

Production Planning and Control.

Production planning and control is the organization and planning of the manufacturing process. It co-ordinates supply and movement of materials and labour, ensures economic and balanced utilization of machines and equipment as well as other activities related with production to achieve the desired manufacturing results in terms of quantity, quality, time and place.

Production Planning / Operations Planning
Production/Operations Planning involves the organization of an overall manufacturing system to produce a product. The various activities involved are: Designing a product. Determining the equipment & capacity requirements. Designing layout of physical facilities. Designing material handling system. Designing sequence of operations

Stages in PPC

Planning: The choice from several alternatives of the best utilizing the available resources to achieve the desired objective.

Operations: Performance in accordance with details set out in production plan.

Control: The monitoring of performance through a feed back by comparing the results achieved with planned targets so that performance can be improved..

Objective of PPC:

To deliver goods in required quantities to customers in required delivery schedule.

To ensure maximum utilization of all resources.

To ensure production quality products.

To minimize the product throughput time (amount of time required for a product to pass through a manufacturing process). To maintain optimum level inventory.

To maintain flexibility in manufacturing operations. Coordinate between labour and machines and various supporting departments

Classification/Functions of PPC.

1. Materials: Procurement, Storage, inventory
2. Methods: Process, Operations and their sequence
3. Machines: Allocation of Jobs
4. Routing: Flow of work
5. Estimating: Operations time
6. Scheduling: timetable of production, priority sequence
7. Dispatching: authorizing start of operations
8. Expediting: Follow up and keeping records of progress
9. Evaluating: Assessing the performance effectiveness

Principles of PPC

1. Types of production determines the kind of production planning & control
2. Time is common denominator for all scheduling activities
3. The size of the plant has relatively little to do with the type of PPC system needed

4. The highest efficiency in production is obtained by manufacturing the required quantity of a product

Levels of PPC

Strategic Planning (Long range): It is a process of thinking through the organization's current mission and environment and setting a guide for future decisions and results. e.g.

Technology forecasting and choice of appropriate technology for the long range time horizon.