CLASS: MBA   SEMESTER : I
BRANCH: MANAGEMENT   SESSION : MO/18

SUBJECT: MT407 MANAGEMENT OF MANUFACTURING SYSTEMS

TIME: 3:00 HRS.   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a) Discuss nature of Manufacturing Systems in light of (i) Transformation, and (ii) Value driven approach. [5]
Q.1(b) Explain how Manufacturing Systems interfaces with other functions. [5]

Q.2(a) Discuss the factors associated in Plant Location Decision. [5]
Q.2(b) Santro Electronics is considering Two locations for its Audio Equipment Factory. Options are Ahmadabad [5]
        and Chennai. At Ahmadabad, fixed cost of the factory at 1 million and the variable costs at Rs. 1200
        per Audio equipment manufactured. At Chennai, fixed cost is 1.2 million and variable costs at Rs. 1100
        per Audio equipment manufactured. Selling price of the equipment will be Rs. 3000 per unit irrespective
        of the place of manufacture.
        Using *Break-even analysis*, choose the 'best location' for the factory to be set up.

Q.3(a) Define Capacity Planning. Discuss the linkage of Forecasting in effective Capacity Planning. [5]
Q.3(b) The following table gives the age of cars of a certain make and actual maintenance costs. Obtain the [5]
        regression equation for Maintenance costs related to Age. Using it, Forecast the maintenance costs for
        a 10 years old car.

Age of Car(years)	2	4	6	8
Maintenance cost(Rs.'00)	10	20	25	30

Q.4(a) Telco Ltd., Jamshedpur buys in lots of 500 boxes which is a 3 month supply. Cost per box is Rs. 125.00 [5]
        and the ordering cost is Rs. 150.00. An inventory cost is estimated is 20% of unit value.
        (i) What is the total annual cost of the existing policy of Inventory?

        (ii) How much savings can be made in terms of money by employing Economic Order Quantity?

Q.4(b) Data for Tyco Engg. Ltd., Pune reads as per table given below: Using ABC analysis, show graphically [5]
        which of below given items should be classified as A, B, and C class of items?

Serial No.	Part No.	Annual Consumption(Units)	Unit Price (Rs.)
1	1866	24000	0.06
2	2429	22000	0.10
3	4805	32000	0.03
4	11240	14000	0.08
5	38383	8000	0.25
6	147901	6000	0.25
7	400361	6000	0.30
8	400535	4000	0.40
9	400694	2000	1.60
10	755435	2000	35.00
11	774845	6000	2.00
12	785369	4000	0.30
13	814061	2000	0.60
14	913170	2000	11.00
15	913517	16000	0.40
16	916335	2000	0.70
17	916789	4000	0.80
18	976402	20000	0.07
19	988008	2000	43.00
20	918308	24000	0.05

Q.5(a) Discuss (i) industrial applicability of 7QC Tools, and (ii) Concepts of 5S in relate to Quality Control and [5]
        Management.
Q.5(b) Discuss/Model Logistics Strategy and Planning for Efficient Supply Chain Performance. [5]