



Inventory Valuation Accounting Standard -2

Dr. Rama Nag (De)
Associate Professor

mail-id: rama00tdc@gmail.com

A hand holding a magnifying glass over a landscape, symbolizing focus and attention.

Our focus will be on the following topics

- **Meaning of Inventory**
- **Features of Inventory**
- **Different methods of pricing the issue of materials**
- **Valuation of Inventory as per AS-2 and its Significance**
- **Inventory Reconciliation**

1. Meaning of Inventory

Some of the goods purchased or manufactured during a particular accounting year, may not be sold during that year only. On the other hand, some of the goods, for which manufacturing process has been started during a particular accounting year, may not be finished or saleable in the market during that year, and consequently those semi-finished or incomplete goods cannot be sold during that year. As a result, there might be some unsold stock of raw materials or work-in-progress (i.e. semi finished goods) or finished goods at the end of every accounting year which becomes opening stock of next accounting year.

As per **Accounting Standard-2**, Inventory means asset held for sale in normal course of business.

The Inventory of different types of entities usually include the following:

Types of entity	Inventories
Manufacturing entity	Raw materials, stores, spares, supplies, WIP, finished goods
Trading / merchandising entity	Supplies, finished goods
Service-rendering entity	Stores, spares

2. Features of Inventories

Inventories possesses the following features given below:-

- It can be of different patterns like raw materials, spares, stores, work-in-progress, finished goods.
- It is a part of current asset of every concern.
- It is kept by all types of trading and manufacturing concerns.
- Value and quantity of inventory are continuously changing with passage of time.
- It is a major component of working capital of every concern.
- Inventory is a generally valued at the end of every accounting year

3. Valuation of Inventories

Accounting Standard 2 deals with the Valuation of Inventory.

Inventories is a generally valued at the end of every accounting year.

As per AS - 2, INVENTORIES ARE TO BE VALUED AT **LOWER** OF **COST OF INVENTORY** OR **NET REALIZABLE VALUE(NRV)** OF THE INVENTORY.

Such selection of lower value is considered on item by item basis (not on global basis).

Illustration-1:

Determine the value of closing stock for the given case- **The company deals in three products A, B & C which are neither similar nor interchangeable. At the time of closing its accounts of the year 2014-15, historical cost and the net realisable value of the items of the closing stock are determined as follows:**

Items	Cost (in lakhs)	NRV (in lakhs)
A	40	28
B	32	32
C	16	24

Solution

As per AS-2, Valuation of Inventory, whenever Finished goods or WIP are to be valued, then lower of Cost & NRV should be taken on Item by Item basis. In the given case, stock to be valued as follows-

Items	Cost (in lakhs)	NRV (in lakhs)	Lower
A	40	28	28
B	32	32	32
C	16	24	16

The Closing Stock is Rs. $(28+32+16)$ lakhs = **Rs. 76 lakhs**

Calculation of Net Realizable Value (NRV)

For **FINISHED GOODS**-

Estimated Selling Price (market price)	XXXX
Less: Estimated Selling Expenses	(XXX)
Net Realizable Value	XXXX

For **WIP**-

Estimated Selling Price (market price)	XXXX
Less: Estimated Selling Expenses	(XXX)
Less: Expenses incurred to complete production	(XXX)
Net Realizable Value	XXXX

Examples of Selling Expenses:- Commission on sale, Delivery Expenses, etc.

Illustration-2

A Ltd. is a producer of chemicals. It provides the following information-

Chemical 1- 10,000 units- Cost Price Rs. 5/unit

Chemical 2- 15,000 units- Cost Price Rs. 6/unit

Semi- Finished Chemical 1- 6,000 units- Cost Price Rs. 3/unit

Estimated selling price:

Chemical 1- Rs. 5.20 ; Chemical 2- Rs. 6.30.

Commission to sale is 5% of selling price. Cost incurred for completion of Chemical-1 is Rs. 1.30/unit. Calculate the value of inventory

Solution Calculation of Valuation of Inventory: Lower of Cost or NRV

Items	Cost	Particulars	NRV	Quantity	Closing stock
Chemical-1	5	Estimated SP	5.20	-	-
-	-	(-) Commission @5%	(0.26)	-	-
	5	Net value	4.94	10,000	49,400
Chemical-2	6	Estimated SP	6.30	-	-
-	-	(-) Commission @5%	(0.315)	-	-
	6	Net value	5.985	15,000	89,775
Chemical-1 (WIP)	3	Estimated SP	5.20	-	-
-	-	(-) Commission @5%	(0.26)	-	-
-	-	(-) Cost to complete	(1.30)	-	-
	3	Net value	3.64	6,000	18,000
-	-	-	-	-	1,57,175

Valuation of Defective Finished Goods

As per Accounting Standard-2, goods are valued at Cost or NRV, whichever is LOWER.

