TOPIC 9

INDAS 2 - INVENTORIES

INDEX

S.No.	Content	Page No.
1	Definition & Non-Applicability	200
2	Measurement & NRV	201
3	Cost of Inventory	203
4	Techniques of Measurement of Costs	209
5	Costs Formula	210
6	Practical Issues	219

Quote:-

"It Doesn't Matter How Slowly you go as long as you do not Stop"

Definition of Inventory - Ind AS 2

Inventories **are Assets:**

(a) Held for sale in the ordinary course of business (Finished Goods)

(b) In the process of Production for Such Sale (WIP) or

(c) 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;

- 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 INDAS 2

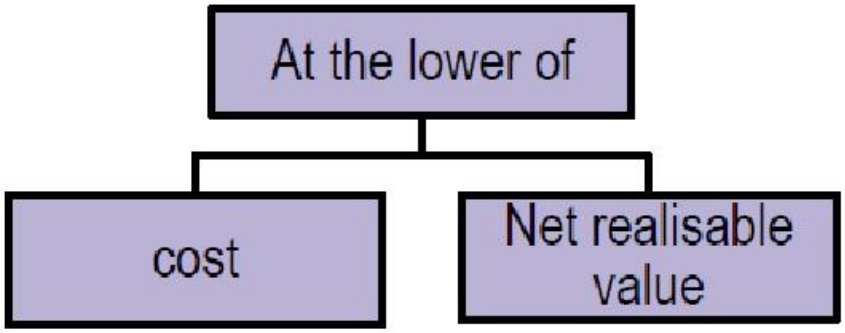
(A) INDAS-2 is not applicable to following cases.

- **Any financial instruments** held as stock in trade which includes shares, debentures, bonds etc. (INDAS 32, 109)
- **Biological Assets** (i.e. living plants and animals) related to agriculture activity and agriculture produce at the point of harvest (INDAS 41)

(B) This Standard also does not apply to the measurement of inventories held by:

- **Producers of agricultural and forest products, agricultural produce after harvest, and minerals and mineral products, to the extent that they are measured at net realisable value in accordance with well-established practices in those industries.**
  When such inventories are measured at net realisable value, changes in that value are recognised in profit or loss in the period of the change
- **Commodity broker-traders who measure their inventories at fair value less costs to sell.**
  When such inventories are measured at net realisable value/ fair value less costs to sell, changes in those values are to be recognised in profit or loss in the period of the change.

HOW TO MEASURE INVENTORY:



NET REALISABLE VALUE

1. 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.
2. 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.
3. It 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.

Example 1:

State with reference to accounting standard, how will you value the inventories in the following cases:

Raw material was purchased at Rs 100 per kilo. Price of raw material is on the decline. The finished good in which the raw material is incorporated is expected to be sold at below cost. 10,000 kg. of raw material is on stock at the year end. Replacement cost is Rs 80 per kg.

Answer:

Hence, in the given case, the stock of 10,000 kgs. of raw material will be valued at Rs 80 per kg. the finished goods, if on stock, should be valued at cost or net realizable value whichever is lower.

Q71.

The following information on Zenith Ltd. is given below.

You are required to:

(1) Calculate the value to raw material and finished goods at cost.

(2) Calculate the value of closing stock when

(a) Net realizable value of finished Goods B is Rs 800

(b) Net realizable value of finished Goods B is Rs 600

Raw Material A

Closing Balance	1000 Units
	Rs per Units
Cost price including GST	400
GST (Input credit is receivable)	20
Freight Inward	40
Unloading Charges	20
Replacement Cost	300

Finished Goods B

Closing Balance	2400 Units
	Rs per Units
Raw material consumed	440
Direct Labour	120
Direct Overhead	80

Raw material A is used for production of finished Good B. The total fixed overhead for the year was Rs 4 lakhs on normal capacity of 20,000 units.

Solution:

(1) Statement showing valuation of Raw Material and Finished Goods at Cost

Raw Material A	**Rs per unit**
Cost price	400
Less: GST – Input credit is receivable	(20)
	380
Add: Fright inward	40
Unloading charges	20
Total cost	440
Finished Goods B	**Rs per units**
Raw material consumed	440
Direct Labour	120
Direct Overhead	80
Fixed overhead (Rs 4,00,000/20,000 units)	20
Total cost	660

(2)

(a) When Net Realisable Value (NRV) of the Finished Goods B is Rs 800* per units

NRV is greater than the cost of finished Goods B i.e. Rs 660 per unit Hence, Raw Material and Finished Goods will be valued at cost

Accordingly, Value of closing stock will be:

	Quantity	Rate	Amount (Rs)
Raw Material A	1000	440	4,40,000
Finished Goods B	2400	660	15,84,000
Total cost of closing stock			20,24,000

NRV is less than the cost of finished Goods B i.e. Rs 660 per unit

(b) When Net Realisable Value of the Finished Goods B is Rs 600* per unit

Hence, Raw Material is to be valued at replacement cost and Finished Goods are to valued at NR V.

