

1077-03-2928

**Vikram Jeet Singh\*** (vikram31782@gmail.com), H.no 908/7 Street no.4, Kot Atma Singh, Ram Bagh, Amritsar, Punjab 143001, India. *AN EPQ Model for Deterioration Items and Exponential Demand Rate Taking into Account the Time Value of Money*. Preliminary report.

In this study we develop an inventory model with exponential demand with Time Value of Money. Deterioration occurs as soon as the items are received into inventory and it follows two parameter Weibull distributions. There is no repair or replacement of deteriorating items during the replenishment cycle. Product transactions are followed by instantaneous cash flow. Shortages are allowed and partially backlogged. The system operates for a prescribed period of a planning horizon. Production rate is demand rate dependent. The problem is discussed under the inflationary environment. (Received September 23, 2011)