

BIT POLYTECHNIC, BALASORE			
ACADEMIC SESSION-2025-26 LESSON PLAN			
Discipline : Mechanical Engg.		Semester: 5th Sem	Name of the Teaching Faculty : KHAGEN MAHARNA
Subject : IE&M		No. of Days / per week class allotted : 04	Semester From date :14.07.2025 To Date : 17.10.2025
MONT	Week	Day	Topic
JULY	2ND	5TH	1. PLANT ENGINEERING: Selection of Site of Industry, Define plant layout , Describe the objective and principles of plant layout.
	3RD	1ST	Explain Process Layout, Product Layout and Combination Layout, Techniques to improve layout
		1ST	Principles of material handling equipment ,Plant maintenance. Importance of plant maintenance , Break down maintenance, Break down maintenance,Preventive maintenance, Scheduled maintenance
		2ND	Revision
		3RD	2. OPERATIONS RESEARCH : Introduction to Operations Research and its applications.
	4TH	1ST	Define Linear Programming Problem.
		1ST	Solution of L.P.P. by graphical method. Problem Solve
		2ND	Problem Solve
		3RD	Problem Solve
	5TH	1ST	Problem Solve
		1ST	Evaluation of Project completion time by Critical Path Method and PERT
		2ND	Problem Solve
		1ST	Problem Solve
AUGUST	2ND	1ST	Problem Solve
		1ST	Problem Solve
		2ND	Explain distinct features of PERT with respect to CPM.
	3RD	1ST	Class test-1
		1ST	Class test-1
		2ND	Class test-1
		3RD	Revision
	4TH	1ST	3. INVENTORY CONTROL: Classification of inventory , Objective of inventory control.
		1ST	Describe the functions of inventories, Benefits of inventory control.
		2ND	Costs associated with inventory. Terminology in inventory contro
		3RD	Explain and Derive economic order quantity for Basic model. (Solve numerical)
	5TH	1ST	Problem Solve
		1ST	Define and Explain ABC analysis.
		2ND	Revision

		3RD	4. INSPECTION AND QUALITY CONTROL: Define Inspection and Quality control, Describe planning of inspection. Describe types of inspection
SEPTEMBER	1ST	3RD	Advantages and disadvantages of quality control , Study of factors influencing the quality of manufacture
	2ND	1ST	Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
		1ST	Problem Solve
		2ND	Problem Solve
		3RD	Problem Solve
	3RD	2ND	Methods of attributes , Concept of ISO 9001-2008.
		3RD	Quality management system, Registration /certification procedure, Benefits of ISO to the organization.
	4TH	1ST	JIT, Six sigma, 7S, Lean manufacturing
		1ST	Solve related problems
		2ND	Revision
		3RD	5. PRODUCTION PLANNING AND CONTROL: Introduction , Major functions of production planning and control
	5TH	1ST	Methods of forecasting
		1ST	Routing Scheduling , Dispatching , Controlling
		2ND	Mass production Batch Production Job order production
		3RD	Principles of product and process planning
OCTOBER	2ND	1ST	Revision
		1ST	Previous Year Question Discussion
		2ND	Previous Year Question Discussion
		3RD	Previous Year Question Discussion
	3RD	2ND	Previous Year Question Discussion
		3RD	Previous Year Question Discussion