

20BB212 PRODUCTION AND OPERATIONS MANAGEMENT

Hours Per Week :

L	T	P	C
4	-	-	4

Total Hours :

L	T	P
50	-	-

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.

COURSE OUTCOMES:

Upon completion of the course, student will able to achieve the following outcomes:

COs	Course Outcomes	POs
1	Understand basic concepts of production systems.	1,2
2	Appraise production planning and different types of layouts.	5
3	Compare and contrast different types of productivity and techniques for improving productivity.	1,5
4	Differentiate different techniques of inventory control and inventory valuation methods.	4,6
5	Examine different techniques for quality improvement.	3,6

SKILLS :

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

UNIT - I

L-10

Production Systems: Operations Management - Definition, Objectives and Functions, Systems concept of Production, Types of production System- Job, Batch, Flow and Mass Production.

UNIT - II

L-10

Plant Layouts and Production Management: Facilities Layout – Types of layout – Process, product, Cellular, fixed position, with its advantages and disadvantages. Production Planning and control activities, Aggregate planning-Definition, Objectives, process and the strategies. MRP I.

UNIT - III

L-10

Productivity Improvement: Factors affecting productivity and their measurement, Total productivity and factor productivity, techniques for improving productivity. Work Study – Method Study, Stop watch Time Study.

UNIT - IV

L-10

Purchasing and Inventory Management: Purchase function Procedure. Meaning of Inventory, Inventory control, 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

L-10

Quality Management: Inspection, Quality, Statistical Quality Control – control charts for variables and control charts for attributes. Deming, concept. Total Quality Management, Six Sigma.

TEXT BOOKS:

1. R.Paannerselvam, "Production and Operations Management", 2nd ed., PHI 2006.

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.
4. K.Aswathappa, K.Sridhara Bhat, "Production and Operations Management", 2nd ed., HPH, 2010