Accordingly, Value of closing stock will be:

	Quantity	Rate	Amount (Rs)
Raw Material A	1000	300	3,00,000
Finished Goods B	2400	600	14,40,000
Total cost of closing stock			17,40,000

COST OF INVENTORY

There can be three types of cost are included in the inventory which are as follow.

1. PURCHASE COST:

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

Above cost should be reduced by following:

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

2. COST OF CONVERSION:

After purchasing the raw material or goods during the production time whatever cost is paid or payable will be considered as conversion cost. It includes:

- Direct Labour, material and other direct expense plus allocation of fixed and variable production overhead incurred for conversion of raw material into finished goods.
- a systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods.

Following things should be considered for conversion cost of the inventory.

(a) **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.

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. When production levels are abnormally low, unallocated overheads are recognised as an expense in the period in which they are incurred (P&L). In periods of abnormally high production, the amount of fixed overhead allocated to each unit of production is decreased so that inventories are not measured above cost.

(b) **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.

Variable production overheads are allocated to each unit of production **on the basis of the actual use** of the production facilities.

Example 2:

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 then actually earned.

Therefore, it is advisable to include fixed overhead per unit on normal capacity to actual production (3,75,000 x 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 x 2) ₹ 15,00,000.

I. OTHER COST:

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

All three are the major part of the cost which required to be considered for valuation of the inventory.

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

INDAS 23 – BORROWING COST

The extent to which borrowing cost is included in the cost of inventories is determined on the basis of the requirement of Ind AS 23 Borrowing Costs.

PAYMENT IS BEYOND NORMAL CREDIT TERMS:

An entity may acquire inventories on deferred settlement terms. When the arrangement effectively contains a financing element, that element, for example a difference between the purchase prices for normal credit terms and the amount paid, is recognised as interest expense over the period of the financing.

Q72.

On 1.6.2015, X Ltd. Purchases raw material from one of its regular suppliers at 60 lakhs. As per terms of the contract, the entity would pay the amount after 2 years. Assume Incremental borrowing rate of X Ltd. is 11%.

Find out purchase price applying md AS 2? How should the difference be accounted for?

Solution:

Purchase price = Present value of 60 lakhs discounted at the purchaser's incremental borrowingrate.

Purchase Price = Rs 60 lakh/ $(1+11\%)^2$ = 48.70 lakhs

Accounting entries:

(Amount in Rs Lakhs)

Date	Particular	Dr.	Cr.
1.6.2015	Purchase A/c Dr. To trade payables A/c	48.70	 48.70
31.3.2019	Unwinding of Discount A/c Dr. To trade payables A/c	4.46	 4.46
31.3.2017	Unwinding of Discount A/c Dr. To trade payables A/c	5.85	 5.85
31.5.2017	Unwinding of Discount A/c Dr. To trade payables A/c	0.99	 0.99
31.3.201	Trade Payables A/c Dr. To Bank A/c	60.00	 60.00

Q73.

Venus Trading Company purchases cars from several countries and sells them to Asian countries. During the current year, this company has incurred following expenses:

1. Trade discounts on purchase
2. Handling costs relating to imports
3. Salaries of accounting department
4. Sales commission paid to sales agents
5. After sales warranty costs
6. Import duties
7. Costs of purchases (based on supplier's invoices)
8. Freight expense
9. Insurance of purchases
10. Brokerage commission paid to indenting agents

Evaluate which costs are allowed by Ind AS 2 for inclusion in the cost of inventory in the books of Venus.

Solution

Items number 1, 2, 6, 7, 8, 9, 10 are allowed by Ind AS 2 for the Calculation of cost of inventories. Salaries of accounts department, sales commission, and after sale warranty costs

are not considered to be the cost of inventory therefore they are not allowed by Ind AS 2 for inclusion in cost of inventory and are expensed off in the profit and loss account.

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.

