

TOPIC 3.

ACCOUNTING STANDARD - 2 **VALUATION OF INVENTORIES**

Definition of Inventory AS 2

Inventories are Assets:

- **Held for sale** in the ordinary course of business (Finished Goods)
- **In the process** of Production for Such Sale (WIP) or
- **In the form of materials or supplies to be consumed in the production process or in the rendering of services** (Raw Material).

As per the definition of inventory or closing stock it includes following things;

- **Items which are held for sale in the normal course of business that is finished stock of goods.**
- **Work-in-progress (WIP)** for such sale. Goods which are not yet finished or ready to sale.
- **Raw material** which is not even issued for production while valuation of closing stock or inventory. It also includes consumable stores item.

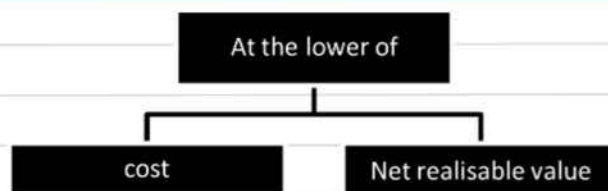
Non - Applicability AS 2

AS-2 is not applicable to following cases.

- **Work in process in the construction contract** business including, directly related to service contract.
- **Any financial instruments held as stock in trade** which includes shares, debentures, bonds etc.
- **Other inventories like livestock, agricultural product and forest product, natural gases and mineral oils** etc.
- **Work in progress in the business of banking, consulting and service business.** That means it includes incomplete consulting service, merchant banking service and medical service in process.

All of above are not cover under the definition of inventory/ closing stock that's why this accounting standard if not become applicable to above cases or in the course of business.

MEASUREMENT OF INVENTORY AT BS DATE



Cost of Inventory

Valuation of inventory is made at cost or market/ net realisable value whichever is lower. So that for the purpose of valuation cost of inventory is required to obtain. There can be three types of cost are included in the inventory which are as follow.

(a) Purchase cost:

- Invoice price at which goods are purchased
- Duties and taxes paid
- Freight inward
- Any other expenditure directly relating to acquiring goods

Above cost should be reduced by following:

- Duties and taxes received or receivable back from the tax authority
- Trade discount
- Rebate
- Duty drawback

(b) Cost of Conversion

It includes **direct labour, material and other direct expense plus allocation of fixed and variable production overhead** incurred for conversion or raw material in to finished goods. Following things should be considered for conversion cost of the inventory.

1. **Fixed production overhead** – it includes indirect cost for production which remains constant without relating to numbers of units produced. For example – depreciation and maintenance of factory building.

2. **Variable overhead** – indirect cost of production which depends on the number of units are produced such as packing material and other supporting material to finished product.

3. Allocation of fixed expense should be made on the bases of normal capacity and allocation of variable cost will be done on the basis of actual numbers of units are produced.

Example on allocation of Overheads:

Pluto Ltd. has a plant with the normal capacity to produce 5,00,000 unit of a product per annum and the expected fixed overhead is ₹ 15,00,000. Fixed overhead on the basis of normal capacity is ₹ 3 per unit (15,00,000/5,00,000).

Case 1:

Actual production is 5,00,000 units. Fixed overhead on the basis of normal

capacity and actual overhead will lead to same figure of ₹ 15,00,000. Therefore, it is advisable to include this on normal capacity.

Case 2:

Actual production is 3,75,000 units. Fixed overhead is not going to change with the change in output and will remain constant at ₹ 15,00,000, therefore, overheads on actual basis is ₹ 4 p/u ($15,00,000/3,75,000$).

Hence by valuing inventory at ₹ 4 each for fixed overhead purpose, it will be overvalued and the losses of ₹ 3,75,000 will also be included in closing inventory leading to a higher gross profit than actually earned.

Therefore, it is advisable to include fixed overhead per unit on normal capacity to actual production ($3,75,000 \times 3$) ₹ 11,25,000 and balance ₹ 3,75,000 shall be transferred to Profit & Loss Account.

Case 3:

Actual production is 7,50,000 units. Fixed overhead is not going to change with the change in output and will remain constant at ₹ 15,00,000, therefore, overheads on actual basis is ₹ 2 ($15,00,000/7,50,000$). Hence by valuing inventory at ₹ 3 each for fixed overhead purpose, we will be adding the element of cost to inventory which actually has not been incurred. At ₹ 3 per unit, total fixed overhead comes to ₹ 22,50,000 whereas, actual fixed overhead expense is only ₹ 15,00,000. Therefore, it is advisable to include fixed overhead on actual basis ($7,50,000 \times 2$) ₹ 15,00,000.

