UNIT 3:
ACCOUNTING STANDARD 28: IMPAIRMENT OF ASSETS

LEARNING OUTCOMES

After studying this unit, you will be able to:

- Identify an asset that may be Impaired.
- Measure the recoverable amount after computing net selling price and value in use.
- Recognise and measure the impairment loss.
- Identify the cash generating units.
- Compute the recoverable amount and carrying amount of a cash-generating unit.
- Identify goodwill that whether it relates to the cash-generating unit.
- Impair the cash generating unit.
- Set out the requirements for reversing an impairment loss.
- Apply impairment provisions in case of discontinuing operations.
* FCF : Future Cash Flows
3.1 INTRODUCTION

AS 28 came into effect in respect of accounting period commenced on or after 1-4-2004 and is mandatory in nature from that date for the following:

(i) Enterprises whose equity or debt securities are listed on a recognised stock exchange in India, and enterprises that are in the process of issuing equity or debt securities that will be listed on a recognised stock exchange in India as evidenced by the board of directors’ resolution in this regard.

(ii) All other commercial, industrial and business reporting enterprises, whose turnover for the accounting period exceeds ₹ 50 crores.

In respect of all other enterprises, the Accounting Standard came into effect in respect of accounting periods commenced on or after 1-4-2005 and is mandatory in nature from that date.

This standard prescribes the procedures to be applied to ensure that the assets of an enterprise are carried at an amount not exceeding their recoverable amount (amount to be recovered through use or sale of the asset). The standard also lays down principles for reversal of impairment losses and prescribes certain disclosures in respect of impaired assets. An enterprise is required to assess at each balance sheet date whether there is an indication that an enterprise may be impaired. If such an indication exists, the enterprise is required to estimate the recoverable amount and the impairment loss, if any, should be recognised in the profit and loss account.

3.2 SCOPE

The standard should be applied in accounting for impairment of all assets except

1. inventories (AS 2),
2. assets arising under construction contracts (AS 7),
3. financial assets including investments covered under AS 13, and deferred tax assets (AS 22).

There are chances that the provision on account of impairment losses may increase sickness of companies and potentially sick companies may actually become sick.

Therefore, AS 28 applies to (among other assets):

- Land and buildings;
- Plant and machinery;
- Investment property;
• Intangible assets;
• Goodwill;
• Assets carried at revalued amounts under AS 10.

Example: Impairment of asset and its application to inventory

The objective of AS 28 ‘Impairment of Assets’ is to prescribe the procedures that an enterprise applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and this Statement requires the enterprise to recognize an impairment loss. This standard should be applied in accounting for the impairment of all assets, other than (i) inventories (AS 2, Valuation of Inventories); (ii) assets arising from construction contracts (AS 7, Accounting for Construction Contracts); (iii) financial assets, including investments that are included in the scope of AS 13, Accounting for Investments; and (iv) deferred tax assets (AS 22, Accounting for Taxes on Income). AS 28 does not apply to inventories, assets arising from construction contracts, deferred tax assets or investments because other accounting standards applicable to these assets already contain specific requirements for recognizing and measuring the impairment related to these assets.

3.3 ASSESSMENT

An enterprise should assess at each balance sheet date whether there is any indication that an asset may be impaired. If any such indication exists, the enterprise should estimate the recoverable amount of the asset. An asset is impaired when the carrying amount of the asset exceeds its recoverable amount. In assessing whether there is any indication that an asset may be impaired, an enterprise should consider, as a minimum, the following indications:

External sources of information

a. During the period, an asset’s market value has declined significantly more than would be expected as a result of the passage of time or normal use.

b. Significant changes with an adverse effect on the enterprise have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the enterprise operates or in the market to which an asset is dedicated.

c. Market interest rates or other market rates of return on investments have increased during the period, and those increases are likely to affect the discount rate used in calculating an asset’s value in use and decrease the asset’s recoverable amount materially.

d. The carrying amount of the net assets of the reporting enterprise is more than its market capitalization.
Internal sources of information

a. Evidence is available of obsolescence or physical damage of an asset.

b. Significant changes with an adverse effect on the enterprise have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, an asset is used or is expected to be used. These changes include plans to discontinue or restructure the operation to which an asset belongs or to dispose of an asset before the previously expected date and

c. Evidence is available from internal reporting that indicates that the economic performance of an asset is, or will be, worse than expected.

