

AS 2 – Inventories

Illustration 1

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 20X1-X2, the Historical Cost and Net Realisable Value of the items of closing stock are determined as follows:

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

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

Illustration 2 (MTP April'21, Sep'22, Oct'23) (RTP Nov'19)

X Co. Limited purchased goods at the cost of ₹ 40 lakhs in October, 20X1. Till March, 20X2, 75% of the stocks were sold. The company wants to disclose closing stock at 10 lakhs. The expected sale value is ₹ 11 lakhs and a commission at 10% on sale is payable to the agent. Advise, what is the correct closing stock to be disclosed as at 31.3.20X2. (5 Marks)

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 ₹ 10 lakhs. The net realisable value is $11,00,000 \times 90\% = ₹ 9,90,000$. So, the stock should be valued at ₹ 9,90,000.

Illustration 3 (MTP March '21, Apr'22 & April '23)

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 ($50 \text{ MT} \times 1,052.6315 = ₹ 52,632$) 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 MT x ₹ 1,052.6315 = ₹ 49,47,368.

Illustration 4

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

	₹ 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 ₹ 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:

	₹	
Material Cost		200
Direct Labour	40	
Direct Variable Production Overhead	20	
Fixed Production Overhead $\left(\frac{20,00,000}{2,00,000}\right)$	10	70
		270

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

Illustration 5

“In determining the cost of inventories, it is appropriate to exclude certain costs and recognise them as expenses in the period in which they are incurred”.

Provide examples of such costs as per AS 2 (Revised) ‘Valuation of Inventories’.

Solution:

As per AS 2 (Revised) ‘Valuation of Inventories’, certain costs are excluded from the cost of the inventories and are recognised as expenses in the period in which incurred. Examples of such costs are:

- abnormal amount of wasted materials, labour, or other production costs;
- storage costs, unless those costs are necessary in the production process prior to a further production stage;
- administrative overheads that do not contribute to bringing the inventories to their present location and condition; and
- selling and distribution costs.

Illustration 6 (MTP Apr'24)

Capital Cables Ltd., has a normal wastage of 4% in the production process. During the year 20X1-20X2 the Company used 12,000 MT of raw material costing ₹ 150 per MT. At the end of the year 630 MT of wastage was in stock.

The accountant wants to know how this wastage is to be treated in the books.

Explain in the context of AS 2 (Revised) the treatment of normal loss and abnormal loss and also find out the amount of abnormal loss, if any.

(5 Marks)

MTP / RTP / Past Exam

Question 1 (RTP May'23)

An enterprise ordered 20,000 KG of certain material at ₹ 110 per unit. The purchase price includes GST ₹ 12 per KG, in respect of which full input tax credit (ITC) is admissible. Freight incurred amounted to ₹ 1,17,600. Normal transit loss is 2%. The enterprise actually received 19,500 KG and consumed 18,000 KG of the material.

You are required to calculate cost of material per KG;

Allocation of material cost.

Solution:

Calculation of Normal cost per Kg.

	₹
Purchase price (20,000 Kg; x ₹ 110)	22,00,000
Less: Input Tax Credit (20,000 Kg; x ₹ 12)	(2,40,000)
	19,60,000
Add: Freight	1,17,600
A. Total material cost	20,77,600
B. Number of units normally received = 98% of 20,000 Kg.	Kg. 19,600
C. Normal cost per Kg. (A/B)	106

Allocation of material cost

	Kg.	₹ /Kg.	₹
Materials consumed	18,000	106	19,08,000
Cost of inventory	1,500	106	1,59,000
Abnormal loss	100	106	10,600
Total material cost	19,600	106	20,77,600

Note: Abnormal losses are recognized as separate expense.

Question 2 (MTP May '20, April '19, Oct '18) (Past Exam May'19)

Omega Ltd. has a normal wastage of 4% in the production process. During the year 2019-20, the Company used 12,000 MT of raw material costing Rs. 150 per MT. At the end of the year 630 MT of wastage was ascertained in stock. The accountant wants to know how this wastage is to be treated in the books.

