

# INDAS 36 – IMPAIRMENT OF ASSETS

(TOTAL NO. OF QUESTIONS – 13)

## INDEX

S.No.	Particulars	Page No.
1	RTP Questions	10.1
2	MTP Questions	10.13
3	Past Exam Questions	10.15

## RTPs QUESTIONS

### Q1 (RTP May 18 & MTP April 19 – 12 Marks)

Himalaya Ltd. which is in the business of manufacturing and exporting its product. Sometimes, back at the end of 20X4, the Government put restrictions on export of goods exported by Himalaya Ltd. and due to that restriction Himalaya Ltd. impaired its assets. Himalaya Ltd. acquired identifiable assets worth Rs 5,500 lakhs for Rs 6,000 lakh at the end of the year 20X0. The difference is treated as goodwill. The useful life of identifiable assets is 15 years and depreciated on a straight line basis. When the Government put the restriction at the end of 20X4, the company recognised the impairment loss by determining the recoverable amount of assets for Rs 3,120 lakh. In 20X6 Government lifted the restriction imposed on the export and due to this favourable change, Himalaya Ltd. re-estimate recoverable amount, which was estimated at Rs 3,420 lakh.

Required:

- (i) Calculation and allocation of impairment loss in 20X4.
- (ii) Reversal of impairment loss and its allocation as per INDAS 36 in 20X6.

### SOLUTION

(Originally this question was asked as per AS 28, we have changed some figures and made treatment as per INDAS 36)

- (i) Calculation and allocation of impairment loss in 20X4

(Amount in Rs. lakhs)

	Goodwill	Identifiable assets	Total
Historical cost	500	5,500	6,000
Accumulated depreciation/amortization (4 yrs.)	-	(1,467)	(1,467)
Carrying amount before impairment	500	4,033	4,533

Impairment loss*	(500)	(913)	(1413)
Carrying amount after impairment loss	0	3,120	3,120

**\* Notes:**

1. As per INDAS 36, an impairment loss should be allocated to reduce the carrying amount of the assets of the unit in the following order:

(a) first, to goodwill allocated to the cash-generating unit (if any); and

(b) then, to the other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit.

Hence, first goodwill is impaired at full value and then identifiable assets are impaired to arrive at recoverable value.

**(ii) Carrying amount of the assets at the end of 20X6 (Amount in Rs. lakhs)**

End of 20X6	Goodwill	Identifiable assets	Total
Carrying amount in 20X6	0	2,553	2,553
Add: Reversal of impairment loss (W.N.2)	-	747	747
Carrying amount after reversal of impairment loss	-	3,300	3,300

**Working Note:**

**1. Calculation of depreciation after impairment till 20X6 and reversal of impairment loss in 20X6**

(Amount in Rs lakhs)			
	Goodwill	Identifiable assets	Total
A. Carrying amount after impairment loss in 20X4	0	3,120	3,120
B. Additional depreciation (i.e. $(3,120/11) \times 2$ ) refer Note	-	(567)	(567)
C. Carrying amount	0	2,553	2,553
D. Recoverable amount			3,420
E. Excess of recoverable amount over carrying amount (D-C)			867

**Note:** It is assumed that the restriction by the Government has been lifted at the end of the year 20X6. Therefore, depreciation for 2 years is calculated (2005, 2006).

**2. Determination of the amount to be impaired by calculating depreciated historical cost of the identifiable assets without impairment at the end of 20X6**

(Amount in Rs lakhs)

End of 20X6	Identifiable assets
Historical cost	5,500
Accumulated depreciation	$(366.67 \times 6 \text{ years}) = (2,200)$
Depreciated historical cost	3,300
Carrying amount (in W.N. 1)	2,553
Amount of reversal of impairment loss	747

**Notes:**

As per INDAS 36, in allocating a reversal of an impairment loss for a cash-generating unit, the carrying amount of an asset should not be increased above the lower of:

(a) its recoverable amount (if determinable); and



(b) the carrying amount that would have been determined (net of amortization or depreciation) had no impairment loss been recognised for the asset in prior accounting periods.

Hence impairment loss reversal is restricted to Rs 747 lakhs only.

## Q2 (Nov. 18)

M Ltd. has three cash-generating units: A, B and C. Due to adverse changes in the technological environment, M Ltd. conducted impairment tests of each of its cash-generating units. On 31st March, 2018, the carrying amounts of A, B and C are Rs100 lakhs, Rs150 lakhs & Rs200 lakhs respectively.

The operations are conducted from a headquarters. The carrying amount of the headquarter assets is Rs200 lakhs: a headquarter building of Rs150 lakhs and a research center of Rs50 lakhs. The relative carrying amounts of the cash-generating units are a reasonable indication of the proportion of the head-quarter building devoted to each cash-generating unit. The carrying amount of the research center cannot be allocated on a reasonable basis to the individual cash-generating units.

Following is the remaining estimated useful life of:

	A	B	C	Headquarter assets
Remaining estimated useful life	10	20	20	20

The headquarter assets are depreciated on a straight-line basis.

The recoverable amount of each cash generating unit is based on its value in use since net selling price for each CGU cannot be calculated. Therefore, Value in use is equal to

	A	B	C	M Ltd. as a whole
Recoverable amount	199	164	271	720*

\*The research centre generates additional future cash flows for the enterprise as a whole. Therefore, the sum of the value in use of each individual CGU is less than the value in use of the business as a whole. The additional cash flows are not attributable to the headquarters building.

Calculate and show allocation of impairment loss as per IND AS 36. Ignore tax effects.

## SOLUTION

### 1. Identification of Corporate Assets of M Ltd.

Here, the corporate assets are the headquarters building and the research centre.

#### For corporate building

Since, the carrying amount of the headquarter building can be allocated on a reasonable and consistent basis to the cash-generating units under review. Therefore, only a 'bottom-up' test is necessary for a research centre.

