

LESSON PLAN

Discipline: Mechanical	Semester: 6th	Name of the Teaching Faculty: Gitanjali Sethi
Subject: Industrial Engineering & Management (Th - 1)	No. Of Days/Week - 4 Class Allotted - 60	Semester From Date: 22.12.25 To Date: 18.04.26 No. of Weeks - 15
Week	Class Day	Theory/Practical Topics
1st	1st	(Chapter - 1) PLANT ENGINEERING: Selection of Site of Industry.
	2nd	Define plant layout. Describe the objective and principles of plant layout
	3rd	Explain Process Layout, Product Layout and Combination Layout.
	4th	Techniques to improve layout.
2nd	1st	Principles of material handling equipment.
	2nd	Plant maintenance.
	3rd	Importance of plant maintenance.
	4th	Break down maintenance.
3rd	1st	Preventive maintenance.
	2nd	Scheduled maintenance.
	3rd	(Chapter-2) OPERATIONS RESEARCH: Introduction to Operations Research and its applications.
	4th	Introduction to Operations Research and its applications.
4th	1st	Define - Linear Programming Problem,
	2nd	Define - Linear Programming Problem,
	3rd	Solution of L.P.P. by graphical method.
	4th	Solution of L.P.P. by graphical method.
5th	1st	Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)-
	2nd	Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)-
	3rd	Explain distinct features of PERT with respect to CPM.
	4th	Explain distinct 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 inventories.
	4th	Benefits of inventory control.
7th	1st	Costs associated with inventory.
	2nd	Terminology in inventory control
	3rd	Explain and Derive economic order quantity for Basic model. (Solve numerical)
	4th	Explain and Derive economic order quantity for Basic model. (Solve numerical)
8th	1st	Define and Explain ABC analysis.
	2nd	Define and Explain ABC analysis.
	3rd	(Chapter - 4) INSPECTION AND QUALITY CONTROL: Define Inspection and Quality control.
	4th	4.2 Describe planning of inspection.
9th	1st	Describe types of inspection.
	2nd	Advantages and disadvantages of quality control.
	3rd	Study of factors influencing the quality of manufacture
	4th	Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
10th	1st	Methods of attributes.
	2nd	Concept of ISO 9001-2008.
	3rd	Quality management system, Registration /certification procedure.
	4th	Benefits of ISO to the organization
11th	1st	JIT, Six sigma, 7S, Lean manufacturing
	2nd	7S, Lean manufacturing
	3rd	Solve related problems.
	4th	Solve related problems.
12th	1st	(Chapter-5) PRODUCTION PLANNING AND CONTROL Introduction
	2nd	Major functions of production planning and control

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13 th	1st	Major functions of production planning and control
	2nd	Methods of forecasting
	3rd	Routing
	4th	Scheduling
14 th	1st	Dispatching
	2nd	Controlling
	3rd	Types of production
	4th	Mass production
15 th	1st	Batch production
	2nd	Job order production
	3rd	Principles of product and process planning.
	4th	Principles of product and process planning.

GP
22.12.2025
G. Sethi.
Sr. Lect. Mech.