(c) Other cost

It includes any other expenditure incurred to bring inventory or stock in the present location and condition.

Cost should not include abnormal wastage relating to material and labour, storage cost, administrative expenses & selling and distribution expenses.

AS 16 – BORROWING COST

The extent to which borrowing cost is included in the cost of inventories is determined on the basis of the requirement of AS 16 Borrowing Costs.

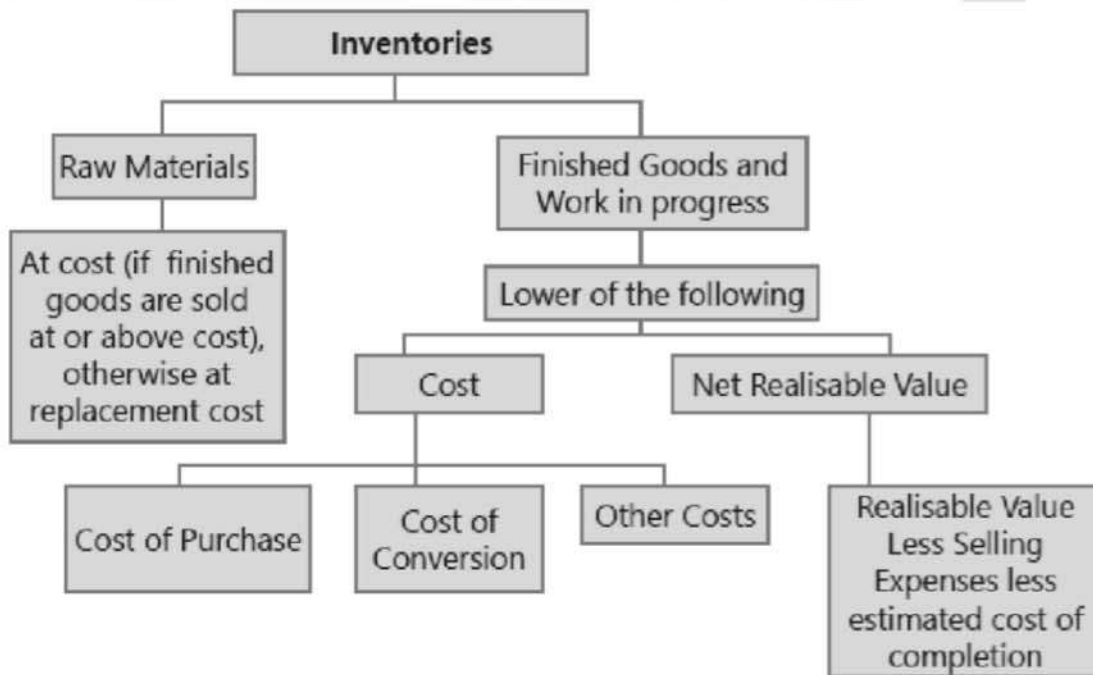
Methods of valuation of inventory as per AS 2

There are numbers of method for valuation of the inventory in the normal course of business which includes FIFO, LIFO, weighted average cost, standard cost and retail method. But practically following two methods only used as per AS 2.

- FIFO (first in first out)
- Weighted average

Net realisable value

- As per AS 2 Net realisable value means normal selling price of the goods less estimated expenditure to sale such goods.
- It is estimated value on the basis of reliable evidence at time of valuation. Estimation of net realisable value can be done on the following basis.
 - If the finished goods in which raw material and supply is used is sold at cost or above the cost, then the estimated realisable value of raw material and supplies is considered more than cost.
 - If the finished goods in which raw material and supply are used is sold at below cost then the estimated realisable value of raw material or supply is equal to replacement price of raw material or supply.



Allocation of cost to joint products and by-products

- A production process may result in more than one product being produced simultaneously. This is the case, for example, when joint products are produced or when there is a main product and a by-product.
- When the costs of conversion of each product are not separately identifiable, they are allocated between the products on a rational and consistent basis. The allocation may be based, for example, on the relative sales value of each product either at the stage in the production process when the products become separately

identifiable, or at the completion of production.

- Most by-products, by their nature, are immaterial. When this is the case, they are often **measured at net realisable value and this value is deducted from the cost of the main product**. As a result, the carrying amount of the main product is not materially different from its cost.

TECHNIQUES FOR THE MEASUREMENT OF COST

Techniques for the measurement of the cost of inventories, such as the standard cost method or the retail method, may be used for convenience if the results approximate to actual cost.

Standard Cost Method: Cost is based on normal levels of materials and supplies, labour efficiency and capacity utilization. They are regularly reviewed and revised where necessary.

