

# ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY, BHUBANESWAR

Discipline:	Mechanical	Semester:	6 <sup>th</sup> Sem	Name of the Teaching Faculty	
Subject:	Industrial Engineering & Management	No of Days/Week Class Allotted:		Semester From date:	_____ To date _____
				No. of Weeks:	
WEEK	Class Day	Theory Topics			
01	1st	Introduction about Industrial Engineering & Management.			
	2nd	What is the requirement of this paper. How this paper will help in future.			
	3rd	<u>Unit-1</u> :- 1. Plant Engineering 1.1. Selection of Site of Industry.			
	4th	1.2. Define plant layout 1.3. Describe the objective and principles of plant layout.			
	5th				
02	1st	1.4. Explain process layout, Product layout & Combination layout. 1.5. Techniques to improve layout.			
	2nd	1.6. Principles of material handling equipment. 1.7. Plant maintenance.			
	3rd	1.7.1. Importance of plant maintenance. 1.7.2. Break down maintenance.			
	4th	1.7.3 Preventive maintenance 1.7.4 Scheduled maintenance.			
	5th				
03	1st	<u>Unit-2</u> :- Operations Research 2.1. Introduction to Operations Research and its application.			
	2nd	2.1. Introduction to operations Research & its application.			
	3rd	2.2. Define Linear Programming Problem.			
	4th	2.3. Solution of L.P.P. by graphical method.			
	5th				

04	1st	2.3. Solution of L.P.P. by graphical method.
	2nd	2.4. Evaluation of Project Completion time by critical Path Method and PERT
	3rd	2.4. Simple problem on evaluation of Project Completion time by critical path method.
	4th	2.4. Simple problem on PERT
	5th	
05	1st	2.5. Explain distinct features of PERT with respect to CPM.
	2nd	<u>Class Test</u>
	3rd	Discussion with students & doubt clearing class.
	4th	Doubt Clearing class.
	5th	
06	1st	<u>Unit-3</u> :- Inventory Control 3.1. Introduction about Inventory Control
	2nd	3.1. Classification of inventory.
	3rd	3.2. Objective of inventory Control.
	4th	3.3. Describe the functions of inventories.
	5th	

ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY, BHUBANESWAR

Time

Subject: Mechanical	Semester: 6 <sup>th</sup> Sem.	Name of the Teaching Faculty	
Subject: Industrial Engineering & Management.	No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:

WEEK	Class Day	Theory Topics
07	1st	3.4. Benefits of inventory control.
	2nd	3.5. Costs associated with inventory.
	3rd	3.6. Terminology in inventory control.
	4th	3.7. Explain and derive economic order quantity for Basic model.
	5th	
08	1st	3.7. Solve numerical on Economic order quantity for Basic model.
	2nd	3.8. Define & Explain ABC analysis.
	3rd	<u>Unit-4</u> :- Inspection & Quality Control Introduction on this.
	4th	4.1. Define Inspection and Quality Control.
	5th	
09	1st	4.2. Describe planning of inspection
	2nd	4.3. Describe types of inspection.
	3rd	4.4. Advantage & disadvantages of Quality Control.
	4th	4.5. Study of factors influencing the quality of manufacture.
	5th	

10	1st	4.6. Explain the Concept of Statistical Quality Control, Control charts (X, R, P & C)
	2nd	Control charts (X, R, P & C charts)
	3rd	4.7. Methods of attributes
	4th	4.8. Concept of ISO 9001-2008.
	5th	
11	1st	4.9. Quality management system. 4.9.1. Registration / certificate procedure.
	2nd	4.9.2. Benefits of ISO to the Organization
	3rd	4.9.3. JIT, Six sigma, 7S, Lean Manufacturing
	4th	4.9.4. Solve related problems.
	5th	
12	1st	<u>Class test - II</u>
	2nd	Discussion with students & doubt clearing class.
	3rd	Discussion with students & doubt clearing class.
	4th	<u>Unit - 5</u> : Production Planning & Control. 5.1. Introduction.
	5th	

AR.  
Mec  
Industrial  
Engineering  
Man

Course: Mechanical	Semester: 6 <sup>th</sup> Sem	Name of the Teaching Faculty	
Subject: Industrial Engineering & Management	No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:

WEEK	Class Day	Theory Topics
13	1st	5.2. Major functions of production planning & Control
	2nd	5.3. Methods of forecasting
	3rd	5.3.1. Routing 5.3.2. Scheduling
	4th	5.3.4. Controlling
	5th	
14	1st	5.4. Types of Production & briefly describe
	2nd	5.4.1. Mass production 5.4.2. Batch production
	3rd	5.4.3. Job order production
	4th	5.5. Principles of product and process planning.
	5th	
15	1st	Previous Years Question Paper discussion
	2nd	Doubt clearing classes
	3rd	Previous Year Question discussion
	4th	Doubt clearing classes & Important Question distribution to students.
	5th	