

## FOA Assignment 2

Determine the cost of plant assets

~~The cost of plant~~

~~Plant Assets~~

The cost of plant assets includes all the expenditures <sup>that are</sup> necessary and reasonable to get the asset to desired location and ready to be used.

So alot of incidental costs are included in the cost assigned to plant asset eg:  
Sales taxes on purchase price, delivery and installation costs.

But repair and maintenance cost are not included

Distinguish between capital expenditures and revenue expenditures

• ~~Ex~~ Capital expenditures : expenditures for purchase or expansion of plant assets.

These are recorded in asset accounts.

Accountants use the word capitalize that means charging expenditure to asset accounts instead of expense account.

✓/✗ Any material expenditure that will benefit several accounting periods is considered a capital expenditure.

- Revenue Expenditures : Expenditures for ordinary repairs, maintenance, fuel and other items necessary to the ownership and use of plant and equipment. These are recorded in expense accounts.

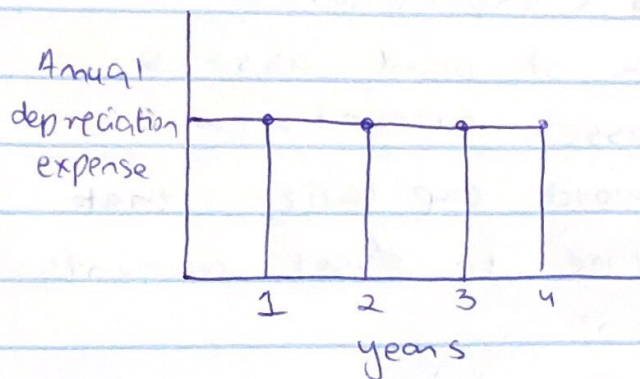
Charging expenditure directly to expense account is called expensing an item.

Any expenditure that will benefit only current period or that is not material in amount is treated as a revenue expenditure.

Compute Depreciation by the straight-line and declining-balance methods.

- Straight - Line Method

This method allocates an equal portion of depreciation expense to each period of the asset's useful life.



$$\text{Annual cost depreciation} = \frac{\text{cost} - \text{scrap value}}{\text{useful life in years}} = \frac{\text{Depreciable cost}}{\text{useful years}}$$



for eg:

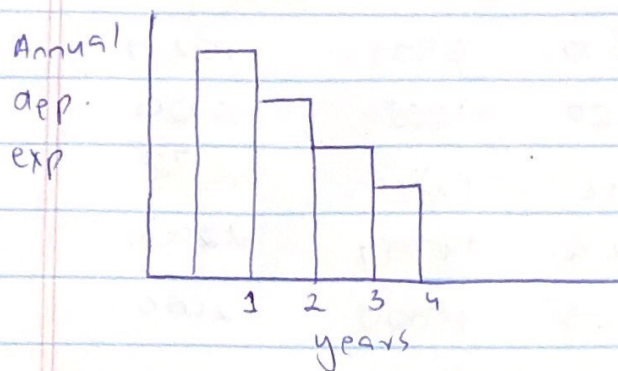
$$\text{Annual dep} = \frac{17000 - 2000}{5} = 3000$$

Schedule					
cost	life	computation	Dep Exp	Acc dep	Book value
	1	15000	3000	3000	14000
	2	15000	3000	6000	11000
	3	15000	3000	9000	8000
	4	15000	3000	12000	5000
	5	15000	3000	15000	2000

### • Declining-Balance Method

Primarily used in income tax returns instead of financial statements.

Accelerated depreciation rate is computed as a percentage of straight line dep. rate.



$$\text{Depreciation Expense} = \text{Remaining Book value} \times \text{Accelerated Depreciation Rate}$$

for eg: Dep Exp =  $\frac{17000}{5} \times 100 = 20\%$

### Schedule

life	computation	Dep Exp	Acc dep	Book value
cost	- - - - -	- - - - -	- - - - -	17000
1	$17000 \times 20\%$	3400	3400	13600
2	$13600 \times 20\%$	2720	6120	10880
3	$10880 \times 20\%$	2176	8296	8704
4	$8704 \times 20\%$	1724	10020	6980
5	$6980 - 2000$	$\rightarrow 4980$	15000	2000

• Double Decling Method

$$20\% \times 2 = 40\%$$

### Schedule

life	computation	Dep Exp	Acc dep	Book value
cost	- - - - -	- - - - -	- - - - -	17000
1	$17000 \times 40\%$	6800	6800	10200
2	$10200 \times 40\%$	4080	10880	6120
3	$6120 \times 40\%$	2448	13328	3672
4	$3672 \times 40\%$	1469	14797	2203
5	$2203 - 2000$	203	15000	2000