Q74: (ICAI)

In a manufacturing process of Mars ltd, one by-product BP emerges besides two main products MP1 and MP2 apart from scrap. Details of cost of production process are here under:

Item	Unit	Amount	Output	Closing Stock 31-3-20X1
Raw material	14,500	1,50,000	MP 1-5,000 units	250
Wages	-	90,000	MP II - 4,000 units	100
Fixed overhead	-	65,000	BP- 2,000 units	-
Variable overhead	-	50,000	-	-

Average market price of MP1 and MP2 is ₹60 per unit and ₹50 per unit respectively, by-product is sold @ ₹20 per unit. There is a profit of ₹5,000 on sale of by-product after incurring separate processing charges of ₹8,000 and packing charges of ₹2,000, ₹5,000 was realised from sale of scrap.

Required:

Calculate the value of closing stock of MP1 and MP2 as on 31-03-20X1.

Solution

As per Ind 2 'Inventories', most by-products as well as scrap or waste materials, by their nature, are immaterial. They are often measured at net realizable value and this value is deducted from the cost of the main product.

1) Calculation of NRV of By-product BP

Selling price of by-product	2,000 units x 20 per unit	40,000
Less: Separate processing charges of by- product BP		(8,000)
Packing charges		(2,000)
Net realizable value of by-product BP		**30,000**

2) Calculation of cost of conversion for allocation between joint products MP1 and MP2

Raw material		1,50,000
Wages		90,000
Fixed overhead		65,000
Variable overhead		50,000
Less: NRV of by-product BP (See Calculation 1)	30,000	
Sale value of scrap	5,000	(35,000)
Joint cost to be allocated between MP1 and MP2		**3,20,000**

3) Determination of "basis for allocation" and allocation of joint cost to MP1 and MP2

	MP 1	MP 2
Output in units (a)	5,000	4,000
Sales price per unit (b)	60	50
Sales value (a x b)	3,00,000	2,00,000
Ratio of allocation	3	2
Joint cost of ₹ 3,20,000 allocated in the ratio of 3:2 (c)	1,92,000	1,28,000
Cost per unit [c/a]	**38.4**	**32**

4) Determination of Value of Closing stock of MP 1 & MP 2

Particulars	MP 1	MP 2
Closing stock in units	250 units	100 units
Cost per unit	38.4	32
Value of closing stock	9,600	3,200

COST OF AGRICULTURAL PRODUCE HARVESTED FROM BIOLOGICAL ASSETS

In accordance with Ind AS 41, Agriculture, inventories comprising agricultural produce that an entity has harvested from its biological assets are measured on initial recognition at their fair value less costs to sell at the point of harvest.

This is the cost of the inventories at that date for application of this Standard.

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.

(i) **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.

(ii) **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.

Q75. Measurement techniques of Cost

Mars Fashions is a new luxury retail company located in Lajpat Nagar, New Delhi. Kindly advise the accountant of the company on the necessary accounting treatment for the following items:

(a) One of Company's product lines is beauty products, particularly cosmetics such as lipsticks, moisturizers and compact make-up kits. The company sells hundreds of different brands of these products. Each product is quite similar, is purchased at similar prices and has a short lifecycle before a new similar product is introduced. The point of sale and inventory system is not yet fully functioning in this department. The sales manager of the cosmetic department is unsure of the cost of each product but is confident of the selling price and has reliably informed we that the Company, on average, make a gross margin of 65% on each line.

(b) Mars Fashions also sells handbags. The Company manufactures their own handbags as they wish to be assured of the quality and craftsmanship which goes into each handbag. The handbags are manufactured in India in the head office factory which has made handbags for the last fifty years. Normally, Mars manufactures 100,000 handbags a year in their handbag division which uses 15% of the space and overheads of the head office factory. The division employs ten people and is seen as being an efficient division within the overall company.

