

LESSON PLAN

Discipline: MECHANICALENGG	Semester: 6TH	Name of the Teaching Faculty: PRAVAT KUMAR SWAIN	
Subject: INDUSTRIAL ENGG. & MANAGET(TH-1)	No. of days/per week class allotted: 04	SemesterFromdate: 04.02.2025	To Date: 17.05.2025
		No.ofWeeks: 15	
Week	Class Day	Theory Topics	
1ST	1ST	CHAPTER-1 Selection of site of industry	
	2ND	Introduction to Plant location Layout	
	3RD	Describe the objectives & the principles of a plant layout	
	4TH	Explain process & product layout ,product layout, combination layout, Techniques to improve layout	
2ND	1ST	Principal of material handling equipment	
	2ND	Plant maintenance	
	3RD	Importance of plant maintenance	
	4TH	Breakdown maintenance	
3RD	1ST	Preventive maintenance	
	2ND	Scheduled maintenance	
	3RD	CHAPTER-2 OPERATION RESERCH Introduction to operation research and its application	
	4TH	Define linear programming problem	
4TH	1ST	Solved numerical	
	2ND	Solved numerical	
	3RD	Solution of LPP by graphical method	
	4TH	Solved numerical	
5TH	1ST	Solved numerical	
	2ND	Evaluation of project completion time by CPM and PERT	
	3RD	Evaluation of project completion time by CPM and PERT contd.	
	4TH	Explain features of PERT with respect to CPM	
6TH	1ST	CHAPTER-3 INVENTORY CONTROL Classification of inventory	
	2ND	Objective of inventory control	
	3RD	Describe the functions of inventory	
	4TH	Benefits of inventory control	
7TH	1ST	Costs associated with inventory control	
	2ND	Terminology in inventory control	
	3RD	Explain and derive economic order quantity for basic model	
	4TH	Solve numerical	
8TH	1ST	Solve numerical	
	2ND	Define and explain ABC analysis	
	3RD	CHAPTER-4 INSPECTION AND QUALITY CONTROL. Define inspection and quality control	
	4TH	Describe planning inspection	
	1ST	Describe types of inspection	
	2ND	Advantage and dis advantage of quality control.	

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9 TH	3 RD	Study of factors influencing the quality of manufacture
	4 TH	Explain the concepts of statistical quality control
10 TH	1 ST	Control charts(X,R,P,C)
	2 ND	Method of attributes
	3 RD	Concepts of ISO 9001-2008
	4 TH	Quality management system
11 TH	1 ST	Registration/certificate procedure
	2 ND	Benefits of ISO to the organization
	3 RD	JIT, SIX sigma
	4 TH	7s, lean manufacturing
12 TH	1 ST	Solve related problems
	2 ND	Probable question answer discussion
	3 RD	CHAPTER-5 PRODUCTION PLANNING AND CONTROL Introduction
	4 TH	Major functions of production planning and control
13 TH	1 ST	Methods of forecasting
	2 ND	Routing
	3 RD	Scheduling
	4 TH	Dispatching
14 TH	1 ST	Controlling
	2 ND	Types of production
	3 RD	Mass production
	4 TH	Batch production
15 TH	1 ST	Job order production
	2 ND	Principles of product and process planning
	3 RD	Principles of product and process planning contd.
	4 TH	Probable question answer discussion

Learning Resources:

Sl. No.	Name of Authors	Title of the Book	Name of the Publisher
1	O.P.KHANNA	INDUSTRIAL ENGINEERING & MANAGEMENT	DHANPAT RAI & SONS
2	MARTAND TELSANG	INDUSTRIAL ENGG & PRODUCTION MANAGEMENT	S. CHAND
3	M.MAHAJAN	STATISTICAL QUALITY CONTROL	DHANPAT RAI & SON

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