

AMIE18 PRODUCTION AND OPERATIONS MANAGEMENT

UNIT-1 PRODUCTION MANAGEMENT

Integrated Production Management, System Productivity, Capital Productivity, Labour Productivity, Personnel Productivity, Training

UNIT-2 OPERATIONS MANAGEMENT

Operations Management and Strategy, Tools for Implementation of Operations, Industry Best Practices

UNIT-3 OPERATIONS STRATEGY

Operations Strategy, Competitive Capabilities and Core Competencies, Operations Strategy as a Competitive Weapon, Linkage Between Corporate, Business, and Operations Strategy, Developing Operations Strategy, Elements or Components of Operations Strategy, Competitive Priorities, Manufacturing Strategies, Service Strategies, Global Strategies and Role of Operations Strategy, Case-lets

UNIT-4 FORECASTING

The Strategic Importance of Forecasting, Benefits, Cost implications and Decision making using forecasting, Classification of Forecasting Process, Methods of Forecasting, Forecasting and Product Life Cycle, Selection of the Forecasting Method, Qualitative Methods of Forecasting, Quantitative Methods, Associative Models of Forecasting, Accuracy of Forecasting

UNIT-5 LOCATION STRATEGIES

Introduction, Location Planning Process

UNIT-6 FACILITY OR LAYOUT PLANNING AND ANALYSIS

Objectives of Layout, Classification of Facilities, Basis for Types of Layouts, Why Layout decisions are important, Nature of layout problems, Redesigning of a layout, Manufacturing facility layouts, Types of Layouts, Layout Planning, Evaluating Plant Layouts, Assembly Line Balancing, Material handling

UNIT-7 TOTAL QUALITY MANAGEMENT:

Meaning and Dimensions of Quality, Quality Control Techniques, Quality Based Strategy, Total Quality Management (TQM), Towards TQM – ISO 9000 as a Platform – Working with Intranet, Total Productive Maintenance (TPM)

UNIT-8 BUSINESS PROCESS MODELLING

Importance of Business Process Modelling, Business Process Modelling, Data Driven Approach to Process Definition. Logical vs. Physical Database Modelling, Business Process, the Way Forward

UNIT-9 PROJECT MANAGEMENT- PLANNING PROCESS:

Need, Project Management Principles, Essentials of Project Management Philosophy, Project Planning, Project Process Flows,

UNIT-10 PROJECT IMPLEMENTATION-CONTROL AND CLOSURE

Project Management Life Cycle, Project Monitoring and Control, Change Control, Risk Management, Project Closure

UNIT-11 AGGREGATE PLANNING

Requirement of Aggregate Plan, Steps in Developing an Aggregate Plan, Advantages of Aggregate Plan, Aggregate Planning Strategies, Planning Options. Selecting the Method in Aggregate Planning, Aggregate Planning in Services

UNIT12 SUPPLY CHAIN MANAGEMENT

Domain Applications, SCM– The Breakthrough Article, Supply Chain Management, Views on Supply Chain, Bullwhip Effect in SCM, Collaborative Supply Chain, Inventory Management in Supply Chain, Financial Supply Chain – A New Revolution within the SCM Fold

UNIT-13 OPERATIONS SCHEDULING

Purpose of Operations Scheduling, Factors Considered while Scheduling, Scheduling Activity under PPC, Scheduling Strategies, Scheduling Guidelines, Approaches to Scheduling, Scheduling Methodology [Quantitative], Scheduling in Services

UNIT-14 VALUE ENGINEERING

Value Engineering/Value Analysis, Relevance of VE in Modern Manufacturing, Process of Value Analysis, VE – Approaches and Aim, Providing Value to the Customers, Benefits

UNIT-15 JUST-IN-TIME

Characteristics of JIT, Key Processes to Eliminate Waste, Implementation of JIT, Pre-requisites for implementation, JIT Inventory and Supply Chains.

Reference Books:

1. “Production and Operations Management” by Adam and Ebert
2. “Operations Management” by William Stevenson.