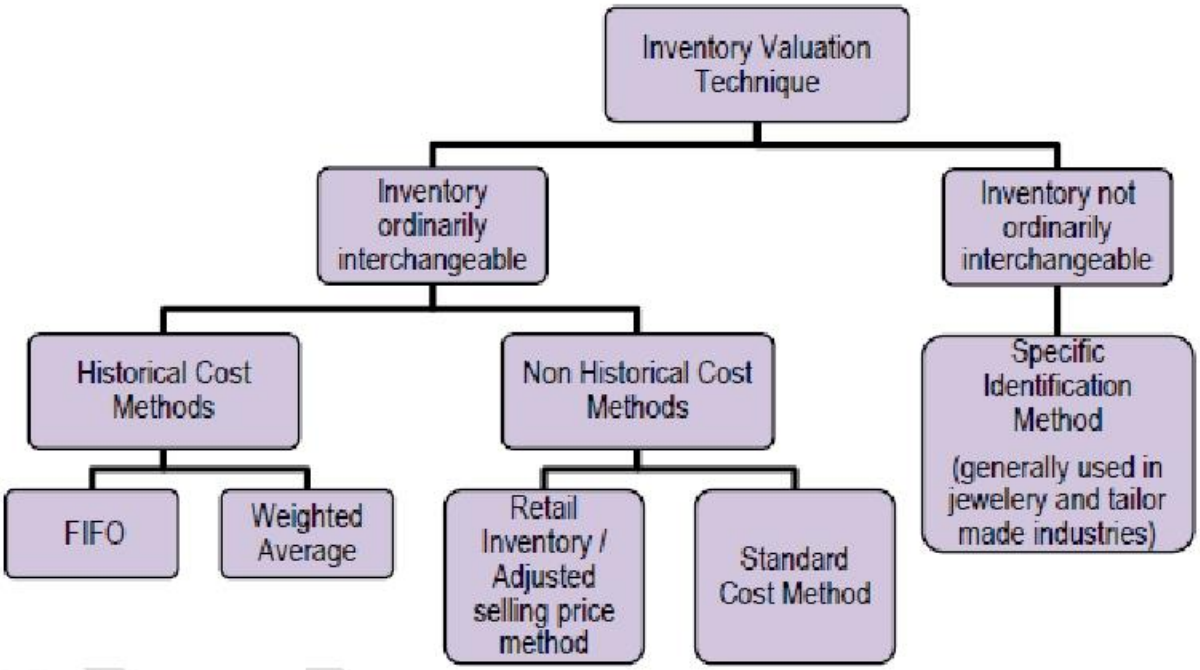
In accordance with Ind AS 2, explain how the items referred to in a) and b) should be measured.

Solution:

(a) *The retail method can be used for measuring inventories of the beauty products. The cost of the inventory is determined by taking the selling price of the cosmetics and reducing it by the gross margin of 65% to arrive at the cost.*

(b) *The handbags can be measured using standard cost especially if the results approximate cost. Given that the company has the information reliably on hand in relation to direct materials, direct labour, direct expenses and overheads, it would be the best method to use to arrive at the cost of inventories.*

COST FORMULAS



First of all, let us discuss shortly what the problem is here with Example –

Imagine a company buys 1000 chocolates for RS. 30 each. The journal entry is

- *Debit Inventories: RS. 30 000 (1 000*30)*
- *Credit Accounts payable: RS. 30 000*

Then, this company sells 200 chocolates for RS. 40 each. The journal entry is:

- *Debit Accounts receivable: RS. 8 000 (200*40)*
- *Credit Revenues from sale of goods: RS. 8 000*

Also, the company must reflect the fact that some chocolates left its warehouse. The journal entry is:

- Debit Cost of sales: RS. 6 000 (200*30)
- Credit Inventories: RS. 6 000

In this very basic example, the company knew exactly what amount should have been recognized in cost of sales, because the acquisition cost (purchase price in this case) was RS. 30 per chocolate.

But what happens when the company purchases chocolates in batches at different prices?

For example, imagine the company purchased 100 chocolates for RS. 31 each, 150 chocolates for RS. 32.50 each, then 200 chocolates for RS. 29 each, etc.

What is the cost of sales in this case?

That depends on the cost formula selected by the company. So there isn't just one correct answer.

Requirement as per IndAS-2

In fact, the standard IndAS 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 IndAS 2 Inventories does not permit using LIFO (last-in-first-out).

Now, let's come back to our chocolates and explain all three cost formulas on chocolate sales and purchases.

Q76. Selling Amazing Chocobar

Yummie, candy and chocolate distributor, made the following purchases of new product, Amazing Chocobar during 20X1:

- 10 January 20X1: 1000 units at RS. 28.00 each;
- 14 February 20X1: 1500 units at RS. 28.20 each;
- 17 March 20X1: 3000 units at RS. 28.40 each; and
- 18 June 20X1: 2500 units at RS. 28.55 each.

As Chocobar is a new product and massive advertising campaign is planned after 1 July 20X1, Yummie sold only one batch of 4200 units of Amazing Chocobar to its biggest Customer, for total sales price of RS. 1,59,600. This happened on 2 May 20X1.

Calculate the stock value of Amazing Chocobar in Yummie's warehouse at 30 June 20X1 (ignore other components of acquisition cost).

Solution

The answer strongly depends on the cost formula used.

While we clearly know what amount of inventories arrived to the warehouse at purchases, the cost of inventories dispatched from warehouse at sale must be calculated using one of cost formulas mentioned above.

