

Question 1: The demand for a purchased item is 2000 units per month and the shortages are allowed. If the unit cost is Rs 20 per unit, the cost of making one purchase is Rs 1000, the holding cost for 1 unit is Rs 20 per year and the cost of one shortage is Rs 500 per year, determine:

1. (a) The economic purchase quantity.
2. (b) The time between orders.
3. (c) The number of orders per year.
4. (d) The optimum shortages.
5. (e) The maximum inventory.
6. (f) The time of items being held.
7. (g) The optimum annual cost.

Question 2: What happens if we increase the inventory. Give reasons

Question 3: What is linear Programming?

Answer:

Linear programming technique can be said to have a linear objective function that is to be (either maximized or minimized) subject to linear equality or inequality constraints and sign restrictions on the variables.

Question 4: Briefly explain crute's method

Question 5: Definition of orthogonal matrix