

UDHNA CITIZEN COMMERCE COLLEGE &
S.P.B. COLLEGE OF BUSINESS ADMINISTRATION &
SMT. DIWALIBEN HARJIBHAI GONDALIA COLLEGE OF BCA & IT
(Self Financed)

(Managed by Udhna Academy Education Trust)

214, Ranchhod Nagar, Opp. Swaminarayan Temple, Surat-Navsari Road, SURAT-394 210

Class: S.Y.B.Com. (Sem. 3)

Subject: Advanced Accounting & Auditing 1

**Accounting For Material
Formula & Important Points to Remember**

Important Points to Remember

1. Economic Order Quantity (EOQ)

- EOQ aims to minimize the total inventory cost (Ordering Cost + Carrying Cost).
- At EOQ, Ordering Cost is equal to Carrying Cost.
- A higher EOQ means fewer orders during the year.
- A lower EOQ means more frequent orders.

2. Ordering Cost

Ordering Cost includes:

- Cost of preparing purchase requisitions
- Cost of placing purchase orders
- Postage and stationery
- Telephone and communication expenses
- Transportation expenses related to ordering
- Inspection and receiving cost
- Documentation and administrative expenses

3. Carrying Cost (Holding Cost)

Carrying Cost includes:

- Warehouse rent
- Insurance
- Security expenses
- Loss due to theft or damage
- Interest on funds invested in inventory
- Storage and maintenance expenses
- Obsolescence cost

4. Re-order Level

- When inventory reaches the Re-order Level, a new order should be placed immediately.

5. Minimum Level

- Inventory should never fall below the Minimum Level.
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6. Maximum Level

- Inventory should not exceed the Maximum Level to avoid excess investment and storage costs.

7. Average Level

- The Average Level indicates the average quantity of inventory maintained during the year.

8. Danger Level

- When inventory reaches the Danger Level, immediate procurement of materials is necessary to avoid interruption in production.

9 Stock Turnover Ratio

- A higher Stock Turnover Ratio indicates that inventory is consumed or sold quickly.
- A lower Stock Turnover Ratio indicates slow movement of inventory and excess funds blocked in stock.

Stock Turnover Period

- A shorter Stock Turnover Period indicates efficient inventory management.
- A longer Stock Turnover Period indicates that inventory remains in store for a longer time.

Formula

Topic	Formula
EOQ	$EOQ = \sqrt{\frac{2AO}{C}}$ Where: • A = Annual Consumption • O = Ordering Cost per Order • C = Annual Carrying Cost per Unit
If carrying cost in percentage EOQ	$EOQ = \sqrt{\frac{2AO}{CP}}$ Where: • A = Annual Consumption • O = Ordering Cost per Order • C = Annual Carrying Cost • P = Price per unit
Number of Orders	Annual Consumption ÷ EOQ
Time Interval	365 ÷ Number of Orders

Topic	Formula
Re-order Level	Maximum Consumption $\times$ Maximum Time
Minimum Level	Re-order Level $-$ (Avg. Consumption $\times$ Avg. Time)
Maximum Level	Re-order Level $+$ EOQ $-$ (Minimum Consumption $\times$ Minimum Time)
Average Level	Minimum Level $+$ (EOQ $\div$ 2)
Danger Level	Avg. Consumption $\times$ Emergency Procurement Time
Safety level	Max Consumption (Max Time $-$ Avg. Time)
Average Stock	(Opening Stock $+$ Closing Stock) $\div$ 2
Material Turnover Ratio	Materials Consumed $\div$ Average Stock
Material Turnover Period	365 $\div$ Material Turnover Ratio

Important Points to Remember

EOQ (Economic Order Quantity)

- ✓ **EOQ is always expressed in units.**
- ✓ After calculating EOQ, questions often ask you to calculate:
 - **Number of Orders During the Year**, and
 - **Time Interval Between Two Orders.**

Stock Levels

- ✓ **Maximum Consumption** and **Maximum Time** are used to calculate the **Re-order Level**.
- ✓ **Average Consumption** and **Average Time** are used to calculate the **Minimum Level**.
- ✓ **Minimum Consumption** and **Minimum Time** are used to calculate the **Maximum Level**.
- ✓ **Normal Consumption** and **Emergency Procurement Time** are used to calculate the **Danger Level**.

Material Turnover Ratio

- ✓ **First**, calculate the **Average Stock of Materials**.
- ✓ **Then**, calculate the **Material Turnover Ratio**.
- ✓ **Finally**, calculate the **Material Turnover Period**.

One-Line Memory Tips

- EOQ $\rightarrow$ Minimum Total Inventory Cost
- Re-order Level $\rightarrow$ Level at which a fresh order is placed
- Maximum Level $\rightarrow$ Maximum permissible stock
- Danger Level $\rightarrow$ Immediate purchase level
- Stock Turnover Ratio $\rightarrow$ Number of times inventory is consumed/sold during the year
- Stock Turnover Period $\rightarrow$ Number of days required for one complete inventory turnover