

LESSON PLAN					
Name of the Faculty		Mr. Sandeep Biban			
Discipline		Civil Engineering			
Semester		6th Semester			
Subject		Quantity Surveying & Valuation			
Lesson Plan Duration		16 week, (Lecture- 04, Practical-02) (Feb. 2024 – June 2024)			
Week	Lecture Day	Theory		Practical Day	Practical Topic
		Topic (Including Assignments and Test)			
1	1	1. Introduction to quantity surveying and its importance		1	Prepare the list of items to be executed with units for detailed estimate of a given structure from the given drawing.
	2	Duties of quantity surveyor			
	3	2. Types of estimates: 2.1 Preliminary estimates, Plinth area estimate, Cubic content estimate			
	4	2.2 Detailed estimates - Definition			
2	5	Stages of preparation – details of measurement and calculation of quantities and abstract		2	Revision
	6	3. Measurement - 3.1 Units of measurement for various items of work as per BIS:1200			
	7	3.2 Rules for measurements			
	8	3.3 Different methods of taking out quantities – centre line method and long wall and short wall method			
3	9	Preparation of Detailed and Abstract Estimates from Drawings by following CSR rates		3	Prepare a report on market rates for given material, labour wages, hire charges of tools & equipments required to construct the given structure.
	10	4.1 A small residential building with a flat roof comprising of - Two rooms with W.C., bath, kitchen and verandah			
	11	4.2 Earthwork for unlined channel			
	12	4.3 WBM road and pre-mix carpeting			
4	13	Revision		4	Revision
	14	Assignment Discussion			
	15	4.4 Single span RCC slab culvert			
	16	4.5 Earthwork for plain and hill roads			
5	17	4.6 RCC work in beams, slab, column and lintel, foundations		5	Study of items with specification given in the HSR (for any ten items)
	18	4.7 10 users septic tank			
	19	5. Calculation of quantities of materials for 5.1 Cement mortars of different proportion			
	20	5.2 Cement concrete of different proportion			
6	21	5.3 Brick/stone masonry in cement mortar of different proportion		6	Revision
	22	5.4 Plastering, pointing and painting			
	23	5.5 D.P.C. and flooring			
	24	6. Analysis of Rates 6.1 Steps involved in the analysis of rates			
7	25	Requirement of material, labour, sundries		7	Recording in Measurement Book (MB) for any four items
	26	Contractor's profit and overheads			
	27	Analysis of rates for finished items when data regarding labour			
	28	Rates of material and labour is given: Earthwork in excavation in hard/ordinary soil			
8	29	Filling with a concept of lead and lift		8	Revision
	30	R.C.C. work in slab			
	31	R.C.C. work in beams			
	32	R.C.C. work in lintels			
9	33	R.C.C. work in columns		9	Prepare bill of quantities of given item from actual measurements (any four items).
	34	Brick masonry in cement mortar			
	35	Cement Plaster			
	36	White washing			
10	37	Painting		10	Revision
	38	Revision			
	39	Assignment Discussion			
	40	7 Contractorship- Meaning of contract			
11	41	Essentials of a contract		11	Calculate the reinforcement quantities from the given set of drawings for a room size of 3 m X 4 m with bar bending schedule (footing, column, beam, lintel with chajja, slab)
	42	Types of contracts, their advantages, dis-advantages and suitability			
	43	system of payment			
	44	Single and two cover-bids;			
12	45	tender, tender forms and documents, tender notice		12	Calculate the quantity of items of work from the given set of drawings using standard measurement sheet for load bearing residential structure using description of item from DSR (1BHK Building with staircase).
	46	submission of tender and deposit of earnest money,			
	47	security deposit, retention money, maintenance period			
	48	Classification and types of contracting firms/construction companies			
13	49	8 Preparation of Tender Document based on Common Schedule Rates (CSR)		13	Revision
	50	Introduction to CSR and calculation of cost based on premium on CSR - Exercises on writing detailed specifications of different types of building works from excavation to foundations, superstructure and finishing operation			
	51	Exercises on preparing tender documents for the following a) Earth work			
	52	b) Construction of a small house as per given drawing c) RCC works			
14	53	d) Pointing, plastering and flooring e) White-washing, distempering and painting		14	Use the relevant software to prepare detailed estimate of a residential building.
	54	f) Wood work including polishing g) Sanitary and water supply installations			
	55	h) False ceiling, aluminum (glazed) partitioning i) Tile flooring including base course			
	56	j) Preparation of comparative statement for item rate contract.			
15	57	9. Valuation a) Purpose of valuation, principles of valuation		15	Revision
	58	b) Definition of various terms related to valuation like depreciation, sinking fund, salvage and scrap value, market value, fair rent, year's purchase etc.			
	59	c) Methods of valuation			
	60	(i) replacement cost method (ii) rental return method			
16	61	Assignment Discussion		16	Revision
	62	Revision			
	63	Revision			
	64	Revision			