# INVENTORY VALUATION

DRAFT FORM 6C – SEC 142(2A)

# Index

- Sec 142(2A)
- Sec 145A
- Form 6C
- ICDS II and comparison
- Illustration
- Points to be considered.

- **142 (2A)**
- If, at any stage of the proceedings before him, the Assessing Officer, having regard to the nature and complexity of the accounts, volume of the accounts, doubts about the correctness of the accounts, multiplicity of transactions in the accounts or specialised nature of business activity of the assessee, and the interests of the revenue, is of the opinion that it is necessary so to do, he may, with the previous approval of the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner, direct the assessee to get either or both of the following, namely:—
- (i) to get the accounts audited by an accountant, as defined in the Explanation below sub-section (2) of section 288, nominated by the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner in this behalf and to furnish a report of such audit in the prescribed form duly signed and verified by such accountant and setting forth such particulars, as may be prescribed, and such other particulars as the Assessing Officer may require;
- (ii) to get the inventory valued by a cost accountant, nominated by the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner in this behalf and to furnish a report of such inventory valuation in the prescribed form duly signed and verified by such cost accountant and setting forth such particulars, as may be prescribed, and such other particulars as the Assessing Officer may require:

# SEC 145. Method of accounting.

- (1) Income chargeable under the head Profits and gains of business or profession or Income from other sources shall, subject to the provisions of sub-section (2), be computed in accordance with either cash or mercantile system of accounting regularly employed by the assessee.
- (2) The Central Government may notify in the Official Gazette[2] from time to time [3][income computation and disclosure standards] to be followed by any class of assessees or in respect of any class of income.
- (3) Where the Assessing Officer is not satisfied about the correctness or completeness of the accounts of the assessee, or where the method of accounting provided in sub-section (1) [4][has not been regularly followed by the assessee, or income has not been computed in accordance with the standards notified under sub-section (2)], the Assessing Officer may make an assessment in the manner provided in section 144.

- **<u>Amendment in Income-tax Act (Finance Act, 2018)</u>**
- **Section 145A**
- For the purpose of determining the income chargeable under the head "Profits and gains of business or profession",—
- *(i) the valuation of inventory shall be made at lower of actual cost or net realizable value computed in accordance with the income computation and disclosure standards notified under sub-section (2) of section 145;*
- *(ii) the valuation of purchase and sale of goods or services and of inventory shall be adjusted to include the amount of any tax, duty, cess or fee (by whatever name called) actually paid or incurred by the assessee to bring the goods or services to the place of its location and condition as on the date of valuation;*
- *(iii) the inventory being securities not listed on a recognized stock exchange, or listed but not quoted on a recognized stock exchange with regularity from time to time, shall be valued at actual cost initially recognized in accordance with the income computation and disclosure standards notified under sub-section (2) of section 145;*
- *(iv) the inventory being securities other than those referred to in clause (iii), shall be valued at lower of actual cost or net realizable value in accordance with the income computation and disclosure standards notified under sub-section (2) of section 145:*
- **Provided that the comparison of actual cost and net realizable value of securities shall be made category-wise.**

# ICDS II: VALUATION OF INVENTORIES

# PREAMBLE

- This Income Computation and Disclosure Standard is applicable for computation of income chargeable under the head "Profits and gains of Business or profession" or "Income from other sources" and not for the purpose of maintenance of books of accounts.

- In the case of conflict between the provisions of Income Tax Act, 1961 ('the Act)' and this Income Computation and Disclosure Standard, the provisions of the Act shall prevail to that extent".

# Scope :

**This Income Computation and Disclosure Standard shall be applied for valuation of inventories, except:**

- Work in Progress under Construction contracts.
- Work in Progress under other Standards
- Shares, Debentures and other financial instruments.
- Live Stock, agriculture and forest produce, mineral oil, ores and natural gas.
- Machinery spares used in connection with tangible fixed assets.

# AS/Ind Comparison

- ***Scope of the Standard***
- AS – 2 :

Inventories do not include spare parts, servicing equipment and standby equipment which meet the definition of ppe as per AS10

- Ind AS – 2:
  i. It doest not apply to commodity broker-traders who measure heir inventories at fair value less costs to sell.
  ii. scopes out the biological assets related to agricultural activity and agricultural produce at the time of harvest
  iii. no mention of machinery spares

# DEFINITIONS

- Inventories :are assets

  (a) held for sale in the ordinary course of business.

  (b)in the process of production for such sale.

  (c)In the form of materials or supplies to be consumed in the production process or in the rendering of services .