You are required to compute the amount of normal and abnormal loss and treatment thereof in line with AS 2 "Valuation of inventories".

(5 Marks)

Solution:

As per para AS 2 'Valuation of Inventories', abnormal amounts of wasted materials, Labour and other production costs are excluded from cost of inventories and such costs are recognized as expenses in the period in which they are incurred. The normal loss will be included in determining the cost of inventories (finished goods) at the year end.

Amount of Normal Loss and Abnormal Loss:

Material used 12,000 MT @ Rs. 150	= Rs. 18,00,000
Normal Loss (4% of 12,000 MT)	480 MT
Net quantity of material	11,520 MT
Abnormal Loss in quantity	150 MT (630 MT less 480 MT)

Abnormal Loss Rs. 23,437.50

Chemical Y	
Material consumed	440
Direct Labour	120
Variable Overheads	80

Additional Information:

(i) Total fixed overhead for the year was Rs. 4,00,000 on normal capacity of 20,000 units.

(ii) Closing balance of Raw Material X was 1,000 units and Chemical Y was Rs. 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 Net realizable value of Chemical Y is Rs. 800 per unit. **(5 Marks)**

Solution:

When Net Realizable Value of the Chemical Y is Rs. 800 per unit NRV is greater than the cost of Finished Goods Y i.e. Rs. 660 (Refer W.N.)

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

Value of Closing Stock:

	Qty.	Rate (Rs.)	Amount (Rs.)
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

Working Note:

Statement showing cost calculation of Raw Material X and Chemical Y

Raw Material X	Rs.
Cost Price	380
Add: Freight Inward	40
Unloading charges	20
Cost	440
Chemical Y	Rs.
Materials consumed	440
Direct Labour	120
Variable overheads	80
Fixed overheads (Rs.4,00,000/20,000 units)	20
Cost	660

Question 5 (MTP Oct '21)

From the following information provided by XYZ Limited you are required to compute the closing inventory:

Raw Material P	
Closing balance	600 units ₹ per unit
Cost price including GST	250
Input tax credit available	20
Freight inward	30
Handling charges	15
Replacement cost	180
Finished goods Q	

Closing balance	1500 units ₹ per unit
Material consumed	250
Direct Labour	70
Direct overhead	30

Total fixed overhead for the year was ₹ 3,00,000 on a normal capacity of 30,000 units while actual production has been of 25,000 units.

Calculate the value of closing stock, when

(i) Net realizable value of the finished good Q is ₹ 450 per unit.

(ii) Net Realizable value of the Finished Good Q is ₹ 340 per unit.

(5 Marks)

Solution:

(i) When Net Realizable Value of the Finished Good Q is ₹ 450 per unit Value of Closing Stock:

	Valuation Base	Qty.	Rate (₹)	Amount (₹)
Raw Material P	Cost	600	275	1,65,000
Finished Good Q	Cost	1,500	360	5,40,000
Total value of closing stock				7,05,000

(ii) When Net Realizable Value of the Finished Good Q is ₹ 340 per unit Since NRV of finished goods Q is less than its cost i.e., ₹ 360 (Refer W.N.), raw material P is to be valued at replacement cost and finished goods is to be valued at NRV.

Value of Closing Stock:

	Valuation Base	Qty.	Rate (₹)	Amount (₹)
Raw material P	Replacement cost	600	180	1,08,000
Finished good Q	Net Realizable Value	1,500	340	5,10,000
Total value of closing stock				6,18,000

Working Note:

Statement showing calculation of cost of raw material P and finished good Q

Raw Material P	₹
Cost Price (250-20)	230
Add: Freight Inward	30
Handling charges	15
Cost	275
Finished Goods Q	₹
Materials consumed	250
Direct Labour	70
Variable overheads	30
Fixed Overheads	10
	360

Question 6 (MTP Oct'22)