The concept of materiality applies in identifying whether the recoverable amount of an asset needs to be estimated.

If there is an indication that an asset may be impaired, this may indicate that the remaining useful life, the depreciation method or the residual value for the asset need to be reviewed and adjusted under the Accounting Standard 6, even if no impairment loss is recognised for the asset.

3.4 MEASUREMENT OF RECOVERABLE AMOUNT

Recoverable amount for an asset is defined by the statement as the higher of net selling price or value of use. If there is no reason to believe that an asset’s value in use materially exceeds its net selling price, the asset’s recoverable amount may be taken to be its net selling price. This will often be the case for an asset that is held for disposal. Otherwise, if it is not possible to determine the selling price we take value in use of assets as it’s recoverable amount.

Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows from continuing use that are largely independent of those from other assets or groups of assets. If this is the case, recoverable amount is determined for the cash-generating unit to which the asset belongs, unless either:

a. The asset’s net selling price is higher than its carrying amount; or

b. The asset’s value in use can be estimated to be close to its net selling price and net selling price can be determined.

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.

Costs of disposal are incremental costs directly attributable to the disposal of an asset, excluding finance costs and income tax expense.

The best evidence for net selling price is a price in the bidding sales agreement for the disposal of the assets or similar assets. In the absence of this net selling price is estimated from the
transactions for the assets in active market, if the asset has the active market. If there is no binding sale agreement or active market for an asset, net selling price is based on the best information available to reflect the amount that an enterprise could obtain, at the balance sheet date, for the disposal of the asset in an arm’s length transaction between knowledgeable, willing parties, after deducting the costs of disposal.

**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.

Estimating the value in use of an asset involves the following steps:

a. Estimating the future cash inflows and outflows arising from continuing use of the asset and from its ultimate disposal; and

b. Applying the appropriate discount rate to these future cash flows.

**An impairment loss** is the amount by which the carrying amount of an asset exceeds its recoverable amount.

Carrying amount is the amount at which an asset is recognised in the balance sheet after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon.

Depreciation (Amortisation) is a systematic allocation of the depreciable amount of an asset over its useful life.

Depreciable amount is the cost of an asset, or other amount substituted for cost in the financial statements, less its residual value.

Useful life is either:

- The period of time over which an asset is expected to be used by the enterprise; or
- The number of production or similar units expected to be obtained from the asset by the enterprise.

### 3.5 BASIS FOR ESTIMATES OF FUTURE CASH FLOWS

Cash flow projections should be based on the most recent budgets/forecasts for a maximum of five years. Financial budgets/forecasts over a period longer than five years may be used if management is confident that these projections are reliable and it can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period.

Cash flow projections until the end of an asset’s useful life are estimated by extrapolating the cash flow projections based on the financial budgets/forecasts using a growth rate for subsequent years. This rate is steady or declining. This growth rate should not exceed the long-term average growth rate for the products, industries, or country or countries in which the enterprise operates, or for the market in which the asset is used, unless a higher rate can be justified.
Cash flow projections should be based on reasonable and supportable assumptions that represent management’s best estimate of the set of economic conditions that will exist over the remaining useful life of the asset. Greater weight should be given to external evidence.

### 3.6 COMPOSITION OF ESTIMATES OF FUTURE CASH FLOWS

Estimates of future cash flows should include (i) Projections of net cash inflows from the continuing use of the asset and (ii) Net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

Care should be taken for the following points:

a. When the carrying amount of an asset does not yet include all the cash outflows to be incurred before it is ready for use or sale, estimate of any further cash outflow that is expected to be incurred before the asset is ready for use or sale should be included.

b. Cash inflows from assets that generate cash inflows from continuing use that are largely independent of the cash inflows from the asset under review should not be included.

c. Cash outflows that relate to obligations that have already been recognised as liabilities to be excluded.

d. Future cash outflows or inflows expected to arise because of restructuring of the organization should be not considered.

e. Any future capital expenditure enhancing the capacity of the assets should be excluded.

f. Any increase in expected cash inflow from the above expenditure should also be excluded.

g. Estimates of future cash flows should not include cash inflows or outflows from financing activities and also income tax receipts or payments.

**Foreign Currency Future Cash Flows** are estimated in the currency it will be generated and after they are discounted for the time value of money, we convert them in the reporting currency on the basis of AS 11.