Since the carrying amount of the research centre cannot be allocated on a reasonable and consistent basis to the individual CGU under review. Therefore, a 'top-down' test will be applied in addition to the 'bottom-up' test.

### 2. Allocation of Corporate Assets

Since the estimated remaining useful life of A's CGU is 10 years, whereas the estimated remaining useful lives of B and C's CGU are 20 years, the carrying amount of the headquarters building is allocated to the carrying amount of each individual cash-generating unit on a weight basis.

**3. Calculation of a weighted allocation of the carrying amount of the headquarter building**  
(Amount in Rs. lakhs)

On 31 <sup>st</sup> March, 2018	A	B	C	Total
Carrying amount (A)	100	150	200	450
Useful life	10 years	20 years	20 years	
Weighting based on useful life	1	2	2	
Carrying amount after weighting	100	300	400	800
Pro-rata allocation of the building	12.5%	37.5%	50%	100%
Allocation of the carrying amount of the building (based on pro-rata above) (B)	(100/800)	(300/800)	(400/800)	
	18.75	56.25	75	150
Carrying amount (after allocation of the building)	118.75	206.25	275	600

**4. Calculation of Impairment Losses**

**(i) Application of 'bottom-up' test (Amount in Rs. lakhs)**

31 <sup>st</sup> March, 2018	A	B	C
Carrying amount (after allocation of the building) (Refer Point 3 above)	118.75	206.25	275
Recoverable amount (given in the question)	199	164	271
Impairment loss	0	(42)	(4)

**(ii) Allocation of the impairment losses for cash-generating units B and C**

(Amount in Rs. lakhs)

Cash-generating unit	B	C
To headquarter building	(12) (42*56/206)	(1) (4*75/275)
To assets in cash-generating unit	(30) (42*150/206)	(3) (4*200/275)
	(42)	(4)

Since the research centre could not be allocated on a reasonable and consistent basis to A, B and C's CGU, M Ltd. compares the carrying amount of the smallest CGU to which the carrying amount of the research centre can be allocated (i.e., M as a whole) to its recoverable amount, in accordance with the 'top-down' test.

**(iii) Application of the 'top-down' test**

(Amount in Rs lakhs)

31 <sup>st</sup> March, 2018	A	B	C	Building	Research centre	M Ltd.
Carrying amount	100	150	200	150	50	650
Impairment loss arising from the 'bottom-up' test	-	(30)	(3)	(13)	-	(46)
Carrying amount after the 'bottom-up' test	100	120	197	137	50	604
Recoverable amount						720

Since recoverable amount is more than the carrying amount of M Ltd., no additional impairment loss has been resulted from the application of the 'top-down' test. Only an impairment loss of Rs46 lakhs will be recognized as a result of the application of the 'bottom-up' test.

### Q3 (May 19)

Elia limited is a manufacturing company which deals in manufacturing of cold drinks and beverages. It has various plants across India. There is Machinery A in the Baroda plant which is used for the purpose of bottling. There is one more machinery which is Machinery B clubbed with Machinery A. Machinery A can individually have an output and also be sold independently in the open market. Machinery B cannot be sold in isolation and without clubbing with Machine A it cannot produce output as well. The Company considers this group of assets as a Cash Generating Unit and an Inventory amounting to Rs 2 Lakh and Goodwill amounting to Rs 1.50 Lakhs is included in such CGU. Machinery A was purchased on 1st April 2013 for Rs 10 Lakhs and residual value is Rs 50 thousand. Machinery B was purchased on 1st April, 2015 for Rs 5 Lakhs with no residual value. The useful life of both Machine A and B is 10 years. The Company expects following cash flows in the next 5 years pertaining to Machinery A. The incremental borrowing rate of the company is 10%.

Year	Cash Flows from Machinery A
1	1,50,000
2	1,00,000
3	1,00,000
4	1,50,000
5	1,00,000 (excluding Residual Value)
<b>Total</b>	<b>6,00,000</b>

On 31st March, 2018, the professional valuers estimated that the current market value of Machinery A is Rs 7 lakhs. The valuation fee was Rs 1 lakh. There is a need to dismantle the machinery before delivering it to the buyer. Dismantling cost is Rs 1.50 lakhs. Specialised packaging cost would be Rs 25 thousand and legal fees would be Rs 75 thousand.

The Inventory has been valued in accordance with Ind AS 2. The recoverable value of CGU is Rs 10 Lakh as on 31st March, 2018. In the next year, the company has done the assessment of recoverability of the CGU and found that the value of such CGU is Rs 11 Lakhs i.e. on 31st March, 2019. The Recoverable value of Machine A is Rs 4,50,000 and combined Machine A and B is Rs 7,60,000 as on 31st March, 2019.

#### Required:

- Compute the impairment loss on CGU and carrying value of each asset after charging impairment loss for the year ending 31st March, 2018 by providing all the relevant working notes to arrive at such calculation.
- Compute the prospective depreciation for the year 2018-2019 on the above assets.
- Compute the carrying value of CGU as at 31st March, 2019.