U.S.A 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? (5 Marks)

Solution:

As per AS 2 (Revised) "Valuation of 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, USA Ltd. will value the inventory of raw material at ₹ 30,00,000 (10,000 kg; @ ₹ 300 per kg;);

Question 7 (MTP Mar'23) (RTP May'20) (Past Exam July'21)

The expected production for the year was 15,000 kg of the finished product. Due to fall in market demand the sales price for the finished goods was ₹ 20 per kg and the replacement cost for the raw material was ₹ 9.50 per kg on the closing day. You are required to calculate the closing inventory as on that date.

Particulars		Kg.	₹
Opening Inventory:	Finished Goods	1,000	25,000
	Raw Materials	1,100	11,000
Purchases		10,000	1,00,000
Labour			76,500
Overheads (Fixed)		75,000	
Sales		10,000	2,80,000
Closing Inventory:	Raw Materials	900	
	Finished Goods	1200	

Solution:**(5 Marks)****Calculation of cost for closing inventory**

Particulars	₹
Cost of Purchase (10,200 x 10)	1,02,000
Direct Labour	76,500
Fixed Overhead $\frac{75000 \times 10,200}{15,000}$	51,000
Cost of Production	2,29,500
Cost of closing inventory per unit (2,29,500/10,200)	₹ 22.50
Net Realisable Value per unit	₹ 20.00

Since net realizable value is less than cost, closing inventory will be valued at ₹ 20;

As NRV of the finished goods is less than its cost, relevant raw materials will be valued at replacement cost i.e; ₹ 9.50;

Therefore, value of closing inventory: Finished Goods (1,200 x 20)	₹ 24,000
Raw Materials (900 x 9.50)	₹ 8,550
	32,550

Question 8 (RTP May '21)

The inventory of Rich Ltd. as on 31st March, 2020 comprises of Product – A: 200 units and Product – B: 800 units.

Details of cost for these products are:

Product – A: Material cost, wages cost and overhead cost of each unit are Rs. 40, Rs. 30 and Rs. 20 respectively, each unit is sold at Rs. 110, selling expenses amounts to 10% of selling costs.

Product – B: Material cost and wages cost of each unit are Rs. 45 and Rs. 35 respectively and normal selling rate is Rs. 150 each, however due to defect in the manufacturing process 800 units of Product- B were expected to be sold at Rs. 70. You are requested to value closing inventory according to AS 2 after considering the above.

Solution:

According to AS 2 'Valuation of Inventories', inventories should be valued at the lower of cost and net realizable value.

Product – A

Material cost	Rs. 40 x 200 = 8,000	
Wages cost	Rs. 30 x 200 = 6,000	
Overhead	Rs. 20 x 200 = 4,000	
Total cost		Rs. 18,000
Realizable value [200 x (110-11)]		Rs. 19,800
Hence inventory value of Product -A		Rs. 18,000

Product – B

Material cost	Rs. 45 x 800 = 36,000	
Wages cost	Rs. 35 x 800 = 28,000	
Total cost		Rs. 64,000
Realizable value (800 x 70)		Rs. 56,000
Hence inventory value of Product-B		Rs. 56,000
Total Value of closing inventory i.e. Product A + Product B (18,000+ 56,000)		Rs. 74,000

Question 9 (RTP May '18)

A private limited company manufacturing fancy terry towels had valued its closing inventory of inventories of finished goods at the realizable value, inclusive of profit and the export cash incentives. Firm contracts had been received and goods were packed for export, but the ownership in these goods had not been transferred to the foreign buyers. You are required to advise the company on the valuation of the inventories in line with the provisions of AS 2.

