TOPIC - 9
ACCOUNTING STANDARD - 28
IMPAIRMENT OF ASSETS

Index

Sr. No.	Particulars	Page No.	No. of Question
1	SERIES 100 – IMPAIRMENT OF INDIVIDUAL ASSETS	9.1	7
2	SERIES 200 – IMPAIRMENT OF CGU INCLUDING GOODWILL AND CORPORATE ASSET	9.7	2
3	SERIES 300 – REVERSAL OF IMPAIRMENT LOSS	9.8	1
4	SERIES 400 – MISCELLANEOUS QUESTIONS	9.9	2

SERIES 100 – IMPAIRMENT OF INDIVIDUAL ASSETS

Q.AS28.SM.101

X Ltd. is having a plant (asset) carrying amount of which is ₹ 100 lakhs on 31.3.20X1. Its balance useful life is 5 years and residual value at the end of 5 years is ₹ 5 lakhs. Estimated future cash flow from using the plant in next 5 years are:

For the year ended on	Estimated cash flow (₹ in lakhs)
31.3.20X2	50
31.3.20X3	30
31.3.20X4	30
31.3.20X5	20
31.3.20X6	20

Calculate "value in use" for plant if the discount rate is 10% and also calculate the recoverable amount if net selling price of plant on 31.3.20X1 is ₹ 60 lakhs

Q.AS28.SM.102

Ergo Industries Ltd. gives the following estimates of cash flows relating to Property, Plant and Equipment on 31-12-20X1. The discount rate is 15%

Year	Cash Flow (₹ in lakhs)
20×2	4000
20×3	6000
20×4	6000
20×5	8000
20×6	4000

Residual value at the end of 20X6	= ₹ 1000 lakhs
Property, Plant and Equipment purchased on 1-1-20XX	= ₹ 40,000 lakh
Useful life	= 8 years

Net selling price on 31-12-20X1 = ₹20,000 lakhs

Calculate on 31-12-20X1:

(a) Carrying amount at the end of 20X1
(b) Value in use on 31-12-20X1
(c) Recoverable amount on 31-12-20X1
(d) Impairment loss to be recognized for the year ended 31-12-20X1
(e) Revised carrying amount.
(f) Depreciation charge for 20X2.

Note: The year 20XX is the immediate preceding year before the year 20X0.

Q.AS28.SM.103

G Ltd., acquired a machine on 1st April, 20X0 for ₹ 7 crore that had an estimated useful life of 7 years. The machine is depreciated on straight line basis and does not carry any residual value. On 1st April, 20X4, the carrying value of the machine was reassessed at ₹ 5.10 crore and the surplus arising out of the revaluation being credited to revaluation reserve. For the year ended March, 20X6, conditions indicating an impairment of the machine existed and the amount recoverable ascertained to be only ₹ 79 lakhs. 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 G Ltd. G Ltd., had followed the policy of writing down the revaluation surplus by the increased charge of depreciation resulting from the revaluation.

Q.AS28.SM.104

X Ltd. purchased a Property, Plant and Equipment four years ago for ₹ 150 lakhs and depreciates it at 10% p.a. on straight line method. At the end of the fourth year, it has revalued the asset at ₹ 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 ₹ 67.50 lakhs and expected disposal costs are ₹ 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 ₹ 60 lakhs?

Q.AS28.SM.105

Venus Ltd. has a fixed asset, which is carried in the Balance Sheet on 31.3.20X1 at ₹ 500 lakhs. As at that date the value in use is ₹ 400 lakhs and the net selling price is ₹ 375 lakhs. From the above data:

a) Calculate impairment loss.
b) Prepare journal entries for adjustment of impairment loss.
c) Show, how impairment loss will be shown in the Balance Sheet.