**Discount Rate**

The discount rate(s) should be a pre-tax rate(s) that reflect(s) current market assessments of the time value of money and the risks specific to the asset. The discount rate(s) should not reflect risks for which future cash flow estimates have been adjusted. A rate that reflects current market assessments of the time value of money and the risks specific to the asset is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the enterprise expects to derive from the asset.
3.7 RECOGNITION AND MEASUREMENT OF AN IMPAIRMENT LOSS

If recoverable amount of assets more than carrying amount, we ignore the difference and asset is carried on at the same book value. But when this recoverable amount is less than the carrying amount, this difference termed as Impairment Loss should be written off immediately as expenses to Profit & Loss Account. If assets are carried out at revalued figures then the impairment loss equivalent to revalued surplus is adjusted with it and the balance (if any) is charged to Profit & Loss Account. Depreciation for the coming years on the assets are recalculated on the basis of the new carrying amount, residual value and remaining useful life of the asset, according to AS 10.

3.8 IDENTIFICATION OF THE CASH-GENERATING UNIT TO WHICH AN ASSET BELONGS

A cash generating unit is the smallest identifiable group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets.

If there is any indication that an asset may be impaired, the recoverable amount should be estimated for the individual asset, if it is not possible to estimate the recoverable amount of the individual asset because the value in use of the asset cannot be determined and it is probably different from scrap value. Therefore, the enterprise estimates the recoverable amount of the cash-generating unit to which the asset belongs.

If recoverable amount cannot be determined for an individual asset, an enterprise identifies the lowest aggregation of assets that generate largely independent cash inflows from continuing use. Even if part or all of the output produced by an asset or a group of assets is used by other units of the reporting enterprise, this asset or group of assets forms a separate cash-generating unit if the enterprise could sell this output in an active market. This is because this asset or group of assets could generate cash inflows from continuing use that would be largely independent of the cash inflows from other assets or groups of assets. In using information based on financial budgets/forecasts that relates to such a cash-generating unit, an enterprise adjusts this information if internal transfer prices do not reflect management’s best estimate of future market prices for the cash-generating unit’s output. Cash-generating units should be identified consistently from period to period for the same asset or types of assets, unless a change is justified.
Example
A mining enterprise owns a private railway to support its mining activities. The private railway could be sold only for scrap value and the private railway does not generate cash inflows from continuing use that are largely independent of the cash inflows from the other assets of the mine.

It is not possible to estimate the recoverable amount of the private railway because the value in use of the private railway cannot be determined and it is probably different from scrap value. Therefore, the enterprise estimates the recoverable amount of the cash-generating unit to which the private railway belongs, that is, the mine as a whole.

Example
A bus company provides services under contract with a municipality that requires minimum service on each of five separate routes. Assets devoted to each route and the cash flows from each route can be identified separately. One of the routes operates at a significant loss.

Since the enterprise does not have the option to curtail any one bus route, the lowest level of identifiable cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets is the cash inflows generated by the five routes together. The cash-generating unit for each route is the bus company as a whole.

3.9 RECOVERABLE AMOUNT AND CARRYING AMOUNT OF A CASH-GENERATING UNIT

The carrying amount of a cash-generating unit should be determined consistently with the way the recoverable amount of the cash-generating unit is determined i.e. carrying amount is the summation of the carrying amount of all the assets grouped under one cash-generating unit. This also includes the liability only if that liability is necessary to be considered to determine the recovery amount. This may occur if the disposal of a cash-generating unit would require the buyer to take over a liability. In this case, the net selling price of the cash-generating unit is the estimated selling price for the assets of the cash-generating unit and the liability together, less the costs of disposal. In order to perform a meaningful comparison between the carrying amount of the cash-generating unit and its recoverable amount, the carrying amount of the liability is deducted in determining both the cash-generating unit’s value in use and its carrying amount. For practical reasons, the recoverable amount of a cash-generating unit is sometimes determined after consideration of assets that are not part of the cash-generating unit or liabilities that have already been recognised in the financial statements. In such cases, the carrying amount of the cash-generating unit is increased by the carrying amount of those assets and decreased by the carrying amount of those liabilities.
Example

A company operates a mine in a country where legislation requires that the owner must restore the site on completion of its mining operations. The cost of restoration includes the replacement of the overburden, which must be removed before mining operations commence. A provision for the costs to replace the overburden was recognised as soon as the overburden was removed. The amount provided was recognised as part of the cost of the mine and is being depreciated over the mine’s useful life. The carrying amount of the provision for restoration costs is ₹ 50,00,000, which is equal to the present value of the restoration costs.

