

MECHANICAL ENGINEERING DEPARTMENT

Session 2024-2025(6th semester)

Subject:-Estimating &Costing
Lesson Plan

Load:-3 hrs Theory

Week	THEORY	
	Day Lecture	Topic (Including Assignment/Test)
1	1	UNIT-1: Introduction: Cost estimation-definition, Importance, purpose,
	2	elements for estimation, cost estimation procedure. Case study of any utility item,
	3	cost accounting, purposes of cost accounting, Comparison of estimating and costing.
2	1	Fundamentals of Estimating: Organization of estimating department, cost estimator- his essential qualifications,
	2	types of estimates, constituents of job estimates, cost of production, selling price, capital investment,
	3	rate of return (ROR) on investment , principal factors in estimating, miscellaneous allowances,
3	1	UNIT-II: Elements of Costing: Definitions, objectives, elements of costs, components of costs,
	2	ladder of cost, overhead expenses: factory expenses, depreciation cost-causes; methods of calculation of depreciation,
	3	obsolescence, interest on capital, idleness costs, repairs and maintenance cost, selling and distribution overheads
4	1	methods of allocation of overhead charges, procedure for costing
	2	Methods of costing with example; unit costing, batch costing, departmental costing, process costing, multiple and composite costing
	3	Numericals
5	1	Revision
	2	Assignment 1
	3	1st Sessional test
	4	UNIT-III: Estimation of Material Cost: Estimation of volumes, weights and cost of material for items like pulley
6	1	spindle, lathe centre, fly wheel,
	2	crank shaft and similar items.
	3	Simple numerical on the above,
7	1	Provision of budgets based on estimates.
	2	UNIT-IV: Estimation of Machine Shop: Set-up time, operation time, handling time, machining time, tear down time
	3	allowances; personal, fatigue, tool checking/sharpening/changing, unit operation time, cycle time and total time,
8	1	full depth of cut, cutting speeds for various operations for different tool materials and product materials,
	2	Estimation of time for various machining operations - turning, drilling, boring, tapping, shaping, planning, milling and grinding.
	3	Estimation of Welding and Plastic Moulding: Estimation of cost of different products produced in welding- gas and
9	1	electric welding,
	2	Estimating in injection and plastic moulding
	3	Revision
10	1	Revision and Assignment-II

	2	2nd Sessional test
	3	UNIT-V: Estimation of Forging and Foundry Shops: Estimating in forging and
11	1	foundry shops, various losses.
	2	Die Cost Estimation: Basic approach to cost estimation – pricing history, work intensity history,
	3	additional costs, machinability of materials, cost of materials, evaluation. Die building estimates.
12	1	Process and Job Costing: Characteristics -Principles -
	2	Procedure for Process costing,
	3	Accounting terminology like -book value-Net Present Value-
13	1	Work in progress- Gross Domestic Product (GDP)-balance sheet,
	2	Introduction to tendering process.
	3	Revision
14	1	Revision
	2	Revision and Assignment-III
	3	3rd Sessional test
15	1	Revision

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