24		
Derrick		18/11/24	27/11/24		
pole, winch, crane		20/11/24	28/11/24		
power driven, lattice girders, crawler cranes, Dumpers and trucks.		22/11/24	29/11/24		

No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark		
7	Unit - 05							
8	Excavation equipments	29	2/12/24	5/12/24	} All topics covered			
9	Bull dozers, scrapers,	}	4/12/24	6/12/24				
0	graders, clamshell,							
1	trenching equ. boring							
2	machine, JCB, drag		06	9/12/24		10/12/24		
3	dozer, vibrator							
4	Hammer, pneumatic							
5	rollers,		12/12/24	11/12/24				
6	Hot mix bitumen plant							
7	selection of drilling							
8	pattern for ballasting		16/12/24	12/12/24				
9	process of using							
0	explosive							
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Faculty Name & Sign  
Varsha Kani

  
HOD

Principal

Course Completion unit plan

Department - CVI  
Hours / Week -

Lecturer name - Varsha Soni Gupta

Subject - QSC-II  
Lab/Week 2  
Semester - 6th

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
1	Unit I Estimate of RCC struct.				} All topics covered.		
2	Item of work on RCC st.	04	6/1/25	8/1/25			
3	Bar bending schedule						
4	Estimate of slab			8/1/25		11/1/25	
5	Estimate of beam						
6	Estimate of T beam	04+01	10/1/25	14/1/25			
7	Estimate of RCC column					15/1/25	
8	and footing			13/1/25		16/1/25	
9	Prepare of abstract of cost			15/1/25		18/1/25	
10	Unit-II Est of steel stru.	04+2	17/1/25	21/1/25			
11	Item of work of steel truss						
12	Est. steel beam & Column			20/1/25		22/1/25	
13	Est. steel truss		1	22/1/25		24/1/25	
14	Est of roof covering mate	04	24/1/25	28/1/25			
15	Est of GIC roof and AC						
16	Est for steel frame floor door	04	27/01/25	29/1/25			
17	Prepare abstract of cost			29/01/25		30/1/25	
18	Unit III estimate for culvert	04+02	31/1/25	01/2/25			
19	and bridges						
20	Item of work on culverts			3/2/25		4/2/25	
	and bridges			4/2/25	5/2/25		

	Topic Name	Units required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
22	Estimate Hump Pipe Culvert		6/2/25	6/2/25	All topic covered		
23	Est. RCC slab culvert	06	7/2/25	7/2/25			
24	Est single span RCC T Beam		12/2/25	13/2/25			
25	Preparation abstract of cost above estimate		14/2/25	15/2/25			
26							
27	UNIT - 4						
28	Estimate water supply and sanitary engg works for buildings	1	17/02/25	27/2/25			
29	Detailed estimate of water supply of engg work		04	19/2/25		01/3/25	
30	Detailed estimate of sanitary works for building works						
31	Estimate of SW, RCC pipeline	05	21/2/25	03/03/25			
32	Estimate of septic tank		24/2/25	04/03/25			
33	Estimate of manhole		26/2/25	8/3/25			
34	Prepare abstract of cost above estimate		28/2/25	11/3/25			
35							
36	Unit - 5 Valuation and Rent fixation	1	3/3/25	12/3/25			
37	Definition		02	5/3/25	13/3/25		
38	Purpose of valuation						
39							
40							
41							
42							
43							

Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
Gross Income, Net gm.	02			}	
outgoing scrap value		7/3/25	15/3/25		
Market value, Salvage value		10/3/25	19/3/25		
obsolescence, Annuity	02	12/3/25	25/3/25	}	}
Capital cost, Capitalized value, Year Purchase and sinking fund		14/3/25	24/3/25		
Depreciation, Methods of calculation depreciation					
Method of Valuation	02		24/3/25	}	}
free hold property		17/3/25	27/3/25		
lease hold property Rent fixation of building		19/3/25	29/3/25		
Dismantling, Demolishing and Repair works					
<del>Dis.</del>			8/4/25	}	}
			9/4/25		
			12/4/25		
			4/4/25		
			15/4/25		
			17/4/25		
			19/4/25		
			22/4/25		

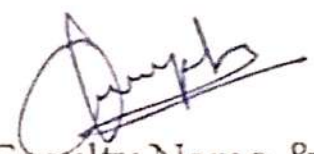
all topic covered.

