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Name.....................................

Reg. No.................................

EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION JUNE 2010

ME 04 802—OPERATION MANAGEMENT

Time : Three Hours

Maximum : 100 Marks

1. (a) Write notes on "Bayesian Decision Theory".

   (b) What are the objectives of using network analysis ? Mention the areas of application of network technique.

   (c) What are the objectives of inventory control ? How inventory control is useful to a businessman ?

   (d) How to design a "Q" system ?

   (e) What do you understand by production planning and control ?

   (f) What is sales forecasting ? What are its field of application ?

   (g) Draw process layout and explain advantages and disadvantages.

   (h) What are the merits and limitations of "CRAFT" ?

   (8 × 5 = 40 marks)

2. (a) Illustrate with examples the essential difference between PERT and CPM technique. Under what conditions would you use PERT instead of CPM ?

   Or

   (b) What do you mean by decision tree ? Explain the steps for formulation of decision tree with suitable example.

   (15 marks)

3. (a) What are the criteria a general manager will use in evaluating the overall performance of inventory control ?

   Or

   (b) How will you design "P" and "Q" system ?

   (15 marks)

4. (a) (i) What are the assumptions in flow shop scheduling ?

   (ii) Explain the algorithm for processing 2 machines in "n" jobs.

   Or

Turn over

(b) Given :

Year	:	1	2	3	4	5	6	7	8
Demand	:	90	100	107	113	123	136	144	155

Plot the data and establish a forecast for the year 9.

(15 marks)

5. (a) Mention different types of layout. Discuss any two of them in detail giving a neat sketch and their advantages and limitations.

Or

(b) Define the nature of the line balance problem. How is the cycle time determined that is used in line balancing problem ?

(15 marks)

[4 ×15 = 60 marks]