

Lesson Plan

Name of the Paper	ESTIMATING & COSTING						
Course Name	ESTIMATING & COSTING						
Course Code	1615503						
Faculty Name	PARAS NATH KUSHWAHA						
Unit No	Name Of unit	Week	Lecture no	Topic	No of Hour	Total Hour	Teaching Method
Unit - 1	Overview Of Estimating & Costing	Week 1	1	Meaning of the terms estimating, costing. Purpose of estimating and costing .	1	6	
			2	Types of estimate - Approximate and Detailed. Approximate estimate Types- Plinth area rate method, Cubic Content method, Service Unit method	1		
			3	Typical bay method, Approximate Quantity method , Problems on Plinth area rate method	1		
		Week 2	4	application of Service unit method for selection of service unit for different types of civil Engineering Structures	1		
			5	Types of detailed estimate. Detailed estimate for new work.Revised estimate,	1		
			6	Supplementary estimate, Revised & Supplementary estimate Maintenance & Repair estimate. Uses of detailed estimate	1		
Unit - 2	Detailed Estimate	Week 3	7	Unit quantity method, Total quantity method, Data required for detailed estimate.	1	4	
			8	Factors to be considered during preparation of detailed estimate, Specification, Quantity availability of material, Location of site, Labour Component.	1		
			9	Steps in preparing detailed estimate. Taking out quantities, squaring, abstracting.	1		

		Week 4	10	Preparing check list – by adoption of Sequence of execution. drafting Brief Specification of items, contents of measurement Sheet , Abstract sheet , face sheet	1		
Unit - 3	Procedure for Preparing Detailed Estimate		11		1	6	
			12		1		
		Week 5	13	General Rules for fixing units of Measurements for different – items of work as per IS 1200 & As per PWD Hand Book	1		
			14		1		
			15	Desired accuracy in taking measurements of various items of work & rules for deductions as per IS 1200 & P.W.D. handbook	1		
Week 6		16		1	14		
		17	a) Load bearing Structure –Long Wall and short wall method ,Center line method .	1			
		18		1			
Week 7		19	b) Framed Structure building. --By using thumb rules for reinforcement quantity calculation and By preparing bar bending Schedule	1			
		20		1			
		21	Provisions in detailed estimate for contingencies	1			
Week 8		22	work charged establishment	1			
		23	Provisional items	1			
		24	Provisional Sum	1			
Week 9	25	Provision for water Supply & Sanitary works	1				
	26	Electrical wiring & installations	1				
	27	centage charges	1				
Week 10	28	Tools & Plants	1				
	29	Prime cost	1				
	30	Day work.	1				
		Week 11	31	Meaning of term Rate analysis –Factors affecting rate analysis	1		
			32	lead	1		
			33	lift	1		
		Week 12	34	task work,	1		
			35	materials and labour component	1		
			36	Market Rate and labour rate.	1		
		Week 13	37	Transportation of Materials, load factor for different materials.	1		

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Unit - 5	Rate analysis	Week 13	38	Standard lead , extra lead	1	18
			39	Transportation Charges , Labour - Categories of labours	1	
		Week 14	40	labour rates	1	
			41	overheads , contractor's profit,	1	
42			water charges, taking out quantities of materials for different items of works.	1		
Week 15		43	Preparing rate analysis of different items of work	1		
		44	Standard Schedule of rates, full rates & labour rates	1		
		45	Taking out quantities of work for different Civil Engineering Works Roads	1		
Unit - 6		Week 16	46	Dam , Canals ,Railway embankments	1	
			47	methods of mean area , mid sectional area, trapezoidal,	1	
	48		Prismoidal formula. Calculation of quantity of earth work.	1		