Orissa School of Mining Engineering Keonjhar

Department of Mechanical Engineering

Subject: **Industrial Engineering & Management**			
Discipline: **Mechanical Engineering**		Name of the Faculty: **Dr Niharika Mohanta**	
Course Code:	**Th1**	Semester:	**6th**
Total Periods:	**4P/W**	Examination:	**2023 SUMMER**
Theory Periods:	4P/W	Class Test:	20
Maximum Marks:	**100**	End Semester Examination:	80

Lesson Plan w.e.f 14.02.2023 23.05.2023

Month	Week	Availability of classes	Class Day	Theory Topics
FEB	1st	04	14/02/2023	**1.Plant Engineering** 1.1 selection of Site of Industry. Describing the features governing plant location.
			15/02/2023	1.2 Plant layout: Definition,1.3 Describe the objective and principles of plant layout
			16/02/2023	1.4 Product Layout: Definition ,Description, advantage ,disadvantage Process Layout: Definition ,Description, advantage, disadvantage
			17/02/2023	Combination layout: Definition ,Description, advantage disadvantage
	2nd	04	21/02/2023	1.5 Techniques for improvement plant layout.
			22/02/2023	1.6 Principles of material handling equipment.
			23/02/2023	1.7 Plant maintenance**:** Objectives of plant maintenance,1.7.1 Importance of plant maintenance
			24/02/2023	1.7.2 Types of maintenance, Breakdown maintenance 1.7.3 Preventive maintenance
	3rd	04	28/02/2023	1.7.4 Scheduled maintenance, Predictive maintenance
MARCH			1/03/2023	Topic end, Question answer discussion, Assignment 1
			2/03/2023	**2.Operations Research:** **2.1** Introduction to Operations Research and its applications
			3/03/2023	2.2Define Linear Programming Problem
	4th	02	9/03/2023	2.3 Solution of L.P.P. by graphical method
			10/03/2023	Numerical problems related to L.P.P.
	5th	04	14/03/2023	2.4 Evaluation of Project completion time by Critical Path Method(CPM)
			15/03/2023	Numerical problems related to CPM
			16/03/2023	Program Evaluation and Review Technique(PERT) Method
			17/03/2023	Numerical problems related to PERT
	6th	04	21/03/2023	2.5 Distinct features of PERT with respect to CPM
			22/03/2023	Topic end, Question answer discussion, Assignment 2
			23/03/2023	**Class test-1**
			24/03/2023	**3 Inventory Control:** **3.1** Classification of inventory

	7th	03	28/03/2023	3.2 Objective of inventory control. 3.3 Describe the functions of inventories.
			29/03/2023	3.4 Benefits of inventory control 3.5 Costs associated with inventory
			31/03/2023	3.6 Terminology in inventory control
APRIL	8th	03	04/04/2023	3.7 What is Economic Order Quantity(EOQ),Derive Economic Order Quantity(EOQ) for Basic model
			05/04/2023	Numerical problems related to EOQ
			06/04/2023	3.8 Define and Explain ABC analysis. Assignment 3
	9th	03	11/04/2023	**4.Inspection and Quality Control:** **4.1** Define Inspection and Quality control 4.2 Describe planning of inspection(method)
			12/04/2023	4.3 Types of inspection(Explanation)
			13/04/2023	4.4 Advantages and disadvantages of quality control. 4.5 factors influencing the quality of manufacture
	10th	04	18/04/2023	4.6 Concept of statistical quality control(SQC),
			19/04/2023	Control charts (X, R, P and C - charts) (Concepts and significance)
			20/04/2023	Numerical problems related to Control charts 4.7 Methods of attributes.
			21/04/2023	4.8 Concept of ISO 9001-2008.
	11th	04	25/04/2023	4.9.1 Quality management system, Registration /certification procedure.
			26/04/2023	INTERNAL ASSESMENT
			27/04/2023	INTERNAL ASSESMENT
			28/04/2023	INTERNAL ASSESMENT
MAY	12th	03	02/05/2023	4.9.2 Benefits of ISO to the organization.
			03/05/2023	4.9.3 Just In Time (JIT) method, **:** Concept, Benefits, implementation areas, advantages ,current applications
			04/05/2023	Six Sigma Technique
	13th	04	09/05/2023	7S Technique, Lean manufacturing
			10/05/2023	4.9.4 Numerical problems .Topic end, Question answer discussion, Assignment 4
			11/05/2023	**Class test -2**
			12/05/2023	**5.Production Planning And Control:** 5.1 Introduction
	14th	03	16/05/2023	5.2 Major functions of production planning and control
			17/05/2023	5.3 Methods of forecasting 5.3.1 Routing 5.3.2 Scheduling
			18/05/2023	5.3.3 Dispatching
	15th	05	23/05/2023	5.3.4 Controlling
			EXTRA CLASS	V ST
			EXTRA CLASS	5.4 Types of production 5.4.1 Mass production, 5.4.2 Batch production,5.4.3 Job order production
			EXTRA CLASS	5.5 Principles of product and process planning
			EXTRA CLASS	Topic end, Question answer discussion, Assignment 5
			EXTRA CLASS	Revision.

Prepared by **HOD, Mechanical Engg** **Principal**

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