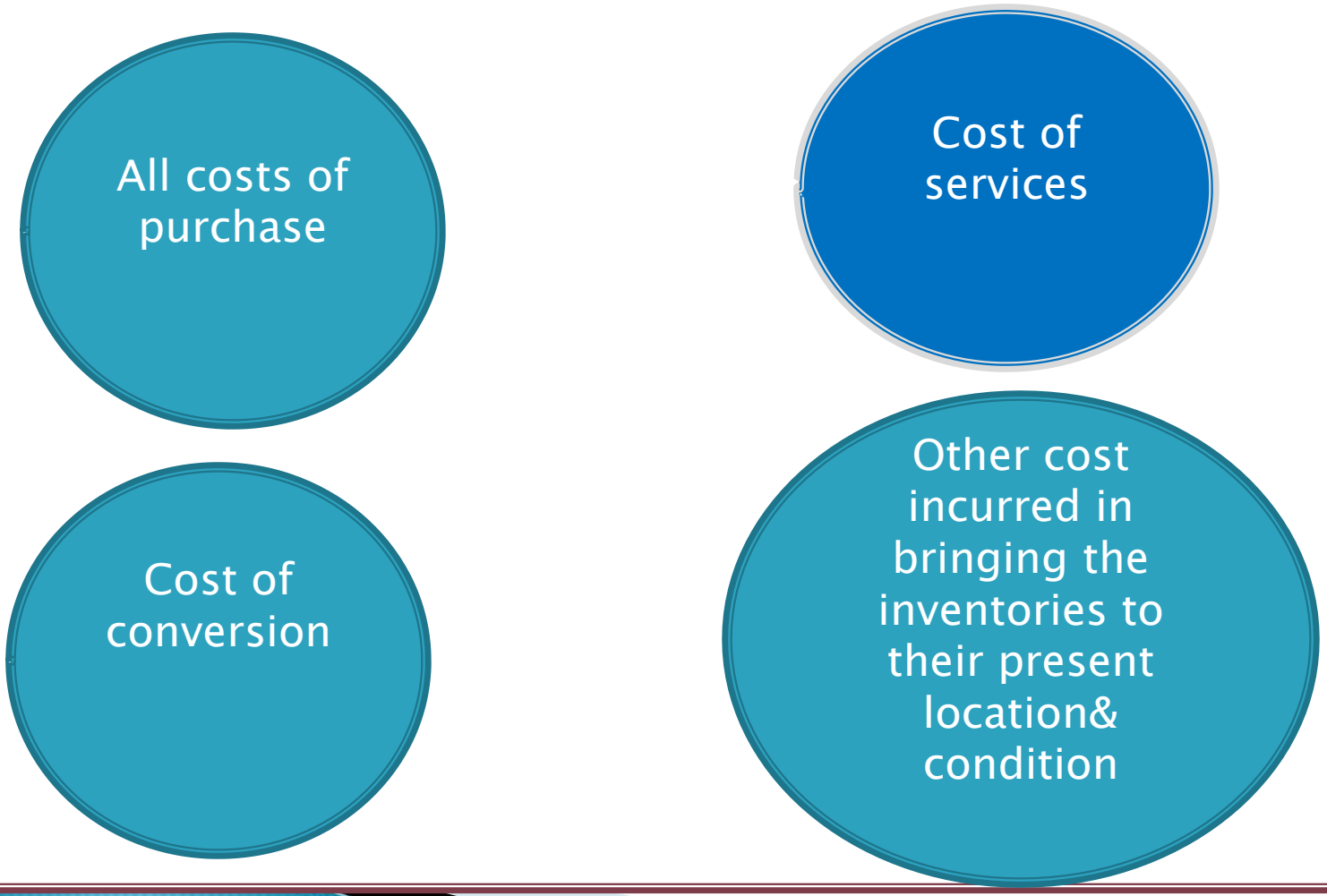
- Net realisable value : is the estimated selling price in the ordinary course of business less the estimated cost of completion and the estimated costs necessary to make the sale

