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Production Planning & Control | Meaning | Objectives | Elements

What is Production Planning & Control (PPC)?

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 <u>proper coordination</u> in production process
- 4. to ensure proper <u>delivery of goods</u>
- 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.

According to Kimball and Kimball, scheduling is defined as

the determination of the time that should be required to perform the entire series as routed, making allowance for all factors concerned.

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 <u>product design</u>, 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.