Third Semester MBA Degree Examination, June/July 2014
Operations Management

Time: 3 hrs.   Max. Marks:100

Note: *1. Answer any THREE full questions from Q.No.1 to 6.*
2. Q.No.7 and 8 are compulsory.

1 a. What are competitive dimensions in operations management? **(03 Marks)**
   b. Describe recent trends in production and operations management. **(07 Marks)**
   c. Find break even point for the following: The selling price per unit is Rs.10. When the firm sells 20,000 units its profit is Rs.40,000 and if it sells 15,000 unit its profit is Rs.20,000. Find also fixed cost. **(10 Marks)**

2 a. What are assumptions in BEP? **(03 Marks)**
   b. What are different qualitative forecasting methods? **(07 Marks)**
   c. Estimate sales for 2003:

Year	1996	1997	1998	1999	2000	2001	2002
Demand units	74	79	80	90	105	142	122

(10 Marks)

3 a. What are criteria to evaluate make or buy decision? **(03 Marks)**
   b. What is plant layout? Explain product layout and process layout. **(07 Marks)**
   c. A firm has to decide location for new plant. There are 3 locations A, B, C. Which is the best location?

Data	Location (in Rs.)		
	A (Rs)	B(Rs)	C(Rs)
Wages and salary	20,000	20,000	20,000
Power and water expense	20,000	30,000	25,000
Raw material expense	80,000	75,000	60,000
Investment	2,00,000	3,00,000	2,50,000
Distribution expense	50,000	40,000	60,000
Miscellaneous expense	40,000	25,000	30,000
Expected sales per year	2,25,000	2,50,000	2,25,000

(10 Marks)

4 a. What are different facility location models? **(03 Marks)**
   b. What are factors affecting plant layout? **(07 Marks)**
   c. Describe plant utilities to be considered. **(10 Marks)**

5 a. What is ergonomics? **(03 Marks)**
   b. Describe procedure of method study. **(07 Marks)**
   c. Calculate standard time per unit:
      Total number of observations = 2500
      Number of working observation = 2100
      Proportion of manual to machine time = 2:1
      Number of units produced in 100 hours = 6000
      Observation rating factor = 115%
      Total allowance = 12% of normal time. **(10 Marks)**

6	a.	What are factors affecting labor productivity?	(03 Marks)
	b.	Describe in flow flow for planning and controlling with MRP.	(07 Marks)
	c.	Describe two aggregate capacity planning strategies.	(10 Marks)

7	a.	What do you meant by lead time? How to determine it?	(05 Marks)
	b.	Find EOQ and hence cost:	(05 Marks)

Annual demand   = 18000 units
Price per unit   = Rs.25
Carrying cost   = 25% p.a. of price
Ordering cost   = Rs.250

	c.	Draw a sketch and briefly explain facility layout used for hospital services.	(05 Marks)
	d.	What are issues to be considered in delivery services? Explain.	(05 Marks)

8		Write short notes on:	
	a.	ABC analysis.	
	b.	Material handling.	
	c.	Master production schedule.	
	d.	Fixed layout.	(20 Marks)

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