Solution:

Accounting Standard 2 "Valuation of Inventories" states that inventories should be valued at lower of historical cost and net realizable value. The standard states, "at certain stages in specific industries, such as when agricultural crops have been harvested or mineral ores have been extracted, performance may be substantially complete prior to the execution of the transaction generating revenue. In such cases, when sale is assured under forward contract or a government guarantee or when market exists and there is a negligible risk of failure to sell, the goods are often valued at net realizable value at certain stages of production." Terry Towels do not fall in the category of agricultural crops or mineral ores. Accordingly, taking into account the facts stated, the closing inventory of finished goods (Fancy terry towel) should have been valued at lower of cost and net realizable value and not at net realizable value. Further, export incentives are recorded only in the year the export sale takes place. Therefore, the policy adopted by the company for valuing its closing inventory of inventories of finished goods is not correct.

Question 10 (RTP May '22)

Rohan Pvt. Ltd., a wholesaler in agriculture products, has valued the inventory on Net Realizable Value on the ground that AS 2 does not apply to inventory of agriculture products.

Solution

AS 2 does not apply to producers of agricultural products but applies to traders in agricultural products.

Hence AS 2 will apply to Rohan Pvt. Ltd. and it will have to value inventory at lower of cost or market value.

Question 11 (RTP Nov'22)

The closing stock of finished goods (at cost) of a company amounted to ₹ 4,50,000. The following items were included at cost in the total:

- 100 coats, which had cost ₹ 2,200 each and normally sold for ₹ 4,000 each. Owing to a defect in manufacture their NRV was determined at 50% of their normal selling price.
- Shirts which had cost ₹ 50,000, their net realizable value at Balance sheet date was ₹ 55,000. Commission @ 10% on sales is payable to agents.

What should the inventory value be according to AS 2 after considering the above items?

Solution:**Valuation of closing stock**

	₹
Closing stock at cost	4,50,000
Less: Adjustment for 100 coats (Working Note 1)	(20,000)
Value of inventory	4,30,000

Working Notes:**1. Adjustment for Coats**

Rs.

Cost included in Closing Stock	2,20,000
NRV of Coats	2,00,000
Adjustment to be made as NRV is less than Cost	20,000

2. No adjustment required for shirts as their NRV is more than their cost which was included in value of inventory.

Question 12 (Past Exam Nov'19, Jan '21 MTP Oct'19, Sep '23)

Mr. Jatin gives the following information relating to the items forming part of the inventory as on 31.03.2019. His enterprise produces product P using Raw Material X.

- 900 units of Raw Material X (purchases @ ₹ 100 per unit). Replacement cost of Raw Material X as on 31.03.2019 is ₹ 80 per unit
- 400 units of partly finished goods in the process of producing P. Cost incurred till date is ₹ 245 per unit. These units can be finished next year by incurring additional cost of ₹ 50 per unit.
- 800 units of Finished Goods P and total cost incurred is ₹ 295 per unit.

Expected selling price of product P is ₹280 per unit, subject to a payment of 5% brokerage on selling price.

Determine how each item of inventory will be valued as on 31.03.2019. Also calculate the value of total Inventory as on 31.03.2019. **(5 Marks)**

Solution

As per AS 2 (Revised) "Valuation of 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 cost 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. In the given case, selling price of product P is ₹ 266 and total cost per unit for production is ₹ 295;

Hence the valuation will be done as under:

- (i) 900 units of raw material X will be written down to replacement cost as market value of finished product is less than its cost, hence valued at ₹ 80 per unit.
- (ii) 400 units of partly finished goods will be valued at 216 per unit i.e., lower of cost (₹ 245) or Net realizable value ₹ 216 (Estimated selling price ₹ 266 per unit less additional cost of ₹ 50).
- (iii) 800 units of finished product P will be valued at NRV of ₹ 266 per unit since it is lower than cost ₹ 295.

2021 Valuation of Total Inventory as on 31.03.2019:

	Units	Cost (₹)	NRV/Replacement cost	Value = unit's x cost or NRV whichever is less (₹)
Raw material X	900	100	80	72,000
Partly finished goods	400	245	216	86,400
Finished goods P	800	295	266	2,12,800
Value of Inventory				3,71,200

Question 13 (PAST EXAM May'19)

State whether the following statements are 'True' or 'False'. Also give reason for your answer. As per the provisions of AS-2, inventories should be valued at the lower of cost and selling price. **(1 Mark)**

Solution

False: Inventories should be valued at the lower of cost and net realizable value (not selling price) as per AS 2.