The enterprise is testing the mine for impairment. The cash-generating unit for the mine is the mine as a whole. The enterprise has received various offers to buy the mine at a price of around ₹ 80,00,000; this price encompasses the fact that the buyer will take over the obligation to restore the overburden. Disposal costs for the mine are negligible. The value in use of the mine is approximately ₹1,20,00,000 excluding restoration costs. The carrying amount of the mine is ₹ 1,00,00,000.

The net selling price for the cash-generating unit is ₹ 80,00,000. This amount considers restoration costs that have already been provided for. As a consequence, the value in use for the cash-generating unit is determined after consideration of the restoration costs and is estimated to be ₹ 70,00,000 (₹ 1,20,00,000 less ₹ 50,00,000). The carrying amount of the cash-generating unit is ₹ 50,00,000, which is the carrying amount of the mine (₹ 1,00,00,000) less the carrying amount of the provision for restoration costs (₹ 50,00,000).

3.10 GOODWILL

Goodwill does not generate cash flows independently from other assets or groups of assets and, therefore, the recoverable amount of goodwill as an individual asset cannot be determined. As a consequence, if there is an indication that goodwill may be impaired, recoverable amount is determined for the cash-generating unit to which goodwill belongs. This amount is then compared to the carrying amount of this cash-generating unit and any impairment loss is recognized. If goodwill can be allocated on a reasonable and consistent basis, an enterprise applies the ‘bottom-up’ test only. If it is not possible to allocate goodwill on a reasonable and consistent basis, an enterprise applies both the ‘bottom-up’ test and ‘top-down’ test.

3.11 CORPORATE ASSETS

Key characteristics of corporate assets are that they do not generate cash inflows independently from other assets or groups of assets and their carrying amount cannot be fully attributed to the cash-generating unit under review.
In testing a cash-generating unit for impairment, an enterprise should identify all the corporate assets that relate to the cash-generating unit under review. For each identified corporate asset:

a. If the carrying amount of the corporate asset can be allocated on a reasonable and consistent basis to the cash-generating unit under review, an enterprise should apply the ‘bottom-up’ test only; and

b. If the carrying amount of the corporate asset cannot be allocated on a reasonable and consistent basis to the cash-generating unit under review, an enterprise should apply both the ‘bottom-up’ and ‘top-down’ tests.

### 3.12 Impairment Loss for a Cash-Generating Unit

The 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.

These reductions in carrying amounts should be treated as impairment losses on individual assets.

The carrying amount of an asset should not be reduced below the highest of:

a. Its net selling price (if determinable);

b. Its value in use (if determinable); and

c. Zero.

The amount of the impairment loss that would otherwise have been allocated to the asset should be allocated to the other assets of the unit on a pro-rata basis.

### Example

A machine has suffered physical damage but is still working, although not as well as it used to. The net selling price of the machine is less than its carrying amount. The machine does not generate independent cash inflows from continuing use. The smallest identifiable group of assets that includes the machine and generates cash inflows from continuing use that are largely independent of the cash inflows from other assets is the production line to which the machine belongs. There recoverable amount of the production line shows that the production line taken as a whole is not impaired.
Assumption 1: Budgets/forecasts approved by management reflect no commitment of management to replace the machine.

The recoverable amount of the machine alone cannot be estimated since the machine’s value in use:

(a) may differ from its net selling price; and

(b) can be determined only for the cash-generating unit to which the machine belongs (the production line).

The production line is not impaired, therefore, no impairment loss is recognised for the machine. Nevertheless, the enterprise may need to reassess the depreciation period or the depreciation method for the machine. Perhaps, a shorter depreciation period or a faster depreciation method is required to reflect the expected remaining useful life of the machine or the pattern in which economic benefits are consumed by the enterprise.

Assumption 2: Budgets/forecasts approved by management reflect a commitment of management to replace the machine and sell it in the near future. Cash flows from continuing use of the machine until its disposal are estimated to be negligible.

