

**NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY**

SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)

**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: AUTOMOBILE ENGINEERING	Semester: 6TH	Name of the Teaching Faculty: Er.Ranjit Giri
Week	Class Day	Theory / Practical Topics
1 st	1 st	1.1 Selection of Site of Industry.
	2 nd	1.2 Define plant layout.
	3 rd	1.3 Describe the objective and principles of plant layout.
	4 th	1.3 Describe the objective and principles of plant layout.
2 nd	1 st	1.4 Explain Process Layout, Product Layout and Combination Layout.
	2 nd	1.4 Explain Process Layout, Product Layout and Combination Layout.
	3 rd	1.5 Techniques to improve layout.
	4 th	1.6 Principles of material handling equipment.
3 rd	1 st	1.7 Plant maintenance.
	2 nd	1.7.1 Importance of plant maintenance.
	3 rd	1.7.2 Break down maintenance.
	4 th	1.7.3 Preventive maintenance. 1.7.4 Scheduled maintenance.

4 th	1 st	2.1 Introduction to Operations Research and its applications.
	2 nd	2.2 Define Linear Programming Problem,
	3 rd	2.3Solution of L.P.P. by graphical method.
	4 th	2.3Solution of L.P.P. by graphical method.
5 th	1 st	2.4 Evaluation of Project completion time by Critical Path Method and PERT (Simple
	2 nd	2.4 Evaluation of Project completion time by Critical Path Method and PERT (Simple
	3 rd	2.5Explain distinct features of PERT with respect to CPM.
	4 th	2.5Explain distinct features of PERT with respect to CPM.
6 th	1 st	3.1 Classification of inventory.
	2 nd	3.2 Objective of inventory control.
	3 rd	3.3 Describe the functions of inventories.
	4 th	3.4 Benefits of inventory control.
7 th	1 st	3.5 Costs associated with inventory.
	2 nd	3.6 Terminology in inventory control
	3 rd	3.7 Explain and Derive economic order quantity for Basic model. (Solve numerical)
	4 th	3.7 Explain and Derive economic order quantity for Basic model. (Solve numerical)

8 th	1 st	3.8 Define and Explain ABC analysis.
	2 nd	3.8 Define and Explain ABC analysis.
	3 rd	4.1 Define Inspection and Quality control
	4 th	4.2 Describe planning of inspection.
9 th	1 st	4.3 Describe types of inspection.
	2 nd	4.4 Advantages and disadvantages of quality control.
	3 rd	4.5 Study of factors influencing the quality of manufacture.
	4 th	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C - charts).
10 th	1 st	4.6 Explain the Concept of statistical quality control, Control charts (X, R, P and C -
	2 nd	4.7 Methods of attributes.
	3 rd	4.8 Concept of ISO 9001-2008.
	4 th	4.9.1 Quality management system, Registration /certification procedure.
11 th	1 st	4.9.2 Benefits of ISO to the organization.
	2 nd	4.9.3 JIT, Six sigma, 7S, Lean manufacturing
	3 rd	4.9.4 Solve related problems.
	4 th	4.9.4 Solve related problems.

12 th	1 st	4.9.4 Solve related problems.
	2 nd	5.1 Introduction
	3 rd	5.2 Major functions of production planning and control
	4 th	5.3 Methods of forecasting
13 th	1 st	5.3.1 Routing
	2 nd	5.3.2 Scheduling
	3 rd	5.3.3 Dispatching
	4 th	5.3.4 Controlling
14 th	1 st	5.4 Types of production
	2 nd	5.4.1 Mass production
	3 rd	5.4.2 Batch production
	4 th	5.4.3 Job order production
15 th	1 st	5.5 Principles of product and process planning.
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	3 rd	Revision
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