Generally, due to this defective nature in the goods, NRV is having a lower estimation.

These defective goods are generally valued at NRV only.

Meaning of Cost

Cost is defined as the value of money that has been used to produce something or deliver a service. Cost can be calculated using various cost techniques.

These techniques are elaborated as follows:-

- **Standard Cost Technique-**

Standard Cost Technique means the cost which is considered from cost accounts' department in the entity. This standard cost is generally not available in small entities.

- **Retail Price Technique-**

Here profit (GP) is reduced from selling price to calculate the cost price. This technique can be applied where the GP ratio is constant and the selling price of the stock can be identified.

- **Actual Cost Technique-**

Actual Cost Technique is the most detailed method of calculating cost of stock.

Calculation of Actual Cost

Cost of raw material- No. of units × Cost per unit

XXXX

Where, {Cost of unit= Landing Cost / (Purchased quantity - Normal Loss)}

{Abnormal Loss is calculated as= (units lost abnormally × cost per unit),

Labour cost- No. of hours × cost per hour

XXXX

Production overhead- No. of units × production overhead per unit

XXXX

Less: Sale Proceed of By-product

(XXX)

Total Cost

XXXX

Cost of Finished Goods = Total Production Cost / (Input Quantity - Normal Loss)

Abnormal cost is to be written of in Profit & Loss A/c

Note:

1. Landing Cost of Raw Materials

Particulars	Rs.
Purchase price	XXXX
Add: Unloading charges	XXXX
Add: Freight inward	XXXX
Add: Taxes (if GST credit not available)	XXXX
Landing cost	XXXXXX

2. Following costs are not included in the Cost of Production

- A. Selling expenses
- B. General administration overhead
- C. Finance cost / borrowing cost
- D. Storage cost
- E. Abnormal loss

Illustration-3:

X Ltd. Purchased goods at the cost of Rs. 40 lacs in October, 2005. Till March, 2006, 75% of the stocks were sold. The company wants to disclose closing stock at Rs. 10 lacs. The expected sale value is Rs. 11 lacs and a commission of 10% on sale is payable to the agent. Advise, what is the correct closing stock to be disclosed as at 31.3.2006.

Solution:

It is a finished stock, hence it will be taken at Cost or NRV whichever is LOWER.

Cost	40,00,000 × 25%	10,00,000
NRV	Estimated Selling Price 11,00,000 (-) commission (@10%) (1,10,000)	9,90,000

Hence, **Value of the Closing Stock is Rs. 9,90,000**

SIGNIFICANCE OF VALUATION OF INVENTORY

As per Accounting Standard - 2, inventory should be valued by a concern on the principle of its Cost or NRV whichever is LOWER.

The significance of valuation of inventories are as follows:-

- **To value the inventory in accordance with its current market price**
- **To ascertain current year's profit correctly**

4. Different Methods of Pricing the Issue of Materials

Pricing the issue of materials refers to the price at which materials are issued from stores to the production process. Different methods which are used for pricing the issues of materials from stores to production process are discussed below:

- **Cost Price Methods:**
 - **Specific Price Method**
 - **First-in First-out (FIFO) Method**
 - **Last-in First-out (LIFO) Method**
 - **Base Stock Method**

- **Average Price Methods:**
 - Simple Average Price Method
 - Weighted Average Price Method
 - Periodic Simple Average Price Method
 - Periodic Weighted Average Price Method
 - Moving Simple Average Price Method
 - Moving Weighted Average Price Method
- **Market Price Methods:**
 - Realizable Price Method
 - Replacement Price Method
- **Notional Price Methods:**
 - Standard Price Method
 - Inflated Price Method
- **Reuse Price Method**

Out of the above methods some important and frequently used methods of pricing the issues of materials are discussed below:

- **FIRST-IN FIRST-OUT (FIFO) METHOD-**

In this method, materials received first in the store are to be issued first to the production process. The price at which the materials, is received second, second materials are to be issued from the store at that price and so on.

