

GOVT. POLYTECHNIC BOLANGIR		LESSON PLAN
Discipline : Mechanical	Semester: 6th	Name of the Teaching Faculty : <i>Manabhanjan Bhoi</i>
Subject :INDUSTRIAL ENGINEERING & MANAGEMENT	No. of Days / per week class allotted : 4	Semester From date : 05.02.2025 To Date : 17.05.2025 No. of Weeks: 15
Week	Class Day	Topics
05 Feb to 08 Feb	1st	PLANT ENGINEERING:
	2nd	Selection of Site of Industry.
	3rd	Define plant layout.
	4th	Describe the objective and principles of plant layout.
10 Feb to 15 Feb	1st	Explain Process Layout, Product Layout and Combination Layout.
	2nd	Techniques to improve layout.
	3rd	Principles of material handling equipment.
	4th	Plant maintenance.
17 Feb to 22 Feb	1st	Importance of plant maintenance.
	2nd	1.7.2 Break down maintenance.
	3rd	1.7.3 Preventive maintenance.
	4th	1.7.4 Scheduled maintenance
24 Feb to 01 Mar	1st	OPERATIONS RESEARCH:
	2nd	Introduction to Operations Research and its applications.
	3rd	Define Linear Programming Problem
	4th	2.3Solution of L.P.P. by graphical method.
03 Mar to 08 Mar	1st	Evaluation of Project completion time by Critical Path Method and PERT (Simple problems)-
	2nd	Explain distinct features of PERT with respect to CPM.
	3rd	INVENTORY CONTROL:
	4th	Classification of inventory.
10 Mar to 15 Mar	1st	Objective of inventory control.
	2nd	Describe the functions of inventories.
	3rd	Benefits of inventory control.
	4th	Costs associated with inventory.
17 Mar to 22 Mar	1st	Terminology in inventory control
	2nd	Explain and Derive economic order quantity for Basic model. (Solve numerical)
	3rd	Define and Explain ABC analysis.
	4th	INSPECTION AND QUALITY CONTROL:
24 Mar to 29 Mar	1st	4.1Define Inspection and Quality control.
	2nd	4.2Describe planning of inspection.
	3rd	4.3 Describe types of inspection.
	4th	4.4 Advantages and disadvantages of quality control.
31 Mar to 05 Apr	1st	Study of factors influencing the quality of manufacture.
	2nd	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
	3rd	4.7 Methods of attributes.
	4th	4.8 Concept of ISO 9001-2008.

07 Apr to 12 Apr	1st	Quality management system, Registration /certification procedure.
	2nd	Benefits of ISO to the organization.
	3rd	JIT, Six sigma, 7S, Lean manufacturing
	4th	Solve related problems.
14 Apr to 19 Apr	1st	Introduction
	2nd	Major functions of production planning and control
	3rd	Methods of forecasting
	4th	Routing
21 Apr to 26 Apr	1st	Scheduling
	2nd	Dispatching
	3rd	Controlling
	4th	Types of production Job order production Principles of product and process planning.
28 Apr to 03 May	1st	REVISION
	2nd	REVISION
	3rd	DOUBT CLEARING
	4th	DOUBT CLEARING
05 May to 10 May	1st	REVISION
	2nd	REVISION
	3rd	DOUBT CLEARING
	4th	DOUBT CLEARING
12 May to 17 May	1st	REVISION
	2nd	REVISION
	3rd	DOUBT CLEARING
	4th	DOUBT CLEARING

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