INSTITUTE	**DIPLOMA STUDIES**
PROGRAM	**DIPLOMA ENGINEERING (MECHANICAL ENGINEERING)**
SEMESTER	**6**
COURSE TITLE	**INDUSTRIAL MANAGEMENT**
COURSE CODE	**09ME2601**
COURSE CREDITS	**3**

Objective:

1 As per the current scenario and tough competition in the market optimum utilization of resources is necessary. Industrial management shows how to use the optimum resources and to achieve maximum efficiency in industries. More over quality and cost control are also effective parameter on the product. Quality and cost control parameter needs to day to day supervision. Main aims of this syllabus to deal with regular industries issues and improve the production, Planning and cost control over the product.

Course Outcomes: After completion of this course, student will be able to:

1 Basics of industrial management
2 Study and prepare CPM and PERT diagram for given activities
3 Concept of inventory control and material management
4 To study about needs and importance of PPC
5 Study and prepare value analysis of given product
6 To study about recent developments in industrial management

Pre-requisite of course:NA

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
3	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	**INTRODUCTION** Concept of industrial management, Definition and function of management, Structure of organization, Concept, meaning and importance of division of labor, Centralization and decentralization of industrial management, Concept of moral and productivity, Job satisfaction factor, Important provision of factory act and labor laws	6

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Contents : Unit	Topics	Contact Hours
2	**CRITICAL PATH METHOD (CPM) AND PROGRAMME EVALUATION REVIEW TECHNIQUE (PERT)** Terminology of CPM and PERT, Features and application, Concept of network diagram, Draw network diagram for a real life project, Determine critical path on network, Concept of floats and crashing of network, Application	10
3	**MATERIALS MANAGEMENT** Definition, Material management, relationship with other parameter, Importance of material management, Objectives of purchasing, Purchase procedure, terms and forms used in purchase department, Function, Classification of storekeeping, Function of store, Concept of inventory control, Economic order quantity, Material requirement planning	8
4	**PRODUCTION PLANING AND CONTROL** Need and importance of PPC, Function of PPC, General approach of production, Classification of production, Scheduling-meaning and need for productivity, Grantt chart method to prepare and format, Critical ratio, Concept of bottlenecking	10
5	**VALUE ANALYSIS AND COST CONTROL** Definition, Terminology in VA, Process and importance, Flow diagram, DARSIRI method for VA, Two case study on VA, Types of waste, Method to reduce wastage, Cost control method and guide lines.	4
6	**RECENT TRENDS IN INDUSTRIAL MANAGEMENT** Concept features and application of enterprise resource planning, Features of MS project, Importance of logistic concept and need, Just in time concept, Necessity of supply chain management, Introduction to GeM	4
Total Hours		**42**

Textbook :

1 Industrial Management, D. R. Patel, Atul Prakashan, 2018

References:

1 Industrial Engineering & Management, Industrial Engineering & Management, O. P. Khanna, Dhanpat Rai Publication, 1980

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation

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Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking
28.00	35.00	37.00			

Instructional Method:

1. The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.
2. The internal evaluation will be done on the basis of continuous evaluation of students in class-room.
3. Students will use supplementary resources such as online videos, NPTEL videos, e-courses

Supplementary Resources:

1. www.youtube.com/watch?v=SF53ZZsP4ik
2. www.youtube.com/watch?v=iPZlQ3Zx5zc
3. web.stanford.edu/class/cee320/CEE320B/CPM.pdf
4. www.criticaltools.com/pertchartexpertsoftware.htm
5. en.wikipedia.org/wiki/Program_evaluation_and_review_technique
6. www.netmba.com/operations/project/pert/

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