Lesson Plan

Name of the faculty:Sh. Aakash Suran & Sh. Mohit kadyan Lecturer in Mechanical Engg.
Discipline: Mechanical
Semester: 6th Mechanical A & B
Subject : Estimating & Costing
Lesson Plan Duration: 15 weeks (From January 2025 to May, 2024)
**Work Load (Lecture/ Practical) per week (in hours): Theory-04

Week	Theory		Practical	
	Lecture day	Topic (including assignment / test)	Practical Day	Topic
1st	1st	Cost estimation-definition, Importance, purpose, elements for estimation, cost estimation procedure		
	2nd	Case study of any utility item, cost accounting, purposes of cost accounting		
	3rd	Comparison of estimating and costing		
2nd	1st	Organization of estimating department, cost estimator- his essential qualifications		
	2nd	Revision		
	3rd	Revision		
3rd	1st	types of estimates, constituents of job estimates		
	2nd	cost of production, selling price, capital investment		
	3rd	rate of return (ROR) on investment , principal factors in estimating, miscellaneous allowances		
4th	1st	Definitions, objectives, elements of costs		
	2nd	components of costs, ladder of cost, overhead expenses: factory expenses, depreciation cost-causes; methods of calculation of depreciation, obsolescence		
	3rd	interest on capital, idleness costs, repairs and maintenance cost, selling and distribution overheads and methods of allocation of overhead charges, procedure for costing		
5th	1st	Methods of costing with example; unit costing, batch costing		
	2nd	departmental costing, process costing		
	3rd	multiple and composite costing		
6th	1st	Estimation of volumes, weights and cost of material for items like pulley		
	2nd	spindle, lathe centre, fly wheel		
	3rd	crank shaft and similar items. Simple numerical on the above		
7th	1st	Provision of budgets based on estimates		
	2nd	Revision		

	3rd	Revision		
8th	1st	Set-up time, operation time, handling time		
	2nd	machining time, tear down time, allowances		
	3rd	Revision		
9th	1st	personal, fatigue, tool checking/sharpening/changing		
	2nd	unit operation time, cycle time and total time		
	3rd	full depth of cut, cutting speeds for various operations		
10th	1st	Revision		
	2nd	Revision		
	3rd	for different tool materials and product materials		
11th	1st	estimation of time for various machining operations		
	2nd	Revision		
	3rd	Revision		
12th	1st	turning, drilling, boring, tapping, shaping		
	2nd	planning, milling and grinding		
	3rd	Estimation of cost of different products produced in welding- gas and electric welding		
13th	1st	Revision		
	2nd	Estimating in injection and plastic moulding		
	3rd	Estimating in forging and foundry shops, various losses		
14th	1st	Die Cost Estimation: Basic approach to cost estimation – pricing history		
	2nd	work intensity history, additional costs		
	3rd	machinability of materials, cost of materials, evaluation. Die building estimates		
15th	1st	Characteristics -Principles -Procedure for Process costing, Accounting terminology		
	2nd	book value Net Present Value-Work in progress		
	3rd	Gross Domestic Product (GDP)-balance sheet, tendering process		