

**PI1403: Production Management-I****(3-0-0)**

Plant and business organization: Concept, importance and principles of organization, organization chart, Organization manual, Types of organization according to structure along with their advantages, disadvantages and application.

Classification of business organization and ownership along with their advantages, disadvantages and application.

Sources of finance: Need for finance, Types of capital sources, Working capital, Capital structure  
Facility layout and location of plant: Concept and factors governing plant location, location economics, Rural vs. urban plant sites, Process layout, Product layout, Combination layout, Fixed layout, Flow pattern and material handling,

Production planning and control: Introduction, functions of PPC, Design of Production planning and control system.

Sales forecasting: Concept, purpose, techniques, statistical analysis, moving average forecast, exponential smoothing (Smoothing forecast estimation by salesmen etc.).

Inventory control: Introduction, costs, Economic Order Quantity, deterministic and stochastic model, Break Even Analysis.

Materials management: Purchase organization, buying techniques, quality and quantity techniques, accounting, stores and material control, receipts and issue of materials, physical verification of stores.

**Text and Reference Books**

1. M. Mahajan, 'Production planning and control' Dhanpat Rai Publishers
2. O. P. Khanna. 'Industrial Engineering and Management'.
3. S N Chary (2013) . 'Production and Operation Management', 5th Edition, Tata Mac Graw Hill.
4. J. L. Riggs, 'Production Systems: Planning, Analysis & Control', 4th Edition, John Wiley & Sons.
5. E. S. Buffa and Sarin, 'Modern Production/Operation management', 8<sup>th</sup> Edition, John Wiley & Sons.
6. Paneersalvem, 'Production & Operations Management', 2<sup>nd</sup> edition, PHI.