Register Number: **6280**

Name of the Candidate:

B.E. DEGREE EXAMINATION, 2008

(MECHANICAL ENGINEERING)

(SEVENTH SEMESTER)

MEEE-707. C-PRODUCTION AND OPERATION MANAGEMENT

(Elective-II)

May) (Time: 3 Hours

Maximum: 60 Marks

Answer any ONE full question from each UNIT
Use of normal distribution table is permitted

UNIT-I

1. a) Describe the objectives and functions of Production Planning. (3)

   b) Define the Production Control? Explain various types of and functions of Production Control. (6)

   c) Define Routing and Scheduling. (3)

2. a) Explain with neat sketch the Flow Process Chart used for producing 2000 pieces of Centrifugal Pump body Casting. (9)

   b) Explain Scheduling. (3)

UNIT-II

3. Use Linear Regression Analysis to estimate the Demand Function for the following data:

Period	1	2	3	4	5	6	7	8	9
Sales	40	50	60	45	50	65	70	80	90

Also forecast demand for the next two time and three time Period. (12)

4. a) What is Forecasting? Illustrate the Moving Average Method in detail. (8)

b) What are the limitations of (a) Trend extrapolation (b) Use of input and output tables. (4)

UNIT-III

5. a) Explain the basic functions involved in the Inventory. (4)

b) What is the function of n buffer Stock? (4)

c) What is Lead Time? What are the factors will take into consideration while computing the Lead Time. (4)

6. a) Compute the EOQ for the following:

No of units bought at time	Price per unit Rs.
Less than 1000	10.00
1000 to 2999	9.85
3000 to more	9.70

The order cost is Rs.60/- per order and carrying cost is 20% of the price. Annual requirement of the item is 10,000 units. (12)

UNIT-IV

7. a) Explain the MRP. (4)

b) Write short notes on Master production Schedule. (4)

c) What are the uses of ABC? (4)

8. Product X is made of two units of y and three of z-y is made of one unit of A and two unit of B,Z is made of two units of A and four units of C.

Lead time for x is one week; y, two weeks; z, three weeks, A; two weeks; B, one week; and C three weeks. If 100 units of x are needed in week 10, Develop a planning schedule shaving when each item should be ordered and in what quantity.

Also Draw the bill materials. (12)

UNIT-V

9. a) Discuss the use of the Gantt chart for scheduling purposes. (4)

b) Differentiate between loading and scheduling proposes. (4)

c) Explain the Jackson's rule. (4)

10. Consider the following Flow Shop Scheduling problem:

Processing time			
Job	M/C-1	M/C2	M/C3
1	3	4	10
2	11	1	6
3	8	10	14
4	10	12	2
5	6	4	2

Check Whether Johnson's rule can be applied? If not, solve the problems using Palmar's heuristic. (12)