

GUJARAT TECHNOLOGICAL UNIVERSITY

DIPLOMA IN CHEMICAL ENGINEERING

SEMESTER: V

Subject Name: **Industrial Management**

Sr. No.	Course Content
1.	System Concept and Management: 1.1 Definition of system 1.2 Types of systems 1.3 System parameters 1.4 System variable 1.5 System behaviour 1.6 Definition of management 1.7 Functions of management
2.	Organisation Structure and Organisational Dynamics: 2.1 Definition, Goals, Factors considered in formulating structure. 2.2 Division of labour, Scalar and functional processes, Span of control, Delegation of authority, Centralisation and Decentralisation. 2.3 Types, advantages, disadvantages and applications of organization structure, flexibility. 2.4 Organisational culture and factors affecting organisation culture. 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.
3.	Materials Management: 3.1 Definitions, Functions, Importance of material management, Relationship with other departments. 3.2 Objectives of purchase, Purchasing systems, Purchase procedure, Terms and forms used in purchase department. 3.3 Functions of storekeeping, classification of stores as centralised and decentralized with their advantages, Disadvantages and application in actual practice, Functions of store keeper, Types of records maintained by store, Various types of storage equipment, Codification of stores. 3.4 Definition of inventory control, Objectives of inventory control, Derivation for expression for EOQ, ABC analysis, other modern methods of analysis various types of inventory models such as Willson's inventory model, Replenishment model, Two bin model.
4.	Production, Planning and Control: 4.1 Meaning, phases and objectives 4.2 Explain in detail the functions of PPC along with necessary forms used in it. 4.3 Types of productions, Calculation of Economic Batch Quantity (EBQ), critical ratio scheduling and gantt charts.

5.	CPM/PERT: 5.1 Meaning, Features, Difference, Application. 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, 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 application.
6.	Value Analysis (VA): 6.1 Definitions, terms used, VA process, importance, methods, VA flow diagram Analysis.
7.	Factory Act and Laws: 7.1 Factory act and its important provisions. 7.2 Workman compensation act its important provisions. 7.3 Industrial dispute act and its important provisions.

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. Value Analysis, Mikes.
7. Industrial Engineering & Management, O. P. Khanna.
8. System Analysis: System Analysis.