Q.AS28.SM.106

From the following details of an asset

(i) Find out impairment loss

(ii) Treatment of impairment loss

(iii) Current year depreciation

Particulars of Asset:

Cost of asset	₹ 56 lakhs
Useful life period	10 years
Salvage value	Nil
Current carrying value	₹27.30 lakhs
Useful life remaining	3 years
Recoverable amount	₹12 lakhs
Upward revaluation done in last year	₹14 lakhs

Q.AS28.SM.107

A plant was acquired 15 years ago at a cost of ₹ 5 crores. Its accumulated depreciation as at 31st March, 20X1 was ₹ 4.15 crores. Depreciation estimated for the financial year 20X1-20X2 is ₹ 25 lakhs. Estimated Net Selling Price as on 31st March, 20X1 was ₹ 30 lakhs, which is expected to decline by 20 percent by the end of the next financial year.

Its value in use has been computed at ₹ 35 lakhs as on 1st April, 20X1, which is expected to decrease by 30 per cent by the end of the financial year.

(i) Assuming that other conditions for applicability of the impairment Accounting Standard are satisfied, what should be the carrying amount of this plant as at 31st March, 20X2?

(ii) How much will be the amount of write off for the financial year ended 31st March, 20X2?

(iii) If the plant had been revalued ten years ago and the current revaluation reserves against this plant were to be ₹ 12 lakhs, how would you answer to questions (i) and (ii) above?

(iv) If the value in use was zero and the enterprise were required to incur a cost of ₹ 2 lakhs to dispose of the plant, what would be your response to questions (i) and (ii) above?

SOLUTIONS OF ABOVE QUESTIONS OF SERIES 100

Solution Q101

PRESENT VALUE OF FUTURE CASH FLOW

Year Ended	Future Cash Flow	Discounting @ 10% Rate	Discounted Cash Flows
31.3.20x2	50	0.909	45.45
31.3.20x3	30	0.826	24.78
31.3.20x4	30	0.751	22.53
31.3.20x5	20	0.683	13.66
31.3.20x6	20	0.620	12.40
			118.82
Present value of residual price on 31.3.20X6 = 5 · 0.620			3.10
Present value of estimated cash flow by use of an asset and residual value, which is called "value in use".			121.92

Solution: Q102

Calculation of Value in Use

Year	Cash flow	Discount as per 15%	Discounted cash flow
20x2	4,000	0.870	3,480
20x3	6,000	0.756	4,536
20x4	6,000	0.658	3,948
20x5	8,000	0.572	4,576
20x6	4,000	0.497	1,988
20x6	1,000 (Residual)	0.497	497
			19,025

a) **Calculation of carrying amount:**
   ii. Original cost = ₹ 40,000 lakhs
   iii. Depreciation for 3 years = [(40,000-1000)·3/8] = ₹ 14,625 lakhs
   iv. Carrying amount on 31-12-20X1 = [40,000-14,625] = ₹ 25,375 lakhs

b) Value in use = ₹ 19,025 lakhs
c) Recoverable amount = higher of value in use and net selling price i.e. ₹ 20,000 lakhs
d) Impairment Loss = ₹ (25,375-20,000) = ₹ 5,375 lakhs
e) Revised carrying amount = ₹ (25,375-5,375) = ₹ 20,000 lakhs
f) Depreciation charge for 20X2 = (20,000-1000)/5 = ₹ 3,800 lakhs

Solution Q103

Statement Showing Impairment Loss

	(₹ in crores)
Carrying amount of the machine as on 1st April, 20X0	7.00
Depreciation for 4 years i.e. 20X0-20X1 to 20X3-20X4 (7 crores / 7 years x 4 years)	(4.00)
Carrying amount as on 31.03.20X4	**3.00**
Add: Upward Revaluation (credited to Revaluation Reserve account)	2.10
Carrying amount of the machine as on 1st April, 20X4 (revalued)	**5.10**
Less: Depreciation for 2 years i.e. 20X4-20X5 & 20X5-20X6 (5.10/3 years x 2 years)	(3.40)
Carrying Amount as on 31.03.20x6	1.70
Less: Recoverable Amount	(0.79)
Impairment Loss	**0.91**
Less: Balance in revaluation reserve as on 31.03.20X6:	2.10
Balance in revaluation reserve as on 31.03.20X4:	1.40
Less: Enhanced Depreciation met from revaluation reserve 20X4-X5 AND 20X5-X6 = [(1.70 – 1.00) X 2 YEARS]	0.70

