

Lesson Planning (Theory)

Branch : Civil Engineering

Semester : 5th

Subject : Estimating And Costing

Session : August-December 2026

Teacher: Er. Saibal Bharti

Class Room : A-201

S.No.	No. of WEEKS	Chapter/ Unit Description	Detail of Contents	Reference Resources	Remarks
1	3 WEEKS	Unit I: Introduction	- Meaning of the terms estimating & costing. - Purpose of estimating and costing - Types of Estimates - Approximate and Detailed - Approximate estimate Types - Plinth area rate method - Cubic Content method - Approximate Quantity method - Types of detailed estimate - Detailed estimate for new work - Revised estimate - Supplementary estimate - Repair & Maintenance estimate	R1,R2	
2	3 WEEKS	Unit II: Measurement	- Units of measurement for various items of work as per BIS: 1200 - Rules for measurements. - Different methods of taking out quantities—centre line method and long wall and short wall method.	R1,R2	
3	3 WEEKS	Unit III: Preparation of Detailed Estimates and Abstract of Cost for Unit IV: Road Estimation: Preparation of Detailed Estimates and Abstract of Cost for	- One & two room residential building with flat roof - Septic tank for 10 users - Plain road with-mid section area method, mean sectional area method, prismoidal formula. - Earth work in hill road.	R1,R2	
4	3 WEEKS	Unit V: Analysis of Rates	Calculation of Quantities of Materials - Cement mortars of different proportion - Cement concrete of different proportion - RCC work in different proportions - Brick/stone masonry in cement mortar - Plastering and pointing - Whitewashing, painting Preparation of Detailed Analysis of Rates for finished items with given labour and rate of material	R1,R2	

			• Earthwork • Cement concrete of different proportion • RCC work in different proportions • Brick/stone masonry in cement mortar • Plastering and pointing • Whitewashing, painting		
5	2 WEEKS	Unit VI: Contracts And Tendering	• Meaning of contract • Qualities of a good contractor and their qualifications. • Essentials of a contract • Types of contracts, their advantages, dis-advantages and suitability, system of payment. • Single and two cover-bids • Tender, tender forms and documents, tender notice, submission of tender and deposit of earnest money, security deposit, retention money, maintenance period • Administrative approval, Technical sanction, Budget provision, Expenditure sanction. • Methods for carrying out works- contract method. • Preparation of Tender Document based on Common Schedule Rates (CSR) • Introduction to CSR and calculation of cost based on premium on CSR.	R1,R2	

REFERENCE RESOURCES

- Dutta, B.N., Estimating and Costing in Civil engineering, UBS Publishers Distributors Pvt. Ltd. New Delhi.
- Birdie, G.S., Estimating and Costing, Dhanpat Rai Publishing Company(P) Ltd. New Delhi.

Signature of Teacher

Signature of H.O.D/OIC