Accounting Notes
Asset Classification, Depreciation, Sale/Exchange of Assets

Types (classifications) of Assets:

1) Current Assets - short lived assets used in the operations of a business
2) Plant Assets - long lived tangible assets used in the operations of a business
3) Long Term Investment - long lived tangible assets held for investment purposes
4) Intangible Assets - assets with no physical form but the special rights they have give them value

Cost of a Plant Assets:

Costs assigned to a plant asset equal the sum of all costs incurred to bring the asset to its intended purpose minus all discounts received.

Land Costs include
- Original purchase price
- Commissions
- Survey fees
- Legal fees
- Back property taxes
- Grading and clearing the land
- Demolishing or removing of buildings

Land Improvements costs include
- Fencing costs
- Paving driveways
- Sprinkler systems
- Lighting
- Signs

Buildings cost include
- Original purchase price
- Commissions
- Sales and other taxes
- Architectural fees
- Building permits
- Contractor’s charges
- Materials, labor, and overhead
- Capitalized interest

Machinery and Equipment cost include
- Original purchase price
- Transportation charges
- Insurance while in transit
- Sales and other taxes
- Commissions
- Installation charges
- Testing costs (before placed in service)
- Repairs (before placed in service)
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Assets and their related expense account:

<table>
<thead>
<tr>
<th>Asset</th>
<th>Related Expense Account</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Assets</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>None</td>
</tr>
<tr>
<td>Buildings, Machinery, Equipment</td>
<td>Depreciation Expense</td>
</tr>
<tr>
<td>Furniture, Land Improvements</td>
<td>Depletion Expense</td>
</tr>
<tr>
<td>Natural Resources</td>
<td>Amortization Expense</td>
</tr>
<tr>
<td>Intangible Assets</td>
<td></td>
</tr>
</tbody>
</table>

Construction in Progress:

Construction in progress is an asset that the company is constructing for its own use in the business.

Capitalizing Interest:

Interest expenses in connection with the construction of an asset is to be capitalized as part of the cost of that asset.

(1) Interest based on the Average Accumulated Construction expenditures
Interest to be capitalized = the lessor of
(2) Actual interest cost on borrowed money "during the construction period,"

Incurring construction costs:

| Building (or Construction in Progress) | $xxxxx |
| Cash (or Notes Payable)               | $xxxxx |

Accrued Interest:

| Building (or Construction in Progress)          | Capitalized Interest |
| Interest Expense                                  | Difference (if any)   |
| Interest Payable                                  | Total accrued interest |
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Lump sum purchase of assets:

Costs is divided among the assets according to their relative sales (market) values, if the costs have not already been divided in the sales agreement.

<table>
<thead>
<tr>
<th>Asset</th>
<th>Market Value</th>
<th>Market Value</th>
<th>of MV</th>
<th>Purchase Price</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset 1</td>
<td>$xxxx</td>
<td>Total MV</td>
<td>xx%</td>
<td>Total price</td>
<td>$xxxx</td>
</tr>
<tr>
<td>Asset 2</td>
<td>$xxxx</td>
<td>Total MV</td>
<td>xx%</td>
<td>Total price</td>
<td>$xxxx</td>
</tr>
<tr>
<td>Asset 3</td>
<td>$xxxx</td>
<td>Total MV</td>
<td>xx%</td>
<td>Total price</td>
<td>$xxxx</td>
</tr>
</tbody>
</table>

Capital vs Revenue Expenditures:

Capital Expenditures - increases the capacity or efficiency of an asset or extends its useful life
Expenditures are debited to the asset’s account

Revenue Expenditures - merely maintain an asset or restores the asset to working order
Expenditures are debited to an expense account

Examples of the difference between Capital and Revenue Expenditures for a delivery truck:

<table>
<thead>
<tr>
<th>Capital</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major engine overhaul</td>
<td>Repair of transmission or other mechanism</td>
</tr>
<tr>
<td>Modification of body for new use of truck</td>
<td>Oil change, lube, etc</td>
</tr>
<tr>
<td>Additions to storage capacity of the truck</td>
<td>Replacement tires, windshield</td>
</tr>
<tr>
<td></td>
<td>Paint job</td>
</tr>
</tbody>
</table>

Depreciation:

Useful life - length of service that a business expects to get from an asset
may be expressed in terms of years, units, miles or any other measurement