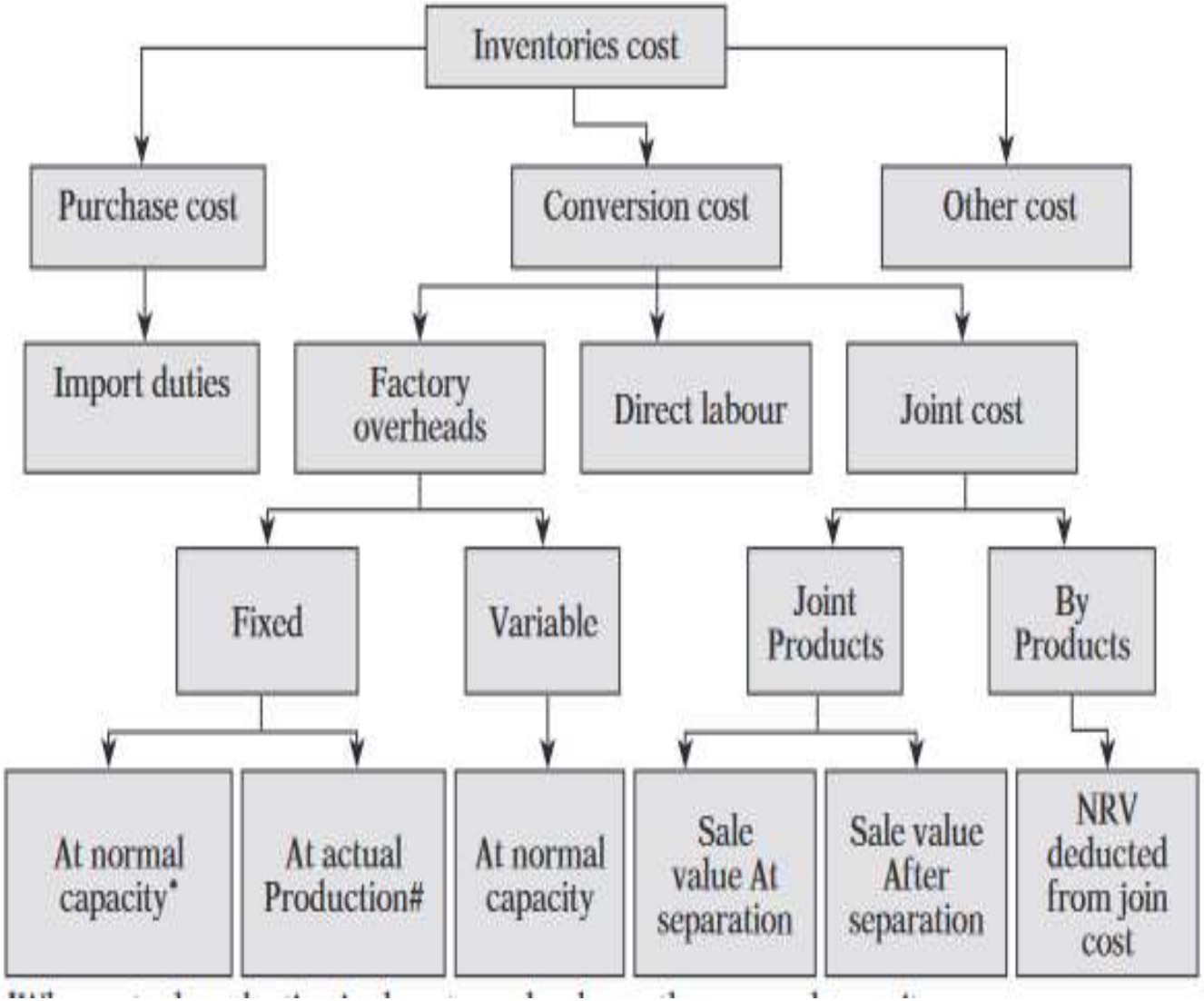
# MEASUREMENT

- “Inventories shall be valued at cost, or net realisable value, whichever is lower.”

# MEASUREMENT

- Cost of inventories include




Inventories cost
Purchase cost
Conversion cost
Other cost
Import duties
Factory overheads
Direct labour
Joint cost
Fixed
Variable
Joint Products
By Products
At normal capacity*
At actual Production#
At normal capacity
Sale value At separation
Sale value After separation
NRV deducted from join cost

## Purchase price include

- Purchase price including duties & taxes
- Freight inward
- Other expenditure directly related to purchase

## Purchase price exclude

- Trade discount
- Rebate and other similar items

| AS 2 | Ind AS 2 |
| --- | --- |
| Purchase price including duties & taxes(other than those subsequently recoverable by the enterprise from the taxing authorities), freight inwards & other expenditure related to acquisition. Trade discount ,rebate, duty drawbacks and other similar items are deducted in determining the cost purchase | Purchase price comprise of purchase price, import duties and other taxes(other than those subsequently recoverable by the entity from the taxing authorities) and transport ,handling and other cost directly attributable to the acquisition of finished goods ,materials and service. Trade discount ,rebate, duty drawbacks and other similar items are deducted in determining the cost purchase |

- AS – EXCLUSIVE METHOD – IN BOOKS
- ICDS – INCLUSIVE METHOD – FOR TAX COMPUTATION
- MEMORANDUM STATEMENT SHOWING REVENUE NEUTRALITY WOULD SERVE IN CASE FOLLOWING EXCLUSIVE METHOD.