Test & Revision

Reference

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HOD

  
Faculty Name & Sign  
Varsha Rani

  
Principal

Course Completion unit plan

Department - Civil

Hours / Week - 04

Lecturer name - Varsha rani Gupta

Subject -

Lab/Week

Semester - 02 3rd

Construction Material

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
1	Unit-1					
2	Stone agg. and brick	03			Mention all topic covered.	
3	Properties of Construction					
4	Materials					
5	Imp building mat. on			10/9/24		10/9/24
6	Civil Engg					
7	Basic properties of CM					
8	Criteria for selection of CM.					
9	Stone and aggregate					
10	Classification of Rocks					
11	Properties of good	02				
12	building stone					
13	Method of quarrying			18/9/24		18/9/24
14	and dressing of stone					
15	Common building stone					
16	of India					
17	Type of agg. FM.	02				
18	Bricks					
19	Clay bricks, shape			19/9/24		19/09/24
20	Size, ingredients					

		required	delivery	Delivery	
	Properties of good				
	bricks earth	02	24/9/24	24/9/24	
	classification of brick				
24	Defect of clay brick				
25	Testing of bricks	02	25/9/24	25/9/24	
26	fly ash hollow bricks				
27	Unit-2 Bonding Material				
28	cement → chemical		26/9/24	26/9/24	
29	composition, ingredient	06	28/10/24	8/10/24	
30	Laboratory test CM, TE		29/10/24	15/10/24	
31	Types and grade of				
32	cement.				Mention all topic covered -
33	Unit-3				
34	Roofing Materials		4/11/24	16/10/24	
35	Flooring Materials				
36	false and ceiling and		6/11/24	22/10/24	
37	Tiles	07			
38	flag stone floor,		12/11/24	23/10/24	
39	cc floor, Tile floor				
40	Granite floor, PVC tile		15/11/24	24/10/24	
41	wooden floor, glass floor				
42	Roof covering Materials		18/11/24	25/10/24	
43	clay tiles				

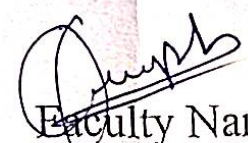
	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
46	Material used for false ceiling	02	20/11/24	26/10/24	Mention all topic covered.	
	Cladding Materials					
47	Unit - 4					
48	Timber glass steel					
49	aluminium & Plastic		24/11/24	4/11/24		
50	Timber, properties					
51	uses, seasoning of		25/11/24	5/11/24		
52	Timber, Method of sea.			6/11/24		
53	Defects of timber		28/11/24	8/11/24		
54	other wood based			9/11/24		
55	product Plywood					
56	laminated board		29/11/24	11/11/24		
57	Fiber board, veneers					
58	Glass - en gradients					
59	Frame / Irons steel		02/12/24	18/11/24		
60	MS, HCS, HTS, RS					
61	pipe selection		4/12/24	10/11/24		
62	Aluminium					
63	Plastic		10/12/24	20/11/24		
64				21/11/24		
65	Unit - 5			25/11/24		
66	Paint, Enamels and					

S.No.	Topic to taught	No.of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
67	Varnishes, composition	04	12/12/24	26/11/24	Mention all topic covered		
68	of oil paints,						
69	Varnish, Distemper			16/12/24		27/11/24	
70	primers, water proofing						
71	materials			19/12/24		3/12/24	
72	fire proofing materials		07	30/12/24		4/12/24	
73	Adhesive materials						
74	water proofing resins		02/12/25	5/12/24			
75	Bitumen, tar, Asphalt						
76							
77	Revision & Test		10/12/24				
78			12/12/24				
79			14/12/24				
80			16/12/24				
81			21/12/24				
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Reference

1	Building Material - sk Duggal
2	Material Technology - Shivanand Kamde
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HOD

