

Devi Ahilya University Indore, India Institute of Engineering & Technology			II B.E. (Civil Engineering) (Full Time)				
Subject Code and Name	Instruction Hours Per Week			Credits			
VLR5C3: Quantity Surveying & Costing	L	T	P	L	T	P	Total
Duration of Theory Paper: 3 hours	3	1	2	3	1	1	5

Learning Objectives:

Students will be able to:

- Decide approximate cost of civil engineering structure.
- Prepare check list of items of construction.
- Prepare estimate for civil engineering work.
- Prepare rate analysis of item of construction.
- Take measurement of completed work.

COURSE CONTENTS

Unit I: Introduction:

Purpose and importance of estimates, principles of estimating. Mode of measurement, measurement sheet and abstract sheet; bill of quantities. Types of estimate, plinth area rate, cubical content rate, preliminary, original, revised and supplementary estimates for different projects.

Unit II: Rate Analysis:

Importance, Task for average artisan, various factors involved in the rate of an item, material and labour requirement for different items of work; analysis of Rates for important items of work. Current schedule of rates. (C.S.R.)

Unit III: Detailed Estimates:

Methods of taking out quantities of items of work. Long wall and Short wall method , Centre line method, Preparing detailed estimates of various types of buildings, R.C.C. works, earth work calculations for roads , Pitching of Slopes and estimating of culverts , Services for building such as water supply, drainage and electrification.

Unit IV: Specification & Report Writing:

Specification – Necessity – Types of specifications – Essential requirements of specifications – Specifications for various items of works – steps involved in standard specification
Detailed project report.

Unit V: Valuation and Rent fixation

Gross and net income– Market value – Book value – Scrap value – Salvage value – Capitalized values – sinking fund – depreciation – Valuation of a building – Rent fixation of buildings.

References ;

1. IS Code of Practice – IS 1200
2. Civil Estimating, Casting and Valuation – Kalson Publication Ludhiyana.
3. Rangawala,” Estimating & Casting, Charotor Publishing, 8th Edition,1990.
4. N.A.Shaw,” Quantity surveying & Valuation”, Khana Publishers,2001.
5. PL Bhasin,” Quantity Surveying” S. Chand & Co. IIIrd Edition,1992.
6. L.N.Dutta, Estimating and Costing, Dhanpat Rai & sons, IInd Edition,1986.
7. Bridie, “Estimating and Costing”,1989.
8. Vazirani & Chandolu,” Estimating and Costing” 2001.

Practical & Sessional Works:

1. Preparation of detailed estimate.
2. Detailed estimate for services of plumbing and water supply or Electrification work.
3. Detailed estimate for earth work for the road construction or arched culvert.
4. Rate analysis for at least 8 items of construction.
5. Preparation of DPR of Civil Engineering Project.