Also, the total sales price of RS. 159 600 is here only to trick we. It is NOT relevant for calculating the value of inventories in the warehouse – it's a sales price, not a cost.

Regardless cost formula used, we can calculate the number of units of Amazing Chocobar in the warehouse:

1000 + 1500 + 3000 + 2500 – 4200 = 3800 units.

Now let's use various cost formulas to assign some value (cost) to these 3 800 units.

FIFO (First-in-first-out)

We can call this method "chronological".

The reason is that under this method, we are "selling" the goods from the warehouse in the order in which they are purchased.

In our example, when Yummie sold 4 200 units of Chocobar, we assume under FIFO that Yummie dispatched:

- All units purchased on 10 January 20X1 – 1000 units at 28.00 each
- All units purchased on 14 February 20X1 – 1500 units at 28.20 each, and
- 1700 units (total sold of 4200 – 1000 – 1500) from the purchase of 17 March 20X1 at 28.40 each.

We can calculate the cost of sales at the sale, but that was not a question.

The question was what the balance of Amazing Chocobar stock at 30 June 20X1 is.

When we assume that we sold from the oldest purchases, logically, **the most recent purchases remain in the warehouse.**

Therefore, we need to go backwards here.

There's 3800 units in the warehouse, thereof:

- 2500 units from the purchase of 18 June 20X1 at RS. 28.55 each – that's RS. 71,375; and
- Remaining 1300 units must come from the purchase of 17 March 20X1 at RS. 28.40 each – that's RS. 36,920;

Thus, total value of Amazing Chocobar stock under FIFO at 30 June 20X1 is **RS. 1,08,295.**

LIFO (Last-in-first-out)

This method is quite similar to FIFO, with one big difference: here, **we assume that we have sold from the most recent purchases.**

As a result, **the oldest purchases remain in the warehouse until the stock is sold out.**

This is closely linked to the main reason why LIFO is prohibited by IndAS 2

INDAS focus heavily on the balance sheet numbers. Every single amount in wer balance sheet should reflect current market and economic conditions as much as possible and this is NOT what LIFO does.

Why?

Because, when we put the most recent purchases at most recent prices to cost of sales, and we keep the oldest purchases in our warehouse and our balance sheet, the value of our stock in the balance sheet dates back to our oldest purchases.

In other words, the value of inventories is outdated under LIFO – true mainly for rising prices and slowly moving stock.

Also, LIFO tends to inflate cost of sales.

However, let's solve our chocolate case by LIFO, too.

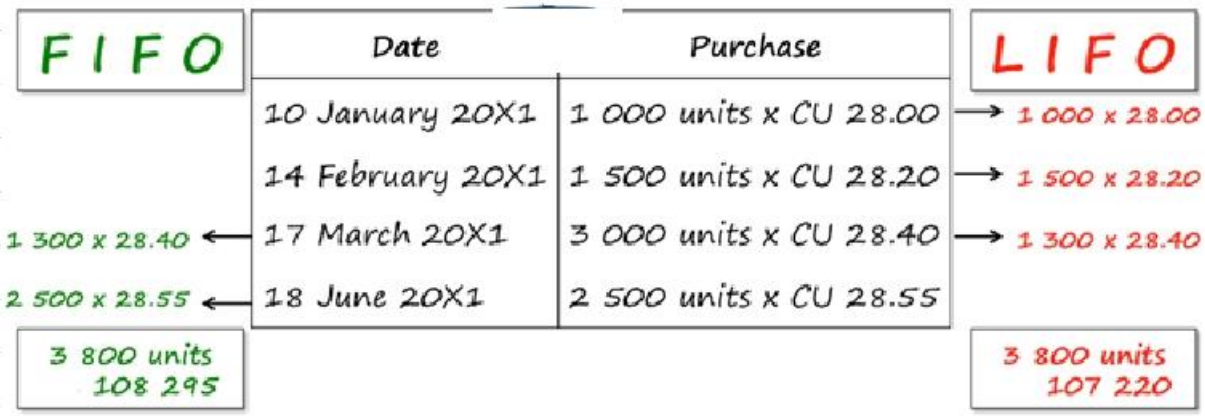
While we look at the most recent purchases when determining year-end value of inventories under FIFO, here, we look at oldest purchases.

