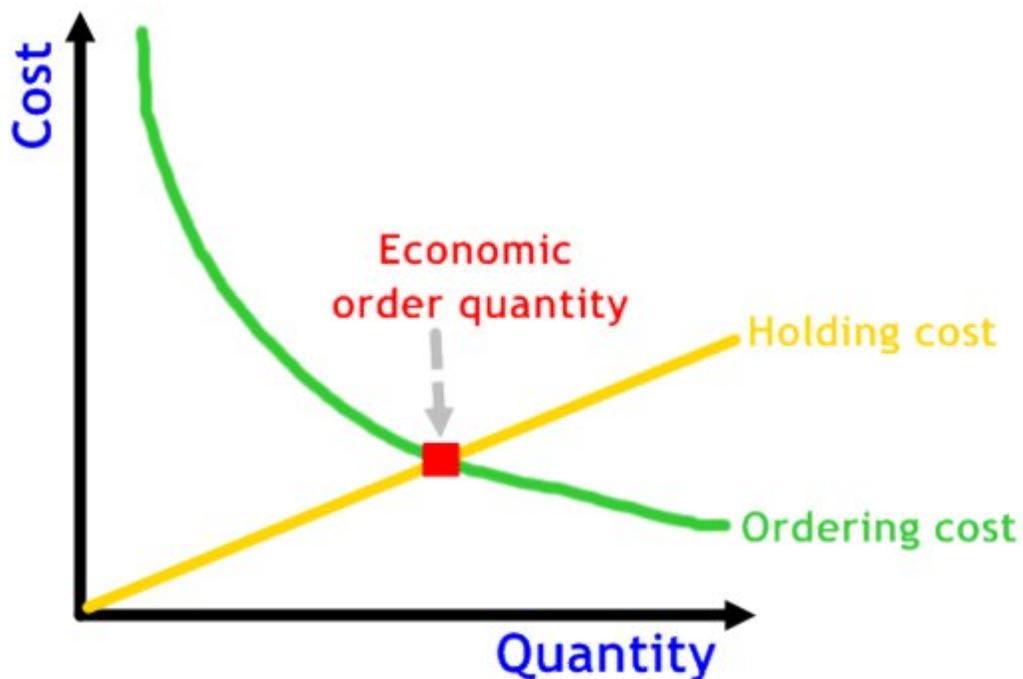


CLASS 6

ECONOMIC ORDER QUANTITY (EOQ) MODEL:

Economic Order Quantity (EOQ) is the optimal number of units a business should order at a time to minimize total inventory cost, which includes ordering costs and holding costs. At EOQ, the annual ordering cost equals the annual holding cost, ensuring the most cost-effective balance between buying too often and storing too much inventory.



ECONOMIC ORDER QUANTITY (EOQ) MODEL:

EOQ stands for Economic order Quantity. The Economic Order Quantity (EOQ) model is a fundamental inventory management tool that helps a business determine the optimal quantity of stock to order at a time in order to minimize the total inventory costs. These costs include ordering costs (expenses incurred every time an order is placed) and holding costs (expenses of storing inventory, such as warehousing, insurance, and depreciation).

ASSUMPTIONS OF ECONOMIC ORDER QUANTITY (EOQ) MODEL

The model is based on the following assumptions:

- **Constant Demand:** The demand for the product is known and remains steady over time.
- **Fixed Lead Time:** The time between placing an order and receiving it is constant and known.
- **No Shortages:** Stock outs or shortages are not allowed; inventory must always meet demand.
- **Instantaneous Replenishment:** Each order is received in full at one time.
- **Constant Ordering and Holding Costs:** Both the cost to place an order and the cost to hold inventory remain unchanged.
- **Single Product:** EOQ is calculated for one item at a time.
- **No Quantity Discounts:** The cost per unit is constant, regardless of order size.