AS 2

Valuation of Inventory

Question 1

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. (RTP May 23) (SM)

Answer 1

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

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".

(MTP 5 Marks, May '20, April '19, Oct '18, Old & New SM) (Same concept different figures PYP May'19 5 Marks)

Answer 2

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	*11,520MT*
Abnormal Loss in quantity	*150 MT (630 MT less 480 MT)*

Question 3

(i) "In determining the cost of inventories, it is appropriate to exclude certain costs and recognize them as expenses in the period in which they are incurred". Provide examples of such costs as per AS 2 'Valuation of Inventories'. ***(MTP 2.5 Marks April 21 & Oct '23, RTP May'22, Old & New SM)***

(ii) X Limited purchased goods at the cost of Rs. 40 lakhs in October, 2020. Till March, 2021, 75% of the stocks were sold. The company wants to disclose closing stock at Rs. 10 lakhs. The expected sale value is Rs. 11 lakhs and a commission at 10% on sale is payable to the agent. Advise, what is the correct value of closing stock to be disclosed as at 31.3.2021. ***(MTP 2.5 Marks April 21 & Oct '23)***

Answer 3

(i) *As per AS 2 'Valuation of Inventories', certain costs are excluded from the cost of the inventories and are recognized as expenses in the period in which incurred. Examples of such costs are:*

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

(ii) *As per AS 2 "Valuation of Inventories", the inventories are to be valued at lower of cost or net realizable value. In this case, the cost of inventory is Rs. 10 lakhs. The net realizable value is 11,00,000 Rs.90% = Rs. 9,90,000. So, the stock should be valued at Rs. 9,90,000.*

Question 4

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

	Rs. Per unit
Raw Material X	
Cost price	***380***
Unloading Charges	***20***

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

Additional Information:

(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.

(MTP Aug. '18, 5 Marks, RTP Nov'18) (Same concept different figures RTP Nov'20)

Answer 4

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*

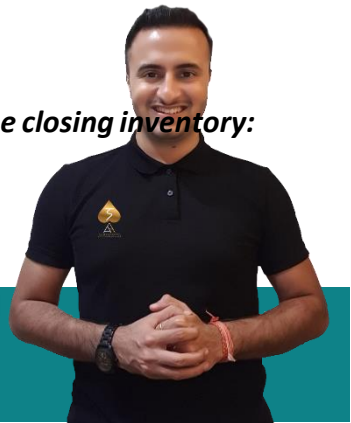
Chemical Y	***Rs.***
Materials consumed	*440*
Direct Labour	*120*
Variable overheads	*80*
Fixed overheads (Rs.4,00,000/20,000 units)	*20*
Cost	*660*

Question 5

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. ***(MTP Oct '21, 5 marks)***

Answer 5

(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
	10
	360

Question 6

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.

(MTP 5 Marks March '23) (RTP May 20)

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	

Answer 6

Calculation of cost for closing inventory

Particulars	₹
Cost of Purchase (10,200 x 10)	*1,02,000*
Direct Labour	*76,500*
Fixed Overhead $\frac{75000\ X\ 10,200}{15,000}$	*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 7

On 31st March 2020, a business firm finds that cost of a partly finished unit on that date is ₹ 430. The unit can be finished in 2020-21 by an additional expenditure of ₹ 310. The finished unit can be sold for ₹ 750 subject to payment of 2% brokerage on selling price. The firm seeks your advice regarding the amount at which the unfinished unit should be valued as at 31st March, 2020 for preparation of final accounts.

Assume that the partly finished unit cannot be sold in semi-finished form and its NRV is zero without processing it further. ***(RTP Nov 21) (Same concept different figures RTP May 19)(Old & New SM)***

Answer 7

Valuation of unfinished unit

	₹
Net selling price	*750*
Less: Estimated cost of completion	*(310)*
	440
Less: Brokerage (2 % of 750)	*(15)*
Net Realizable Value	*425*
Cost of inventory	*430*
Value of inventory (Lower of cost and net realizable value)	*425*

Question 8

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. ***(RTP May '21)***

Answer 8

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

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. ***(RTP May '18)***

Answer 9

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

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.

(i) 900 units of Raw Material X (purchases @ ₹ 100 per unit). Replacement cost of Raw Material X as on 3103.2019 is ₹ 80 per unit

(ii) 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.

(iii) 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. (PYP 5 Marks Jan '21) (Sam concept different figures PYP 5 Marks Nov'19, MTP Oct'19 5 Marks, Old & New SM) (MTP 5 Marks Sep '23)

Answer 10

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 11

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.*** ***(PYP 5 Marks May '22)***

Answer 11

	₹
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) Profit (A–B)	***1,90,000***

Question 12

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'? ***(RTP Nov '23)***

Answer 12

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.