## Account for depreciation using methods other than straight line or declining-balance

### • Units-of-Output Method

Depreciation is based on some measure of output rather than on the passage of time

When depreciation is based on units of output, more depreciation is recognized in the periods in which the assets are most heavily used

$$\frac{\text{Cost per Unit of Output (mile)}}{\text{}} = \frac{\text{Cost} - \text{scrap value}}{\text{estimated units of output (miles)}}$$

for eg:  $\frac{17000 - 2000}{100,000} = 0.15$

Schedule

	Life	Computation	Dep Exp	Acc Dep	Book value
Cost	-----	-----	-----	-----	17000
1		$20000 \times 0.15$	3000	3000	14000
2		$20000 \times 0.15$	3000	6000	11000
3		$20000 \times 0.15$	3000	9000	8000
4		$20000 \times 0.15$	3000	12000	5000
5		$20000 \times 0.15$	3000	15000	2000

• Dep Production Hour Method

$$\% \text{ per unit} = \frac{\text{cost} - \text{sv}}{\text{Useful life in Hours}}$$

for eg:  $\frac{500000 - 50000}{60000} = 7.5$

Schedule					
	life	Hours worked per unit	Dep EXP	Acc Dep	Book value
Cost	-----	-----	-----	-----	500000
	1	(2000 x 7.5)	15000	15000	485000
	2	(4000 x 7.5)	30000	45000	455000

-15000  
-30000

• Sum of Years Method

Sum of Years = 1 + 2 + 3 + 4 + 5 = 15 yrs (5 yrs)  
or

$$n \left( \frac{n+1}{2} \right)$$

Schedule					
	life	computation	Dep EXP	Acc Dep	Book value
Cost	-----	-----	-----	-----	500000
	1	450000 x 5/15	150000	150000	350000
	2	450000 x 4/15	120000	270000	230000
	3	450000 x 3/15	90000	360000	140000
	4	450000 x 2/15	60000	420000	80000
	5	450000 x 1/15	30000	450000	50000



## Account for the disposal of plant assets

When depreciation assets are disposed of at any date other than the end of the year, an entry should be made to record depreciation for the fraction of the year ending with date of disposal

### • Gain and Loss on Disposal of Plant Asset

- Disposal at a price above book value:

Assume machinery costing 10,000 had accumulated depreciation of 8000 and a book value of 2000 at the time it was sold for 3000 cash

### Journal Entry

Cash	3000
Accumulated depreciation (Machinery)	8000
Machinery	10000
Gain on Disposal of Plant Assets	1000

### Gain

Cost	10000
Accumulated depr. at time of disposal	8000
Book value at time of disposal	2000
Cash received	3000
Gain on disposal	1000

Disposal at a price below book value

Assume instead same machinery is sold for 500

Journal Entry

Cash	500	
Accumulated dep machinery	8000	
loss on disposal of plant assets	1500	
Machinery		10000

Loss

cost	10000
accumulated depreciation at time of disposal	8000
Book value at time of disposal	2000
Cash <sup>received</sup> <del>received</del>	500
loss on disposal	1500

Explain the nature of intangible assets

including goodwill

Intangible assets are classified in balance sheet as a subgroup of plant assets. Intangible assets have no physical characteristic but it is not necessary that all assets that lack physical characteristics are intangible assets.

The term amortization describes the systematic write-off to expense of the cost of an intangible asset over its useful life. It is the same as ~~intangible~~ depreciation for tangible assets.



The intangible asset goodwill is often found in corporate balance sheets.

Goodwill represents an amount that a company has paid to acquire certain favorable intangible attributes as part of an acquisition of another company.

Positive attributes often included in goodwill are:

- favourable reputation
- positive market share
- positive advertising image
- Reputation for high quality and local employees
- Superior management
- Manufacturing and other operating efficiency

### Account for depletion of natural resources

Mining properties ~~and~~<sup>?</sup> oil, coal, gas are a few examples of natural resources.

To account their depletion of a natural resource, the cost is converted into inventory as the resources are mined, cut, pumped, basically removing them from physical world.

Depletion is allocation of cost of a natural resource to inventories

Explain the cash <sup>effects</sup> of transactions involving plant assets

Cash effects of plant assets are different from the effects reported in income statement.

Transaction involving plant assets can result in various cash flows or outflows due to purchases, sales, repairs, maintenance, capital expenditure etc.

However non-cash items like depreciation & <sup>amortisation</sup> expense do not directly affect cash account, but reduces net income