#### SOLUTION

(a) Computation of impairment loss and carrying value of each of the asset in CGU after impairment loss

(i) Calculation of carrying value of Machinery A and B before impairment

<b>Machinery A</b>	
Cost (A)	Rs 10,00,000
Residual Value	Rs 50,000
Useful life	10 years
Useful life already elapsed	5 years
Yearly depreciation (B) $[(10,00,000 - 50,000) / 10]$	Rs 95,000
<b>WDV as at 31st March, 2018 <math>[A - (B \times 5)]</math></b>	<b>Rs 5,25,000</b>

<b>Machinery B</b>	
Cost (C)	Rs 5,00,000
Residual Value	-
Useful life	10 years
Useful life already elapsed	3 years
Yearly depreciation (D)	Rs 50,000
WDV as at 31st March, 2018 [C - (D x 3)]	Rs 3,50,000

(ii) Calculation of Value-in-use of Machinery A

Period	Cash Flows (Rs)	PVF	PV
1	1,50,000	0.909	1,36,350
2	1,00,000	0.826	82,600
3	1,00,000	0.751	75,100
4	1,50,000	0.683	1,02,450
5	1,00,000	0.621	62,100
5	50,000	0.621	31,050
<b>Value in use</b>			<b>4,89,650</b>

(iii) Calculation of Fair Value less cost of disposal of Machinery A

	Rs
Fair Value	7,00,000
Less: Dismantling cost	(1,50,000)
Packaging cost	(25,000)
Legal Fees	(75,000)
<b>Fair value less cost of disposal</b>	<b>4,50,000</b>

(iv) Calculation of Impairment loss on Machinery A

	Rs
Carrying Value	5,25,000
Less: Recoverable Value i.e. higher of Value-in-use and Fair value less cost of disposal	4,89,650
<b>Impairment Loss</b>	<b>35,350</b>

Revised carrying amount of Machinery A = 4,89,650

(v) Calculation of Impairment loss of CGU

1. First goodwill will be impaired fully and then the remaining impairment loss of Rs75,000 will be allocated to Machinery A and B.
2. If we allocate remaining impairment loss to Machinery A and B on a pro-rata basis, it would come to Rs45,000 on Machinery A. However, the impairment loss of Machinery A cannot exceed Rs. 35,350. Hence, impairment to CGU will be as follows:

	Carrying value before impairment loss Rs	Impairment loss Rs	Carrying value after impairment loss Rs
Machinery A	5,25,000	35,350	4,89,650
Machinery B	3,50,000	39,650*	3,10,350

Inventory	2,00,000	-	2,00,000
Goodwill	1,50,000	1,50,000	-
<b>Total</b>	<b>12,25,000</b>	<b>2,25,000</b>	<b>10,00,000</b>

\*Balancing figure.

note - Impairment is not applicable to Inventory.

**(b) Carrying value after adjustment of depreciation (on 31-03-2019)**

	Rs
Machinery A [4,89,650 - {(4,89,650-50,000)/5}]	4,01,720
Machinery B [3,10,350 - (3,10,350/7)]	2,66,014
Inventory	2,00,000
Goodwill	-
<b>Total</b>	<b>8,67,734</b>

note - assuming no change in Value of Inventory, as no data is given.

**(c) Calculation of carrying value of CGU as on 31st March, 2019**

**Carrying values if there was no impairment**

Machine A	=	10,00,000 - [9,50,000*6yrs / 10yrs]	=	4,30,000
Machine B	=	5,00,000 - [5,00,000*4yrs / 10yrs]	=	3,00,000
Inventory			=	<u>2,00,000</u>
Carrying Value				<u>9,30,000</u>

Recoverable Value (given) = 11,00,000

- since Recoverable value > carrying value, there will be reversal of impairment.
- no impairment for Inventory, therefore no reversal as well.
- only impairment for machine A & B will be reversed.

Reversal for Machine A = 4,30,000 - 4,01,720 = 28,280

Reversal for Machine B = 3,00,000 - 2,66,014 = 33,986

Total credit to P&L = 62,266

**Revised carrying values post reversal of impairment**

Machine A = 4,30,000

Machine B = 3,00,000

Inventory = 2,00,000

**Q4 (Nov. 19)**

East Ltd. (East) owns a machine used in the manufacture of steering wheels, which are sold directly to major car manufacturers.

The machine was purchased on 1st April, 20X1 at a cost of 500 000 through a vendor financing arrangement on which interest is being charged at the rate of 10 per cent per annum.

During the year ended 31st March, 20X3, East sold 10 000 steering wheels at a selling price of 190 per wheel. The most recent financial budget approved by East's management, covering the period 1st April, 20X3 – 31st March, 20X8, including that the company expects to sell each steering wheel for 200 during 20X3-X4, the price rising in later years in line with a forecast inflation of 3 per cent per annum.

During the year ended 31st March, 20X4, East expects to sell 10 000 steering wheels. The number is forecast to increase by 5 per cent each year until 31st March, 20X8.

East estimates that each steering wheel costs 160 to manufacture, which includes Rs110 variable costs, Rs30 share of fixed overheads and 20 transport costs.

Costs are expected to rise by 1% during 20X4-X5, & then by 2 per cent per annum until 31st March, 20X8.

During 20X5-X6, the machine will be subject to regular maintenance costing 50,000.

In 20X3-X4, East expects to invest in new technology costing 100 000. This technology will reduce the variable costs of manufacturing each steering wheel from 110 to 100 and the share of fixed overheads from 30 to 15 (subject to the availability of technology, which is still under development).

East is depreciating the machine using the straight-line method over the machine's 10 year estimated useful life. The current estimate (based on similar assets that have reached the end of their useful lives) of the disposal proceeds from selling the machine is Rs 80 000 net of disposal costs. East expects to dispose of the machine at the end of March, 20X8.

East has determined a pre-tax discount rate of 8 per cent, which reflects the market's assessment of the time value of money and the risks associated with this asset.

Assume a tax rate of 30%. What is the value in use of the machine in accordance with Ind AS 36?

## **SOLUTION**

**v.imp note for the answer** - Calculation of the value in use of the machine owned by East Ltd. (East) includes the projected cash inflow (i.e. sales income) from the continued use of the machine and projected cash outflows that are necessarily incurred to generate those cash inflows (i.e cost of goods sold). Additionally, projected cash inflows include Rs 80,000 from the disposal of the asset in March, 20X8. Cash outflows include routing capital expenditures of Rs 50,000 in 20X5-X6

As per Ind AS 36, estimates of future cash flows shall not include:

- Cash inflows from receivables
- Cash outflows from payables
- Cash inflows or outflows expected to arise from future restructuring to which an entity is not yet committed
- Cash inflows or outflows expected to arise from improving or enhancing the asset's performance
- Cash inflows or outflows from financing activities
- Income tax receipts or payments.