The machine’s value in use can be estimated to be close to its net selling price. Therefore, the recoverable amount of the machine can be determined and no consideration is given to the cash-generating unit to which the machine belongs (the production line). Since the machine’s net selling price is less than its carrying amount, an impairment loss is recognised for the machine.

3.13 REVERSAL OF AN IMPAIRMENT LOSS

An enterprise should assess at each balance sheet date whether there is any indication that an impairment loss recognised for an asset in prior accounting periods may no longer exist or may have decreased. If any such indication exists, the enterprise should estimate the recoverable amount of that asset. An impairment loss recognised for an asset in prior accounting periods should be reversed if there has been a change in the estimates of cash inflows, cash outflows or discount rates used to determine the asset’s recoverable amount since the last impairment loss was recognised. If this is the case, the carrying amount of the asset should be increased to its recoverable amount. That increase is a reversal of an impairment loss. Indications of a potential decrease in an impairment loss are mainly mirror the indications of a potential impairment loss discussed above as external and internal indicators. The concept of materiality applies in identifying whether an impairment loss recognised for an asset in prior accounting periods may need to be reversed and the recoverable amount of the asset determined.
3.14 REVERSAL OF AN IMPAIRMENT LOSS FOR AN INDIVIDUAL ASSET

If impairment loss was written off to profit and loss account, then the reversal of impairment loss should be recognized as income in the financial statement immediately. If impairment loss was adjusted with the Revaluation Reserve; then reversal of impairment loss will be written back to the reserve account to the extent it was adjusted, any surplus will be recognised as revenue. But in any case the increased carrying amount of an asset due to a reversal of an impairment loss should not exceed the carrying amount that would have been determined (net of amortisation or depreciation) had no impairment loss been recognised for the asset in prior accounting periods. This is mainly because any further increase in value of asset is revaluation, which is governed by AS 10.

After a reversal of an impairment loss is recognised, the depreciation (amortisation) 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.

3.15 REVERSAL OF AN IMPAIRMENT LOSS FOR A CASH-GENERATING UNIT

A reversal of an impairment loss for a cash-generating unit should be allocated to increase the carrying amount of the assets of the unit in the following order:

a. First, assets other than goodwill on a pro-rata basis based on the carrying amount of each asset in the unit; and
b. Then, to goodwill allocated to the cash-generating unit (if any).

3.16 REVERSAL OF AN IMPAIRMENT LOSS FOR GOODWILL

This Statement does not permit an impairment loss to be reversed for goodwill because of a change in estimates, an impairment loss recognised for goodwill should not be reversed in a subsequent period unless:

a. The impairment loss was caused by a specific external event of an exceptional nature that is not expected to recur; and
b. Subsequent external events have occurred that reverse the effect of that event.
3.17 IMPAIRMENT IN CASE OF DISCONTINUING OPERATIONS

In applying this Statement to a discontinuing operation, an enterprise determines whether the recoverable amount of an asset of a discontinuing operation is assessed for the individual asset or for the asset's cash-generating unit. For example:

a. If the enterprise sells the discontinuing operation substantially in its entirety, none of the assets of the discontinuing operation generate cash inflows independently from other assets within the discontinuing operation. Therefore, recoverable amount is determined for the discontinuing operation as a whole and an impairment loss, if any, is allocated among the assets of the discontinuing operation in accordance with this Statement;

b. If the enterprise disposes of the discontinuing operation in other ways such as piecemeal sales, the recoverable amount is determined for individual assets, unless the assets are sold in groups; and

c. If the enterprise abandons the discontinuing operation, the recoverable amount is determined for individual assets as set out in this Statement.

3.18 DISCLOSURE

For each class of assets, the financial statements should disclose:

a. The amount of impairment losses recognised in the statement of profit and loss during the period and the line item(s) of the statement of profit and loss in which those impairment losses are included;

b. The amount of reversals of impairment losses recognised in the statement of profit and loss during the period and the line item(s) of the statement of profit and loss in which those impairment losses are reversed;

c. The amount of impairment losses recognised directly against revaluation surplus during the period; and

d. The amount of reversals of impairment losses recognised directly in revaluation surplus during the period.