- **LAST-IN FIRST-OUT (LIFO) METHOD-**

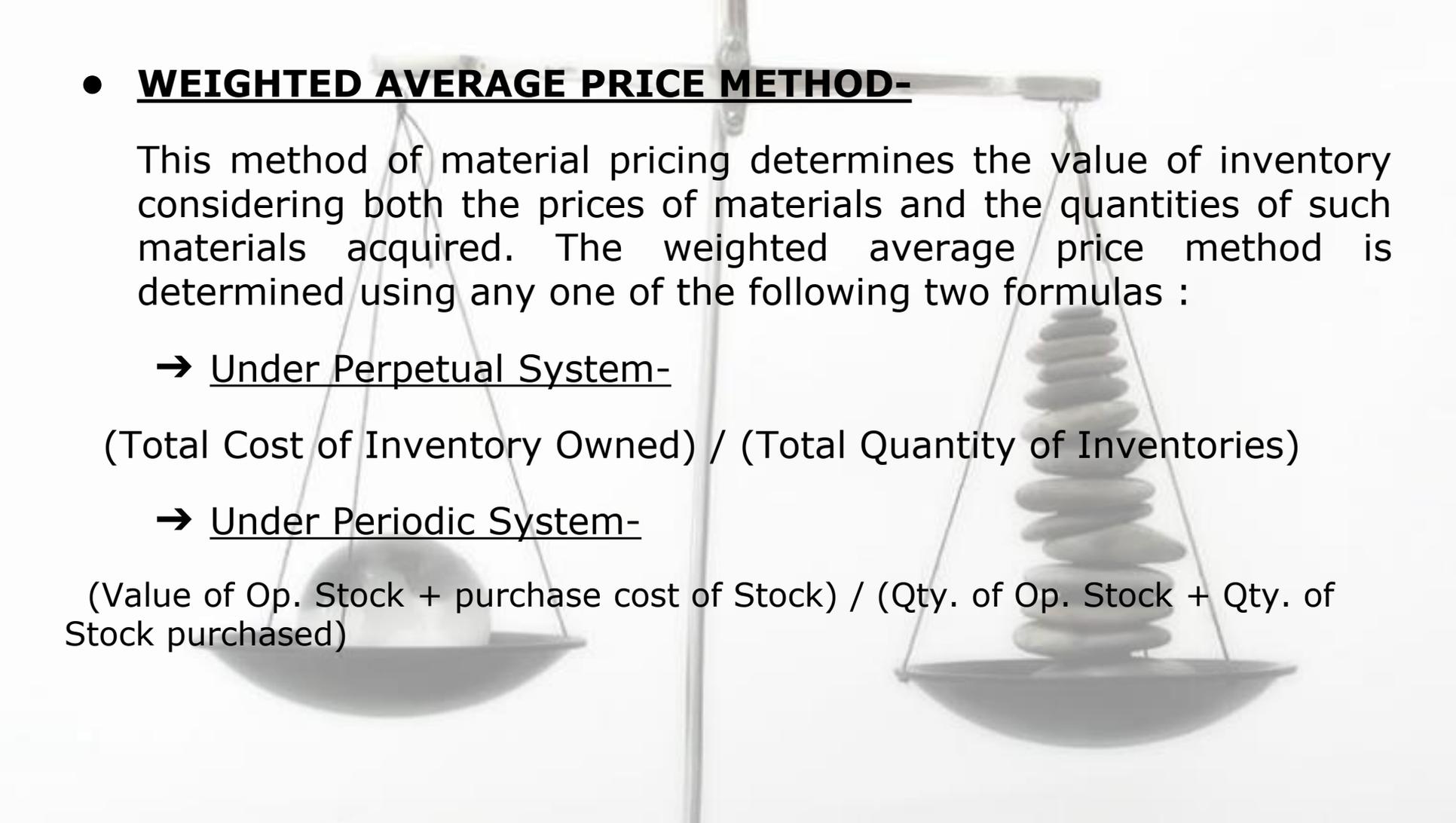
In this method, materials received last in the store are to be issued first to the production process. The price at which the materials is received prior to the last materials, second materials are to be issued from store at that price and so on.

- **BASE STOCK METHOD-**

This method assume that a minimum quantity of stock must be maintained by an entity at all times for its regular operations. This minimum quantity of stock is known as Base Stock (or Safety Stock or Buffer Stock). It is valued at its original purchase cost, while the stocks over this level are valued under any other method such as FIFO, LIFO, Average, etc.