  
Faculty Name & Sign  
Varsha Rani

  
Principal

Govt. Polytechnic Korea

Course Completion unit plan

Department - Civil  
Hours / Week - 5

Subject - TE  
Lab/Week 02  
Semester - 4<sup>th</sup>

Lecturer name - Varsha Rani Gupta

S.No.	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
1	L. Highway alignment,	02			}		
2	Geometrics and Traffic Eng		17/01/25	24/01/25			
3	Highway alignment and						
4	Surveys.		18/01/25	28/01/25			
5	Classification of Roads	04			}	All topic covered	
6	Highway alignment		26/01/25	30/1/25			
7	Requirements of Highway alignment		22/01/25	31/01/25			
8	factor controlling High.		23/01/25	01/2/25			
9	alignment, map study						
10	Reconnaissance survey	06			}		
11	Preliminary survey		28/01/25	02/2/25			
12	final location and detail		29/01/25	4/2/25			
13	survey, drawing & Reports.		30/01/25	06/4/25			
14	1-2 Highway geometrics	03			}		
15	4's elements, pavements		4/02/25	10/2/25			
16	characteristics, camber		5/02/25	11/2/25			
17	width of pavement.						
18	traffic separators, kerbs	03			}		
19	Road margins, formation		06/02/25	13/2/25			
20	width, Right of way						

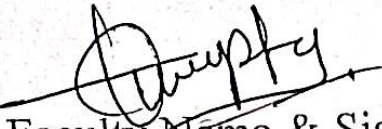
	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
	Sight distance, SSD						
	OSD,		11/02/25	14/2/25			
23	Horizontal alignment	02	12/02/25	15/2/25	} all topic covered.		
24	Super elevation,						
25	Extra widening			13/02/25		17/2/25	
26	Vertical alignment						
27	Traffic Engg	02	18/02/25	20/2/25			
28	Traffic studies			19/02/25		27/2/25	
29	Traffic operation						
30	channelization						
31	Unit-2						
32	Pavement Materials	06	20/02/25	23/2/25		} all topic covered.	
33	Highway construction			24/2/25	01/3/25		
34	Drainage of Road			25/2/25	03/3/25		
35							
36	Unit-3						
37	Railway track	05	26/02/25	4/3/25	} all topic covered.		
38	geometrics						
39	Permanent way			27/02/25			06/3/25
40	Requirement of ideal						
41	Permanent way			4/03/25			7/3/25
42	gauge, Gradient	01	5/3/25	10/3/25			
43	Degree of curve						

	Topic to taught	No. of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark	
45	Railway track	02			}		
	Materials		6/03/25	11/3/25			
46	Ballast, sleepers,		11/03/25	17/3/25			
47	Rails Rail fixture						
48	and fastening		12/03/25	18/3/25			
49							
50	Unit-4						
51	Point and crossing	04	26/03/25	20/3/25	}		
52	and track Junction						
53	Turnout.		27/03/25	20/3/25			
54	stations & yards						
55	signaling control				} all topic covered		
56	systems and						
57	interlocking	28/03/25	24/3/25				
58	Classification of	04	02/04/25	27/3/25			
59	signal, object of						
60	signal						
61							
62	Unit-5						
63	Bridge super structure	04	03/4/25	28/3/25	}		
64	classification		4/4/25	29/3/25			
65	Site selection & Investi-						
66	-gation						

S.No.	Topic to taught	No.of lecture required	Date of delivery	Actual Date of Delivery	Topic Covered	Remark
67	water way	5			} All topic covered	
68	Bridge sub structure		8/4/25	7/31/25		
69	Bridge super structure		9/4/25	8/4/25		
70	Permanent bridges		10/4/25	11/4/25		
71	Constructions.		11/4/25	12/4/25		
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Reference

1	Highway Engg - Sk Ukhanna
2	Traffic Engg - Shivranand Kamde
3	Railway Bridge and Tunnel Engg - Deepak Pub.
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Faculty Name & Sign  
Varsha Rani

  
HOD

  
Principal