Thus, 3800 units in the warehouse come from:

- 1000 units come from the purchase of 10 January at RS. 28.00 each – which is RS. 28,000;
- 1500 units come from the purchase of 14 February at RS. 28.20 each – which is RS. 42,300;
- Remaining 1300 units must come from the purchase of 17 March 20X1 at RS. 28.40 each – that's RS. 36,920;

The total value of Amazing Chocobar stock at 30 June 20X1 under LIFO method is **RS. 1,07,220.**

This graphical scheme shows the contrast between FIFO and LIFO:



Weighted average

Under weighted average method, the cost of inventories at sale is calculated as **weighted average of previous purchases.**

Practically, we need to **recalculate weighted average at each purchase.** Then, when we make a sale, we dispatch the inventories **at the most recent weighted average price.**

This is illustrated on our example in the following table:

Date	Purchase	Sale	Stock	Unit cost
10 Jan 20X1	1 000*28.00 = 28 000	-	28 000	28.00
14 Feb 20X1	1 500*28.20 = 42 300	-	70 300 (28 000+42 000)	28.12 (70 300/(1 000+1 500)
17 Mar 20X1	3 000*28.40 = 85 200	-	155 500 (70 300+85 200)	28.27 (155 500/5 500)
2 May 20X1	-	4 200*28.27	36 751 (1 300*28.27)	28.27 (as above)
18 Jun 20X1	2 500*28.55 = 71 375	-	108 126 (36 751+71 375)	28.45 (108 126/3 800)

Please note that:

- The average cost per unit is calculated in the last column. It changes after each purchase.
- After sale on 2 May 20X1, the average cost remains the same. This is logical, as there's no new purchase affecting average cost.

To sum it up...

We calculated 3 different balances of stock at 30 June 20X1 based on different cost formulas.

The results are:

- Under FIFO: RS. 1,08,295
- Under LIFO: RS. 1,07,220
- Under weighted average: RS. 1,08,126

Remember that IndAS 2 does not permit LIFO.

Issue: Whether an entity can use different cost formulae for the inventories held at different geographical locations?

Ind AS 2 states that an entity shall use the same cost formula for all inventories having a similar nature and use to the entity. For inventories with a different nature or use, different cost formulas may be justified.
Also, difference in geographical location of inventories does not justify the use of a different cost formula, if the inventories are of similar nature and use to the entity.

Q77.

Mercury Ltd. uses a periodic inventory system. The following information relates to 20X1-20X2.

Date	Particular	Unit	Cost p.u.	Total Cost
April	Inventory	200	10	2,000
May	Purchases	50	11	550
September	Purchases	400	12	4,800
February	Purchases	350	14	4,900
Total		**1,000**		**12,250**

Physical inventory at 31.03.20X2 400 units. Calculate ending inventory value and cost of sales using:

(a) FIFO

(b) Weighted Average

Solution-

FIFO inventory 31.03.20X2	350 @14 =	4,900
Cost of Sales	50 @ 12 =	600
		5,500
	12,250-5,500 =	6,750
Weighted average cost per item	12,250/1000 =	12.25
Weighted average inventory at 31.03.20X2	400*12.25 =	4,900
Cost of sales 20X1-20X2	12,250-4,900 =	7,350

Q78.

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
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:

a. On an item by item basis

b. 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**

RECOGNITION AS AN EXPENSE

The amount of inventories recognised as an expense in the period will generally be:

a) carrying amount of the inventories sold in the period in which related revenue is recognised; and

b) the amount of any write-down of inventories to net realisable value and all losses of inventories shall be recognised as an expense in the period the write-down or loss occurs; reduced by

c) the amount of any reversal in the period of any write-down of inventories, arising from an increase in net realisable value.

Some inventories may be allocated to other asset accounts, for example, inventory used as a component of self-constructed property, plant or equipment. Inventories allocated to

another asset in this way are recognised as an expense during the useful life of that asset through charging of depreciation on that asset.

Example 3

XYZ is an electronics dealer mainly in LCD television sets. Due to technology change, the LCDs televisions are no longer in demand and the new LED version of television sets are now in demand. XYZ has an inventory of LCD television sets wroth Rs 5,00,000. However, due to low demand, there has been significant drop in the sale prices of LCD television sets. If XYZ were to dispose off the inventory in the market, it would fetch Rs 3,00,000 at current market prices. In such a situation, assuming the costs of disposals to be insignificant, the NRV will be taken to be Rs 3,00,000. Hence, the carrying amount of the LCD television sets should be reduced to its NRV.

Example 4

An item of inventory costing ₹ 20,000 as covered under Ind AS 2 is consumed in the construction of self-constructed property to be accounted as Property, plant and equipment under Ind AS 16. The cost of such property, plant and equipment other than inventories is ₹ 80,000. Such Inventory needs to be capitalized in the cost of Property, plant and equipment. The useful life of the property is 5 years. The depreciation on such property charged to profit and loss account is ₹ 20,000 per annum (i.e. 1,00,000/5)

DIFFERENCE BETWEEN NRV AND FAIR VALUE

Issue: What is the difference between 'Net Realisable Value' and Fair Value'?