Hence in this case, cash flows do not include financing interest (i.e. 10%), tax (i.e. 30%) and capital expenditures to which East has not yet committed (i.e. Rs 100 000). They also do not include any savings in cash outflows from these capital expenditures, as required by Ind AS 36.

The cash flows (inflows and outflows) are presented below in nominal terms. They include an increase of 3% per annum to the forecast price per unit (B), in line with forecast inflation. The cash flows are discounted by applying a discount rate (8%) that is also adjusted for inflation.

**Note:** Figures are calculated on full scale and then rounded off to the nearest absolute value.



Year End	20X3-X4	20X4-X5	20X5-X6	20X6-X7	20X7-X8	Value in Use
Quantity (5% increase p.a.)	10,000	10,500	11,025	11,576	12,155	
Price per Unit (3% increase p.a.)	200	206	212	219	225	
Estimated cash inflow	20,00,000	21,63,000	23,37,300	25,35,144	27,34,875	
Misc. Cash inflow disposal proceeds					80,000	
Total Estimated cash inflow	20,00,000	21,63,000	23,37,300	25,35,144	28,14,875	
Cost per unit	160	162	165	168	171	
Estimated Cash outflow	-16,00,000	-17,01,000	-18,19,125	-19,44,768	-20,78,505	
Misc. Cash outflow (Maint. Cost)			-50,000			
Total Est. Cash Outflow	-16,00,000	-17,01,000	-18,69,125	-19,44,768	-20,78,505	
Net Cash Flows	4,00,000	4,62,000	4,68,175	5,90,376	7,36,370	
Disc. Factor 8%	0.9259	0.8573	0.7938	0.7350	0.6806	
Discounted Future Cash Flows	3,70,360	3,96,073	3,71,637	4,33,926	5,01,173	20,73,169

### Q5 (RTP May 20 & MTP OCT 20 – 5 Marks)

PQR Ltd. is a company which has performed well in the past but one of its major assets, an item of equipment, suffered a significant and unexpected deterioration in performance. Management expects to use the machine for a further four years after 31st March 20X6, but at a reduced level. The equipment will be scrapped after four years. The financial accountant for PQR Ltd. has produced a set of cash-flow projections for the equipment for the next four years, ranging from optimistic to pessimistic. The CFO thought that the projections were too conservative and he intended to use the highest figures each year. These were as follows:

	Rs '000
Year ended 31 <sup>st</sup> March 20X7	276
Year ended 31 <sup>st</sup> March 20X8	192
Year ended 31 <sup>st</sup> March 20X9	120
Year ended 31 <sup>st</sup> March 20Y0	114

The above cash inflows should be assumed to occur on the last day of each financial year. The pre-tax discount rate is 9%. The machine could have been sold at 31st March 20X6 for Rs 6,00,000 and related selling expenses in this regard could have been Rs 96,000. The machine had been re-valued previously, and at 31st March 20X6 an amount of Rs 36,000 was held in revaluation surplus in respect of the asset. The carrying value of the asset at 31st March 20X6 was Rs 660,000. The Indian government has indicated that it may compensate the company for any loss in value of the assets up to its recoverable amount.

Calculate impairment loss, if any and revised depreciation of asset. Also suggest how Impairment loss, if any would be set off and how compensation from the government be accounted for?

### Solution

Carrying amount of asset on 31st March 20X6 = Rs 6,60,000

Calculation of Value in Use:

Year ended	Cash flow Rs	Discount factor @ 9%	Amount Rs
31 <sup>st</sup> March, 20X7	2,76,000	0.9174	2,53,202

31 <sup>st</sup> March, 20X8	1,92,000	0.8417	1,61,606
31 <sup>st</sup> March, 20X9	1,20,000	0.7722	92,664
31 <sup>st</sup> March, 20Y0	1,14,000	0.7084	80,758
<b>Total (Value in Use)</b>			<b>5,88,230</b>

#### Calculation of Recoverable amount:

Particulars	Amount (Rs)
Value in use	5,88,230
Fair value less costs of disposal (6,00,000 – 96,000)	5,04,000
<b>Recoverable amount</b> (Higher of value in use and fair value less costs of disposal)	<b>5,88,230</b>

#### Calculation of Impairment loss:

Particulars	Amount (Rs)
Carrying amount	6,60,000
Less: Recoverable amount	(5,88,230)
<b>Impairment loss</b>	<b>71,770</b>

#### Calculation of Revised carrying amount:

Particulars	Amount (Rs)
Carrying amount	6,60,000
Less: Impairment loss	(71,770)
<b>Revised carrying amount</b>	<b>5,88,230</b>

#### Calculation of Revised Depreciation:

Revised carrying amount – Residual value

Remaining life =  $(5,88,230 - 0) / 4 = \text{Rs } 1,47,058$  per annum

#### Set off of Impairment loss:

The impairment loss of Rs 71,770 must first be set off against any revaluation surplus in relation to the same asset. Therefore, the revaluation surplus of Rs 36,000 is eliminated against impairment loss, and the remainder of the impairment loss Rs 35,770 (Rs 71,770 – Rs 36,000) is charged to profit and loss.

#### Treatment of Government compensation:

Any compensation by the government would be accounted for as such when it becomes receivable. At this time, the government has only stated that it may reimburse the company and therefore credit should not be taken for any potential government receipt.

