

Code: R7420301

R7

B.Tech IV Year II Semester (R07) Supplementary Examinations, March/April 2013

PRODUCTION PLANNING & CONTROL

(Mechanical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Describe in brief planning in manufacturing organization.
(b) Describe the functions of production planning and control.
- 2 Explain the different types of forecasting methods and their uses.
- 3 (a) Describe in detail ABC analysis. State its advantages, limitations and applications.
(b) Explain the concept of P-system and Q-system and the two bin system for management of inventories by giving appropriate examples.
- 4 (a) Define JIT production. State the pre-requisites to achieve JIT production.
(b) What is ERP? Describe the methodology of ERP implementation.
- 5 (a) Explain about factors affecting routing procedure.
(b) State the difference between schedule and loading.
- 6 (a) What are the factors considered before establishing scheduling plan?
(b) Describe master scheduling and production scheduling.

- 7 A company has a new fruit drink for which it has the following cost data and demand forecast.

Quarter	1	2	3	4
Forecast	1800	1100	1600	900

Previous quarter output = 1300 units, Beginning inventory = 0 units,

Stock out cost = Rs 150 per unit, Inventory holding cost = Rs 40 per unit at end of quarter.

Hiring employees = Rs 80 per unit, Terminating employees = Rs 80 per unit.

Subcontracting cost = Rs 60 per unit, Unit cost on regular time = Rs 30 per unit.

Over time cost = Rs 15 extra per unit, Capacity on regular time = 1800 unit per quarter.

From the following which plan has to be implemented.

Plan A : A chase strategy that hires and fires personnel as necessary.

Plan B : A level strategy.

Plan C : A level strategy that produces 1200 units per quarter and meets the forecasted demand with inventory and sub contracting.

- 8 (a) Explain about duties of dispatcher.
(b) Explain about types of follow-up.