| Details for the financial year 2018-19 | | | | | |
|---|---|---|---|---|---|
| **Particulars** | **Qty** | **Amount** | **Tax rate** | **Tax** | **Amount including tax** |
| Opening Stock-RM | 100 | 10,000 | 5% | 500 | 10,500 |
| Purchases | 900 | 90,000 | 5% | 4,500 | 94,500 |
| Conversion charges | | | | | |
| Wages | | 50,000 | NA | - | 50,000 |
| Services availed | | 30,000 | 18% | 5,400 | 35,400 |
| Finished goods | 800 | | | | |
| Sales | 700 | 1,75,000 | 12% | 21,000 | 1,96,000 |
| Closing stock-FG | 100 | 18,000 | | 500 | 18,500 |
| Closing stock-RM | 200 | 20,000 | | 1,000 | 21,000 |
| **Show the impact of 145A/ ICDS 2 adjustment.** | | | | | |

# Treatment in books

| TRADING ACCOUNT FOR THE YEAR ENDED MARCH 31, 2019 | | | |
|---|---|---|---|
| **Expenses** | **₹** | **Income** | **₹** |
| Opening Stock | 10,000 | Sales | 1,75,000 |
| Purchases | 90,000 | Closing stock | |
| Wages | 50,000 | Finished goods | 18,000 |
| Direct expenses | 30,000 | Raw Materials | 20,000 |
| Gross Profit carried down | 33,000 | | |
| **TOTAL** | **2,13,000** | **TOTAL** | **2,13,000** |

# Treatment as per Inclusive method

| MEMORANDUM TRADING ACCOUNT (BASED ON 145A/ ICDS 2 ADJUSTMENTS) | | | |
|---|---|---|---|
| **Expenses** | **₹** | **Income** | **₹** |
| Opening Stock | 10,500 | Sales | 1,96,000 |
| Purchases | 94,500 | Closing stock | |
| Wages | 50,000 | Finished goods | 18,500 |
| Direct expenses (Note 1) | 30,000 | Raw Materials | 21,000 |
| Output tax paid (Note 2) | 11,100 | | |
| Goods on direct expenses paid (Note 3) | 5,400 | | |
| Gross Profit carried down | 34,000 | | |
| **TOTAL** | **2,35,500** | **TOTAL** | **2,35,500** |

# Reconciliation

| Particulars | ₹ | ₹ |
|---|---|---|
| **Profit as per books of account** | | **33,000** |
| Add: GST component in closing inventory | 1,500 | |
| Less: GST component in opening inventory | (500) | 1,000 |
| **Adjusted profits as per ICDS 2** | | **34,000** |

*ABC Ltd. buys goods from an overseas supplier. It has recently taken delivery of 1,000 units of component X. The quoted price of component X was ₹ 1,200 per unit but ABC Ltd. has negotiated a trade discount of 5% due to the size of the order.*

*The supplier offers an early settlement discount of 2% for payment within 30 days and ABC Ltd. intends to achieve this.*

*Import duties (basic custom duties) of ₹ 60 per unit must be paid before the goods are released through custom. Once the goods are released through customs, ABC Ltd. must pay a delivery cost of ₹ 5,000 to have the components taken to its warehouse.*

*Calculate the cost of inventory.*

**Solution**

| | ₹ |
|---|---|
| Purchase price (1,000 x 1,200 x 95%) | 11,40,000 |
| Import duties (1,000 x 60) | 60,000 |
| Delivery cost | 5,000 |
| Cost of inventory | 12,05,000 |

**Note:** The intention to take settlement discount is irrelevant.

# Cost of Conversion

(a) Costs directly related to the units of production and

(b) Systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods.

# OVERHEADS

***Fixed production overheads*** shall be those indirect costs of production that remain relatively constant regardless of the volume of production.

***Variable production overheads shall be those indirect cost*** of production that vary directly or nearly directly, with the volume of production.

The allocation of fixed production overheads for the purpose of their inclusion in the costs of conversion shall be based on the normal capacity of the production facilities.

i. **Normal capacity** shall be the production expected to be achieved on an average over a number of periods or seasons under normal circumstances, taking into account the loss of capacity resulting from planned maintenance. The actual level of production shall be used when it approximates to normal capacity.

ii. The amount of fixed production overheads allocated to each unit of production shall not be increased as a consequence of low production or idle plant.

i. Unallocated overheads shall be recognised as an expense in the period in which they are incurred. In periods of abnormally high production, the amount of fixed production overheads allocated to each unit of production is decreased so that inventories are not measured above the cost. Variable production overheads shall be assigned to each unit of production on the basis of the actual use of the production facilities

Pluto Ltd. has a plant with the normal capacity to produce 5,00,000 unit of a product per annum and the expected fixed overheads is ₹ 15,00,000. Fixed overheads 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 overheads 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 overheads 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 overheads per unit on normal capacity to actual production (3,75,000 x 3) ₹ 11,25,000 and balance ₹ 3,75,000 (3,75,000 x 1) shall be transferred to Profit & Loss Account as an expense.