Impairment Loss set off against revaluation reserve balance Impairment Loss to be debited to Profit and Loss Account	**0.71** **0.21**

Solution Q104

Treatment of Impairment Loss

As per para 57 of AS 28 "Impairment of assets", if the recoverable amount (higher of net selling price 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. In the given case, net selling price is ₹ 64.50 lakhs (₹ 67.50 lakhs – ₹ 3 lakhs) and value in use is ₹ 60 lakhs. Therefore, recoverable amount will be ₹ 64.50 lakhs. Impairment loss will be calculated as ₹ 10.50 lakhs [₹ 75 lakhs (Carrying Amount after revaluation - Refer Working Note) less ₹ 64.50 lakhs (Recoverable Amount)]

Thus impairment loss of ₹ 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 and Equipment at the end of the fourth year on revaluation

	(₹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)
Revalued carrying amount	**75.00**

Solution Q105

- Recoverable amount is higher of value in use ₹400 lakhs and net selling price ₹ 375 lakhs.
- Recoverable amount = ₹400 lakhs
- Impairment loss = Carried Amount – Recoverable amount = ₹500 lakhs – ₹400 lakhs = ₹ 100 lakhs.

JOUNRAL ENTRIES

	Particulars	**Dr. Amount (₹ in lakhs)**	**Cr. Amount (₹ in lakhs)**
(i)	Impairment loss account Dr. To Provision for Accumulated Impairment Loss (Being the entry for accounting impairment loss)	100	 100
(ii)	Profit and loss account Dr. To Impairment loss (Being the entry to transfer impairment loss to profit and loss account)	 100	 100

Balance Sheet of Venus Ltd. as on 31.3.20X1

	(₹ in lakhs)
Fixed Asset	500
Asset less depreciation	(100)
Less: Impairment loss	**400**

SOLUTION Q106

According to AS 28 "Impairment of Assets", an impairment loss on a revalued asset is recognised as an expense in the statement of profit and loss. However, an impairment loss on a revalued asset is recognised directly against any revaluation surplus for the asset to the extent that the impairment loss does not exceed the amount held in the revaluation surplus for that same asset.

Impairment Loss and its treatment	
Current carrying amount (including revaluation amount of ₹ 14 lakhs) Less: Current recoverable amount **Impairment Loss**	27,30,000 (12,00,000) **15,30,000**
Impairment loss charged to revaluation Reserve Impairment loss charged to profit and loss account	14,00,000 1,30,000

After the recognition of an impairment loss, the depreciation (amortization) charge for the asset should be adjusted in future periods to allocate the asset's revised carrying amount, less its residual value (if any), on a systematic basis over its remaining useful life.

In the given case, the carrying amount of the asset will be reduced to ₹ 12,00,000 after impairment. This amount is required to be depreciated over remaining useful life of 3 years (including current year). Therefore, the depreciation for the current year will be ₹ 4,00,000.

SOLUTION Q107

As per AS 28 "Impairment of Assets", if the recoverable amount* of an asset is less than its carrying amount, the carrying amount of the asset should be reduced to its recoverable amount and that reduction is an impairment loss. An impairment loss on a revalued asset is recognized as an expense in the statement of profit and loss. However, an impairment loss on a revalued asset is recognised directly against any revaluation surplus for the asset to the extent that the impairment loss does not exceed the amount held in the revaluation surplus for that same asset. In the given case, recoverable amount (higher of asset's net selling price and value in use) will be ₹ 24.5 lakhs on 31.3.20X2 according to the provisions of AS 28 [Refer working note].

