

GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT

LessonPlan

Name of the Program	Diplomain Mechanical Engineering			
Course Name	INDUSTRIAL ENGINEERING AND MANAGEMENT		Course Code	TH-1
Course Year	Second	Semester	5th	Academic Period
				2022-23
No. of Classes allotted per Week		05	Planned Classes Required to Complete the Course	
			60	

Sl.No.	Topic to be covered	Module	No. of hours Required	Mode of Teaching
1	Plant Engineering	I	01	LM/IM
2	Selection of site of industry	I	01	LM/IM
3	Define plant layout	I	01	LM/IM
4	Describe the objective and principles of plant layout	I	01	LM/IM/ICT
5	Explain Process Layout, Product Layout and Combination Layout	I	02	LM/IM
6	Techniques to improve Layout	I	01	LM/IM
7	Principles of material handling equipment	I	02	LM/IM
8	Plant Maintenance	I	02	LM/IM/ICT
9	Importance of Plant maintenance	I	01	LM/IM
10	Breakdown Maintenance	I	01	LM/IM
11	Preventive Maintenance	I	02	LM/IM
12	Scheduled Maintenance	I	02	LM/IM
13	Operation Research	II	02	LM/IM
14	How to manage the manufacturing according to the inventory and selling of company	II	01	LM/IM
14	Introduction to operation research and its applications	II	01	LM/IM
15	Define Linear Programming Problem	II	03	LM/IM
16	Solution of L.P. by graphical method	II	02	LM/IM
17	Evaluation of Project completion time by critical path method and PERT	II	02	LM/IM
18	Explain distinct features of PERT with respect to CPM	II	02	LM/IM
19	Inventory Control: Classification of inventory	III	01	LM/IM/ICT
20	Objective and function of inventories and its control	III	01	LM/IM
21	Benefit of inventory, Cost associated with inventory	III	02	LM/IM

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22	Terminology in Inventory control	III	01	LM/IM
23	Explain and derive economic order quantity for basic model (Solve Numerical)	III	02	LM/IM
24	Define and Explain ABC Analysis	III	02	LM/IM
25	Inspection and Quality Control	IV	01	LM/IM
26	Describe planning of inspection and its types	IV	01	LM/IM
27	Advantages and disadvantages of quality control	IV	01	LM/IM
28	Study of factors influencing the quality of manufacture	IV	01	LM/IM
29	Explain the concept of statistical quality control, control charts (X, R, P and C charts)	IV	02	LM/IM
30	Different types of methods used to check the quality of material (Beyond Syllabus)	IV	01	LM/IM
31	Methods of attributes and Concept of ISO 9001-2008	IV	01	LM/IM
32	Quality management system, Registration/Certification Procedure	IV	01	LM/IM
33	Benefits of ISO to the organization	IV	02	LM/IM/ICT
34	Different types of standardization process and ASTM terminology standards (Beyond Syllabus)	IV	01	LM/IM
35	JIT, Six sigma, 7S, Lean Manufacturing, Solve problems	IV	02	LM/IM
36	Production Planning and Control	V	01	LM/IM
37	Major function of production planning and control	V	01	LM/IM
38	Methods of forecasting	V	01	LM/IM/ICT
39	Routing, Scheduling, Dispatching, Controlling	V	01	LM/IM
40	Types of production	V	01	LM/IM
41	Mass Production, Batch Production, Job order Production	V	01	LM/IM
42	Principle of product and process planning	V	01	LM/IM

Signature of the Faculty

Signature of the HoD