

Practical Lesson Plan on Estimation Practice-I (Computer Aided) (W-24)

Semester:3rd

Total Practical Hours: 45 Hours

Practical Period: 3 Hours/Week

Duration: 15 Weeks (15 × 3 = 45 Hours)

Faculty – Smitarani Patel and Manoranjan Patra

Week	Hours	Topic / Practical Activity	Teaching-Learning Activities
1	3	Introduction to Estimation & Costing, types of estimates, PWD specifications, Schedule of Rates	Explain estimation principles, drawings, specifications and SOR
2	3	Study of building drawing and measurements for single storeyed two-room building	Identify components, take dimensions from drawings
3	3	Preparation of plinth area estimate for single storeyed building	Calculation of plinth area, rates and approximate cost
4	3	Detailed estimate of single storeyed building – Earthwork, foundation and flooring items	Preparation of measurement sheet and quantity calculation
5	3	Detailed estimate of single storeyed building – Brickwork, plastering, RCC and finishing items	Preparation of detailed estimate using specifications
6	3	Introduction to two storeyed pucca building estimate	Study of drawings and specifications as per PWD SOR
7	3	Detailed estimate of two storeyed building – Foundation and structural works	Quantity calculation and preparation of estimate sheets
8	3	Detailed estimate of two storeyed building – Finishing works and completion of estimate	Calculation of remaining items and checking
9	3	Introduction to Analysis of Rates	Explain material, labour, equipment, overhead charges and rate analysis format
10	3	Analysis of rates for building items using MS Excel	Prepare rate analysis sheets for selected items
11	3	Advanced rate analysis based on Odisha PWD schedule of rates	Comparison of rates and preparation of analysis sheets
12	3	Dry material calculation for building items	Calculation of cement, sand, aggregate, bricks and other materials
13	3	Dry material calculation using MS Excel	Preparation of computerized material calculation sheets

14	3	Preparation of abstract of cost	Summarize item quantities, rates and total cost
15	3	Preparation of Bill of Quantities (BOQ), revision and practical evaluation	Preparation of final estimate sheets and viva

Faculty Civil: _____

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