- **GOVERNMENT POLYTECHNIC JAGATSINGHPUR**

MECHANICAL ENGINEERING DEPARTMENT
LESSON PLAN

Discipline :- **MECHANICAL**	Semester:- **6TH**	Name of the Teaching Faculty **OM PRAKASH KAR**
Subject:- INDUSTRIAL ENGINEERING & MANAGEMENT Course Code: **TH1**	No of Days/per Week Class **Allotted :-04**	Semester :15 WEEKS
Week	**Class Day**	**Theory/ Practical Topics**
1st	1st	Selection of Site of Industry.
	2nd	Define plant layout.
	3rd	Describe the objective of plant layout.
	4th	principles of plant layout.
2nd	1st	Explain Process Layout
	2nd	Explain Product Layout
	3rd	Explain Combination Layout
	4th	Techniques to improve layout
3rd	1st	Principles of material handling equipment.
	2nd	Plant maintenance.
	3rd	Importance of plant maintenance
	4th	Break down maintenance
4th	1st	Preventive maintenance
	2nd	Scheduled maintenance
	3rd	Introduction to Operations Research
	4th	its applications
5th	1st	Define Linear Programming Problem,
	2nd	Solution of L.P.P. by graphical method
	3rd	Solution of L.P.P. by graphical method
	4th	Evaluation of Project completion time by Critical Path Method
6th	1st	Evaluation of Project completion time by Critical Path Method
	2nd	PERT
	3rd	Simple problems
	4th	Simple problems

7th	1st	Explain distinct features of PERT with respect to CPM
	2nd	Classification of inventory
	3rd	Objective of inventory control
	4th	Describe the functions of inventories
8th	1st	Benefits of inventory control
	2nd	Costs associated with inventory
	3rd	Terminology in inventory control
	4th	Explain economic order quantity for Basic model
9th	1st	Derive economic order quantity for Basic model
	2nd	Solve numerical
	3rd	Solve numerical
	4th	Define and Explain ABC analysis.
10th	1st	Define Inspection
	2nd	Quality control
	3rd	Describe planning of inspection
	4th	Describe types of inspection
11th	1st	Advantages and disadvantages of quality control
	2nd	Study of factors influencing the quality of manufacture
	3rd	Explain the Concept of statistical quality control. X, R,P and C - charts
	4th	Methods of attributes
12th	1st	Define Inspection and Quality control
	2nd	Describe types of inspection. Advantages and disadvantages of quality control
	3rd	Study of factors influencing the quality of manufacture. Explain the Concept of statistical quality control, Control charts (X, R,P and C - charts).
	4th	Methods of attributes.
13th	1st	Concept of ISO 9001-2008
	2nd	Quality management system, Registration /certification procedure
	3rd	Benefits of ISO to the organization
	4th	JIT, Six sigma,7S, Lean manufacturing
14th	1st	7S, Lean manufacturing
	2nd	problems
	3rd	Introduction,Major functions of production planning and control Methods of forecasting
	4th	Routing ‘Scheduling,Dispatching
15th	1st	Controlling ,Types of production ,Mass production
	2nd	Batch production
	3rd	Job order production
	4th	Principles of product and process planning.