

**MATERIAL COST-
ACCOUNTING
AND
CONTROL**

METHODS OF PRICING MATERIAL ISSUES

- **First-in First-out (FIFO)**
- **Last-in First-out (LIFO)**
- **Simple Average**
- **Weighted Average**
- **Replacement Price**
- **Standard Price**

METHODS OF PRICING MATERIAL ISSUES

Basis	FIFO	LIFO
1. Assumption	It assumes that materials which are received first are issued first.	It assumes that materials which are received last are issued first.
2. Cost of materials	Cost of materials issued at the older prices.	Cost of materials issued is at the latest prices paid.
3. Value of closing stock	Closing stock is valued at the latest prices paid.	Closing stock is valued at the prices of oldest material in stock.
4. When price are rising	When prices show a rising trend, FIFO reports higher profit and resultantly higher tax liability.	When prices are rising, LIFO shows lower profit because higher costs are matched against current revenues. Tax liability is thus reduced.
5. When prices are falling	When prices of materials are declining, FIFO shows lower profit and thus lower tax liability.	When prices are declining, LIFO shows higher profit and thus higher tax liability.

METHODS OF PRICING MATERIAL ISSUES

Simple Average Method

- Simple average price is calculated by adding all the different prices and dividing by the number of such prices.
- It does not take into account quantities of materials while computing average price.
- Example, when 100 units are purchased @ Rs.9 per unit and 900 units are purchased @Rs.7 per unit, the simple average price will be = $(9+7)/2 = \text{Rs.8}$

METHODS OF PRICING MATERIAL ISSUES

Weighted Average Method

- This method gives due weight to the quantities held at each price when calculating the average price.
- The weighted average price is calculated by dividing the total cost of material in stock from which the material to be priced could have been drawn, by the total quantity of material in that stock.

- Weighted Average Price = $\frac{\text{Total cost of materials in stock}}{\text{Total quantity of materials in stock}}$

- Eg.

100 units @ Rs.9/- & 900 units @ Rs.7/-

$$\frac{(100 \times 9) + (900 \times 7)}{1000} = \frac{900 + 6300}{1000} = \frac{7200}{1000} = 7.20$$

METHODS OF PRICING MATERIAL ISSUES

Replacement Price Method

- Replacement price is the price at which materials would be replaced, i.e. the market price on the date of issue.
- This method is used when it is desired to reflect the current prices in cost.
- It is most suitable for businesses that buy large quantities of materials well in advance of requirements, to take advantage of cheap prices, the benefit of which is not desired to be passed on to the customer.

METHODS OF PRICING MATERIAL ISSUES

Standard Price Method

- Standard price is a pre-determined price which is fixed for a definite period, such as an year.
- It takes into account factors like probable trend of prices over that period, market conditions, discounts, etc.
- Under this method, all receipts are posted in the Stores Ledger Account at actual cost and issues are priced at standard price. The difference between actual and standard prices, is transferred to Material Price Variance Account.

Example: During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions in the Stores Ledger A/c using FIFO Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

**FIFO METHOD
STORES LEDGER ACCOUNT**

DATE	RECEIPTS			ISSUES			BALANCE		
	QTY	RATE	AMT	QTY	RATE	AMT	QTY	RATE	AMT
Jan 1	-	-	-	-	-	-	50	1	50
Jan 2	100	2	200	-	-	-	50 100	1 2	50 200
Jan 5	-	-	-	50 30	1 2	50 60	70	2	140
Jan 12	60	3	180	-	-	-	70 60	2 3	140 180
Jan 25	-	-	-	70 30	2 3	140 90	30	3	90

Closing stock=30 units @ 3=Rs.90

Cost of Goods Sold= Rs.340

Example : During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions in the Stores Ledger A/c using LIFO Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