Question 14 (Past Exam May'22)

SM Enterprises is a leading distributor of petrol. A detailed inventory of petrol in hand is taken when the books are closed at the end of each month. For the month ending June 2021 following information is available:

- (i) Sales for the month of June 2021 was ₹30,40,000.
- (ii) General overheads cost ₹4,00,000.
- (iii) Inventory at beginning 10,000 liters @ ₹ 92 per liter.
- (iv) Purchases-June 1, 2021, 20,000 liters @ ₹ 90 per liter, June 30, 2021, 10,000 liters @ ₹ 95 per liter.
- (v) Closing inventory 13,000 liters.

You are required to compute the following by FIFO method as per AS 2:

- (i) Value of Inventory on 30th June, 2021.
- (ii) Amount of cost of goods sold for June, 2021.
- (iii) Profit/Loss for the month of June, 2021.

(5 Marks)

Solution

	₹
Cost of closing inventory for 13,000 liters as on 30th June 2021	
10,000 liters @ ₹ 95	9,50,000
3,000 liters @ ₹ 90	2,70,000

Value of inventory (determined at cost in absence of NRV) -	
	12,20,000
Calculation of cost of goods sold	
Opening inventories (10,000 liters @ ₹ 92)	9,20,000
Purchases June – 1 (20,000 liters @ ₹ 90)	18,00,000
June – 30 (10,000 liters @ 95)	9,50,000
	36,70,000
Less: Closing inventories	(12,20,000)
Cost of Goods Sold	24,50,000
Calculation of Profit	30,40,000
Sales (Given) (A)	24,50,000
Cost of Goods Sold	4,00,000
Add: General Overheads	28,50,000
Total Cost (B)	1,90,000
Profit (A-B)	

Question 15 (RTP Nov'23)

Alpha Ltd. sells flavoured milk to customers; some of the customers consume the milk in the shop run by Alpha Limited. While leaving the shop, the consumers leave the empty bottles in the shop and the company takes possession of these empty bottles. The company has laid down a detailed internal record procedure for accounting for these empty bottles which are sold by the company by calling for tenders.

Keeping this in view:

Decide whether the inventory of empty bottles is an asset of the company;

If so, whether the inventory of empty bottles existing as on the date of Balance Sheet is to be considered as inventories of the company and valued as per AS 2 or to be treated as scrap and shown at realizable value with corresponding credit to 'Other Income'?

Solution:

As per the 'Framework on Presentation and Preparation of Financial Statements':

Tangible objects or intangible rights carrying probable future benefits, owned by an enterprise are called assets.

Alpha Ltd. sells these empty bottles by calling tenders. It means further benefits are accrued on its sale.

Therefore, empty bottles are assets for the company.

As per AS 2, inventories are assets held for sale in the ordinary course of business.

Inventory of empty bottles existing on the Balance Sheet date is the inventory and Alpha Ltd. has detailed controlled recording and accounting procedure which duly signify its materiality.

Thus, inventory of empty bottles cannot be considered as scrap and should be valued as inventory in accordance with AS 2.

Question 16 (Past Exam Nov'23)

In the following cases, find the value of closing stock as per AS 2:

- Sonu is a retailer dealing in toys. During the year, he purchased items worth ₹ 1,47,000 and made a total sale ₹ 1,54,000. The average percentage of gross margin is 10% on cost. Opening stock of toys at cost was ₹ 20,000.
- On 21st March, 2023, Mohan purchased 250 chairs at ₹ 300 each. The selling price of the chair is ₹ 400 each. Owing to a manufacturing defect, net realisable value of the whole lot of chair was determined at 70% of their normal selling price. No chairs were sold during the year.