### Q6 (Nov. 20)

The UK entity with a sterling functional currency has a property located in the US, which was acquired at a cost of US\$ 1.8 million when the exchange rate was £1 = US\$ 1.60. The property is carried at cost. At the balance sheet date, the recoverable amount of the property (as a result of an impairment review) amounted to US\$ 1.62 million, when the exchange rate £1 = US\$ 1.80. Compute the amount which is to be reported in Profit & Loss of the UK entity as a result of impairment, if any. Ignore depreciation. Also, analyse the total impairment loss on account of change in value due to impairment component and exchange component.

## SOLUTION

Ignoring depreciation, the loss that would be reported in the Profit & Loss as a result of the impairment is as follows:

	£
*Carrying value at balance sheet date-US\$ 16,20,000 @ £ 1.8 =	9,00,000
Historical cost- US\$ 18,00,000 @ £ 1.6 =	11,25,000
Impairment loss recognised in profit and loss	(2,25,000)
The components of the impairment loss can be analysed as follows:	
Change in value due to impairment = US\$ 1,80,000# @ £ 1.8 =	(1,00,000)
Exchange component of change =	
US\$ 18,00,000 @ 1.8 - US\$ 18,00,000 @ £ 1.6	(1,25,000)

\* Recoverable Amount being less than cost becomes the Carrying Value.

#  $18,00,000 - 16,20,000 = 1,80,000$

### Q7 (May. 21)

On 31 March 20X1, Vision Ltd acquired 80% of the equity shares of Mission Ltd for Rs.190 million. The fair values of the net assets of Mission Ltd that were included in the consolidated statement of financial position of Vision Ltd at 31 March 20X1 were Rs.200 million. It is the Group's policy to value the non-controlling interest in subsidiaries at the date of acquisition at its proportionate share of the fair value of the subsidiaries' identifiable net assets.

On 31 March 20X4, Vision Ltd carried out its annual review of the goodwill on consolidation of Mission Ltd and found evidence of impairment. No impairment had been evident when the reviews were carried out on 31 March 20X2 and 31 March 20X3. The review involved allocating the assets of Mission Ltd into three cash generating units and computing the value in use of each unit. The carrying values of the individual units before any impairment adjustments are given below.

	Unit A Rs. in million	Unit B Rs. in million	Unit C Rs. in million
Intangible assets	30	10	-
Property, Plant and Equipment	80	50	60
Current Assets	60	30	40
	170	90	100
<b>Carrying Values</b>	<b>180</b>	<b>66</b>	<b>104</b>
<b>Total Value in use of unit</b>			

It was not possible to meaningfully allocate the goodwill on consolidation to the individual cash generating units but all the other net assets of Mission Ltd are allocated in the table shown above.

The intangible assets of Mission Ltd have no ascertainable market value but all the current assets have a market value that is at least equal to their carrying value. The value in use of Mission Ltd as a single cash-generating unit on 31 March 20X4 is Rs.350 million.

Discuss and compute the accounting treatment of impairment of goodwill as per Ind AS 36?

## SOLUTION

The goodwill on consolidation of Mission Ltd that is recognized in the consolidated balance sheet of Vision Ltd is Rs. 30 million (Rs.190 million – 80% x Rs.200 million). This can only be reviewed for impairment as part of the cash generating units to which it relates. Since here the goodwill cannot be meaningfully allocated to the units, the impairment review is done in two parts.

Units A and C have values in use that are more than their carrying values. However, the value in use of Unit B is less than its carrying amount. This means that the assets of unit B are impaired by Rs. 24 million (Rs. 90 million – Rs.66 million). This impairment loss will be charged to the statement of profit and loss.

**Assets of Unit B will be written down on a pro-rata basis as shown in the table:**

(Rs. in million)

Asset	Impact on carrying value		
	Existing	Impairment	Revised
Intangible assets	10	(4)#	6
Property, plant and Equipment	50	(20)##	30
Current assets	30	Nil*	30
<b>Total</b>	<b>90</b>	<b>(24)</b>	<b>66</b>

\* The current assets are not impaired because they are expected to realize at least their carrying value when disposed of.

$$\# 24 \times 10/60 = 4$$

$$\## 24 \times 50/60 = 20$$

Following this review, the three units plus the goodwill are reviewed together i.e. treating Mission Limited as a single cash generating Unit. The impact of this is shown in the following table, given that the recoverable amount of the business as a whole is Rs.350 million:

Rs. in million

Component	Impact of impairment review on carrying value		
	Existing	Impairment	Revised
Goodwill (see note below)	37.50	23.50)	14.00
Unit A	170.00	Nil	170.00
Unit B (revised)	66.00	Nil	66.00
Unit C	100.00	Nil	100.00
<b>Total</b>	<b>373.50</b>	<b>(23.50)</b>	<b>350.00</b>

Note: As per Ind AS 36, given that the subsidiary is 80% owned the goodwill must first be grossed up to reflect a notional 100% investment. Therefore, the goodwill will be grossed up to Rs.37.50 million (Rs.30 million x 100/80).

The impairment loss of Rs.23.50 million (373.50-350) is all allocated to goodwill, leaving the carrying values of the individual units of the business as shown in the table immediately above.

The table shows that the notional goodwill that relates to a 100% interest is written down by Rs.23.50 million to Rs.14.00 million. However, in the consolidated financial statements the goodwill that is recognized is based on an 80% interest so the loss that is actually recognized is Rs.18.80 million (Rs.23.50 million x 80%) and the closing consolidated goodwill figure is Rs.11.20 million (Rs. 14.00 million x 80%) or (Rs.30p– Rs.18.80 million).

## MTPs QUESTIONS

### Q8 (Aug.18)

Great Ltd., acquired a machine on 1st April, 2012 for Rs. 7 crore that had an estimated useful life of 7 years. The machine is depreciated on a straight line basis and does not carry any residual value. On 1st April, 2016, the carrying value of the machine was reassessed at Rs. 5.10 crore and the surplus arising out of the revaluation was credited to revaluation reserve. For the year ended March 2018, conditions indicating an impairment of the machine existed and the amount recoverable ascertained to be only Rs. 79 lakhs.

