

17BB208-OPERATIONS MANAGEMENT

Course Description and Objective:

The Objective of the course is to enable students to learn the Basics of Operations Management, which will help them in understanding actual business process. Students will learn concepts of production system, factors effecting productivity, issues of purchasing and inventory management.

Learning Outcomes

By the end of this course it is expected that the student will be able to:

1. Understand basic concepts of production systems
2. Elements of production management
3. Factors effecting productivity
4. Issues of purchasing and inventory management
5. Quality management and TQM

UNIT-I

-12 Hrs

Production systems:

Systems concept of Production, Types of production Systems, Flow, Shop, Batch, cellular, flexible Manufacturing. Group Technology. Computer Integrated manufacturing

UNIT-II

-12 Hrs

Plant layouts and Production Management:

Facilities Layout – Types of layout – Process, product, Cellular, fixed position, mixed, with its advantages and disadvantages. Production Planning and control activities, MRP I ,MRP II.

UNIT-III

- 12 Hrs

Productivity Improvement:

Factors affecting productivity and their measurement, Total productivity, tools and techniques for improving productivity. Work Study – Method Study, Micro motion Study, Stop watch Time Study, Work Sampling.

UNIT-IV

- 12 Hrs

Purchasing and Inventory Management:

Purchase function, Procedures. Economic Order quantity, Inventory analysis Methods – ABC, VED, XYZ methods – their utility. Inventory Valuation Methods: Periodic and

perpetual systems; FIFO, LIFO, Average cost and Weighted Average Cost Methods.

UNIT-V

- 12 Hrs

Quality Management:

Inspection, Quality, Statistical Quality Control – Control Charts Deming ,concept. Total Quality Management, Six Sigma

Skill Development:

(These activities are only indicative, the Faculty member can innovate)

1. Visit any factory and list out the physical facilities and type of production followed.
2. Visit any factory and prepare a report on the production planning and control activities
3. Visit a company and draw a chart on plant layout/ suggest suitable methods for productivity improvement.
4. List out the functions of materials management in an organization.
5. Visit any industry and list out the various quality measures adopted.

Text Books:

1. R.Paannerselvam, “Production and Operations Management”, 2nd ed., PHI 2006.
2. K.Aswhappa, K.Sridhara Bhat, “Production and Operations Management”, 2nd ed., HPH, 2010.

Reference Books:

1. S. N. Chary, “Production and Operations Management”, 6th ed., TMH 2006.
2. Buffa, “Modern Production Operation Management”, 6th ed., Willey 2008.
3. Joseph S Matrinich, “Production and Operations Management”, 8th ed.. Willey 2008.