Discipline: Mechanical Engineering	**Semester :** 6th Semester	**Name of the Teaching Faculty:** Shri SHEKHAR KUMAR SAHU, PTGF mechanical Engineering	
Subject: INDUSTRIAL ENGINEERING & MANAGEMENT	**No. of Days/week Class Allotted: 60**	**No of weeks: 18**	
week	**Class Day**	**Theory Topics**	
1st	1st	Selection of Site of Industry.	
	2nd	Define plant layout.	
	3rd	Describe the objective and principles of plant layout.	
	4th	Explain Process Layout	
2nd	1st	Explain Product Layout	
	2nd	Explain Combination Layout.	
	3rd	Techniques to improve layout.	
	4th	Principles of material handling equipment.	
3rd	1st	Plant maintenance.	
	2nd	Importance of plant maintenance.	
	3rd	Break down maintenance.	
	4th	Preventive maintenance.	
4th	1st	Scheduled maintenance.	
	2nd	Introduction to Operations Research and its applications.	
	3rd	Define Linear Programming Problem	
	4th	Problem Solution of L.P.P. by graphical method.	
5th	1st	Evaluation of Project completion time by CPM	
	2nd	Evaluation of Project completion time by PERT	
	3rd	Explain distinct features of PERT with respect to CPM.	
	4th	Solving some basic problems on CPM and PERT for comparison	
6th	1st	Classification of inventory	
	2nd	Objective of inventory control.	
	3rd	Describe the functions of inventories.	
	4th	Benefits of inventory control.	
7th	1st	Costs associated with inventory.	

	2nd	Terminology in inventory control	
	3rd	Explain and Derive economic order quantity for Basic model.	
	4th	Basic numerical	
8th	1st	Define and Explain ABC analysis.	
	2nd	Define Inspection and Quality control.	
	3rd	Describe planning of inspection.	
	4th	Describe types of inspection.	
9th	1st	Advantages and disadvantages of quality control.	
	2nd	Study of factors influencing the quality of manufacture	
	3rd	Explain the Concept of statistical quality control, Control charts	
	4th	X Chart	
10th	1st	R Chart	
	2nd	P Chart	
	3rd	C Chart	
	4th	Methods of attributes.	
11th	1st	Concept of ISO 9001-2008.	
	2nd	Qualitymanagement system, Registration /certification procedure.	
	3rd	Benefits of ISO to the organization.	
	4th	JIT	
12th	1st	Six sigma	
	2nd	7S, Lean manufacturing	
	3rd	Basic Numericals	
	4th		
13th	1st	Introduction to Production planning and control	
	2nd	Major functions of production planning and control	
	3rd	Methods of forecasting	
	4th	Routing	
14th	1st	Scheduling	
	2nd	Dispatching	
	3rd	Controlling	
	4th	Types of production	
15th	1st	Mass production	
	2nd	Batch production	
	3rd	Job order production	
	4th	Principles of product and process planning.	
16th	1st	Revision of Chapter – 6.1,6.2,6.3	
	2nd	Revision of Chapter – 6.4,6.5	
	3rd	Revision of Chapter – 7	
	4th	Revision of Chapter – 8	
17th	1st	Revision of Chapter – 9	
	2nd	Revision of Chapter – 10	
	3rd	Discussion of Probable Questions and Answers (1)	
	4th	Discussion of Probable Questions and Answers(2)	
18th	1st	Discussion of Probable Questions and Answers (3)	
	2nd	Discussion of Probable Questions and Answers(4)	
	3rd	Discussion of Probable Questions and Answers (5)	
	4th	Discussion of Probable Questions and Answers (6)	