Calculate the loss on impairment of the machine and show how this loss is to be treated in the books of Great Ltd. Great Ltd., had followed the policy of writing down the revaluation surplus by the increased charge of depreciation resulting from the revaluation.

### SOLUTION

#### **Statement Showing Impairment Loss**

	Rs. in crores
Carrying amount of the machine as on 1st April, 2012	7.00
Depreciation for 4 years i.e. 2012-2013 to 2015-2016 [7 crores x 4 years / 7 years]	(4.00)
Carrying amount as on 31.03.2016	3.00
Add: Upward Revaluation (credited to Revaluation Reserve account)	2.10
Carrying amount of the machine as on 1st April 2016 (revalued)	5.10
Less: Depreciation for 2 years i.e. 2016-2017 & 2017-2018 [5.10 crores x 2 years / 3 years]	(3.40)
Carrying amount as on 31.03.2018	1.70
Less: Recoverable amount	(0.79)
Impairment loss	0.91
Impairment loss set off against revaluation reserve balance as per para 58 of AS 28 "Impairment of Assets" (refer W.N 1.)	(0.70)
<b>Impairment Loss to be debited to profit &amp; loss account</b>	<b>0.21</b>

#### **W.N 1.**

<b>Balance in revaluation reserve as on 31.03.2018:</b>	
Balance in revaluation reserve as on 31.03.2016	2.10
Less: Enhanced depreciation met from revaluation reserve	(1.40)
2016-2017 & 2017-2018 = [(1.70-1.00) x 2 years]	
Impairment Loss available for set off	0.70

### Q9 (March19 – 5 Marks)

X Ltd. purchased a Property, Plant and Equipment four years ago for Rs. 150 lakhs and depreciates it at 10% p.a. on the straight line method. At the end of the fourth year, it has revalued the asset at Rs. 75 lakhs and has written off the loss on revaluation to the profit and loss account. However, on the date of revaluation, the market price is Rs. 67.50 lakhs and expected disposal costs are Rs. 3 lakhs. What will be the treatment in respect of impairment loss on the basis that fair value for revaluation purpose is determined by market value and the value in use is estimated at Rs. 60 lakhs?

## SOLUTION

### Treatment of Impairment Loss

1. As per IND AS 36 "Impairment of assets", if the recoverable amount (higher of fair value, less cost to dispose and its value in use) of an asset is less than its carrying amount, the carrying amount of the asset should be reduced to its recoverable amount.
2. In the given case, net selling price is Rs. 64.50 lakhs (Rs. 67.50 lakhs – Rs. 3 lakhs) and value in use is Rs. 60 lakhs. Therefore, the recoverable amount will be Rs. 64.50 lakhs. Impairment loss will be calculated as Rs. 10.50 lakhs [Rs. 75 lakhs (Carrying Amount after revaluation – Refer Working Note) less Rs. 64.50 lakhs (Recoverable Amount)].
3. Thus, impairment loss of Rs.10.50 lakhs should be recognised as an expense in the Statement of Profit and Loss immediately since there was downward revaluation of asset which was already charged to Statement of Profit and Loss.

### **Working Note:**

**Calculation of carrying amount of the Property, Plant & Equipment at the end of the fourth year on revaluation**

	(Rs. in lakhs)
Purchase price of a Property, Plant and Equipment	150.00
Less: Depreciation for four years [(150 lakhs / 10 years) x 4 years]	(60.00)
Carrying value at the end of fourth year	90.00
Less: Downward revaluation charged to profit and loss account	(15.00)
<b>Revalued carrying amount</b>	<b>75.00</b>

Recoverable amount = 64.50 lakhs

Impairment loss = 10.50 lakhs

## QUESTIONS FROM PAST EXAM PAPERS

### Q10 (Nov. 18 – 10 Marks)

XYZ Limited has three cash-generating units - X, Y and Z, the carrying amounts of which as on 31st March, 2018 are as follows:

Cash Generating Units	Carrying Amount (Rs. in lakh)	Remaining useful life in years
X	800	20
Y	1000	10
Z	1200	20

XYZ Limited also has corporate assets having a remaining useful life of 20 years as given below:

Corporate Assets	Carrying amount (Rs. in lakh)	Remarks
AU	800	The carrying amount of AU can be allocated on a reasonable basis to the individual cash generating units.
BU	400	The carrying amount of BU cannot be allocated on a reasonable basis to the individual cash-generating units.

Recoverable amounts as on 31st March, 2018 are as follows:

Cash-generating units	Recoverable amount (Rs. in lakh)
X	1000
Y	1200
Z	1400
XYZ Limited	3900

Calculate the impairment loss if any of XYZ Ltd. Ignore decimals.

### SOLUTION

#### (i) Allocation of corporate assets to CGU

The carrying amount of AU is allocated to the carrying amount of each individual cash-generating unit. A weighted allocation basis is used because the estimated remaining useful life of Y's cash-generating unit is 10 years, whereas the estimated remaining useful lives of X and Z's cash-generating units are 20 years.