**Case 3:**

Actual production is 7,50,000 units. Fixed overheads 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 overheads 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.

*A business plans for production overheads of ₹ 10,00,000 per annum.*

*The normal level of production is 1,00,000 units per annum.*

*Due to supply difficulties the business was only able to make 75,000 units in the current year. Other costs per unit were ₹ 126.*

*Calculate the per unit cost and amount of overheads to be expensed during the year.*

**Solution**

| **Calculation of cost per unit:** | **₹** |
|---|---|
| Other costs | 126 |
| Production overhead (10,00,000/1,00,000 units) | 10 |
| Unit cost | 136 |

| **Overhead to be expensed:** | **₹** |
|---|---|
| Total production overhead | 10,00,000 |
| The amount absorbed into inventory is (75,000 x 10) | (7,50,000) |
| The amount not absorbed into inventory | 2,50,000 |

₹ 2,50,000 that has not been included in inventory is expensed during the year i.e. recognized in the statement of profit and loss.

# Joint products

Where a production process results in more than one product being produced simultaneously and the costs of conversion of each product are not separately identifiable, the costs shall be allocated between the products on a rational and consistent basis.

# By Products

Where by products, scrap or waste materials are immaterial, they shall be measured at net realisable value and this value shall be deducted from the cost of the main product.

*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 | MP1 - 5,000 units | 250 |
| Wages | - | 90,000 | MP2 - 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.*

*Calculate the value of closing stock of MP1 and MP2 as on 31.3.20X1.*

## Solution

As per Ind AS 2 'Inventories', most by-products as well as scrap or waste materials, by their nature, are immaterial. They are often measured at net realisable 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 realisable 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 I | 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 MP1 and MP2

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

*****

# Other Costs

- Other costs shall be included in the cost of inventories only to the extent that they are incurred in bringing the inventories to their present location and condition.

- Interest and other borrowing costs shall not be included in the costs of inventories, unless they meet the criteria for recognition of interest as a component of the cost as specified in the Income Computation and Disclosure Standard on borrowing costs.

*A dealer has purchased 1,000 cars costing ₹ 2,80,000 each on deferred payment basis as ₹ 25,000 per month per car to be paid in 12 equal instalments.*

*At year end 31 March 20X1, twenty cars are in stock. Compute the cost of inventory, finance cost and cost of goods sold.*

**Solution**

| | ₹ |
|---|---|
| Deferred payment price (25,000 x 12) | 3,00,000 |
| *Less:* Cash price | 2,80,000 |
| Interest expense | 20,000 |

| | | ₹ |
|---|---|---|
| Cost of inventory | 20 cars x 2,80,000 | 56,00,000 |
| Finance cost | 1,000 cars x 20,000 | 2,00,00,000 |
| Cost of goods sold | 980 cars x 2,80,000 | 27,44,00,000 |

*****

**Practical Example :**

Q. Closing Inventory at cost of a company amounted to Rs. 9,56,700. The following items were included at cost in the total-

(a) 350 Shirts, which had cost Rs.380 each and normally sold for Rs. 750 each. Owing to a defect in manufacture, they were all sold after the Balance Sheet date at 50% of their normal price. Selling expenses amounted to 5% of the proceeds.

(b) 700 Trousers, which had cost Rs. 520 each. These too were found to be defective. Selling Expenses for the batch totaled Rs. 3800. They were sold for Rs. 950 each.

Calculate the Inventory Value considering the above items.

# Solution:

**(a) Valuation of Shirts:**

| | | |
|---|---|---|
| (i) Value of Stock at Cost | (Rs. 380 x 350 units ) | Rs. 1,33,000 |
| (ii) NRV of Shirts | ( Rs. 750 x 50% x 350 units) less 5% thereon | Rs. (1,24,688) |
| (iii) Write-down required for Shirts | (i-ii) | Rs. 8,312 |

**(b) Valuation of Trousers:**

- Cost of Trousers as given = Rs 520 x 700 Trousers = Rs. 3,64,000
- Net Realizable Value of Trousers=

| | |
|---|---|
| Estimated Sale Price per unit | Rs. 950.00 |
| Less: Selling Expenses per unit (Rs.3,800 / 700 Trousers) | Rs. (5.43) |
| Net Realizable Value per Unit | Rs. 944.57 |

- **Value=** Lower of (i) Cost Rs. 520 & (ii) NRV Rs 944.57. Therefore, Rs.520 per unit or Rs. 3,64,000 should be the Carrying Amount of this Inventory. Since, Inventory is already carried at cost, no further adjustment is required.