An enterprise that applies AS 17, Segment Reporting, should disclose the following for each reportable segment based on an enterprise's primary format (as defined in AS 17):

a. The amount of impairment losses recognised in the statement of profit and loss and directly against revaluation surplus during the period; and

b. The amount of reversals of impairment losses recognised in the statement of profit and loss and directly in revaluation surplus during the period.
If an impairment loss for an individual asset or a cash-generating unit is recognised or reversed during the period and is material to the financial statements of the reporting enterprise as a whole, an enterprise should disclose:

a. The events and circumstances that led to the recognition or reversal of the impairment loss;

b. The amount of the impairment loss recognised or reversed;

c. For an individual asset:
   (i) The nature of the asset; and
   (ii) The reportable segment to which the asset belongs, based on the enterprise’s primary format (as defined in AS 17, Segment Reporting);

d. For a cash-generating unit:
   (i) A description of the cash-generating unit (such as whether it is a product line, a plant, a business operation, a geographical area, a reportable segment as defined in AS 17 or other);
   (ii) The amount of the impairment loss recognised or reversed by class of assets and by reportable segment based on the enterprise’s primary format (as defined in AS 17); and
   (iii) If the aggregation of assets for identifying the cash-generating unit has changed since the previous estimate of the cash-generating unit’s recoverable amount (if any), the enterprise should describe the current and former way of aggregating assets and the reasons for changing the way the cash-generating unit is identified;

e. Whether the recoverable amount of the asset (cash-generating unit) is its net selling price or its value in use;

f. If recoverable amount is net selling price, the basis used to determine net selling price (such as whether selling price was determined by reference to an active market or in some other way); and

g. If recoverable amount is value in use, the discount rate(s) used in the current estimate and previous estimate (if any) of value in use.

If impairment losses recognised (reversed) during the period are material in aggregate to the financial statements of the reporting enterprise as a whole, an enterprise should disclose a brief description of the following:

a. The main classes of assets affected by impairment losses (reversals of impairment losses);

b. The main events and circumstances that led to the recognition (reversal) of these impairment losses.
Illustration 1

Ergo Industries Ltd. gives the following estimates of cash flows relating to fixed asset on 31-12-20X1. The discount rate is 15%.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Flow (₹ in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X2</td>
<td>4000</td>
</tr>
<tr>
<td>20X3</td>
<td>6000</td>
</tr>
<tr>
<td>20X4</td>
<td>6000</td>
</tr>
<tr>
<td>20X5</td>
<td>8000</td>
</tr>
<tr>
<td>20X6</td>
<td>4000</td>
</tr>
</tbody>
</table>

Residual value at the end of 20X6 = ₹ 1000 lakhs

Fixed Asset purchased on 1-1-20XX = ₹ 40,000 lakhs

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.

Solution

Calculation of value in use

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash Flow</th>
<th>Discount as per 15%</th>
<th>Discounted cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X2</td>
<td>4,000</td>
<td>0.870</td>
<td>3,480</td>
</tr>
<tr>
<td>20X3</td>
<td>6,000</td>
<td>0.756</td>
<td>4,536</td>
</tr>
<tr>
<td>20X4</td>
<td>6,000</td>
<td>0.658</td>
<td>3,948</td>
</tr>
<tr>
<td>Year</td>
<td>Cost</td>
<td>Depreciation</td>
<td>Carrying Amount</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>--------------</td>
<td>----------------</td>
</tr>
<tr>
<td>20X5</td>
<td>8,000</td>
<td>4,576</td>
<td></td>
</tr>
<tr>
<td>20X6</td>
<td>4,000</td>
<td>1,988</td>
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<td>20X6</td>
<td>1,000</td>
<td>497</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>19,025</td>
<td></td>
</tr>
</tbody>
</table>

(a) **Calculation of carrying amount:**

Original cost = ₹ 40,000 lakhs

Depreciation for 3 years = \((40,000 - 1000) \times \frac{3}{8}\) = ₹ 14,625 lakhs

Carrying amount on 31-12-20X1 = \((40,000 - 14,625)\) = ₹ 25,375 lakhs

(b) **Value in use = ₹ 19,025 lakhs**

Net Selling Price = ₹ 20,000 lakhs

Recoverable amount = higher of value in use and net selling price i.e. ₹ 20,000 lakhs.