		(Rs in lakh)			
	Particulars	X	Y	Z	Total
(a)	Carrying amount	800	1000	1,200	3,000
(b)	Useful life	20 years	10 years	20 years	
(c)	Weight based on useful life	2	1	2	
(d)	Carrying amount (after assigning weight) (a x c)	1,600	1,000	2,400	5,000
(e)	Pro-rata allocation of AU	32%	20%	48%	100%
		(1,600/5,000)	(1,000/5,000)	(2,400/5,000)	
(f)	Allocation of carrying amount of AU (32: 20: 48)	256	160	384	800
(g)	Carrying amount (after allocation of AU) (a + f)	1,056	1,160	1,584	3,800

**note** - don't do (d+f). 'd' is just for allocation purposes. Carrying amount will be the same as before allocating the amount of AU

**(ii) Calculation of impairment loss**

**Step 1: Impairment losses for individual cash-generating units and its allocation**

**(a) Impairment loss of each cash-generating units**

Rs in lakh)			
Particulars	X	Y	Z
Carrying amount (after allocation of AU)	1,056	1,160	1,584
Recoverable amount	1,000	1,200	1,400
Impairment loss	56	Nil	184

**(b) Allocation of the impairment loss (after rounding off)**

(Rs in lakh)				
Allocation to	X		Z	
AU	14	(56x256/1,056)	45	(184x384/1,584)
Other assets in cash-generating units	42	(56x800/1056)	139	(184x1,200/1,584)
Impairment loss	56		184	

**Step 2: Impairment loss for the larger cash-generating unit, i.e., XYZ Ltd. as a whole**

Rs in lakh						
Particulars	X	Y	Z	AU	BU	XYZ Ltd.
Carrying amount	800	1,000	1,200	800	400	4,200
Impairment loss (Step 1)	(42)	-	(139)	(59)	-	(240)
Carrying amount (after Step 1)	758	1,000	1,061	741	400	3,960
Recoverable amount						3,900
Impairment loss for the 'larger' cash-generating unit						60

\*Rs14 lakh + Rs45 lakh = Rs59 lakh.

**Q11 (Nov 18 – 5 Marks) - rearranged the working notes**

A machine was acquired by ABC Ltd. 15 years ago at a cost of Rs20 crore. Its accumulated depreciation as at 31<sup>st</sup> March, 2018 was Rs16.60 crore. Depreciation estimated for the financial year 2018-19 is Rs1 crore. Estimated Net Selling Price of the machine as on 31<sup>st</sup> March, 2018 was Rs1.20 crore, which is expected to decline by 20 per cent by the end of the next financial year.

Its value in use has been computed at Rs1.40 crore as on 1<sup>st</sup> April, 2018, which is expected to decrease by 30 per cent by the end of the financial year. Assuming that other conditions of relevant Ind AS for applicability of the impairment are satisfied:

- (i) What should be the carrying amount of this machine as at 31<sup>st</sup> March, 2019?
- (ii) How much will be the amount of write off (impairment loss) for the financial year ended 31<sup>st</sup> March, 2019?
- (iii) If the machine had been revalued ten years ago and the current revaluation reserves against this plant were to be Rs48 lakh, how would you answer the questions in (i) and (ii) above?





(iv) If the value in use was zero and the company was required to incur a cost of Rs8 lakh to dispose of the plant, what would be your response to questions (i) and (ii) above?

## **SOLUTION**

As per the requirement of the question, the following solution has been drawn on the basis

(Rs in crore)	
(i) Carrying amount of plant (before impairment) as on 31st March, 2019	2.40
Carrying amount of plant (after impairment) as on 31st March, 2019	0.98

**Working Notes:**

**(1) Calculation of Closing Book Value, as at 31st March, 2019**

Rs. in crore	
Opening book value as on 1.4.2018 Rs20 crore -16.60 crore)	3.40
Less: Depreciation for financial year 2018-2019	(1.00)
Closing book value as on 31.3.2019 (before impairment)	2.40

**(2) Calculation of Estimated Net Selling Price on 31st March, 2019**

Rs. in crore	
Estimated net selling price as on 1.4.2018	1.20
Less: Estimated decrease during the year (20% of Rs1.20 Cr.)	(0.24)
Estimated net selling price as on 31.3.2019	0.96

**(3) Calculation of Estimated Value in Use of Plant on 31st March, 2019**

Rs. in crore	
Estimated value in use as on 1.4.2018	1.40
Less: Estimated decrease during the year (30% of Rs1.40 Cr.)	(0.42)
Estimated value in use as on 31.3.2019	0.96

**(4) Recoverable amount as on 31.3.2019 is equal to higher of Net selling price and value in use**

Rs. in crore	
Net selling price	0.96
Value in use	0.98
Recoverable amount	0.98
Impairment Loss [Carrying amount - Recoverable amount i.e. (2.40 Cr. - 0.98 Cr)]	1.42
Revised carrying amount on 31.3.2019 is equal to Recoverable amount (after impairment)	0.98 Cr.

(Rs in crore)	
(ii) Amount of impairment loss for the financial year ended 31st March, 2019 (2.4 Cr.- 0.98 Cr)	1.42
(iii) If the plant had been revalued ten years ago, bal. in Reval Reserve = 0.48	
Debit to revaluation reserve	0.48
Amount charged to profit and loss (1.42 - 0.48)	0.94
(iv) If Value in use was zero	
Value in use (a)	Nil
Net selling price (b)	(0.08)
Recoverable amount [higher of (a) and (b)]	Nil
Carrying amount (closing book value)	Nil
Amount of write off (impairment loss) (Rs. 2.4 Cr* - Nil)	2.4

Entire book value of plant will be written off and charged to profit and loss account.

\* Carrying amount before impairment on 31/03/2019 = 2.4Cr

### Alternate Answer

**Note:** Since question requires computation of Impairment Loss on 31.3.2019, hence impairment probability on 31.3.2018 has been ignored. However, since there is an impairment probability at the beginning of the year as well, one may calculate the carrying amount at the beginning of the year after impairment and then calculate the impairment possibilities at the end of the year.

