

MICRO LESSON PLAN

WEEKS	NO OF HOURS	LECTURE TOPICS	TEXT / REFER BOOKS	
		UNIT I ESTIMATE OF BUILDINGS		
I	1	Load bearing and framed structures	Text Book-1	
	2	Calculation of quantities of brick work, RCC, PCC, Plastering.		
	3	Calculation of quantities of white washing, colour washing and painting / varnishing for shops.		
	4	Calculation of quantities of white washing, colour washing and painting / varnishing for shops.		
II	5	Calculation of quantities of varnishing for rooms, residential building with flat and pitched roof.		
	6	Calculation of quantities of varnishing for rooms, residential building with flat and pitched roof.		
	7	Various types of arches.		
	8	Calculation of brick work and RCC works in arches		
III	9	Calculation of brick work and RCC works in arches.		
	10	Estimate of joineries for panelled and glazed doors, windows, ventilators, handrails etc.		
	11	Estimate of joineries for panelled and glazed doors, windows, ventilators, handrails etc.		
	UNIT II ESTIMATE OF OTHER STRUCTURES			
	12	Estimating of septic tank, soak pit		
IV	13	Estimating of septic tank, soak pit	Text Book-1	
	14	Estimating of sanitary and water supply installations		
	15	Estimating of water supply pipe line, sewer line.		
	16	Estimating of tube well, open well		
V	17	Estimate of bituminous and cement concrete roads		
	18	Estimate of retaining walls		
	19	Estimate of culverts		
	20	Estimating of irrigation works		
	21	Estimating of aqueduct, syphon, and fall.		
		UNIT III SPECIFICATION AND TENDERS		
VI	22	Data		Text Book-1
	23	Schedule of rates		
	24	Analysis of rates		
	25	Specifications Sources.		
VII	26	Specifications Sources.		
	27	Detailed and general specifications.		
	28	Tenders, Contracts.		
	29	Types of contracts, Arbitration and legal requirements.		

UNIT IV VALUATION			
VIII	30	Necessity	Text Book-1
	31	Basics of value engineering.	
	32	Capitalised value.	
	33	Depreciation.	
IX	34	Escalation.	
	35	Value of building.	
	36	Calculation of Standard rent.	
	37	Mortgage, Lease.	
UNIT V REPORT PREPARATION			
X	38	Principles for report preparation.	Text Book-1
	39	Report on estimate of residential building.	
	40	Culvert.	
	41	Culvert.	
XI	42	Roads.	
	43	Water supply and sanitary installations.	
	44	Tube wells.	
	45	Open wells.	

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CE 2402 ESTIMATION AND QUANTITY SURVEYING

**L T P C
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OBJECTIVE

This subject covers the various aspects of estimating of quantities of items of works involved in buildings, water supply and sanitary works, road works and irrigation works. This also covers the rate analysis, valuation of properties and preparation of reports for estimation of various items. At the end of this course the student shall be able to estimate the material quantities, prepare a bill of quantities, make specifications and prepare tender documents. Student should also be able to prepare value estimates.

UNIT I ESTIMATE OF BUILDINGS

11

Load bearing and framed structures – Calculation of quantities of brick work, RCC, PCC, Plastering, white washing, colour washing and painting / varnishing for shops, rooms, residential building with flat and pitched roof – Various types of arches – Calculation of brick work and RCC works in arches – Estimate of joineries for panelled and glazed doors, windows, ventilators, handrails etc.

UNIT II ESTIMATE OF OTHER STRUCTURES

10

Estimating of septic tank, soak pit – sanitary and water supply installations – water supply pipe line – sewer line – tube well – open well – estimate of bituminous and cement concrete roads – estimate of retaining walls – culverts – estimating of irrigation works – aqueduct, syphon, fall.

UNIT III SPECIFICATION AND TENDERS

8

Data – Schedule of rates – Analysis of rates – Specifications – sources – Detailed and general specifications – Tenders – Contracts – Types of contracts – Arbitration and legal requirements.

UNIT IV VALUATION

8

Necessity – Basics of value engineering – Capitalised value – Depreciation – Escalation – Value of building – Calculation of Standard rent – Mortgage – Lease

UNIT V REPORT PREPARATION

8

Principles for report preparation – report on estimate of residential building – Culvert – Roads – Water supply and sanitary installations – Tube wells – Open wells.

TOTAL: 45 PERIODS

TEXT BOOKS

1. Dutta, B.N., “Estimating and Costing in Civil Engineering”, UBS Publishers & Distributors Pvt. Ltd., 2003
2. Kohli, D.D and Kohli, R.C., “A Text Book of Estimating and Costing (Civil)”, S.Chand & Company Ltd., 2004

REFERENCES

1. PWD Data Book.