

Course Code	Course Name	Course Type	Cd	L	T	P	Marks		
							Sessional	Final Exam	Total
CE-603	Construction Planning and management	PCC	4	3	1	0	50	100	150

Course Outcomes:

At the end of the course the students will be able to:	
CO1	Prepare quantities for different items of work and probable cost in the construction project.
CO2	Explain the technical specifications for various works to be performed for a project and how they impact.
CO3	Evaluate cost of work for DPR.
CO4	Analyse benefit/cost, life cycle breakeven on economic alternatives.
CO5	Estimate for valuation and depreciation of real estate structures.

Detailed Syllabus**Section-A**

Unit 1: Principles of estimating, methods of taking out quantities, mode of measurement, sheets, BOQ. Types of estimates, contingencies, work charge estimate. Layout plan, index plan. Sub-heads, SOR. Administrative approval, expenditure sanction. Cost of Works: Factors affecting cost of work, overhead charges, contingencies and work charge establishment, various percentages for different services in building, preparation of DPR.

(10Hrs)

Unit 2: Methods of building estimates w.r.t to detailed specification of each item of work, estimate of masonry platform, single room building, two/three room building estimate. Estimate of office building, estimate of R.C.C. works, R.C.C. water tank estimate and underground water tank estimate. Estimate of earthwork of road from Section.

(10Hrs)

Unit 3: Analysis of Rates: overhead costs, labour required. Analysis of rates and specifications for various items of building works, C.S.R., Valuation, gross income, net income, outgoings, scrap and salvage values, capitalized value, depreciation, valuation of buildings, fixation of rent, plinth area required.

(10Hrs)**Section-B**

UNIT 4: Time Value of Money, Cash Flow diagram, Nominal and effective interest. Single Payment, Compound Amount Factor, Uniform series of Payments, Problem time zero and equation time zero. Constant increment to periodic payments – Arithmetic Gradient (G), Geometric Gradient (C). Comparing alternatives and different analysis,

(10Hrs)

UNIT 5: Real Estate, Investment Property, Equipment Replace Analysis, Depreciation and Taxes, Inflation. Project Finance – Sources of finance - Long-term and short -term finance, Working Capital Management, Inventory valuation.

(10Hrs)**Text Books**

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1	Estimating in Building Construction	Peterson & Dagostino	Pearson Prentice Hall	8 th (2014)
2	Estimation & Costing	Dutta & Dutta	UBS Publishers,	27 th (2020)
3	Engineering Economics & Cost Analysis	Collier C and GlaGola C	Addison Wesley Education Publishers	3 rd (1998)

Reference Books

S. No.	Name of the Books	Author	Publisher	Edition (Pub. Yr.)
1	Contracts & Estimates	B.S.Patil	CRC Press	7 th (2019)
2	Estimation & Quantity Surveying	D. Silambarsan	Shri Krishna Hitech Publishing	1 st (2007)
3	Project management- strategic Financial Planning, Evaluation and Control,	Patel, B M	Vikas Publishing House Pvt. Ltd. New Delhi.	5 th (2000)