Accordingly, the solution will be as follows:

	Rs. in crore
Carrying amount before impairment on 1.4.2018 (20 - 16.60)	3.40
Recoverable amount i.e. higher of NSP (1.20 cr) and Value in use (1.40 cr)	1.40
Impairment loss	2.00
Revised carrying amount after impairment as on 1.4.2018	1.40
Less: Depreciation for 2018-2019 (as given in the question)	(1.00)
Carrying amount as on 31.3.2019	0.40
Recoverable amount as on 31.3.2019 (Refer W.N. 2, 3 and 4 above)	0.98
<b>Impairment Loss as on 31.3.2019 (since carrying amount is less than recoverable amount)</b>	<b>NIL</b>

### Q12 (May 19 - 4 Marks) - Similar to Q.8

KAPC Ltd. acquired a machine on 1<sup>st</sup> April, 2010 for 10 crore that had an estimated useful life of 8 years. The machine is depreciated on a straight line basis and does not carry any residual value. On 1<sup>st</sup> April, 2014, the carrying value of the machine was reassessed at Rs. 7.10 crore and surplus arising out of the revaluation being credited to revaluation reserve.

For the year ended March, 2016 conditions indicating an impairment of the machine existed and the amount recoverable ascertained to be only Rs. 1.09 crore. You are required to calculate the loss on impairment of the machine and show how this loss is to be treated in the books of KAPC Ltd.

KAPC Ltd, had followed the policy of writing down the revaluation surplus by the increased charge of depreciation resulting from revaluation as per INDAS 36.

### SOLUTION

#### STATEMENT SHOWING IMPAIRMENT LOSS

	(in crore)
Carrying amount of the machine as on 1 <sup>st</sup> April, 2010	10.00
Depreciation for 4 years i.e. 2010-2011 to 2013-2014	(5.00)
<b>Carrying amount as on 31.03.2014</b>	<b>5.00</b>
Add: Upward Revaluation (credited to Revaluation Reserve account)	2.10
<b>Carrying amount of the machine as on 1<sup>st</sup> April, 2014 (revalued)</b>	<b>7.10</b>
Less: Depreciation for 2 years i.e. 2014-2015 and 2015-2016	(3.55)
<b>Carrying amount as on 31.03.2016</b>	<b>3.55</b>

Less: Recoverable amount	(1.09)
<b>Impairment loss</b>	<b>2.46</b>
Less: <b>Balance in revaluation reserve as on 31.03.2016:</b>	
Balance in revaluation reserve as on 31.03.2014 2.10	
Less: Enhanced depreciation met from revaluation reserve	
2014-2015 and 2015-2016 = [(1.775 -1.25) x 2year	(1.05)
Impairment loss set off against revaluation reserve balance as per of INDAS 36 "Impairment of Assets"	(1.05)
<b>Impairment Loss to be debited to profit and loss account</b>	<b>1.41</b>

### Q13. (Nov. 20) - Similar to Q.11

Pacific Ocean Railway Ltd. has three Cash Generating units namely Train, Railway station and Railway tracks, the carrying amounts of which as on March 31<sup>st</sup>, 2020 are as follows:

Cash Generating Units	Carrying Amount (Rs. in Cr.)	Remaining Useful Life
Train	1500	10
Railway Station	2250	20
Railway Track	3300	20

Pacific Ocean Railway Ltd. also has two Corporate Assets having a remaining useful life of 20 years.

		(₹ in crore)
Corporate Assets	Carrying amount	Remarks
Land	1,800	The carrying amount of Land can be allocated on a reasonable basis (i.e., pro rata basis) to the individual cash-generating units.
Building	600	The carrying amount of Buildings cannot be allocated on a reasonable basis to the individual cash-generating units.

Recoverable amount as on March 31<sup>st</sup>, 2020 is as follows:

Cash Generating units	Recoverable amount (₹ in crore)
Train	1,800
Railway station	2,700
Railway tracks	4,200
Company as a whole	9,600

Calculate the impairment loss, if any. Ignore decimals.

### SOLUTION

#### Allocation of corporate assets

The carrying amount of land is allocated to the carrying amount of each individual cash generating unit. A weighted allocation basis is used because the estimated remaining useful life of Train's cash-generating unit is

10 years, whereas the estimated remaining useful lives of Railway station and Railway track's cash-generating units are 20 years.

(Rs. in crore)				
Particulars	Train	Railway station	Railway tracks	Total
Carrying amount (a)	1,500	2,250	3,300	7,050
Useful life	10 years	20 years	20 years	-
Weight based on useful life	1	2	2	-
Carrying amount (after assigning weight)	1,500	4,500	6,600	12,600
Pro-rata allocation of Land	12%	36%	52%	100%
	(1,500/12,600)	(4,500/12,600)	(6,600/12,600)	
Allocation of carrying amount of Land (b)	216	648	936	1,800
Carrying amount (after allocation of Land) (a + b)	1,716	2,898	4,236	8,850

### Calculation of impairment loss

Step I: Impairment losses for individual cash-generating units and its allocation:

(a) Impairment loss of each cash-generating units

(Rs. in crore)			
Particulars	Train	Railway station	Railway tracks
Carrying amount (after allocation of land)	1,716	2,898	4,236
Recoverable amount	1,800	2,700	4,200
Impairment loss	-	198	36

(b) Allocation of the impairment loss

(Rs in crore)				
Allocation to	Railway station		Railway tracks	
Land	44	[198 x (648 / 2,898)]	8	[36 x (936 / 4,236)]
Other assets in cash-generating units	154	[198 x 2,250 / 2,898]	28	[36 x (3,300 / 4,236)]
Impairment loss	198		36	

Step II: Impairment losses for the larger cash-generating unit, i.e., Pacific Ocean Railway Ltd. as a whole

(Rs. in crore)						
Particulars	Train	Railway station	Railway tracks	Land	Building	Pacific Ocean Railway Ltd.
Carrying amount	1,500	2,250	3,300	1,800	600	9,450
Impairment loss (Step I)	-	(154)	(28)	(52)	-	(234)
Carrying amount (after Step I)	1,500	2,096	3,272	1,748	600	9,216
Recoverable amount						9,600
Impairment loss for the 'larger' cash-generating unit						Nil