GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA IN MECHANICAL ENGINEERING
SEMESTER- VI

Subject Name: **Industrial Management**
Subject Code: **2361905**

Sr. No.	Subject Content	Hrs.
1	**INTRODUCTION TO INDUSTRIAL MANAGEMENT.** 1.1 Know the objectives of learning this subject. 1.2 Need, Scope & importance of Industrial Management in Industries. 1.3 Need of attitude, knowledge & skill required for application of Industrial Management. 1.4 System- concept , definition, types, parameters , variables and behavior. 1.5 Management – definition and functions. 1.6 Features and need of various laws , regulations and acts such as factory act , minimum wages act , etc.	4
2	**ORGANISATION STRUCTURE AND ORGANISATIONAL DYNAMICS.** 2.1 Organization structure-definition, goals, factors considered in formulating structure. 2.2 Concept, meaning and importance of division of labor, scalar & functional processes, span of control, delegation of authority, centralization and decentralization in industrial management. 2.3 Types, advantages, disadvantages and applications of organization structure. 2.4 Organizational culture and climate –meaning , differences and factors affecting them. 2.5 Moral-factors affecting moral. 2.6 Relationship between moral and productivity. 2.7 Effect of high and low moral. 2.8 Job satisfaction- factors influencing job satisfaction. 2.9 Case study and analysis of any two related situations.	8
3	**MATERIALS MANAGEMENT.** 3.1 Material management-definition, functions, importance, relationship with other departments. 3.2 Purchase - objectives, purchasing systems, purchase procedure, terms and forms used in purchase department. 3.3 Storekeeping- functions , classification of stores as centralised and decentralized with their advantages, disadvantages and application in actual practice. 3.4 Functions of store keeper, types of records maintained by store, various types and applications of storage equipments, need and general methods for codification of stores.	12

	3.5 Definition of inventory control, objectives of inventory control, derivation for expression for Economic Order Quantity (EOQ), ABC analysis, other modern methods of analysis, various types of inventory models such as Willson's inventory model, replenishment model and two bin model. 3.6 Material Requirement Planning(MRP)-concept ,applications and brief details about software packages available in market. 3.7 Waste control- need and ways to reduce material wastage, recycle/reuse, 3.8 Case study and analysis-study and analyze any two related cases. **Note** : Examples (2 to 3) from 3.5 above(application type) of 8-10 marks out of total 70.	
4	**PRODUCTION, PLANNING AND CONTROL (PPC):** 4.1 PPC-meaning, phases, importance and objectives. 4.2 Explain in detail the functions of PPC along with necessary forms used in it, softwares available in market and their features. 4.3 Types of productions, calculation of Economic Batch Quantity (EBQ), critical ratio scheduling and Gantt charts. 4.4 Given the data, schedule the production using Gantt chart. **Note** : Example from 4.3 above(application type) of 4-6 marks out of total 70.	6
5	**CRITICAL PATH METHO AND PRE EVALUATION REVIEW TECHNIQUE (CPM/PERT).** 5.1 CPM & PERT-meaning, features, difference, applications. 5.2 Understand different terms used in network diagram. 5.3 Draw network diagram for a real life project containing 10-15 activities, computation of LPO and EPO. 5.4 Determination of critical path on network. 5.5 Floats, its types and determination of floats. 5.6 Crashing of network, updating and its applications. **Note** : Examples (1 to 2-application types) of 8-10 marks out of total 70.	8
6	**VALUE ANALYSIS (VA) :** 6.1 VA-definition, terms used, process, importance and methods. 6.2 VA flow diagram. 6.3 Case study and analysis of any three related cases which can be studied/analyzed under VA application. **Note** : Question/s (application type) of 4-6 marks out of total 70.	4
	Total	**42**

Notes:

A. FOR STUDENTS.

a. It is advised that student download this copy of syllabus and plan to achieve the objectives of learning this subject.

B. FOR PAPER SETTER/MODERATOR.

a. Refer GTU syllabus and do not take reference of previous TEB question papers.
b. Ask the questions from each topic having marks weightage proportionate to hours allotted to that topic.
c. Optional questions must be asked from the same topic. That is weightage of compulsory attendance part of questions will be equal to proportionate to hours allotted to each topic.
d. Marks ratio of knowledge: comprehension: application types questions must be 30:30:40 respectively.
e. Submit solution / answer keys along with distribution of marks in each question for the paper being submitted.

Reference Books:

1. Learning Package on Industrial Management — TTTI, Bhopal
2. What every supervisor should know — Lester R.
3. CPM & PERT principles and Applications — L.S.Srinath
4. Modern Production Management — Buffa
5. Materials Management — N. Nair
6. Industrial Engineering & Management — O. P. Khanna

Additional Reference Books:

1. System Analysis — O.Optner
2. Value Analysis — Mikes