Reply:

- NRV is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.
- Fair Value, is the price that would be received to sell assets or paid to transfer a liability in an orderly transaction between market participants at the measurement date.
- In accordance with the above definitions, NRV refers to the net amount that an entity expects to realize from the sales of inventory in the ordinary course of business, whereas fair value reflects the amount for which the same inventory could be sold in an orderly transaction. The former is an entity-specific measurement; the latter is a market-based measurement. NRV for inventories may not be equal to fair value less costs to sell.

Example 4:

Manufacture of LCD TVs can sell each unit in the market for Rs 1,00,000 (after incurring selling expense). The manufacture has a confirmed order on hand to sell the LCD TVs for Rs 1,25,000 each. In this situation, fair value is Rs 1,00,000, but NRV is Rs 1,25,000.

TRADE DISCOUNT & CASH DISCOUNT

Issue: Whether trade discount and cash discount expected to be allowed on sale should be considered while determining the NRV of Inventories?

Response:

Ind AS 2 defines NRV as the **"estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale."**

Trade discount is allowed either expressly through an agreement or through prevalent commercial practices in the terms of the trade and the same is adjusted in arriving at the selling price. Accordingly, the trade discount expected to be allowed should be deducted to determine the estimated selling price.

Cash discounts are incurred to recover the sale proceeds immediately or before the end of the specified period or credit period allowed to the customer. In other words, these costs are not incurred to make the sale, therefore, the same should not be considered while determining NRV.

(Based on Education Material for Ind AS 2)

Disclosure in financial statement

1. Accounting Policies
2. Analysis of Carrying Amount
3. Inventories carried at Fair Value less cost to sell
4. Amount recognised in Profit and Loss account
5. Inventories pledged as security

PRACTICAL ISSUES:

1. Forward contracts to purchase inventory

Entity A imports metals and makes payments in US Dollars (USD or $). For one such transaction, it entered into a forward contract at a price of $140 per unit, but at the time of delivery the spot price of metal was $150 and the forward contract had a fair value of $10 at that date.

Assuming that the Entity A is not a broker-trader, and the acquisition meets the normal purchase or sale exemption given in Ind AS 32 Financial Instruments. Presentation (ie, the contract were entered into and continue to be held for the purpose of the receipt or delivery of a non financial item in accordance with the entity's expected purchase, sale or usage requirements) the purchase of metal would be recognised at the entity's cost thereof, in terms of Ind AS2, that is $140 per unit.

2. Transfers of rental assets to inventory

An entity may, in the course of its ordinary activities, routinely sell items that had previously been held for rental and classified as property, plant and equipment. For example, Entity A is car rental companies that acquires cars with the intention of giving them on rent for a limited period and then sell them. Ind AS 16 requires that when such items become held for sale rather than rental they be transferred to inventory at their carrying value. Revenue from the subsequent sale is then recognised gross rather than net.

3. Insurance spares

X Ltd has a spare that which is termed as insurance spares and is required to be used along with the requirement. The company has been recognised these under inventories. Whether the insurance spares should be recognised as separate item within property plant and equipment? Whether the depreciation is required to be calculated for such insurance spares separately or along with the equipment for which it is used?

Response:

As per paragraph 8 of Ind AS 16, **Property, Plant and Equipment**, items such as spares parts, stand-by equipment and servicing equipment are recognised as property plant and equipment when they meet the definition of property plant and equipment **(refer paragraph 6)** and they meet the recognition criteria **(paragraph7)** of the standard. Otherwise such items are classified as inventory.

Based on the above, the **insurance spares** should be recognised as property plant and equipment if both the definition and the recognition criteria are met.
As per paragraph 55 of Ind AS 16, depreciation of an asset begins when the asset is available for use, ie, it is in the location and condition, necessary for it to be operated in the manner as intended by the management.

In case of insurance spares, they are readily available for use from the date of its purchase. Also since these spares are required to be used along with the equipment, their useful life can be considered to be same as the useful life of the equipment along with which they are used.

Paragraph 43 of Ind AS16 also mentions that any part of an item of property plant and equipment has a cost that is significant in relation to the total cost of the item shall be depreciated separately. Accordingly, if the costs of such insurance spares are significant in relation to the cost of the equipment, they can be depreciated separately as a part of the equipment. **(COMPONENTISATION APPROACH – YAAD KARO/REMEMBER ☺)**
[Based n ITFG Bulletin 2]

Student Notes:-

Additional Questions

Q79.

