

• GOVERNMENT POLYTECHNIC DHENKANAL

MECHANICAL ENGINEERING DEPARTMENT
LESSONPLAN

Discipline:- MECHANICAL	Semester:- 6TH	Nameof the TeachingFaculty MUKESH KUMAR DALEI
Subject:- INDUSTRIAL ENGINEERING & MANAGEMENT	No ofDays/ perWeek ClassAll otted :- 04	Semester: 15 WEEKS (14.02.2023-23.05.2023)
CourseCode: TH1		
Week	Class Day	Theory/Practical Topics
1 st	1 st	Selection of Site of Industry.
	2 nd	Define plant layout.
	3 rd	Describe the objective of plant layout.
	4 th	principles of plant layout.
2 nd	1 st	Explain Process Layout
	2 nd	Explain Product Layout
	3 rd	Explain Combination Layout
	4 th	Techniques to improve layout
3 rd	1 st	Principles of material handling equipment.
	2 nd	Plant maintenance.
	3 rd	Importance of plant maintenance
	4 th	Breakdown maintenance
4 th	1 st	Preventive maintenance
	2 nd	Scheduled maintenance
	3 rd	Introduction to Operations Research
	4 th	its applications
5 th	1 st	Define Linear Programming Problem,
	2 nd	Solution of L.P.P. by graphical method
	3 rd	Solution of L.P.P. by graphical method
	4 th	Evaluation of Project completion time by Critical Path Method
6 th	1 st	Evaluation of Project completion time by Critical Path Method
	2 nd	PERT
	3 rd	Simple problems
	4 th	Simple problems

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