



# COLLEGE OF TECHNOLOGY AND ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING  
4 YEAR BE I SEMESTER SESSION 2015-16

1. Course Code : **CE 415**
2. Course Title : **ESTIMATING AND COSTING**
3. Credit : 3(2+1)
4. Theory Lecture Outlines :

1.	<i>Estimating</i> : Objects & general principles for estimating & costing
2.	Types of estimates.
3.	Rules & methods of measurement
4.	Procedure for estimating
5.	Various items of work in building construction
6.	General considerations for preparing report
7.	<i>Specification</i> : Types of specification (Brief and detail)
8.	Detailed specification for building works. Detailed specification for canal & road works items.
9.	<i>Rate Analysis</i> : Concepts of rate analysis
10.	Requirements of an item for analysis of rate
11.	Quantity calculation of materials for an item
12.	Calculation of labour (task of labour as per N.B.O.) & Overhead cost
13.	Calculation of labour (task of labour as per N.B.O.) & Overhead cost
14.	<i>Calculation of Quantity</i> : Various formulae for calculation of quantity of concrete
15.	bricks & reinforcement
16.	Earth work calculations of roadwork for level & side hill sections (two level) only
17.	Calculations of quantity of Road works
18.	<i>Canal Earthwork</i> : Balancing depth of earthwork in a canal
19.	Use of L-section & cross-section for earthwork calculations of quantity of materials for canal lines.
20.	<i>Accounting</i> : Accounting & procedure of works classification of works
21.	Contract & contract document

22.	Tender; Notice for inviting tenders (NIT)
23.	opening of tenders, processing of tenders
24.	Running & final bill, earnest money, security money & measurement book
25.	General discussion of a works department.
26.	<i>Valuation</i> : Purpose of valuation, , Scrap value, Salvage value, Market value, Book value
27.	Annuity capitalized value. Methods of calculating depreciation (Straight line & Sinking fund method)
28.	Valuation of a building, rent fixation.
29.	Numericals
30.	Revision

### **Suggested Books & References**

1. Datta B. N., 'Estimating and Costing in Civil Engineering Theory and Practice', Publishing Distributors Ltd., New Delhi.
2. Birdi, 'Estimating and costing in Civil Engineering', Dhanpat Rai & Sons, New Delhi.

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Prof.& Head (Civil Engg)