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RC-4447-48

M.B.A. (Sem. II) (FT) & M.B.A. (Sem. IV) (E) Examination

April / May – 2010

Purchasing & Material Management

Time : **3** Hours] [Total Marks : **100**

RC-4447

Instructions : (1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ **M.B.A. (Sem. 2) (FT) & M.B.A. (Sem. 4) (E)**

Name of the Subject :

☛ **Purchasing & Material Management**

☛ Subject Code No. : **4 4 4 7** ☛ Section No. (1, 2,.....) : **1**

Seat No. :

Student's Signature

(2) Answers to the two sections must be written in **separate** answer books.

(3) Figures to the **right** indicate **full** marks.

(4) Question no. **1** and **4** are **compulsory** questions.

1 Discuss the information flow of purchsing function. **18**

2 A manufacturing concern has extra capacity that can be used to produce brakes that the company has been buying for Rs. 800/- each. If the company makes the brakes following costs would be incurred **16**

Material costs = Rs. 240/- per unit

Labour costs = Rs. 320/- per unit

Variable Overhead Costs = Rs 80/- per unit

The annual fixed cost associated with the unused capacity is Rs. 4,00,000 demand over the next year is estimated at 4000 units.

(a) Would it be profitable for the company to make the brakes.

(b) Suppose the capacity could be used by another department for the production of some textile machinery equipment that would cover its fixed and variable costs and contribute Rs. 2,00,000 to profit.

Which would be more advantageous brakes production or textile machinery equipment production?

OR

2 In a double sampling plan N = 6000, n_1 = 100, C_1 = 0, n_2 = 100 and C_2 = 1. Use the Poission's distribution to find the probability of acceptance of a 1% defective lot. **16**

Assume that a lot rejected by this sampling plan will be 100% inspected, what will be the AOQ if the submitted product is 1% defective.

Considering both the inspection of rejected lots, what will be the average number of articles inspected per lot if the submitted product is 1% defective?

3 Write short notes on any **two** of the following : **16**

(a) Checklist for Make or Buy function

(b) Objectives of Management Information System

(c) Net Wastivity

(d) Just in Time

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Name of the Examination :

☛ **M.B.A. (Sem. 2) (FT) & M.B.A. (Sem. 4) (E)**

Name of the Subject :

☛ **Purchasing & Material Management**

☛ Subject Code No. : **4 4 4 8** ☛ Section No. (1, 2,.....) : **2**

Seat No. :

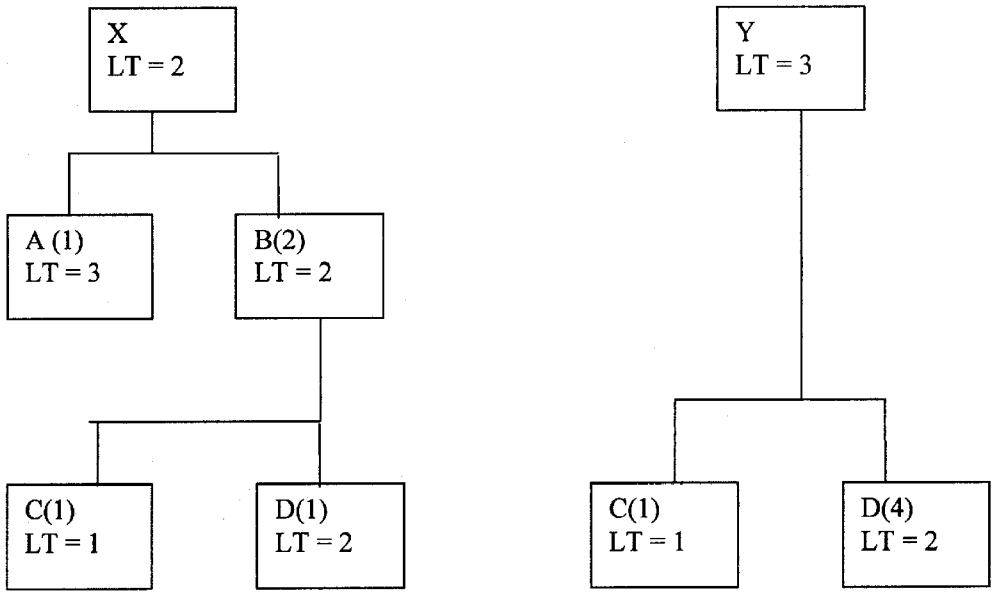
Student's Signature

(2) Answers to the two sections must be written in **separate** answer books.

(3) Figures to the **right** indicate **full** mark.

(4) Question no. **1** and **4** are **compulsory** questions.

4 (a) A manufacturing concern produces products X and Y, which have demand, safety stock and product structure levels as shown in **Fig. 1** : **18**



Product	S.S.	Demand in Period							
		1	2	3	4	5	6	7	8
X	50			300			200		250
Y	30							400	

The on hand inventories are : X = 100, Y=70, B=0, C=200, D=800.

The lot size for A and D are 250 and 1000 (or multiples of these amounts) units, all the other items are specified on a lot for lot basis.

The only scheduled receipts are 250 units of X due in period 2.

Prepare an MRP format for items X, Y, A and B.

5 Following is the record of the defectives observed during the inspection process of an automatic machine producing small bolts of standard size. **16**

Sample Number	Sample Size	Number of Defective Bolts
1	25	3
2	50	5
3	45	1
4	55	2
5	35	--
6	40	1
7	50	9
8	65	2
9	30	3
10	25	2
11	55	5
12	40	4
13	50	3
14	25	2
15	40	2

(a) Find p, UCL and LCL.
(b) Are the UCL and LCL constant?
(c) If not, what is the reason?
(d) Express the deviation from p in units of so many standard deviations. Draw the constant chart.

OR

5 Annual demand for an item as per the forecast is 2500 units. The various costs regarding make or buy decision are given below : **16**

Unit Cost	Make	Buy
	Rs.11/-	Rs.10/-
Ordering Cost/order	-	Rs.15/-
Setup Cost/lot	Rs.85/-	
Annual carrying cost	20% of unit cost	20% of unit cost

Rate of production is 7500 units per year. Determine whether to make or buy the item.

6 Write short notes on any **two** of the following : **16**
(a) Integrated Material Management Approach
(b) Functions of Value Engineering
(c) Six Sigma concept
(d) Material Requirement Planning.