Retail Method: Cost is determined by reducing the sales value of the inventory by the appropriate percentage gross margin. The percentage used takes into consideration inventory that has been marked down to below its original selling price. This method is often used in the retail industry for measuring inventories of rapidly changing items that have similar margins.

What are Cost Formulas?

AS 2 Inventories prescribes that when the inventories are:

- Not ordinarily interchangeable; and
- Goods or services are produced and segregated for specific projects,

their cost shall be assigned **using specific identification**.

This is rather unusual in practice, but it happens, for example when products are exclusive and unique, like jewelry, antiques or some types of automobiles.

When the goods are ordinarily interchangeable (e.g. large volumes of merchandise), then IndAS 2 permits using either

- **FIFO**, i.e. first-in-first-out method; or
- Weighted average method.

The standard AS 2 Inventories **does not permit using LIFO (last-in-first-out)**.

TRADE DISCOUNT & CASH DISCOUNT

Trade discount shall always be deducted from cost of inventory while cash discount shall not be deducted, directly transfer to profit and loss account.

Question 1

(Old Syllabus)

Sun Pharma Limited, a renowned company in the field of pharmaceuticals has the following four items in inventory: The Cost and Net realizable value is given as follows:

Item	Cost	Net Realisable Value
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A	2,000	1,900
B	5,000	5,100
C	4,400	4,550
D	3,200	2,990
Total	14,600	14,540

Determine the value of Inventories:

- On an item by item basis
- On a group basis

Solution

Inventories shall be measured at the lower of cost and net realisable value.

Item by item basis:	
A	1,900
B	5,000
C	4,400
D	2,990
	14,290
Group basis	14,540

Question 2

(ICAI Module)

The company deals in three products, A, B and C, which are neither similar nor interchangeable. At the time of closing of its account for the year 2016-17, the Historical Cost and Net Realisable Value of the items of closing stock are determined as follows:

Items	Historical Cost (Rs in lakhs)	Net Realisable Value (Rs in lakhs)
A	40	28
B	32	32
C	16	24

What will be the value of closing stock?

Solution

As per AS 2 (Revised) on 'Valuation of Inventories', inventories should be valued at the lower of cost and net realisable value. Inventories should be written down to net realisable value on an item-by-item basis in the given case.

Items	Historical Cost (Rs in lakhs)	Net Realisable Value (Rs in lakhs)	Valuation of closing stock (Rs in lakhs)
A	40	28	28
B	32	32	32
C	16	24	16
	88	84	76

Hence, closing stock will be valued at Rs 76 lakhs.

Question 3 (ICAI Module)

X Co. Limited purchased goods at the cost of Rs 40 lakhs in October, 2016. Till March, 2017, 75% of the stocks were sold. The company wants to disclose closing stock at Rs 10 lakhs. The expected sale value is Rs 11 lakhs and a commission at 10% on sale is payable to the agent. Advice, what is the correct closing stock to be disclosed as at 31.3.2017.

Solution

As per AS 2 (Revised) "Valuation of Inventories", the inventories are to be valued at lower of cost or net realisable value.

In this case, the cost of inventory is Rs 10 lakhs. The net realisable value is $11,00,000 \times 90\% = ₹ 9,90,000$. So, the stock should be valued at Rs 9,90,000.

Question 4 (ICAI Module)

In a production process, normal waste is 5% of input. 5,000 MT of input were put in process resulting in wastage of 300 MT. Cost per MT of input is ₹ 1,000. The entire quantity of waste is on stock at the year end. State with reference to Accounting Standard, how will you value the inventories in this case?

Solution

As per AS 2 (Revised), abnormal amounts of wasted materials, labour and other production costs are excluded from cost of inventories and such costs are recognised as expenses in the period in which they are incurred.

In this case, normal waste is 250 MT and abnormal waste is 50 MT. The cost of 250 MT will be included in determining the cost of inventories (finished goods) at the year end. The cost of abnormal waste (50 MT \times 1,052.6315 = Rs 52,632) will be charged to the profit and loss statement.

Cost per MT (Normal Quantity of 4,750 MT) = $50,00,000 / 4,750 = ₹ 1,052.6315$

Total value of inventory = $4,700 \text{ MT} \times ₹ 1,052.6315 = ₹ 49,47,368$.

Question 5 (ICAI Module)

You are required to value the inventory per kg of finished goods consisting of:

	Rs per kg.
Material cost	200
Direct labour	40
Direct variable overhead	20

Fixed production charges for the year on normal working capacity of 2 lakh kgs is Rs 20 lakhs. 4,000 kgs of finished goods are in stock at the year end.