(c) **Recoverable amount = ₹ 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**

**Illustration 2**

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:

<table>
<thead>
<tr>
<th>For the year ended on</th>
<th>Estimated cash flow (₹ in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.3.20X2</td>
<td>50</td>
</tr>
<tr>
<td>31.3.20X3</td>
<td>30</td>
</tr>
<tr>
<td>31.3.20X4</td>
<td>30</td>
</tr>
<tr>
<td>31.3.20X5</td>
<td>20</td>
</tr>
<tr>
<td>31.3.20X6</td>
<td>20</td>
</tr>
</tbody>
</table>

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.
Solution

Present value of future cash flow

<table>
<thead>
<tr>
<th>Year ended</th>
<th>Future Cash Flow</th>
<th>Discount @ 10% Rate</th>
<th>Discounted cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.3.20X2</td>
<td>50</td>
<td>0.909</td>
<td>45.45</td>
</tr>
<tr>
<td>31.3.20X3</td>
<td>30</td>
<td>0.826</td>
<td>24.78</td>
</tr>
<tr>
<td>31.3.20X4</td>
<td>30</td>
<td>0.751</td>
<td>22.53</td>
</tr>
<tr>
<td>31.3.20X5</td>
<td>20</td>
<td>0.683</td>
<td>13.66</td>
</tr>
<tr>
<td>31.3.20X6</td>
<td>20</td>
<td>0.620</td>
<td>12.40</td>
</tr>
</tbody>
</table>

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

If net selling price of plant on 31.3.20X1 is ₹ 60 lakhs, the recoverable amount will be higher of ₹ 121.92 lakhs (value in use) and ₹ 60 lakhs (net selling price), hence recoverable amount is ₹ 121.92 lakhs.

Illustration 3

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 per cent 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?
Solution

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].

| (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. |   |

*Recoverable amount is the higher of an asset’s net selling price and its value in use.
Working Note:
Calculation of Closing Book Value, Estimated Net Selling Value and Estimated Value in Use of Plant at 31st March, 20X2.

<table>
<thead>
<tr>
<th>Description</th>
<th>₹ (in lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening book value as on 1.4.20X1 (₹ 500 lakhs - ₹ 415 lakhs)</td>
<td>85</td>
</tr>
<tr>
<td>Less: Depreciation for financial year 20X1–20X2</td>
<td>(25)</td>
</tr>
<tr>
<td>Closing book value as on 31.3.20X2</td>
<td>60</td>
</tr>
<tr>
<td>Estimated net selling price as on 1.4.20X1</td>
<td>30</td>
</tr>
<tr>
<td>Less: Estimated decrease during the year (20% of ₹ 30 lakhs)</td>
<td>(6)</td>
</tr>
<tr>
<td>Estimated net selling price as on 31.3.20X2</td>
<td>24</td>
</tr>
<tr>
<td>Estimated value in use as on 1.4.20X1</td>
<td>35.0</td>
</tr>
<tr>
<td>Less: Estimated decrease during the year (30% of ₹ 35 lakhs)</td>
<td>(10.5)</td>
</tr>
<tr>
<td>Estimated value in use as on 31.3.20X2</td>
<td>24.5</td>
</tr>
</tbody>
</table>

Illustration 4
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.

Solution
Statement Showing Impairment Loss

<table>
<thead>
<tr>
<th>Description</th>
<th>₹ (in crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrying amount of the machine as on 1st April 20X0</td>
<td>7.00</td>
</tr>
<tr>
<td>Description</td>
<td>Amount</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Depreciation for 4 years i.e. 20X0-20X1 to 20X3-20X4</td>
<td>(4.00)</td>
</tr>
<tr>
<td>Carrying amount as on 31.03.20X4</td>
<td>3.00</td>
</tr>
<tr>
<td>Add: Upward Revaluation (credited to Revaluation Reserve account)</td>
<td>2.10</td>
</tr>
<tr>
<td>Carrying amount of the machine as on 1\textsuperscript{st} April 20X4 (revalued)</td>
<td>5.10</td>
</tr>
<tr>
<td>Less: Depreciation for 2 years i.e. 20X4-20X5&amp; 20X5-20X6</td>
<td>(3.40)</td>
</tr>
<tr>
<td>Carrying amount as on 31.03.20X6</td>
<td>1.70</td>
</tr>
<tr>
<td>Less: Recoverable amount</td>
<td>(0.79)</td>
</tr>
<tr>
<td>Impairment loss</td>
<td>0.91</td>
</tr>
<tr>
<td>Less: Balance in revaluation reserve as on 31.03.20X6:</td>
<td></td>
</tr>
<tr>
<td>Balance in revaluation reserve as on 31.03.20X4</td>
<td>2.10</td>
</tr>
<tr>
<td>Less: Enhanced depreciation met from revaluation reserve</td>
<td></td>
</tr>
<tr>
<td>20X4-20X5&amp; 20X5-20X6=$((1.70 – 1.00) x 2 years)</td>
<td>(1.40)</td>
</tr>
<tr>
<td>Impairment loss set off against revaluation reserve balance as per para 58 of AS 28 “Impairment of Assets”</td>
<td>(0.70)</td>
</tr>
<tr>
<td>Impairment Loss to be debited to profit and loss account</td>
<td>0.21</td>
</tr>
</tbody>
</table>

