

IV Year II Semester
Code: 17CE801

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ESTIMATION & COSTING

Course Learning Objectives

The objectives of this course are:

1. Understand the quantity calculations of different components of the buildings.
2. Understand the rate analysis of different quantities of the buildings components.
3. Learn various specifications and components of the buildings.

Course Outcomes

Upon the successful completion of this course

1. The student should be able to determine the quantities of different components of buildings.
2. Able to do rate analysis
3. Able to estimate earthwork quantities for road works.
4. Understands about different types of contracts
5. Able to estimate the building by using individual method.
6. Able to estimate the building by using center line method.
7. The student should be capable of finalizing the value of structures.

SYLLABUS

UNIT-I

General items of work in Building – Standard Units Principles of working out quantities for detailed and abstract estimates –Approximate method of Estimating.

UNIT-II

Rate Analysis – Working out data for various items of work over head and contingent charges.

UNIT-III

Earthwork for roads and canals, Reinforcement bar bending and bar requirement schedules.

UNIT – IV

Contracts – Types of contracts – Contract Documents – Conditions of contract, Valuation of buildings Standard specifications for different items of building construction.

UNIT-V

Detailed Estimation of Buildings using individual wall method.

UNIT –VI

Detailed Estimation of Buildings using centre line method.

Final Examination Pattern:

The end examination paper should consist of SIX questions from Unit 1 to Unit 4, out of which THREE are to be answered (60% weightage) & ONE mandatory question (40% weightage) from Units 5 & 6 is to be answered.

Text Books:

1. Estimating and Costing, by B.N. Dutta, UBS publishers, 2000.
2. Civil Engineering Contracts and Estimates, by B. S. Patil, Universities Press (India) Pvt. Ltd., Hyd.
3. Construction Planning and Technology, Rajiv Gupta, CBS Publishers & Distributors Pvt. Ltd. New Delhi.
4. Estimating and Costing, by G.S. Birdie.

References:

1. Standard Schedule of rates and standard data book, Public works department.
2. IS 1200 (Parts I to XXV-1974/ Method of Measurement of Building & Civil EnggWorks B.I.S.
3. Estimation, Costing and Specifications, M. Chakraborti; Laxmi publications.
4. National Building Code

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	1	3	3	3	3	2	2	3	3	3	3	2	3
CO2	2	3	1	2	2	3	2	2	3	3	3	2	2	1	3
CO3	3	3	2	3	3	2	3	2	3	3	2	2	2	2	3
CO4	3	3	3	2	2	2	2	3	3	3	3	1	2	2	2
CO5	3	3	3	3	3	2	3	2	3	3	3	2	3	2	3
CO6	3	3	3	3	3	2	3	2	3	3	3	2	3	2	3