

Name of the Faculty: Ram Charan Singla

Discipline: Civil Engineering

Semester: 6th

Subject: QUANTITY SURVEYING AND VALUATION

Lesson Plan Duration: 15 Weeks (from Jan-2018 to Apr-2018)

Work Load per week : 05 Lectures

Week	Theory	
	Lecture Day	Topic (including assignment / test)
1st	1	1. Introduction to quantity surveying and its importance.
	2	Duties of quantity surveyor
	3	2. Types of estimates 2.1 Preliminary estimates
	4	Plinth area estimate, Cubic rate estimate, Estimate per unit base
	5	Numerical Problems
2nd	6	2.2 Detailed estimates - Definition, - Stages of preparation,
	7	details of measurement and calculation of quantities and abstract,
	8	3. Measurement 3.1 Units of measurement for various items of work as per BIS:1200
	9	3.2 Rules for measurements
	10	3.3 Different methods of taking out quantities - long wall and short wall method
3rd	11	Practice of taking out quantities
	12	Practice of taking out quantities
	13	Practice of taking out quantities
	14	3.3 Different methods of taking out quantities - centre line method
	15	Practice of taking out quantities
4th	16	Practice of taking out quantities
	17	Revision/Quarries
	18	4. Preparation of Detailed and Abstract Estimates from Drawings for: 4.1 A small residential building with a flat roof and pitched roof building comprising of - Two rooms with W.C., bath, kitchen and verandah
	19	-do-
	20	-do-
5th	21	4.2 Earthwork for unlined channel
	22	4.3 WBM road and pre-mix carpeting
	23	Sessional Test -I
	24	4.4 Single span RCC slab culvert
	25	-do-
6th	26	4.5 Earthwork for plain and hill roads
	27	-do-
	28	-do-
	29	4.6 RCC work in beams, slab, column and lintel, foundations
	30	-do-
7th	31	-do-
	32	4.7 users septic tank - 10 users - 50 users
	33	-do-
	34	Revision/Quarries
	35	5. Calculation of quantities of materials for 5.1 Cement mortars of different proportion

8th	36	5.2 Cement concrete of different proportion
	37	-do-
	38	5.3 Brick/stone masonry in cement mortar
	39	5.4 Plastering and pointing
	40	5.5 White washing, painting
9th	41	5.6 R.C.C. work in slab, beams
	42	-do-
	43	Revision/Quarries
	44	6. Analysis of Rates 6.1 Steps involved in the analysis of rates. Requirement of material, labour, sundries, contractor's profit and overheads
	45	6.2 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
10th	46	- RCC in roof slab/beam/lintels/columns
	47	- Brick masonry in cement mortar
	48	- Cement Plaster - White washing, painting
	49	- Stone masonry in cement mortar
	50	6.3 Running and maintenance cost of construction equipment
11th	51	Revision/Quarries
	52	Sessional Test -II
	53	7 Contractor-ship - Meaning of contract - Qualities of a good contractor and their qualifications
	54	- Essentials of a contract
	55	- Types of contracts, their advantages, dis-advantages and suitability, system of payment
12th	56	-do-
	57	-do-
	58	- Single and two cover-bids; tender, tender forms and documents, tender notice, submission of tender and deposit of earnest money, security deposit, retention money, maintenance period
	59	-do-
	60	- Classification and types of contracting firms/construction companies
13th	61	8. Preparation of Tender Document based on Common Schedule Rates (CSR) - Introduction to CSR and calculation of cost based on premium on CSR
	62	- Exercises on writing detailed specifications of different types of building works from excavation to foundations, superstructure and finishing operation
	63	-do-
	64	- Exercises on preparing tender documents for the following a) Earth work
	65	b) Construction of a small house as per given drawing
14th	66	c) RCC works d) Pointing, plastering and flooring
	67	e) White-washing, distempering and painting f) Wood work including polishing g) Sanitary and water supply installations
	68	h) False ceiling, aluminum (glazed) partitioning i) Tile flooring including base course j) Construction of W.B.M/Concrete road
	69	9. Exercises on preparation of comparative statements for item rate contract
	70	10. Valuation a) Purpose of valuation, principles of valuation
15th	71	b) Definition of various terms related to valuation like depreciation, sinking fund, salvage and scrap value, market value, fair rent, year's purchase etc.
	72	c) Methods of valuation (i) replacement cost method
	73	c) Methods of valuation (ii) rental return method
	74	Revision/Quarries
	75	Sessional Test -III