## c) Valuation of Inventory

| | | |
|---|---|---|
| Value of Inventory as given | 9,56,700 | |
| Less: Write down of Value of Shirts | (8,312) | |
| **Revised Inventory Value** | | **9,48,388** |

# *Costs of services* :

- Cost of service shall consist of labour and other cost of personnel directly engaged in providing the service including supervisory personal and attributable overheads

# Cost of conversion comparsion

| | |
|---|---|
| AS – 2<br>Ind AS – 2 | The actual level of production *may be used, if it approximates normal capacity* |

# Exclusions from the Cost of Inventories

| | |
|---|---|
| In determining the cost of inventories, the following costs shall be excluded and recognised as expenses of the period in which they are incurred, namely:- | (a) Abnormal amounts of wasted materials, labour, or other production costs;<br>(b) Storage costs, unless those costs are necessary in the production process prior to a further production stage;<br>(c) Administrative overheads that do not contribute to bringing the inventories to their present location and condition;<br>(d) Selling costs. |

Direct Material cost ₹ 100 per kg

Direct labour cost ₹ 20 per kg

Direct variable production overhead ₹ 10 per kg

Fixed production charges for the year on normal capacity of one lakh kgs. is ₹ 10 lakhs. 2000 kgs. of finished goods are on stock at the year-end.

Value the inventory.

**SOLUTION:**

The costs of conversion include systematic allocation of fixed and variable production overheads that are incurred in converting materials into finished goods. The allocation of fixed production overheads for their purpose of their inclusion in the cost of conversion is based on normal capacity of the production facilities. Thus cost per kg is computed as follows:

| | ₹ | ₹ |
|---|---|---|
| Material cost | 100 | |
| Direct labour cost | 20 | |
| Direct variable production overhead | 10 | |
| Fixed production overhead (₹ 1000000/100000) | 10 | 40 |
| Total | | 140 |
| **Value of finished goods (2000 × ₹ 140)** | | **₹ 280000** |

Can G Ltd. a wire netting company, while valuing its finished goods at the year-end include interest on bank overdraft as an element of cost, for the reason that overdraft has been taken specifically for the purpose of financing current assets like inventory and for meeting day to day working expenses?

**SOLUTION**

The cost of inventories comprise of all costs of purchase, cost of comparison and other costs incurred in bringing the inventories to their present location and condition. Interest and other borrowing costs are usually considered as overheads that don't contribute to bringing the inventories to their present location and condition.

Therefore, the proposal of G Ltd. to include interest on bank overdraft as an element of cost is not tenable. Interest of bank overdraft will not form part of cost of production.

# Cost Formulae

**The Cost of inventories of items**

- *(i) that are not ordinarily interchangeable; and*
- *(ii) goods or services produced and segregated for specific projects*
- shall be assigned by specific identification of their individual costs.
- 'Specific identification of cost' means specific costs are attributed to identified items of inventory.
- Where there are a large numbers of items of inventory which are ordinarily interchangeable, specific identification of costs shall not be made.

| AS - 2 | Ind AS - 2 |
| --- | --- |
| It is not expressly mandated to use the same cost formula consistently for all inventories that have a similar nature and use to the entity. The formula used should reflect the fairest possible approximation to the cost incurred in bringing the items of inventory to their present location and condition.<br>- Techniques such as standard cost or retail method may be used for convenience, if the results approximate the actual cost. | Requires an entity to use the same cost formula for all inventories having a similar nature and use to the entity.<br>- For inventories with a different nature or use, different cost formulas may be justified. |

# First-in First-out and Weighted Average Cost Formula

- Cost of inventories, other than the inventory dealt under specific identification, shall be assigned by using the First-in First-out (FIFO), or weighted average cost formula. The formula used shall reflect the fairest possible approximation to the cost incurred in bringing the items of inventory to their present location and condition:
- *(a) The FIFO formula assumes that the items of inventory which were purchased or produced first are consumed or sold first, and consequently* the items remaining in inventory at the end of the period are those most recently purchased or produced.
- *(b) Under the weighted average cost* formula, the cost of each item is determined from the weighted average of the cost of similar items at the beginning of a period and the cost of similar items purchased or produced during the period. The average shall be calculated on a periodic basis, or as each additional shipment is received, depending upon the circumstance.

