

Production planning and control

Production planning and control is a tool available to the management to achieve the stated objectives. Thus, a production system is encompassed by the four factors. *i.e.*, quantity, quality, cost and time. Production planning starts with the analysis of the given data, *i.e.*, demand for products, delivery schedule etc., and on the basis of the information available, a scheme of utilization of firms resources like machines, materials and men are worked out to obtain the target in the most economical way.

Once the plan is prepared, then execution of plan is performed in line with the details given in the plan. Production control comes into action if there is any deviation between the actual and planned. The corrective action is taken so as to achieve the targets set as per plan by using control techniques.

Thus production planning and control can be defined as the “*direction and coordination of firms’ resources towards attaining the prefixed goals.*” Production planning and control helps to achieve uninterrupted flow of materials through production line by making available the materials at right time and required quantity.

Production planning and control is a predetermined process which includes the use of human resource, raw materials, machines etc. PPC is the technique to plan each and every step in a long series of separate operation. It helps to take the right decision at the right time and at the right place to achieve maximum efficiency.

Objectives of Production Planning & Control

The objectives of PPC are as follows:

1. to ensure safe and economical production process
2. to effectively utilize plant to maximize productivity
3. to maximize efficiency by proper coordination in production process.
4. to ensure proper delivery of goods.
5. to place the right man for the right job, at right time for right wages.
6. to minimize labor turnover

7. to reduce the waiting time

Main elements of Production Planning & Control

The following are main elements of Production Planning and Control.

1. Routing
2. Loading
3. Scheduling
4. Dispatching
5. Follow up
6. Inspection
7. Corrective

1. Routing

It is about selection of path or route through which raw materials pass in order to make it into a finished product. The points to be noted while routing process are – full capacity of machines, economical and short route and availability of alternate routing. Setting up time for the process for each stage of route is to be fixed. Once overall sequence are fixed, then the standard time of operations are noted using work measurement technique.

2. Loading and scheduling

Loading and Scheduling are concerned with preparation of workloads and fixing of starting and completing date of each operation. On the basis of the performance of each machine, loading and scheduling tasks are completed.

3. Dispatching

Dispatching is the routine of setting productive activities in motion through the release of orders and instructions, in accordance with previously planned time and sequence, embodied in route sheet and schedule charts. It is here the orders are released.

4. Expediting / Follow-up

It is a control tool which brings an idea on breaking up, delay, rectifying error etc., during the progress of work.

5. Inspection

Inspection is to find out the quality of executed work process.

6. Corrective

At evaluation process, a thorough analysis is done and corrective measures are taken in the weaker spots.

Stages of Production Planning & Control

Production Planning & Control is done in three stages namely,

1. Pre-planning
2. Planning
3. Control.

Stage 1: Pre-Planning

Under this phase of production planning, basic ground work on the product design, layout design and work flow are prepared. The operations relating to the availability scope and capacity of men, money materials, machines, time are estimated.

Stage 2: Planning

This is a phase where a complete analysis on routing, estimating and scheduling is done. It also tries to find out the areas of concern for short time and long time so that prominent planning can be prepared.

Stage 3: Control

Under this phase, the functions included are dispatching, follow up, inspection and evaluation. It tries to analyze the expedition of work in progress. This is one of the important phases of the Production Planning and Control.