

C. V. RAMAN POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2025-2026)

Discipline: Civil Engineering	Semester: 4TH, Summer/2025	Name of the Teaching Faculty: Miss Sumitra Parida (Assistant Professor) Email ID: rashmi.sumi123@gmail.com
Subject: Estimating Costing and Valuation (CEPC 206)	No. of Days/Weeks: 03	Start Date: 22.12.2025 End Date: 18.04.2026

Week	Class Day	Theory Topics
1st	1st	Estimating & Costing – Meaning, purpose and importance
	2nd	Administrative Approval, Technical Sanction – Procedure
	3rd	Types of Estimates – Approximate & Detailed
2nd	1st	Roles & responsibilities of Engineers at different levels
	2nd	Administrative setup & hierarchy in Govt./PSU Engineering Dept.
	3rd	Standard formats – Measurement Sheet & Abstract Sheet
3rd	1st	Modes of measurement as per IS:1200
	2nd	Rules for deduction in different works as per IS:1200
	3rd	Specifications of building works as per OPWD/CPWD/DSR

4th	1st	Detailed Estimate – Definition, purpose & data required
	2nd	Components of estimate – Civil cost, GST, contingencies
	3rd	Procedure for preparation of detailed estimate
5th	1st	Long wall & short wall method – Concept
	2nd	Centre line method – Advantages & limitations
	3rd	Comparison of long wall & centre line method
6th	1st	Bar Bending Schedule – Footing & Column
	2nd	CLASS TEST / DOUBT CLEARING
	3rd	BBS – Slab & numerical problems
7th	1st	Provisions in estimate – Contingencies, work charged establishment
	2nd	Percentage charges, water supply, sanitary & electrification
	3rd	Prime cost, provisional sum & provisional quantities
8th	1st	Bill of quantities, spot items & site items
	2nd	Detailed estimate of residential building – Long wall method
	3rd	Detailed estimate – Centre line method
9th	1st	Earthwork calculation – Mid sectional area method
	2nd	Mean sectional area & prismoidal formula
	3rd	Trapezoidal method – Numerical problems

10th	1st	Estimate of septic tank
	2nd	Estimate of RCC culvert
	3rd	Estimate of drainage siphon & vertical fall
11th	1st	Estimate of bituminous road
	2nd	CLASS TEST / DOUBT CLEARING
	3rd	Revision of Unit-III
12th	1st	Rate Analysis – Definition, purpose & importance
	2nd	Lead, lift, overhead charges & contractor's profit
	3rd	Task work – Definition & types
13th	1st	Categories of labour & daily wages
	2nd	Transportation charges & hire charges of machinery
	3rd	Rate analysis of PCC & brickwork
14th	1st	Rate analysis of plastering & flooring
	2nd	Rate analysis of road items
	3rd	ASSIGNMENT SESSION (Unit-I to Unit-IV)
15th	1st	Previous year question discussion
	2nd	Previous year question discussion
	3rd	Final revision & doubt clearing



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H.O.D.