PRODUCTION PLANNING AND CONTROL
(PROFESSIONAL ELECTIVE-III)

Course Code: 15ME1130  
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Pre requisites:
Industrial Management.

Course Outcomes:
At the end of the Course, the Student will be able to:

CO 1  Explain the functions of production, planning and control.
CO 2  Analyze the scope of Forecasting principles and its techniques.
CO 3  Discuss the function of inventories and its relevant cost technique methods.
CO 4  Outline the procedural activities of routing and scheduling.
CO 5  Generate planning and control techniques, explain the functions of dispatching and follow-up activities.

UNIT-I  
(8 Lectures)
INTRODUCTION:
Definition – effects and advantages of PPC – functions of production planning and control – need of PPC from system point of view

UNIT-II  
(10 Lectures)
FORECASTING:
Importance of forecasting – types of forecasting – general principles of forecasting – forecasting techniques – qualitative methods and quantitative methods

UNIT-III  
(12 Lectures)
INVENTORY MANAGEMENT:
Functions of inventories – relevant inventory costs – ABC analysis
– VED analysis – EOQ deterministic models (without shortages) – Inventory control systems – P–Systems and Q-Systems. Introduction to MRP & ERP, LOB (Line of Balance), JIT inventory and Japanese concepts

UNIT-IV (10 Lectures)
ROUTING: Definition – routing procedure – route sheets – bill of material – factors affecting routing procedure -PERT, CPM
SCHEDULING: Definition – difference with loading and scheduling policies – techniques of scheduling and standard scheduling methods.

UNIT-V (10 Lectures)
PLANNING AND CONTROL TECHNIQUES:
Line balancing, aggregate planning, chase planning, expediting, controlling aspects
DISPATCHING: Definition – activities of dispatcher – dispatching procedure
FOLLOW UP: Definition – reason for existence of functions and types of follow up

TEXT BOOK:

REFERENCES: