

OPR602:PRODUCTION AND OPERATIONS MANAGEMENT

Course Outcomes: Through this course students should be able to

CO1 :: apply the concepts in solving real life problems

CO2 :: analyze how to optimally utilize the resources

CO3 :: assess their decision making skills

CO4 :: articulate different opinions and make correct judgment

Unit I

Introduction to Operations Management : Introduction and Scope of Operation Management, Production of Goods versus Delivery of Services, Importance and Career Opportunities in Operation Management, Historical Evolution of Operation Management, Current Trends in Operation Management

Forecasting : Introduction, Features and Elements of Forecasting, Forecast based on Judgment and Opinion, Forecast Based on Time- Series Data, Associative Forecasting Techniques

Unit II

Product and Service Design : Introduction and Reasons for Product and Service Design or Redesign, Product Redesign and Value Analysis, Designing for Manufacturing, Service Design and Phases in Service Design Process, Phases in Product Design and Development

Location Planning and Analysis : Need and Nature of Location Decisions, Factors That Affect Location Decisions, Evaluating Location Alternatives

Unit III

Process Selection and Facility Layout : Introduction, Process Types, Product and Service Profiling ,Automation, Facility Layout, Line Balancing

Unit IV

Management of Quality : Defining Quality-Dimensions of Quality, Determinants of Quality, The Cost of Quality, Quality Tools, Total Quality Management

Quality Control : Inspection, Control Charts for Variables, Control Charts for Attributes, Run Test, Sampling

Unit V

Inventory Management : Nature and Importance of Inventories, Inventory Counting Systems and Inventory Costs, EOQ model, Economic Production Quantity, Quantity Discounts

Buying and Sourcing in E-Commerce : Definition e-Sourcing and e- Buying, Typical e-Sourcing Cycle, Barriers to successful e-Sourcing deployment and how to overcome them ., Benefits of e-Sourcing

Unit VI

Supply Chain Management : Need, Elements and Benefit of Effective SCM, Logistics and Reverse Logistics, Purchasing, Requirements and Steps for Creating an Effective Supply Chain

JIT and Lean Operations : Goals and Building Blocks of Lean Systems, Manufacturing Planning and Control

Maintenance Management : Preventive Maintenance, Breakdown Programs and Replacement

Text Books:

1. OPERATIONS MANAGEMENT by NORMAN GAITHER, CENGAGE LEARNING

References:

1. OPERATIONS MANAGEMENT by RUSSELL AND TAYLLOR, WILEY
2. OPERATIONS MANAGEMENT by WILLIAM STEVENSON, MCGRAW HILL EDUCATION