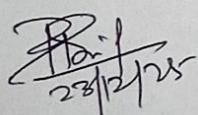




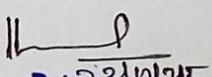
**GANPATI INSTITUTE OF ENGINEERING AND
TECHNOLOGY(POLYTECHNIC)JAGATPUR,CUTTACK**

LESSON PLAN

Discipline: MECHANICAL ENGG	Semester: 6TH	Name of the Teaching Faculty: PRAVAT KUMAR SWAIN
Subject: INDUSTRIAL ENGG. & MANAGEMENT(TH-1)	No. of days/per week class allotted: 04	Semester From date: 22.12.2025 To Date: 18.04.2026 No. of Weeks: 15
Week	Class Day	Theory Topics
1ST	1 ST	CHAPTER-1 Selection of site of industry
	2 ND	Introduction to Plant location Layout
	3 RD	Describe the objectives & the principles of a plant layout
	4 TH	Explain process & product layout ,product layout, combination layout, Techniques to improve layout
2ND	1 ST	Principal of material handling equipment
	2 ND	Plant maintenance
	3 RD	Importance of plant maintenance
	4 TH	Breakdown maintenance
3RD	1 ST	Preventive maintenance
	2 ND	Scheduled maintenance
	3 RD	CHAPTER-2 OPERATION RESERCH Introduction to operation research and its application
	4 TH	Define linear programming problem
4TH	1 ST	Solved numerical
	2 ND	Solved numerical
	3 RD	Solution of LPP by graphical method
	4 TH	Solved numerical
5TH	1 ST	Solved numerical
	2 ND	Evaluation of project completion time by CPM and PERT
	3 RD	Explain features of PERT with respect to CPM
	4 TH	Class Test-1
6TH	1 ST	CHAPTER-3 INVENTORY CONTROL-Classification of inventory
	2 ND	Objective of inventory control
	3 RD	Describe the functions of inventory
	4 TH	Benefits of inventory control
7TH	1 ST	Costs associated with inventory control
	2 ND	Terminology in inventory control
	3 RD	Explain and derive economic order quantity for basic model
	4 TH	Solve numerical
8TH	1 ST	Solve numerical
	2 ND	Define and explain ABC analysis
	3 RD	CHAPTER-4 INSPECTION AND QUALITY CONTROL Define inspection and quality control
	4 TH	Describe planning inspection
9TH	1 ST	Describe types of inspection
	2 ND	Advantage and dis-advantage of quality control.
	3 RD	Study of factors influencing the quality of manufacture
	4 TH	Explain the concepts of statistical quality control


28/12/2025

GS. 23/12/2025 Dept.
Mechanical Engg.
I.E. (Polytechnic)

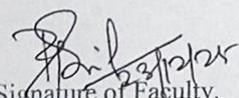

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Principal
GIET (Polytechnic)
Jagatpur, Cuttack

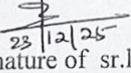
10 TH	1 ST	Control charts(X,R,P,C)
	2 ND	Method of attributes
	3 RD	Concepts of ISO 9001-2008
	4 TH	Quality management system
11 TH	1 ST	Registration/certificate procedure
	2 ND	Benefits of ISO to the organization
	3 RD	JIT, SIX sigma
	4 TH	7s, lean manufacturing
12 TH	1 ST	Solve related problems
	2 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	Probable question answer discussion
	4 TH	Class Test-2

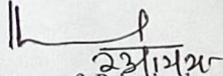
Learning Resources:

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

Prepared By
Er.PRAVAT KUMAR SWAIN
Lecturer In Mechanical Engg. Department
G.I.E.T (Polytechnic), Jagatpur, Cuttack


Signature of Faculty.
GIET(polytechnic)
Jagatpur, cuttack


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Signature of sr.lect.
GIET(polytechnic)
Jagatpur, cuttack Dept
Mechanical Engg.
G.I.E.T (Polytechnic) Jagatpur, Cuttack


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