# FIFO

Examples

| Date | Units purchased | Units sold | Balance |
|---|---|---|---|
| April 01 | 1000 units @ Rs.2 | | 1000 units |
| April 12 | 3000 units @ Rs. 2.2 | | 4000 units |
| April 17 | | 2000 units | 2000 units |
| April 30 | 1000 units @ 2.4 | | 3000 units |

**Cost of Inventory under FIFO method will be:**

| Date | Units | Cost per unit | Total cost |
|---|---|---|---|
| April 12 | 2000 | Rs. 2.20 | 4,400 |
| April 30 | 1000 | Rs. 2.40 | 2,400 |
| **Total** | **3000** | | **6,800** |

**Cost of Inventory = 6,800**

# WEIGHTED AVERAGE

| Date | Units purchased | Units sold | Balance |
|---|---|---|---|
| April 01 | 1000 units @ Rs.2 | | 1000 units |
| April 12 | 3000 units @ Rs. 2.2 | | 4000 units |
| April 17 | | 2000 units | 2000 units |
| April 30 | 1000 units @ 2.4 | | 3000 units |

**Cost of Inventory under Weighted Average Cost method will be:**

| Date | Units | Weighted Avg cost per unit | Total cost |
|---|---|---|---|
| April 30 | 3000 | #Rs. 2.23 | 6,700 |
| **Total** | **3000** | | **6,700** |

**Cost of Inventory = 6,700**

# $\frac{2000*2.15(+)1000*2.4}{3000}$ = Rs. 2.23

$\frac{1000*2(+)3000*2.2}{4000}$ = Rs. 2.15

# 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 the actual cost. Standard costs take into account normal levels of consumption of materials and supplies, labour, efficiency and capacity utilisation. They are regularly reviewed and, if necessary, revised in the light of the current conditions

# Retail Method

- Where it is impracticable to use the costing methods referred to in FIFO and WA, the retail method can be used in the retail trade for measuring inventories of large number of rapidly changing items that have similar margins.

- The cost of the inventory is determined by reducing from the sales value of the inventory, the appropriate percentage gross margin. The percentage used takes into consideration inventory, which has been marked down to below its original selling price

# Retail Method

| | |
|---|---|
| *AS - 2*<br><br>*Ind AS - 2* | Adjusting sale value by appropriate percentage gross margin is the general approach permitted. *An average percentage for each retail department is often used.* |

- **Example of the Retail Inventory Method**
- the iPhone costs RS. 30000 to manufacture and it sells for RS. 50000. The cost-to-retail ratio is 60% (30000/50000 * 100). Let's say that the iPhone had total sales of 18,00,00,000 for the period.
- Beginning inventory: 10,00,00,000
- New Purchases: 5,00,00,000
- Total goods available for sale: 15,00,00,000
- Sales: 10,80,00,000 (Sales of 18,00,00,000 x 60% cost-to-retail ratio)
- Ending inventory: 4,20,00,000 (15,00,00,000 - 10,80,00,000)

Trousers Ltd. is a dealer of clothes and has thousands of items in its inventories. It applies the retail method. The average gross margin is 20%. The sales price of the trousers of a carton of 20 trousers is ₹ 10000.

Accordingly each carton will be valued at ₹ 8000 (₹ 10000 - ₹ 1000 x 20%) and each

Trouser would cost ₹ 8000/20 = ₹ 400.

# Net Realisable Value

- Inventories shall be written down to net realisable value on an item-by-item basis.
- Where 'items of inventory' relating to the same product line having similar purposes or end uses and are produced and marketed in the same geographical area and cannot be practicably evaluated separately from other items in that product line, such inventories shall be grouped together and written down to net realisable value on an aggregate basis.

# NRV .....

- Net realisable value shall be based on the most reliable evidence available at the time of valuation. The estimates of net realisable value shall also take into consideration the purpose for which the inventory is held. The estimates shall take into consideration fluctuations of price or cost directly relating to events occurring after the end of previous year to the extent that such events confirm the conditions existing on the last day of the previous year.

# NRV ....

- Materials and other supplies held for use in the production of inventories shall not be written down below the cost, where the finished products in which they shall be incorporated are expected to be sold at or above the cost.
- Where there has been a decline in the price of materials and it is estimated that the cost of finished products will exceed the net realisable value, the value of materials shall be written down to net realisable value which shall be the replacement cost of such materials.

*At the end of its financial year, Company P has 100 units of inventory on hand recorded at a carrying amount of ₹ 10 per unit. The current market price is ₹ 8 per unit at which these units can be sold. Company P has a firm sales contract with Company Q to sell 60 units at ₹ 11 per unit, which cannot be settled net. Estimated incremental selling cost is ₹ 1 per unit.*

*Compute Net Realisable Value (NRV) of the inventory of Company P.*

**Solution**

While performing NRV test, the NRV of 60 units that will be sold to Company Q is ₹ 10 per unit (i.e. 11-1).

NRV of the remaining 40 units is ₹ 7 per unit (i.e. 8-1).

Therefore, Company P will write down those remaining 40 units by ₹ 120 (i.e. 40 x 3).