- **SIMPLE AVERAGE PRICE METHOD-**

This method is applicable when goods are acquired at different prices and they are not clearly identifiable. The stock that are issued are valued at average price determined on the basis of the price of lots existing on the date of issue.



- **WEIGHTED AVERAGE PRICE METHOD-**

This method of material pricing determines the value of inventory considering both the prices of materials and the quantities of such materials acquired. The weighted average price method is determined using any one of the following two formulas :

→ Under Perpetual System-

$(\text{Total Cost of Inventory Owned}) / (\text{Total Quantity of Inventories})$

→ Under Periodic System-

$(\text{Value of Op. Stock} + \text{purchase cost of Stock}) / (\text{Qty. of Op. Stock} + \text{Qty. of Stock purchased})$

5. INVENTORY RECONCILIATION

Sometimes, stock of goods may not be valued on the date of preparation of financial statements of an entity; rather stocks are valued after few days from the date of preparation of financial statements. As a result, some transactions are involving stock may take place in between the date of preparation of financial statements and the date of actual stock valuation. In such a situation, a reconciliation of inventory between the date of preparation of financial statements and the date of actual stock taking is needed. Accordingly, inventory reconciliation statement is started from the value of physical stock as on the date of actual stock taking and ended at the value of physical and/or actual stock on the date of preparation of financial statements.

Illustration-4:

From the following particulars for the year ended 31.03.14, determine the value of the closing stock at the end of the year.

	₹
Opening stock on 01.04.13	40,000
Purchases	2,25,000
Sales	3,00,000

At the end of the year, goods purchased on credit for ₹ 25,000 were received but no entry was passed for non-receipt of invoice. Uniform rate of Gross Profit is 30%.

[CU B.Com.(Hons), 2014]

Solution:

Statement showing computation of value of closing stock as on 31-3-2014

Particulars	Details	Amount
Stock on 01-04-2013 at cost		40,000
Add: Purchases for the year 2013-14	2,25,000	
Add: Credit purchases not recorded	<u>25,000</u>	2,50,000
Less: Sales of the year 2013-14 at cost (Rs. 3,00,000 - 30% thereof)		(2,10,000)
Value of Closing Stock as on 31-3-2014		80,000

Illustration-5:

The cost of production of Product X is ₹ 450 which includes per unit cost of Material, Labour and overheads of ₹ 250, ₹ 110 and ₹ 90 respectively. At the end of the accounting year on 31.03.2018, the replacement cost of Raw Material is ₹ 210 per unit. There are 500 units of raw material in stock on 31.03.2018. Calculate as per AS-2 the value of closing stock of Raw Material when:

- (i) Finished Product is sold at ₹ 420 per unit;
- (ii) Finished Product is sold at ₹ 490 per unit.

[CA (IPCE) — Adapted]

Solution:

1. Here, net realizable value of the product (i.e. Rs. 420) is less than its total cost (i.e. Rs. 450) and cost of raw material (i.e. Rs. 250) is more than the replacement cost (i.e. Rs. 210). In the situation, raw materials should be valued at replacement cost and the value of stock of raw materials would be: $(500 \text{ units} \times \text{Rs. } 210 =)$ Rs. 1,05,000.
2. Here, net realizable value of the product (i.e. Rs. 490) is more than its total cost (i.e. Rs. 450). the situation, raw materials should be valued at actual cost of materials and the value of stock of raw materials would be: $(500 \text{ units} \times \text{Rs. } 250 =)$ Rs. 1,25,000

Illustration-6:

Following are the details supplied by AB Ltd. in respect of its raw materials for the month of November, 2017:

Date	Receipts		Issues units
	Units	Amount (₹)	
1.11.17	(opening) 1,000	6,000	
10.11.17	500	3,500	
15.11.17	—	—	1,200
20.11.17	1,000	8,000	
30.11.17	—	—	1,100

On 30th November, a shortage of 50 units was found. Find the values of issues and resulting stocks on different dates using (a) LIFO, (b) Simple Average, and (c) Weighted Average Method.

[CU B.Com.(Hons.)]