**LIFO METHOD
STORES LEDGER ACCOUNT**

DATE	RECEIPTS			ISSUES			BALANCE		
	QTY	RATE	AMT	QTY	RATE	AMT	QTY	RATE	AMT
Jan 1	-	-	-	-	-	-	50	1	50
Jan 2	100	2	200	-	-	-	50 100	1 2	50 200
Jan 5	-	-	-	80	2	160	50 20	1 2	50 40
Jan 12	60	3	180	-	-	-	50 20 60	1 2 3	50 40 180
Jan 25	-	-	-	60 20 20	3 2 1	180 40 50	30	1	30

Closing stock=30 units @ 1=Rs.30

Cost of Goods Sold= Rs.430

Example : During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions in the Stores Ledger A/c using Weighted Average Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

**WEIGHTED AVERAGE METHOD
STORES LEDGER ACCOUNT**

DATE	RECEIPTS			ISSUES			BALANCE		
	QTY	RATE	AMT	QTY	RATE	AMT	QTY	RATE	AMT
Jan 1	-	-	-	-	-	-	50	1	50
Jan 2	100	2	200	-	-	-	150	1.67	250
Jan 5	-	-	-	80	1.67	134	70	1.67	117
Jan 12	60	3	180	-	-	-	130	2.28	297
Jan 25	-	-	-	100	2.28	228	30	2.28	68

Closing stock=30 units @ 2.28=Rs.68

Cost of Goods Sold= Rs.362

Example: During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions using Periodic Inventory System under FIFO Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

Periodic Inventory System (FIFO)

	QTY	RATE	AMT
Opening Stock	50	1	50
Add: Purchases			
Jan 2	100	2	200
Jan 12	60	3	180
Total	210		430
Less: Units Sold	180		
Closing Stock	30		
According to FIFO- Closing Stock= 30 units @ 3=Rs.90 Cost of Goods Sold=Rs.430-Rs.90=Rs.340			

Example: During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions using Periodic Inventory System under LIFO Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

Periodic Inventory System (LIFO)

	QTY	RATE	AMT
Opening Stock	50	1	50
Add: Purchases			
Jan 2	100	2	200
Jan 12	60	3	180
Total	210		430
Less: Units Sold	180		
Closing Stock	30		

According to LIFO-

Closing Stock= 30 units @ 1=Rs.30

Cost of Goods Sold=Rs.430-Rs.30=Rs.400

Example: During the month of January, 2019, the following receipts and issues of materials were made. Record these transactions using Periodic Inventory System under Weighted Average Method-

Jan 1	Balance brought forward	50 units @ Rs. 1 per unit
Jan 2	Purchased	100 units @ Rs. 2 per unit
Jan 5	Issued	80 units
Jan 12	Purchased	60 units @ Rs. 3 per unit
Jan 25	Issued	100 units

Periodic Inventory System (WAM)

	QTY	RATE	AMT
Opening Stock	50	1	50
Add: Purchases			
Jan 2	100	2	200
Jan 12	60	3	180
Total	210		430
Less: Units Sold	180		
Closing Stock	30		

According to WAM-

Weighted Average Price=430/210=Rs.2.05

Closing Stock= 30 units @ 2.05=Rs.61.5

Cost of Goods Sold=Rs.430-Rs.61.5=Rs.368.5

Example: The following transactions took place in respect of a material item-

Date	Receipt Quantity	Rate	Issue Quantity
02/03/2019	200	2	
10/03/2019	300	2.40	
15/03/2019			250
18/03/2019	250	2.60	
20/03/2019			200

Prepare Stores Ledger Account using Simple Average Method.

**SIMPLE AVERAGE METHOD
STORES LEDGER ACCOUNT**

DATE	RECEIPTS			ISSUES			BALANCE	
	QTY	RATE	AMT	QTY	RATE	AMT	QTY	AMT
Mar 2	200	2	400	-	-	-	200	400
Mar 10	300	2.40	720	-	-	-	500	1120
Mar 15	-	-	-	250	$2+2.40/2=2.20$	550	250	570
Mar 18	250	2.60	650	-	-	-	500	1220
Mar 20	-	-	-	200	$2.40+2.60/2=2.50$	500	300	720

THANK YOU