Government Polytechnic for Women, Faridabad

Lesson Plan

Name of Faculty : Mr. Sandeep Kumar (Theory)

Discipline : Mechanical Engineering

Semester : 6th

Subject : Estimation & Costing

Lesson Plan Duration : 15 weeks (from January 2020 to April 2020)

Work Load (Lectures) per week (in hours): Lectures-04

WEEK	**THEORY**	
	Lecture Day	**Topic (Including Assignment / Test)**
1st	1st	**1.Introduction** • Definition of Estimation,
	2nd	• selling price, capital investment
	3rd	• Importance and its aim and function
	4th	• Cost accounting and its purpose
2nd	5th	• Estimating procedure,
	6th	• cost estimators and their qualifications
	7th	• Cost of production,
	8th	• Rate of return (ROR) on investment •
3rd	9th	• Comparison of Estimating and Costing
	10th	**Test of chapter-1**
	11th	**2. Elements of Costing** • Definition and objective,

	12th	• Elements of Cost and its components,
4th	13th	• overhead expenses,
	14th	• factory expenses
	15th	• Method of calculation of depreciation
	16th	• obsolescence, interest on capital, idleness cost
5th	17th	• Depreciation Cause
	18th	**Assignment Topic:** • Calculation of idleness cost , repairs and maintenance cost, selling and distribution overheads and methods of allocation of overhead charges, procedure for costing
	19th	**3. Cost Accounting** • Objectives of cost accounting,
	20th	• difference between financial accounting and cost accounting,
6th	21st	• advantages of cost accounting
	22nd	• methods of costing
	23rd	• unit costing
	24th	• batch costing
7th	25th	• departmental costing
	26th	• process costing
	27th	• multiple and composite costing • **Test of Chapter 3rd**
	28th	
8th	29th	• **4. Fundamentals of Estimating** • Objectives of cost estimating
	30th	• functions of cost estimating
	31st	• organization of estimating department
	32nd	• principal factors in estimating
9th	33rd	• miscellaneous allowances,
	34th	• estimating procedures
	35th	• qualities of estimator.
	36th	• **Test of Chapter 4th**
10th	37th	• **5. Estimation of Material Cost**
	38th	• Estimation of volumes
	39th	• weights and cost of material for items like pulley
	40th	• , spindle, lathe centre
11th	41st	• fly wheel, crank shaft and similar items
	42nd	• Simple numericals on the above, budgets and types of budgets.

	43rd	**6. Estimation of Machine Shop** • Set up time,
	44th	• operation time, handling time
12th	45th	• machining time, tear down time,
	46th	• allowances; personal, fatigue,
	47th	• tool checking/sharpening/changing, unit operation time,
	48th	• cycle time and total time, full depth of cut,
13th	49th	• cutting speeds for various operations for different tool materials and product materials
	50th	• estimation of time for various machining operations -
	51st	• turning, drilling, boring, tapping,
	52nd	• shaping, planning, milling and grinding.
14th	53rd	• **7. Estimation of Other Shops**
	54th	• Estimation of cost of different product
	55th	• Estimation of cost of different products produced in welding
	56th	• Estimation of cost of different products produced in welding- gas and electric welding
15th	57th	• Estimation of cost of different products produced in welding- forging and foundry shops.