Total cost of inventory would be

| | | |
|---|---|---|
| Goods to be sold to Company Q | 60 units x ₹ 10 + | ₹ 600 |
| Remaining goods | 40 unit x ₹ 7 | ₹ 280 |
| | | ₹ 880 |

*A business has four items of inventory. A count of the inventory has established that the amounts of inventory currently held, at cost, are as follows:*

| | | ₹ |
|---|---|---|
| | *Cost* | *Estimated Sales price* | *Selling costs* |
| *Inventory item A1* | *8,000* | *7,800* | *500* |
| *Inventory item A2* | *14,000* | *18,000* | *200* |
| *Inventory item B1* | *16,000* | *17,000* | *200* |
| *Inventory item C1* | *6,000* | *7,500* | *150* |

*Calculate the value of closing inventory in the financial statements of a business.*

**Solution**

The value of closing inventory in the financial statements:

| Item of inventory | Cost | NRV (Estimated Sales price- Selling costs) | Measurement base (lower of cost or NRV) | Value |
|---|---|---|---|---|
| A1 | 8,000 | (7,800 – 500) 7,300 | NRV | 7,300 |
| A2 | 14,000 | (18,000 – 200) 17,800 | Cost | 14,000 |
| B1 | 16,000 | (17,000 – 200) 16,800 | Cost | 16,000 |
| C1 | 6,000 | (7,500 – 150) 7,350 | Cost | 6,000 |
| **Value of Inventory** | | | | **43,300** |

# VALUE OF OPENING INVENTORY

- The value of the inventory as on the beginning of the previous year shall be

- *(i) the cost of inventory available, if any, on the day of the commencement of the business when the* ***business has commenced during the previous year; and***

- *(ii) the value of the inventory as on the close of the immediately preceeding previous year in any other case.*

# CHANGE OF METHOD OF VALUATION OF INVENTORY

- The method of valuation of inventories once adopted by a person in any previous year shall not be changed without reasonable cause. However, **'reasonable cause' is not defined. The guidance for the same will need to be taken from** judicial precedents

| Query: | Is the change of method of valuation of inventory justified? |
| --- | --- |
| | Snow White Food Products Co. Ltd. v. CIT [1982] 10 Taxman 37 (Cal.) |
| | **FACTS**: Assessee had been following the mercantile system of accounting hitherto and had done so even in the relevant year except for the interest income and that there was no resolution by the board of directors or the shareholders of the assessee supporting the change, except for a statement in the annual report to the effect that the management had decided to account for interest on cash basis, from which it was not established that the assessee had decided to change its regular method. |
| | **HELD**: In the instant case the Tribunal had held specifically that on the evidence on record it could not be said the assessee had decided to change its existing regular method of accounting by another regular method. Hence, the Tribunal was right in holding that the assessee-company was not entitled to change its method of accounting from the mercantile to the cash system insofar as the credits in the interest account were concerned and thus, the interest accrued during the relevant year but not received was liable to be included in that assessment year. |
| **Conclusion** | *The method of valuation of inventory shall not be changed without a reasonable cause and shall be followed consistently in subsequent year.* |

- **Change in Method of Valuation**

| | |
|---|---|
| **AS - 2** | Change from one cost formula to another constitutes a change in an accounting policy. As such, *pursuant to AS 5, a change in method of valuation of inventories should be made only if it is required by statute or for compliance with an AS or if it is considered that the change would result in a more appropriate presentation of the financial statements of the enterpri* |
| **Ind AS - 2** | Change from one cost formula to another constitutes a change in an accounting policy. A change in an accounting policy can only be made *if the change is required by an Ind AS, or results in the financial statements providing reliable and more relevant information* |

- **VALUATION OF INVENTORY IN CASE OF CERTAIN DISSOLUTIONS**
- In case of dissolution of a partnership firm or association of person or body of individuals, notwithstanding whether business is discontinued or not, the inventory on the date of dissolution shall be valued at the **net realisable value.**
- ICDS II now prescribes valuation of inventory at NRV in all cases where there is dissolution of a firm, AOP or BOI, irrespective of the fact whether on dissolution the business has been discontinued or not.

| | |
|---|---|
| AS – 2<br>Ind AS – 2 | Because of going concern assumption, these situations are not dealt with in AS 2 and Ind AS 2 |

# FORM 6D

# ILLUSTRATION

# STEPS TO BE FOLLOWED

- 1. Verification Of Financial Records.
- 2. Understanding The Industry.
- 3. Knowing About Accounting Policies Adopted.
- 4. Comparing Inventory In Books As Per As/Ind As With ICDS.
- 5. Calculating Cost And NRV – Element Wise
- 6. Raw Material Constituting 80% Should Be Classified And Reported.
- 7. Valuation Separately For RM, WIP, FG, TG, Consumables, Biological Assets, Financial Instruments.
- 8. Reconciliation Between ICDS And AS Valuation.