

## **STUDY OF AN ECONOMIC ORDER QUANTITY MODEL UNDER LINEAR DEMAND, CONSTANT DETERIORATION AND SHORTAGES ARE PERMITTED**

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### **ABSTRACT**

*Economic Order Quantity (EOQ) model is developed to minimize the total Inventory cost. In this paper, an Economic Order Quantity (EOQ) model is developed for deteriorating items with linear demand pattern and constant deterioration rate. We permit shortages. The aim of this model is to check the convexity of the graph between total inventory cost and time and to calculate the sensitivity analysis of the optimal solution.*

**KEYWORDS:** *Deterioration, Constant Deterioration Rate, Economic Order Quantity (EOQ), Demand, Linear Demand*

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