Residual value - expected cash value of an asset at the end of its expected useful life
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Depreciation Methods:

*Straight line method:*

\[
\text{Depreciation per year} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful life in years}}
\]

*Units of production method:*

\[
\text{Depreciation per unit} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful life in units}}
\]

\[
\text{Depreciation for the year} = \text{Depreciation per unit} \times \text{Units produced}
\]

*Double declining balance method:*

Step 1: Find Straight line (SL) rate \(= \frac{1}{\text{Useful life}}\)

Step 2: Find Double declining balance (DDB) rate \(= \text{SL rate} \times 2\)

Step 3: Find depreciation for the year \(= \text{Beginning Book Value} \times \text{DDB rate}\)

Depreciation taken cannot bring the book value below the residual value in any given year. Normally the depreciation will have to be limited in the assets last couple of years of service.

Disposal of Plant Assets:

*When fully depreciated:*

\[
\begin{array}{ll}
\text{Accumulated Depreciation} - \text{Asset} & \text{Total Depr. taken} \\
\text{Loss on disposal of asset} & \text{Residual Value} \\
\text{Asset} & \text{Original cost}
\end{array}
\]
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Disposal of Plant Assets:

When not fully depreciated:

<table>
<thead>
<tr>
<th>Accumulated Depreciation - Asset</th>
<th>Total Depr. taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss on disposal of asset Asset</td>
<td>Remaining Book Value</td>
</tr>
<tr>
<td></td>
<td>Original Cost</td>
</tr>
</tbody>
</table>

Sale of a Plant Asset:

(1) Calculate the depreciation for the year up to the time of sale

<table>
<thead>
<tr>
<th>Depreciation Expense, Asset</th>
<th>Depr. for the year * (# months/12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated Depreciation, Asset</td>
<td>Depr. for the year * (# months/12)</td>
</tr>
</tbody>
</table>

(2) Determine the Gain or Loss on the sale

| Cash received | $xxxxx |
| Book value of asset | $xxxxx |
| Original cost | $xxxxx |
| Accum. Depr. | (xxxxx) |
| Gain (Loss) on sale | $ xxxx |

(3) Journal entry to record the sale

<table>
<thead>
<tr>
<th>Cash</th>
<th>Sales Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated Depr, Asset</td>
<td>Total Depr. taken</td>
</tr>
<tr>
<td>Asset</td>
<td>Original Cost</td>
</tr>
<tr>
<td>Gain on sale of asset</td>
<td>Difference</td>
</tr>
</tbody>
</table>

If there was a loss on the sale of the asset, then there would be a debit to 'Loss on sale of asset' account rather than a credit to 'Gain on sale of asset'.
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Exchanging of Plant Assets:

<table>
<thead>
<tr>
<th>Asset</th>
<th>Cost of New asset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated Depr Asset</td>
<td>Total depr. taken on old asset</td>
</tr>
<tr>
<td>Loss on exchange of asset</td>
<td>Difference</td>
</tr>
<tr>
<td>Asset</td>
<td>Cost of Old asset</td>
</tr>
<tr>
<td>Cash</td>
<td>Cash paid</td>
</tr>
</tbody>
</table>

If there is a gain, the difference would be credited to 'Gain on exchange of asset', rather than shown as a debit to 'Loss on exchange of asset'.

Depletion of Natural Resources:

Depletion is calculated using the units of production method.

\[
\text{Depletion per unit} = \frac{\text{Cost} - \text{Residual Value}}{\text{Est. total units of natural resource}}
\]

Journal entry:

\[
\begin{align*}
\text{Depletion Expense} & \quad \text{Depletion per unit} \times \text{Units} \\
\text{Accumulated Depletion} & \quad \text{Depletion per unit} \times \text{Units}
\end{align*}
\]

Amortization of Intangible Assets:

Amortization - is computed on a straight line basis
- is charged directly against the asset rather than to an accumulated amortization account
- intangible assets include: patents, copyrights, trademarks, goodwill

Journal Entry

\[
\begin{align*}
\text{Amortization Expense} - \text{Intangible asset} & \quad \text{Original cost} / \text{useful life} \\
\text{Intangible asset} & \quad \text{Original cost} / \text{useful life}
\end{align*}
\]