		(₹ in lakhs)
(i)	Carrying amount of plant (after impairment) as on 31st March, 20X2	24.50
(ii)	Amount of write off (impairment loss) for the financial year ended 31st March, 20X2 [₹ 60 lakhs – ₹ 24.5 lakhs]	35.50
(iii)	If the plant had been revalued ten years ago	
	Debit to revaluation reserve	12.00
	Amount charged to profit and loss account (₹ 35.50 lakhs – ₹ 12 lakhs)	23.50
(iv)	If Value in use is zero	
	Value in use (a)	Nil
	Net selling price (b)	(-)2.00
	Recoverable amount [higher of (a) and (b)]	Nil
	Carrying amount (closing book value)	Nil
	Amount of write off (impairment loss) (₹ 60 lakhs – Nil)	60.00
	Entire book value of plant will be written off and charged to profit and loss account.	

Working Note:

Calculation of Closing Book Value, Estimated Net Selling Value and Estimated Value in Use of Plant at 31st March, 20X2

	(₹ in lakhs)
Opening book value as on 1.4.20X1 (₹ 500 lakhs – ₹ 415 lakhs)	85
Less: Depreciation for financial year 20X1-20X2	(25)
Closing book value as on 31.3.20X2	**60**
Estimated net selling price as on 1.4.20X1	30
Less: Estimated decrease during the year (20% of ₹ 30 lakhs)	(6)
Estimated net selling price as on 31.3.20X2	**24**

Estimated value in use as on 1.4.20X1	35.0
Less: Estimated decrease during the year (30% of ₹ 35 lakhs)	(10.5)
Estimated value in use as on 31.3.20X2	**24.5**

SERIES 200 – IMPAIRMENT OF CGU INCLUDING GOODWILL AND CORPORATE ASSET

Q.AS28.SM.201 (CGU)

Good Drugs and Pharmaceuticals Ltd. acquired a sachet filling machine on 1 st April, 20X1 for ₹ 60 lakhs. The machine was expected to have a productive life of 6 years. At the end of financial year 20X1-20X2 the carrying amount was ₹ 41 lakhs. A short circuit occurred in this financial year but luckily the machine did not get badly damaged and was still in working order at the close of the financial year. The machine was expected to fetch ₹ 36 lakhs, if sold in the market. The machine by itself is not capable of generating cash flows. However, the smallest group of assets comprising of this machine also, is capable of generating cash flows of ₹ 54 crore per annum and has a carrying amount of ₹ 3.46 crore. All such machines put together could fetch a sum of ₹ 4.44 crore if disposed. Discuss the applicability of Impairment loss.

ANSWER: Q201

As per provisions of AS 28 "Impairment of Assets", impairment loss is not to be recognized for a given asset if its cash generating unit (CGU) is not impaired. In the given question, the related cash generating unit which is group of asset to which the damaged machine belongs is not impaired; and the recoverable amount is more than the carrying amount of group of assets. Hence there is no need to provide for impairment loss on the damaged sachet filling machine.

Q.AS28.OM.202 (CA FINAL)

A Ltd. gives following information

Asset	Carrying Amount	Cash generating unit
A	1,00,000	1
B	2,00,000	3
C	3,00,000	2
D	3,50,000	2
E	70,000	1
F	8,00,000	3
G	2,20,000	2
H	4,50,000	1
Goodwill X	90,000	Allocate in ratio 1:1:1
Goodwill Y	60,000	Unallocable
Corporate:		
Asset P	1,50,000	Allocate in ratio 3:2:1
Asset Q	2,00,000	Unallocable

Recoverable Amount of Cash generating Unit: 1 – 6,70,000; 2 – 8,40,000 and 3 – 10,30,000 Recoverable Amount of Entity: Case A – 25,50,000; Case B – 25,40,000. Calculate impairment loss.