**Illustration 5**

X Ltd. purchased a fixed asset 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?
Solution

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 fixed asset at the end of the fourth year on revaluation

<table>
<thead>
<tr>
<th>Description</th>
<th>₹ in lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase price of a fixed asset</td>
<td>150.00</td>
</tr>
<tr>
<td>Less: Depreciation for four years [(150 lakhs / 10 years) x 4 years]</td>
<td>(60.00)</td>
</tr>
<tr>
<td>Carrying value at the end of fourth year</td>
<td>90.00</td>
</tr>
<tr>
<td>Less: Downward revaluation charged to profit and loss account</td>
<td>(15.00)</td>
</tr>
<tr>
<td>Revalued carrying amount</td>
<td>75.00</td>
</tr>
</tbody>
</table>

Reference: The students are advised to refer the full text of AS 28 “Impairment of Assets” (issued 2002).
TEST YOUR KNOWLEDGE

Practical Questions

1. 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:
(i) Calculate impairment loss.
(ii) Prepare journal entries for adjustment of impairment loss.
(iii) Show, how impairment loss will be shown in the Balance Sheet.

2. Good Drugs and Pharmaceuticals Ltd. acquired a sachet filling machine on 1st 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.

3. From the following details of an asset
(i) Find out impairment loss
(ii) Treatment of impairment loss
(iii) Current year depreciation

Particulars of asset:

<table>
<thead>
<tr>
<th>Particulars of asset</th>
<th>₹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of asset</td>
<td>56 lakhs</td>
</tr>
<tr>
<td>Useful life period</td>
<td>10 years</td>
</tr>
<tr>
<td>Salvage value</td>
<td>Nil</td>
</tr>
<tr>
<td>Current carrying value</td>
<td>27.30 lakhs</td>
</tr>
</tbody>
</table>
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Useful life remaining | 3 years
---|---
Recoverable amount | ₹ 12 lakhs
Upward revaluation done in last year | ₹ 14 lakhs

4. 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?

**Answers to Practical Questions**

1. (i) **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.

(ii) **Journal Entries**

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Dr.</th>
<th>Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Impairment loss account</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>To Asset</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>(Being the entry for accounting impairment loss)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Profit and loss account</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>To Impairment loss</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>(Being the entry to transfer impairment loss to profit and loss account)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(iii) Balance Sheet of Venus Ltd. as on 31.3.20X1

<table>
<thead>
<tr>
<th></th>
<th>₹ in lakhs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Asset</td>
<td></td>
</tr>
<tr>
<td>Asset less depreciation</td>
<td>500</td>
</tr>
<tr>
<td>Less: Impairment loss</td>
<td>(100)</td>
</tr>
<tr>
<td></td>
<td>400</td>
</tr>
</tbody>
</table>

2. As per provisions of Para 91(b) 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.

3. 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.

<table>
<thead>
<tr>
<th>Impairment Loss and its treatment</th>
<th>₹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current carrying amount (including revaluation amount of ₹ 14 lakhs)</td>
<td>27,30,000</td>
</tr>
<tr>
<td>Less: Current recoverable amount</td>
<td>(12,00,000)</td>
</tr>
<tr>
<td>Impairment Loss</td>
<td>15,30,000</td>
</tr>
<tr>
<td>Impairment loss charged to revaluation reserve</td>
<td>14,00,000</td>
</tr>
<tr>
<td>Impairment loss charged to profit and loss account</td>
<td>1,30,000</td>
</tr>
</tbody>
</table>

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.

4. 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 (₹ 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.