LESSON PLAN

SUBJECT: TH -1 INDUSTRIAL ENGG. & MANAGEMENT

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	PLANT ENGINEERING	10	10
2	OPERATIONS RESEARCH	10	10
3	INVENTORY CONTROL	10	10
4	INSPECTION AND QUALITY CONTROL	15	15
5	PRODUCTION PLANNING AND CONTROL	15	15
	TOTAL	60	60

Discipline: MECHANICAL ENGG.	Semester: 6TH	Name of the Teaching Faculty: Er. BISHNU CHARAN JENA
Week	**Class Day**	**Theory / Practical Topics**
1st	1st	1.1 Selection of Site of Industry.
	2nd	1.2 Define plant layout.
	3rd	1.3 Describe the objective and principles of plant layout.
	4th	1.3 Describe the objective and principles of plant layout.
2nd	1st	1.4 Explain Process Layout, Product Layout and Combination Layout.
	2nd	1.4 Explain Process Layout, Product Layout and Combination Layout.
	3rd	1.5 Techniques to improve layout.
	4th	1.6 Principles of material handling equipment.
3rd	1st	1.7 Plant maintenance.
	2nd	1.7.1 Importance of plant maintenance.
	3rd	1.7.2 Break down maintenance.
	4th	1.7.3 Preventive maintenance. 1.7.4 Scheduled maintenance.
4th	1st	2.1 Introduction to Operations Research and its applications.
	2nd	2.2 Define Linear Programming Problem,
	3rd	2.3Solution of L.P.P. by graphical method.
	4th	2.3Solution of L.P.P. by graphical method.
5th	1st	2.4 Evaluation of Project completion time by Critical Path Method and PERT (Simple
	2nd	2.4 Evaluation of Project completion time by Critical Path Method and PERT (Simple
	3rd	2.5Explain distinct features of PERT with respect to CPM.
	4th	2.5Explain distinct features of PERT with respect to CPM.
6th	1st	3.1 Classification of inventory.
	2nd	3.2 Objective of inventory control.
	3rd	3.3 Describe the functions of inventories.
	4th	3.4 Benefits of inventory control.
7th	1st	3.5 Costs associated with inventory.
	2nd	3.6 Terminology in inventory control
	3rd	3.7 Explain and Derive economic order quantity for Basic model. (Solve numerical)
	4th	3.7 Explain and Derive economic order quantity for Basic model. (Solve numerical)

8th	**1st**	3.8 Define and Explain ABC analysis.
	2nd	3.8 Define and Explain ABC analysis.
	3rd	4.1 Define Inspection and Quality control
	4th	4.2 Describe planning of inspection.
9th	**1st**	4.3 Describe types of inspection.
	2nd	4.4 Advantages and disadvantages of quality control.
	3rd	4.5 Study of factors influencing the quality of manufacture.
	4th	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
10th	**1st**	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C -
	2nd	4.7 Methods of attributes.
	3rd	4.8 Concept of ISO 9001-2008.
	4th	4.9.1 Quality management system, Registration /certification procedure.
11th	**1st**	4.9.2 Benefits of ISO to the organization.
	2nd	4.9.3 JIT, Six sigma,7S, Lean manufacturing
	3rd	4.9.4 Solve related problems.
	4th	4.9.4 Solve related problems.
12th	**1st**	4.9.4 Solve related problems.
	2nd	5.1 Introduction
	3rd	5.2 Major functions of production planning and control
	4th	5.3 Methods of forecasting
13th	**1st**	5.3.1 Routing
	2nd	5.3.2 Scheduling
	3rd	5.3.3 Dispatching
	4th	5.3.4 Controlling
14th	**1st**	5.4 Types of production
	2nd	5.4.1 Mass production
	3rd	5.4.2 Batch production
	4th	5.4.3 Job order production
15th	**1st**	5.5 Principles of product and process planning.
	2nd	5.5 Principles of product and process planning.
	3rd	Revision
	4th	Revision