

DHABALESWAR INSTITUTE OF POLYTECHNIC

LESSON PLAN

Discipline: <u>MECH</u>		Name of the Teaching Faculty	
Semester: <u>6th</u>		Semester from Dt. <u>14-02-23</u> to Dt. <u>23-05-23</u>	
Subject: <u>I.E 2 M</u>		No. of Weeks: <u>15</u>	
Week	Class Day	Theory / Practical Topics	
<u>1st</u>	<u>1st day</u>	<u>PLANT ENGINEERING</u>	
	<u>2nd day</u>	Site selection of industry.	
		Plant layout (Definition)	
<u>2nd</u>		Objective and principles of plant layout	
	<u>3rd</u>	Process layout, Product layout and Combination layout.	
	<u>1st</u>	Techniques to improve layout.	
	<u>2nd</u>	Principles of material handling equipment	
	<u>3rd</u>	Plant maintenance.	
<u>3rd</u>	<u>4th</u>	Importance of plant maintenance.	
	<u>5th</u>	Breakdown maintenance.	
		Preventive maintenance.	
		Scheduled maintenance.	
<u>4th</u>		<u>OPERATIONS RESEARCH:</u>	
	<u>1st</u>	Introduction to O.R and its application.	
	<u>2nd</u>	Linear programming problem.	
<u>5th</u>	<u>1st</u>	Solution of L.P.P by graphical method.	
	<u>2nd</u>	Evaluation of project completion time by CPM and PERT.	
	<u>3rd</u>	Simple problems on CPM and PERT	
<u>6th</u>	<u>1st</u>	Distinct features of PERT with CPM.	
	<u>2nd</u>	<u>INVENTORY CONTROL.</u>	
	<u>3rd</u>	Classification of inventory.	
<u>7th</u>	<u>1st</u>	Objective of inventory control.	
	<u>2nd</u>	Functions of inventories.	

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7th	3rd	Benefits of inventory control.
	4th	Costs associated with inventory.
	5th	Terminology in inventory control.
	1st	Explain and Derive EOQ for basic model.
	2nd	Simple Problems on EOQ.
	3rd	Define and Explain ABC Analysis.
	4th	
	5th	
	8th	<u>INSPECTION & QUALITY CONTROL</u>
	1st	Define Inspection and Quality Control.
9th	2nd	Describe planning of inspection.
	3rd	Describe types of inspection.
	1st	Advantages and Disadvantages of Quality Control.
	2nd	Study of factors influencing the quality of manufacture.
	3rd	Concept of SQC, Control charts.
10th	4th	X, R, P and C charts.
		Methods of attributes.
	1st	Concept of ISO 9001-2008.
	2nd	Quality management System, Registration / Certification Procedure
	3rd	Benefits of ISO to the organization
11th	1st	JIT, Six Sigma, 7S, Lean manufacturing.
	2nd	
	3rd	Numericals on above.
	4th	
	5th	

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Week	Class Day	Theory / Practical Topics
12th	1st 2nd 3rd 4th 5th	<u>PRODUCTION PLANNING AND CONTROL</u> Introduction. Major functions of PPC. Methods of forecasting. Routing. Scheduling. Dispatching. Controlling. Types of production. Mass production. Batch production. Job order production. Principles of product and process planning.
13th	1st 2nd 3rd 4th 5th	
14th	1st 2nd 3rd 4th 5th	
15th	1st 2nd	