B. Tech.

(SEM. VI) THEORY EXAMINATION 2010-11

PRODUCTION PLANNING AND CONTROL

Time : 3 Hours   *Total Marks 100*

Note : (1)   Attempt all the questions.

(2)   All questions carry equal marks.

(3)   Be precise in your answer.

(4)   Assume suitable value for missing data if any.

1.   Attempt any **four** parts of the following :   (5×4=20)

   (a)   Differentiate between "Job Order Production" and "Batch Production" system.

   (b)   Explain using schematic diagram the different methods of forecasting and the situations in which these are appropriate.

   (c)   What is replacement ? Describe some important types of replacement situation and replacement policies in brief.

   (d)   What is the simple median model ? How is it used to find the best location of plants ?

(e) Explain the various factors to be considered in the determination of optimal capacity of a facility.

(f) Compare the manual and quantitative models for process layout design ?

2. Attempt any **four** parts of the following : $(5 \times 4 = 20)$

(a) Describe the single stage aggregate planning decision structure. Name the decision processes used for aggregate planning.

(b) How is the master schedule different from master production schedule ?

(c) Make a flow diagram to show all the different methods/ priority rules of sequencing.

(d) What are the advantages and disadvantages of the chase plan ?

(e) What is the purpose of phantom bills, K-bills, and modular bills of material ?

(f) Describe netting, explosion and time phasing in brief.

3. Attempt any **two** parts of the following : $(10 \times 2 = 20)$

(a) (i) Describe the ways to collect information from manufacturing shops for progress control.

(ii) How is the concept behind ABC classification useful for managing a manager's time ? Explain.

(b) (i) What are the merits and demerits of centralised and decentralised buying ?

(ii) How would you fit inventory control as a part of the wider organizational strategy ? Discuss.

(c) (i) What is 'negotiation' in the purchasing function ?

(ii) What is shortage cost ? Is it difficult to estimate ? If so why ?

4. Attempt any **two** of the following : $(10 \times 2 = 20)$

(a) Define standardisation, specialisation, simplification and diversity. Discuss the factors which affect simplification and diversification.

(b) What are unnecessary costs ? How do they enter the product ? How are they identified ?

(c) Write short notes on :

(i) Value analysis tests

(ii) Approach for value analysis

5. Attempt any **two** parts of the following : $(10 \times 2 = 20)$

(a) What is the difference between MRP and ERP ? Discuss.

(b) What is concurrent engineering ? How does it speed up product development ?

(c) (i) What are the limitation of CPM ?

(ii) Explain the managerial significance and use of Total and Free Floats.