(5 Marks)

MCQ

1. Which item of inventory is under the scope of AS 2 (Revised)?
 - a) WIP arising under construction contracts
 - b) Raw materials
 - c) Shares
 - d) Debentures held as stock in trade.
2. 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
 - a) sold at or above cost.
 - b) sold above cost.
 - c) sold less than cost.
 - d) sold at market value (where market value is more than cost).
3. All of the following costs are excluded while computing value of inventories except?
 - a) Selling and Distribution costs
 - b) Allocated fixed production overheads based on normal capacity.
 - c) Abnormal wastage
 - d) Storage costs (which is necessary part of the production process)
4. Identify the statement(s) which is/are incorrect.
 - a) Storage costs which is a necessary part of the production process is included in inventory valuation.
 - b) Administration overheads are never included in inventory valuation.
 - c) Full amount of variable production overheads incurred are included in inventory valuation.
 - d) Administration overheads are always included in inventory valuation.

MCQs

1. (b)
2. (a)
3. (b)
4. (b)

(b) Well Wear Limited is a Textile Manufacturing Company and engaged in the production of Polyester (P) and Nylon (N). While manufacturing the main products, a by-product Fiber (F) is also produced. Details of the cost of production are as under:

Purchase of Raw Material for manufacturing process of

30,000 units	₹ 3,50,000
Wages paid	₹ 1,60,000
Fixed overheads	₹ 1,20,000
Variable overheads	₹ 60,000
Output:	
Polyester (P)	12,500 Units
Nylon (N)	10,000 Units
Fiber (F)	3,200 Units
Closing Inventory:	
Polyester (P)	1,600 Units
Nylon(N)	400 Units

Average market price of Polyester and Nylon is ₹ 100 and ₹ 60 per unit respectively, by-product Fiber is sold@ ₹ 40 per unit. There is a profit of ₹ 8,000 on sale of by-product after incurring separate processing expenses of ₹ 10,000 and packing charges of ₹ 9,000. ₹ 5,000 was realized from sale of scrap.

On the basis of the above information, you are required to compute the value of closing inventory of Polyester and Nylon. **(7 + 7 = 14 Marks)**

- (b) As per AS 2 'Valuation of 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.

Determination of value of closing inventory of Polyester and Nylon

	Polyester	Nylon
Closing inventory in units	1,600 units	400 units
Cost per unit	₹ 31.14	₹ 18.68
Value of closing inventory	₹ 49,824	₹ 7,472

Working Notes

1. Calculation of net realizable value of by-product, Fiber

		₹
Selling price of by-product Fiber	(3,200 units x ₹ 40 per unit)	1,28,000
Less: Separate processing charges of by-product Fiber		(10,000)
Packing charges		<u>(9,000)</u>
Net realizable value of by-product Fiber		<u>1,09,000</u>

2. Calculation of cost of conversion for allocation between joint products Polyester and Nylon

	₹	₹
Raw material		3,50,000
Wages		1,60,000
Fixed overhead		1,20,000
Variable overhead		<u>60,000</u>
		6,90,000
Less: NRV of by-product Fiber (W.N. 1)	(1,09,000)	
Sale value of scrap	<u>(5,000)</u>	<u>(1,14,000)</u>
Joint cost to be allocated between Polyester and Nylon		<u>5,76,000</u>

Determination of "basis for allocation" and allocation of joint cost to Polyester and Nylon

	Polyester	Nylon
Output in units (a)	12,500 units	10,000 units
Sales price per unit (b)	₹ 100	₹ 60
Sales value (a x b)	₹ 12,50,000	₹ 6,00,000
Total value (12,50,000 + 6,00,000) = 18,50,000		
Joint cost of ₹ 5,76,000 allocated in the ratio of 12,50,000 : 6,00,000	₹ 3,89,189	₹ 1,86,811
Cost per unit [c/a]	₹ 31.14	₹ 18.68