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?

Solution :

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.).

Q80.

Sun Ltd. has fabricated special equipment (solar power panel) during 20X1-20X2 as per drawing and design supplied by the customer. However, due to a liquidity crunch, the customer has requested the company for postponement in delivery schedule and requested the company to withhold the delivery of finished goods products and discontinue the production of balance items.

As a result of the above, the details of customer balance and the goods held by the company as work-in-progress and finished goods as on 31-03-20X3 are as follows:

Solar power panel (WIP)	₹ 85 lakhs
Solar power panel (finished products)	₹ 55 lakhs
Sundry Debtor (solar power panel)	₹ 65 lakhs

The petition for winding up against the customer has been filed during 20X2-20X3 by Sun Ltd. Comment with explanation on provision to be made of ₹ 205 lakh included in Sundry Debtors, Finished goods and work-in-progress in the financial statement of 20X2-20X3.

Solution:

From the fact given in the question it is obvious that Sun Ltd. is a manufacturer of solar power panel. As per Ind AS 2 'Inventories', inventories are assets (a) held for sale in the

ordinary course of business; (b) in the process of production for such sale; or (c) in the form of materials or supplies to be consumed in the production process or in the rendering of services. Therefore, solar power panel held in its stock will be considered as its inventory. Further, as per the standard, inventory at the end of the year are to be valued at lower of cost or NRV.

As the customer has postponed the delivery schedule due to liquidity crunch the entire cost incurred for solar power panel which were to be supplied has been shown in Inventory. The solar power panel are in the possession of the Company which can be sold in the market. Hence company should value such inventory as per principle laid down in Ind AS 2 i.e. lower of Cost or NRV. Though, the goods were produced as per specifications of buyer the Company should determine the NRV of these goods in the market and value the goods accordingly. Change in value of such solar power panel should be provided for in the books. In the absence of the NRV of WIP and Finished product given in the question, assuming that cost is lower, the company shall value its inventory as per Ind AS 2 for ₹ 140 lakhs [i.e solar power panel (WIP) ₹ 85 lakhs + solar power panel (finished products) ₹ 55 lakhs].

Alternatively, if it is assumed that there is no buyer for such fabricated solar power panel, then the NRV will be Nil. In such a case, full value of finished goods and WIP will be provided for in the books.

As regards Sundry Debtors balance, since the Company has filed a petition for winding up against the customer in 20X2-20X3, it is probable that amount is not recoverable from the party.

Hence, the provision for doubtful debts for ₹ 65 lakhs shall be made in the books against the debtor's amount.

Q81. (Exam – May 2018 – 4 Marks)

XYZ Limited has a plant with the normal capacity to produce 10,00,000 units of a product per annum and the expected fixed overhead is ₹ 30,00,000, Fixed overhead, therefore based on normal capacity is ₹ 3 per unit. Determine Fixed overhead as per Ind AS 2 'Inventories' if (i) Actual production is 7,50,000 units. (ii) Actual production is 15,00,000 units.

Solution:

(i) Actual production is 7,50,000 units:

Fixed overhead is not going to change with the change in output and will remain constant at Rs. 30,00,000, therefore, overheads on actual basis is Rs. 4 per unit (30,00,000 / 7,50,000).

Hence, by valuing inventory at Rs. 4 each for fixed overhead purpose, it will be overvalued and the losses of Rs. 7,50,000 will also be included in closing inventory leading to a higher gross profit then actually earned.

Therefore, it is advisable to include fixed overhead per unit on normal capacity to actual production (7,50,000 x 3) Rs. 22,50,000 and balance Rs. 7,50,000 shall be transferred to Profit & Loss Account.

(ii) **Actual production is 15,00,000 units:**

Fixed overhead is not going to change with the change in output and will remain constant at Rs. 30,00,000, therefore, overheads on actual basis is 2 (30,00,000 / 15,00,000).

Hence by valuing inventory at Rs. 3 each for fixed overhead purpose, we will be adding the element of cost to inventory which actually has not been incurred. At Rs. 3 per unit, total fixed overhead comes to Rs. 45,00,000 whereas, actual fixed overhead expense is only Rs. 30,00,000. Therefore, it is advisable to include fixed overhead on actual basis (15,00,000 x 2) Rs. 30,00,000.

IMPORTANT NOTES

Student Notes:-

Student Notes:-

Student Notes:-