

Govt. Polytechnic Education Society Meham (Rohtak)

Civil Engineering Department

Lesson Plan

Name of the Faculty	Mr. ASHOK KUMAR (VTF In Civil Engg.)
Discipline	Civil Engineering
Semester	6 th
Subject	Quantity Surveying & Valuation
Lesson Plan Duration	From JAN 2019 to APR 2019 (15 weeks)
Work Load (Theory/Practical) per week	Theory – 05/ Practical – 00

Week	Theory	
1 st Week	1 st Day	1. Introduction to quantity surveying
	2 nd Day	Importance
	3 rd Day	Duties of quantity surveyor
	4 th Day	2. Types of estimates
	5 th Day	2.1 Preliminary estimates
2 nd Week	1 st Day	- Plinth area estimate
	2 nd Day	- Cubic rate estimate
	3 rd Day	- Estimate per unit base
	4 th Day	2.2 Detailed estimates - Definition
	5 th Day	- Stages of preparation – details of measurement
3 rd Week	1 st Day	calculation of quantities and abstract
	2 nd Day	Doubt will be taken
	3 rd Day	3. Measurement

	4 th Day	3.1 Units of measurement for various items of work as per BIS:1200
	5 th Day	3.2 Rules for measurements
4 th week	1 st Day	3.3 Different methods of taking out quantities
	2 nd Day	centre line method
	3 rd Day	Long wall method
	4 th Day	Short wall method
	5 th Day	Unit test will be taken
5 th Week	1 st Day	4. Preparation of Detailed and Abstract Estimates from Drawings
	2 nd Day	4.1 A small residential building with a flat roof
	3 rd Day	pitched roof building comprising of Two rooms
	4 th Day	W.C., bath, kitchen and verandah
	5 th Day	4.2 Earthwork for unlined channel
6 th week	1 st Day	4.3 WBM road and pre-mix carpeting
	2 nd Day	4.4 Single span RCC slab culvert
	3 rd Day	4.5 Earthwork for plain and hill roads
	4 th Day	4.6 RCC work in beams,
	5 th Day	slab,column and lintel
7 th week	1 st Day	Foundations
	2 nd Day	4.7 users septic tank - 10 users
	3 rd Day	users septic tank – 50 users
	4 th Day	Doubt will be taken

	5 th Day	Unit test will be given
8 th week	1 st Day	5. Calculation of quantities of materials for
	2 nd Day	5.1 Cement mortars of different proportion
	3 rd Day	5.2 Cement concrete of different proportion
	4 th Day	5.3 Brick/stone masonry in cement mortar
	5 th Day	5.4 Plastering and pointing
9 th week	1 st Day	5.5 White washing, painting
	2 nd Day	5.6 R.C.C. work in slab, beams
	3 rd Day	6. Analysis of Rates
	4 th Day	6.1 Steps involved in the analysis of rates
	5 th Day	Requirement of material, labour, sundries, contractor's profit and overheads
10 th week	1 st Day	6.2 Analysis of rates for finished items when data regarding labour
	2 nd Day	rates of material and labour is given:
	3 rd Day	Earthwork in excavation in hard/ordinary soil and filling with a concept of lead and lift
	4 th Day	- RCC in roof slab/beam/lintels/columns
	5 th Day	- Brick masonry in cement mortar
11 th week	1 st Day	- Cement Plaster
	2 nd Day	White washing, painting
	3 rd Day	- Stone masonry in cement mortar
	4 th Day	6.3 Running and maintenance cost of construction equipment

	5 th Day	7 Contractorship - Meaning of contract
12 th week	1 st Day	Qualities of a good contractor and their qualifications
	2 nd Day	- Essentials of a contract
	3 rd Day	- Types of contracts, their advantages, dis-advantages and suitability, system of payment
	4 th Day	- Single and two cover-bids; tender, tender forms and documents, tender notice
	5 th Day	submission of tender and deposit of earnest money, security deposit, retention money, maintenance period
13 th week	1 st Day	- Classification and types of contracting firms/construction companies
	2 nd Day	8 Preparation of Tender Document based on Common Schedule Rates (CSR) - Introduction to CSR
	3 rd Day	calculation of cost based on premium on CSR - Exercises on writing detailed specifications of different types of building
	4 th Day	works from excavation to foundations, superstructure and finishing operation
	5 th Day	- Exercises on preparing tender documents for the following a) Earth work
14 th week	1 st Day	b) Construction of a small house as per given drawing) RCC works
	2 nd Day	d) Pointing, plastering and flooring e) White-washing, distempering and painting f) Wood work including polishing
	3 rd Day	g) Sanitary and water supply installations h) False ceiling, aluminum (glazed) partitioning
	4 th Day	i) Tile flooring including base course j) Construction of W.B.M/Concrete road
	5 th Day	9. Exercises on preparation of comparative statements for item rate
15 th week	1 st Day	10. Valuation
	2 nd Day	a) Purpose of valuation, principles of valuation
	3 rd Day	b) Definition of various terms related to valuation like depreciation, sinking fund, salvage
	4 th Day	scrap value, market value, fair rent, year's purchase etc
	5 th Day	c) Methods of valuation (i) replacement cost method (ii) rental return method