

**Subject Code 605**

**Subject Name: Manufacturing Management**

**Section I: Production & Materials Management**

**Unit I:**

**3Hrs.**

History and development of manufacturing management- Contribution of various

pioneers beginning from Division of Labour to Quality Revolution to Environmental Control.

**Unit II:**

**3Hrs.**

Manufacturing management- Nature, Scope, Importance and Functions.

**Unit III:**

**4 Hrs.**

Methods of Manufacturing- Project/Jobbing, Batch Production, Flow/ Continuous

Production, Works study, Methods study, Uses of work Measurement.

**Unit IV:**

**7 Hrs**

Plant Location -Factors affecting location Plant Layout - Types and considerations.

Maintenance Management – Types of maintenance

**Unit V:**

**6 Hrs**

Production Planning & control- Gantt Charts: Scheduling, Production Work Order, Objectives & Functions of PPC

**Unit VI:**

**7hrs**

Introduction to Project Management-PERT/CPM ,Network crashing, Value Engineering, Value Management, Incentive Schemes – individual & group.

**Unit VII:**

**5 Hrs**

Inventory Management - Basic EOQ Model-EOQ with discounts, Classification of materials - ABC, VED etc.

**Unit VIII:**

**3Hrs**

Material Requirement planning-Master Production Schedule- Materials flow in MRP.

**Unit IX.**

**4 Hrs**

Purchasing Management –Purchase Orders Relevant provisions of State/ Central Sales Tax Act, Central Excise Act and Import/ Export procedures, Stores – various types.

**Section II: Operations Management**

**(Lean / TPS Approach)**

1	Mass Vs. Lean Production, 5 Lean principles, 5 TPS Practices & TPS/ Lean Philosophy, 15 OM Principles, WCP Benchmarks, From Lean Production to Lean Enterprise, From Policy Deployment to Policy Management.	<b>9 Hrs</b>
2	Twin Engines of Operations Excellence – Quality and Cycle time, Product & Process Robustness, Process Optimization, Positrol, TPM & QFD	<b>4 Hrs</b>

**Section III: Digital Business Design**

1	The power of information, DNS (Digital Nervous System), DBD (Digital Business Design), DBD Matrix, DBD Benefits, How to move to DBD? One case study of DBD Innovators	<b>5 Hrs</b>
<b>Total Hrs</b>		
<b>60 Hrs</b>		

**Books Recommended**

1. Production & Operations Management - Panneerselvam
2. Production & Operations Management – Adam Ebert

3. Manufacturing & Technology Management – L.C. Jhamb
4. Purchasing & Materials Management - Gopalkrishanan
5. Purchasing and Supply Management – Dobler and Burt
6. Materials Management - Dutta
7. Materials & Logistics Management – L.C.Jhamb
8. Lean Thinking – Womack & Jones.
9. Profit Beyond Measure – H. Thomas Johnson & Broms.
10. Business at the Speed of Thought – Bill Gates.
11. How Digital is your Business? – Slywotsky & Morrison.