Solution

In accordance with AS 2 (Revised), the cost of conversion include a systematic allocation of fixed and variable overheads that are incurred in converting materials into finished goods. The allocation of fixed overheads for the purpose of their inclusion in the cost of conversion is based on normal capacity of the production facilities.

Cost per kg. of finished goods:

	Rs	
Material Cost		200
Direct Labour	40	
Direct Variable Production Overhead	20	
Fixed Production Overhead (2000000/200000)	<u>10</u>	<u>70</u>
		<u>270</u>

Hence the value of 4,000 kgs. of finished goods = 4,000 kgs x Rs 270 = Rs 10,80,000

Question 6

(ICAI Module)

On 31st March 2017, a business firm finds that cost of a partly finished unit on that date is Rs 530. The unit can be finished in 2017-18 by an additional expenditure of Rs 310. The finished unit can be sold for Rs 750 subject to payment of 4% brokerage on selling price. The firm seeks your advice regarding the amount at which the unfinished unit should be valued as at 31st March, 2017 for preparation of final accounts. Assume that the partly finished unit cannot be sold in semi finished form and its NRV is zero without processing it further.

Solution

VALUATION OF UNFINISHED UNIT

	Rs
Net selling price	750
Less: Estimated cost of completion	(310)
	440
Less: Brokerage (4% of 750)	(30)
Net realizable Value	410
Cost of inventory	530
Value of inventory (Lower of cost and net realizable value)	410

Question 7

(RTP Nov.18)

A Limited is engaged in manufacturing of Chemical Y for which Raw Material X is required. The company provides you following information for the year ended 31st March, 2017.

Particulars	Rs.
Raw Material X	
Cost price	380
Unloading Charges	20

Freight Inward	40
Replacement cost	300
Chemical Y	
Material consumed	440
Direct Labour	120
Variable Overheads	80

Additional Information:

- Total fixed overhead for the year was 4,00,000/- on normal capacity of 20,000 units.
- Closing balance of Raw Material X was 1,000 units and Chemical Y was 2,400 units.

You are required to calculate the total value of closing stock of Raw Material X and Chemical Y according to AS 2, when

(i) Net realizable value of Chemical Y is 800/- per unit

(ii) Net realizable value of Chemical Y is 600/- per unit

Solution

(i) When Net Realizable Value of the Chemical Y is 800/- per unit

NRV is greater than the cost of Finished Goods Y i.e. 660/- (Refer W.N.)

Hence, Raw Material and Finished Goods are to be valued at cost.

Value of Closing Stock:

Qty.		Rate	Amount
Raw Material X	1,000	440	4,40,000
Finished Goods Y	2,400	660	15,84,000
Total Value of Closing Stock			20,24,000

(ii) When Net Realizable Value of the Chemical Y is 600/- per unit

NRV is less than the cost of Finished Goods Y i.e. ₹ 660. Hence, Raw Material is to be valued at replacement cost and Finished Goods are to be valued at NRV since NRV is less than the cost.

Value of Closing Stock:

Qty.		Rate	Amount
Raw Material X	1,000	300	3,00,000
Finished Goods Y	2400	600	14,40,000
Total Value of Closing Stock			17,40,000

Working Note:

Raw Material X	Amount
Cost Price	380
Add: Freight Inward	40
Unloading charges	20
Cost	440
Chemical Y	Amount
Materials consumed	440

Direct Labour	120
Variable overheads	80
Fixed overheads (₹4,00,000/20,000 units)	20
Cost	660

Question 8**(Old Syllabus)**

UA Ltd. purchased raw material @ ₹ 400 per kg. Company does not sell raw material but uses in production of finished goods. The finished goods in which raw material is used are expected to be sold at below cost. At the end of the accounting year, company is having 10,000 kg of raw material in inventory. As the company never sells the raw material, it does not know the selling price of raw material and hence cannot calculate the realizable value of the raw material for valuation of inventories at the end of the year. However, replacement cost of raw material is ₹ 300 per kg. How will you value the inventory of raw material?

Answer:

As per Ind AS 2 "Inventories", materials and other supplies held for use in the production of inventories are not written down below cost if the finished products in which they will be incorporated are expected to be sold at or above cost. However, when there has been a decline in the price of materials and it is estimated that the cost of the finished products will exceed net realizable value, the materials are written down to net realizable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net realizable value.

Therefore, in this case, UA Ltd. will value the inventory of raw material at ₹ 30,00,000 (10,000 kg. @ ₹ 300 per kg.).



Student Notes:-

COVID-19



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