

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 Palmer's heuristic. (12)