SERIES 300 – REVERSAL OF IMPAIRMENT LOSS

Q.AS28.OM.301 (CA FINAL)

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:

. Calculation and allocation of impairment loss in 20X4.

. Reversal of impairment loss and its allocation as per AS 28 in 20X6.

Solution

(Assuming goodwill is amortised over 5 years as per AS 14)

(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.)	400	(1,467)	(1,467)
Carrying amount before impairment	100	4,033	4,133
Impairment loss*	(100)	(913)	(1013)
Carrying amount after impairment loss	**0**	**3,120**	**3,120**

***Notes:**

1. As per AS 28, an impairment loss should be allocated to reduce the carrying amount of the assets of the unit in the following order:
   - first, to goodwill allocated to the cash-generating unit (if any); and
   - 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) x 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).

0. 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 x 6 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 AS 28, 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:

- its recoverable amount (if determinable); and
- 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.

Note:

Impairment Loss on Goodwill shall not be reversed except certain conditions.

SERIES 400 – MISCELLANEOUS QUESTIONS

Q.AS28.SM.401

A publisher owns 150 magazine titles of which 70 were purchased and 80 were self-created. The price paid for a purchased magazine title is recognized as an intangible asset. The costs of creating magazine titles and maintaining the existing titles are recognized as an expense when incurred. Cash inflows from direct sales and advertising are identifiable for each magazine title. Titles are managed by customer segments. The level of advertising income for a magazine title depends on the range of titles in the customer segment to which the magazine title relates. Management has a policy to abandon old titles before the end of their economic lives and replace them immediately with new titles for the same customer segment. What is the cash-generating unit for an individual magazine title?

Q.AS28.SM.402

An asset does not meet the requirements of environment laws which have been recently enacted. The asset has to be destroyed as per the law. The asset is carried in the Balance Sheet at the year end at ₹ 6,00,000. The estimated cost of destroying the asset is ₹ 70,000. How is the asset to be accounted for?

SOLUTIONS OF ABOVE QUESTIONS OF SERIES 400

Answer: Q401

It is likely that the recoverable amount of an individual magazine title can be assessed. Even though the level of advertising income for a title is influenced, to a certain extent, by the other titles in the customer segment, cash inflows from direct sales and advertising are identifiable for each title. In addition, although titles are managed by customer segments, decisions to abandon titles are made on an individual title basis.

Therefore, it is likely that individual magazine titles generate cash inflows that are largely independent of each other and that each magazine title is a separate cash-generating unit.

Answer: Q402

As per AS 28 "Impairment of Assets", impairment loss is the amount by which the carrying amount of an asset exceeds its recoverable amount, where recoverable amount is the higher of an asset's net selling price* and its value in use·. In the given case, recoverable amount will be nil [higher of value in use (nil) and net selling price (negative ₹ 70,000)]. Thus impairment loss will be calculated as ₹ 6,00,000 [carrying amount (₹ 6,00,000) – recoverable amount (nil)].

Therefore, asset is to be fully impaired and impairment loss of ₹ 6,00,000 has to be recognized as an expense immediately in the statement of Profit and Loss as per para 58 of AS 28.

*Net selling price is the amount obtainable from the sale of an asset in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal. In the given case, Net Selling Price = Selling price – Cost of disposal = Nil – ₹ 70,000 = (₹ 70,000)

·Value in use is the present value of estimated future cash flows expected to arise from the continuing use of an asset and from its disposal at the end of its useful life. In the given case, value in use is nil.

Further, as per para 60 of AS 28, When the amount estimated for an impairment loss is greater than the carrying amount of the asset to which it relates, an enterprise should recognise a liability if, and only if, that is required by another Accounting Standard. Hence, the entity should recognize liability for cost of disposal of ₹ 70,000 as per AS 10 & 29.