

Govt. Polytechnic, Vaishali

Branch - Civil Engr Sem V

Sub: - Estimating and Costing (1615503)

Lecture Plan for Syllabus

Effective From - 01.8.2020

Subject Teacher - Ashwini Kumar

Lecture/week -
03 Periods/week + 01
Term Work = 05 hrs
Per week

Sl. No.	Unit	Topic To Be Covered	No. of Lectures	Remark
1	1.	Meaning of the terms estimating, costing. Purpose of estimating and costing.	L1	
		Types of estimate and Detailed. Approximate estimate Types - Plinth area rate method, Cubic content method, Service unit method, Typical by method, Problems on Plinth area rate method & application	L2	
		Problems on Plinth area rate method and Cubic content Method	L3	
		Types of detailed estimate. Detailed estimate for new work Revised estimate & Supplementary estimate. Maintenance and repair estimate	L4	
		Problems on Approximate estimating	L5&6	

Sl.No.	Unit	Topic to be Covered	No. of Lecturer	Re
2.	2	<p><u>Detailed Estimate</u> - unit quantity method, Total quantity method, Data required for de- tailed estimate, Factors to be considered during Preparation of detailed estimate, Specification, Quantity availability of material Location of Site, Labour compone- nt.</p> <p>Steps in preparing detailed estimate. Taking out quantiti- es Squaring, Abstrac- -tion</p> <p>Preparing check list - by adoption of sequence of execution. drafting Brief Specifikat- ion of items, Contents of measurement sheet Abstract sheet, face sheet</p>	<p>L7 & L8</p> <p>L9</p> <p>L10</p>	
3.	3.	<p><u>Mode of Measurements</u> General Rules for fixing units of Measurements for different items of work as per IS 1200 & As per PWD Hand Book</p> <p>Describe accuracy in tak- ing measurements of various items of work</p>	<p>L11 & L12</p> <p>L13 & L14</p>	

	Topic to be cover	No. of Lecture	Remark
3 Contd.	Rules for deductions as per IS 1200 & PWD hand book.	L15	
4	Procedure for preparing Detailed Estimate - Procedure for taking out quantities for various items of work by PWD & IS 1200 for - (a) Load bearing structure - L/W and S/W method, Center line method	L16 & L17 & L18	
	Provisions to in detailed estimate for contingencies, Work charged establishment, (b) Framed structure built up By using thumb rules for reinforcement quantity calculation	L19 & L20	
	By preparing bar bending Schedule	L21 & L22	
	Provision in detailed estimate for contingencies, Work charged establishment,	L23	
	Provision in detailed estimate for Provisional items, Provisional sum	L24	
	Provision in detailed estimate for provision for water supply & sanitary works.	L25	
	For Electrical wiring & installations	L26	

Sl. no	Unit	Topics to be covered	No. of Lectures
		For Tools & Plants	L27 & L28
		For Prime Cost & Day Work	L29
5	5	Rate analysis	
		Meaning of Term Rate Analysis - Factor affecting rate analysis, Lead, lift, task work	L30 & L31
		Materials and Labour component.	L32 & L33
		Market Rate and Labour Rate	L34
		Transportation of materials, Load factor for different materials.	L35
		Transportation Charges. Labour - Categories of Labour	L36
		Labour rates, Overhead, Contractor's Profit, Water charges, taking out quantities of materials for different item of work	L37
		Preparing rate analysis of different items of work	L38 & L39
		Standard Schedule of rates, full rates & Labour rates.	L40
		Taking out quantities of work for different Civil Engg works Roads -	L41

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Topic To be Cover	No. of Lecture	Remarks
Dam	L41	
Mid Section area	L42	
Trapezoidal	L43	
Prismoidal formula	L44	
Calculation of quantity of earth work	L45,	
	L46	
	L47	
	L48	

Asst. Prof.