SOLUTION

(a) Stores Ledger under LIFO basis

Date	Receipts			Issues			Balance			Remarks
	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	
1.11.17							1,000	6.00	6,000	Opening stock
10.11.17	500	7.00	3,500				{ 1,000 500	{ 6.00 7.00	{ 6,000 3,500	
15.11.17				{ 500 700	{ 7.00 6.00	{ 3,500 4,200	300	6.00	1,800	
20.11.17	1,000	8.00	8,000				{ 300 1,000	{ 6.00 8.00	{ 1,800 8,000	
30.11.17				{ 1,000 100 50	{ 8.00 6.00 6.00	{ 8,000 600 300	200 150	6.00 6.00	1,200 900	

(b) Stores Ledger under Simple Average basis

Date	Receipts			Issues			Balance			Remarks
	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	
1.11.17							1,000	6.00	6,000	Opening stock
10.11.17	500	7	3,500				1,500		9,500	
15.11.17				1,200	6.50	7,800	300		1,700	

20.11.17	1,000	8	8,000							
30.11.17				1,100	7.50	8,250	1,300		9,700	
30.11.17				50	7.50	375	200		1,450	
							150		1,075	Shortage

Working Notes: Rate for issue on 15.11.17 = $(\text{₹}6 + \text{₹}7) / 2 = \text{₹} 6.50$

Rate for issue on 30.11.17 = $(\text{₹}7 + \text{₹}8) / 2 = \text{₹} 7.50$

(c) Stores Ledger under Weighted Average basis

Date	Receipts			Issues			Balance			Remarks
	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	
1.11.17							1,000	6.00	6,000	Opening stock
10.11.17	500	7.00	3,500				1,500	6.33 ⁽¹⁾	9,500	
15.11.17				1,200	6.33	7,600	300	6.33	1,900	
20.11.17	1,000	8.00	8,000				1,300	7.615 ⁽²⁾	9,900	
30.11.17				100	7.615	8,377	200	7.615	1,523	
30.11.17				50	7.615	381	150	7.615	1,142	

Working Notes :

1. Balance on 10.11.17 = $[(1,000 \text{ units} \times \text{₹}6) + (500 \text{ units} \times \text{₹}7)] / (1,000 \text{ units} + 500 \text{ units}) = \text{₹} 6.333$

2. Balance on 20.11.17 = $[(300 \text{ units} \times \text{₹}6.33) + (1,000 \text{ units} \times \text{₹}8)] / (300 \text{ units} + 1,000 \text{ units}) = \text{₹} 7.615.$

Illustration-7:

Calculate price of the issues under three different methods from the following information related to Raw Material X:

01.01.18	- Balance	-	100 units @ ₹ 1 p.u. (Base stock) & 500 units @ ₹6 p.u.
03.01.18	- Receipt	-	1,000 units @ ₹5 p.u.
04.01.18	- Issue	-	800 units
10.01.18	- Receipt	-	1,000 units @ ₹7 p.u.
11.01.18	- Issue	-	900 units

[CU B.Com.(Hons)]

SOLUTION

Method - 1 : Under FIFO Method

Stores Ledger Account of Raw Material X

Date	Receipts			Issues			Balance			Remarks
	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	
1.1.18							100	1.00	100	Base stock 100 units@ ₹1
							500	6.00	3,000	
3.1.18	1,000	5.00	5,000				100	1.00	100	
							500	6.00	3,000	
4.1.18				500	6.00	3,000	1,000	5.00	5,000	
				300	5.00	1,500	100	1.00	100	
10.1.18	1,000	7.00	7,000				700	5.00	3,500	
							100	1.00	100	
11.1.18				700	5.00	3,500	700	5.00	3,500	
				200	7.00	1,400	1,000	7.00	7,000	
							100	1.00	100	Balance
							800	7.00	5,600	

Method - 3 : Under Weighted Average Method

Stores Ledger Account of Raw Material X

Date	Receipts			Issues			Balance			Remarks
	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	Qty (units)	Rate ₹	Amt ₹	
1.1.18							100	1.00	100	Base stock 100 units @ ₹1
							500	6.00	3,000	
3.1.18	1,000	5.00	5,000				100	1.00	100	
							1,500	5.333	8,000	
4.1.18				800	5.333	4,267	100	1.00	100	
							700	5.333	3,733	
10.1.18	1,000	7.00	7,000				100	1.00	100	
							1,700	6.313	10,733	
11.1.18				900	6.313	5,682	100	1.00	100	
							800	6.313	5,051	Balance

THANK YOU

MAKING AN IMPACT THAT MATTERS !!