

Lesson plan

Name of Faculty		SANDEEP GOYAL		
Discipline		CIVIL Engineering		
Semester		6		
Subject		Quantity Surveying and Valuation		
Lesson Plan Duration		From 15 Feb 2024 to 14 June 2024		
Work load [Theory + Practical] Per Week		[04+02]		
Week	Day	Theory Topic/ Assignment/ Test	No.	Practical
1 st	1	Introduction to QS	1	Prepare the list of items to be executed with units for detailed estimate of a given structure from the given drawing.
	2	Introduction to quantity surveying and its importance		
	3	Duties of quantity surveyor		
	4	Duties of quantity surveyor		
2 nd	1	Types of estimates	2	Prepare a report on market rates for given material, labor wages, hire charges of tools & equipment's required to construct the given structure as mentioned in at Serial number 1 above.
	2	Preliminary estimates		
	3	Plinth area estimate - Cubic content estimate		
	4	Detailed estimates - Definition - Stages of preparation – details of measurement and calculation of quantities and abstract		
3 rd	1	Detailed estimates - Definition - Stages of preparation – details of measurement and calculation of quantities and abstract	3	Study of items with specification given in the HSR (for any ten items)
	2	Units of measurement for various items of work		
	3	Units of measurement for various items of work		
	4	Rules for measurements		
4 th	1	Different methods of taking out quantities – center line method and long wall and short wall method	4	Revision/File checking
	2	Assignment/Class test of 1 st unit		
	3	Different methods of taking out quantities – center line method and long wall and short wall method		
	4	Preparation of Detailed and Abstract Estimates from Drawings by following CSR rates		
5 th	1	A small residential building with a flat roof comprising of - Two rooms with W.C., bath, kitchen	5	Recording in Measurement Book (MB) for any four items
	2	A small residential building with a flat roof comprising of - Two rooms with W.C., bath, kitchen and verandah		
	3	Earthwork for unlined channel		
	4	WBM road and pre-mix carpeting		
6 th	1	NUMERICAL PROBLEM	6	Prepare bill of quantities of given item from actual measurements (any four items).
	2	NUMERICAL PROBLEM		
	3	NUMERICAL PROBLEM		
	4	NUMERICAL PROBLEM		
7 th	1	Single span RCC slab culvert, Earthwork for plain and hill roads	7	Mid- term viva-voice/file checking
	2	RCC work in beams, slab, column and lintel, foundations		
	3	RCC work in beams, slab, column and lintel, foundations		
	4	10 users septic tank		
8 th	1	10 users septic tank	8	Prepare bill of quantities of given item from actual measurements (any four items).
	2	Calculation of quantities of materials for, Cement mortars of different proportion		
	3	Cement concrete of different proportion		
	4	Brick/stone masonry in cement mortar of different proportion, Plastering, pointing and painting		
9	1	D.P.C. and flooring	9	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))
	2	Assignment/Class test		
	3	Revision/checking/Problems solutions		
	4	Steps involved in the analysis of rates. Requirement of material, labour, sundries, contractor's profit and overhead		

10 _a	1	Analysis of rates for finished items when data regarding labour, rates of material and labour is given: - Earthwork in excavation in hard/ordinary soil and filling with a concept of lead and lift - RCC in roof slab/beam/lintels/columns	10	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)
	2	Analysis of rates for finished items when data regarding labour, rates of material and labour is given: - Earthwork in excavation in hard/ordinary soil and filling with a concept of lead and lift - RCC in roof slab/beam/lintels/columns		
	3	Brick masonry in cement mortar - Cement Plaster - White washing, painting		
	4	Brick masonry in cement mortar - Cement Plaster - White washing, painting		
11	1	Contractorship - Meaning of contract, Essentials of a contract, Types of contracts, their advantages, dis-advantages and suitability, system of payment	11	Revision/File checking
	2	Single and two cover-bids; tender, tender forms and documents, tender notice, submission of tender		
	3	Earnest money , Security money and retention money		
	4	Preparation of Tender Document based on Common Schedule		
12 _a	1	Exercises on writing detailed specifications of different types of building works from excavation to foundations, superstructure and finishing operation	12	Revision/File checking
	2	Exercises on preparing tender documents for the following a) Earth work b) Construction of a small house as per given drawing		
	3	c) RCC works d) Pointing, plastering and flooring e) White-washing, distemping and painting		
	4	f) Wood work including polishing g) Sanitary and water supply installations h) False ceiling, aluminum (glazed) partitioning		
13 _a	1	Assignment / Class test	13	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).
	2	Problem solution/ test check		
	3	Tile flooring including base course j) Preparation of comparative statement for item rate contract		
	4	Valuation, Purpose of valuation, principles of valuation		
14 _a	1	Definition of various terms related to valuation like depreciation, sinking fund, salvage and scrap value, market value, fair rent, year's purchase	14	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).
	2	Method of valuation		
	3	Numerical revision		
	4	Revision/checking/Problems solutions		
15	1	Revision/checking/Problems solutions	15	Checking File
	2	Revision/checking/Problems solutions		
	3	Revision/checking/Problems solutions		
	4	Revision/checking/Problems solutions		