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VIRTUAL COACHING CLASSES
ORGANISED BY BOS, ICAI

FINAL LEVEL
PAPER 1: FINANCIAL REPORTING

TOPIC: IND AS 16
PROPERTY, PLANT AND EQUIPMENT

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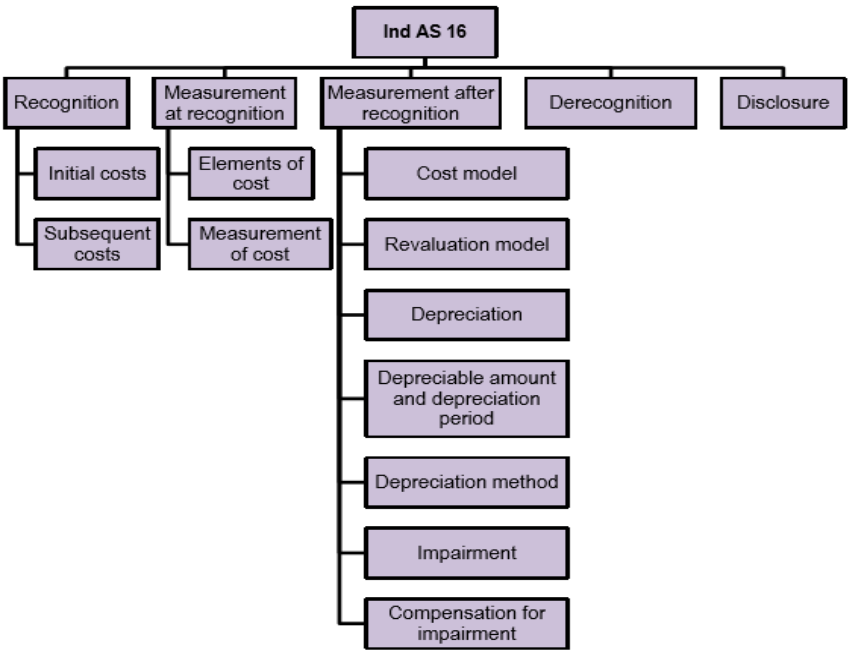
Agenda



Objective

- Prescribe the accounting treatment for PPE
- Recognition of the assets
- Determination of carrying amount
- Depreciation charges
- Impairment losses

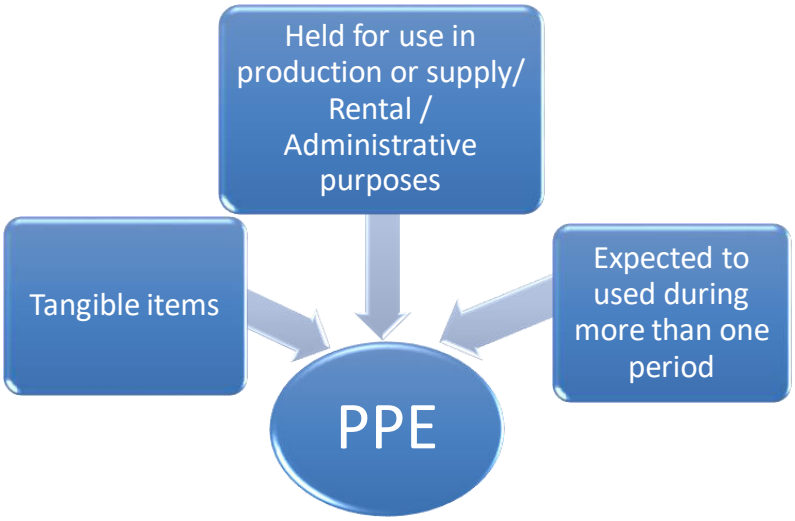
Scope

Ind AS 16 applicable to all kinds of PPE except

- 105 • PPE classified as held for sale
- 41 • Biological assets related to agricultural activity
- 106 • Recognition and measurement of exploration and evaluation assets
- • Mineral rights and mineral reserves such as oil, natural gas and similar non-regenerative resources

This Standard will be applicable to property, plant and equipment which are used to develop or maintain the above assets.

Definition of PPE



Definition of PPE: Case Study 1

XYZ Ltd has acquired a land to construct a plant for manufacturing of goods. Also acquired below items for the business:

- Machine A for production.
- Building for rental purpose
- Truck for transportation of goods
- Furniture and fixture for office administration
- Laptops for the employees for office working
- SAP software for maintaining records and books of account.

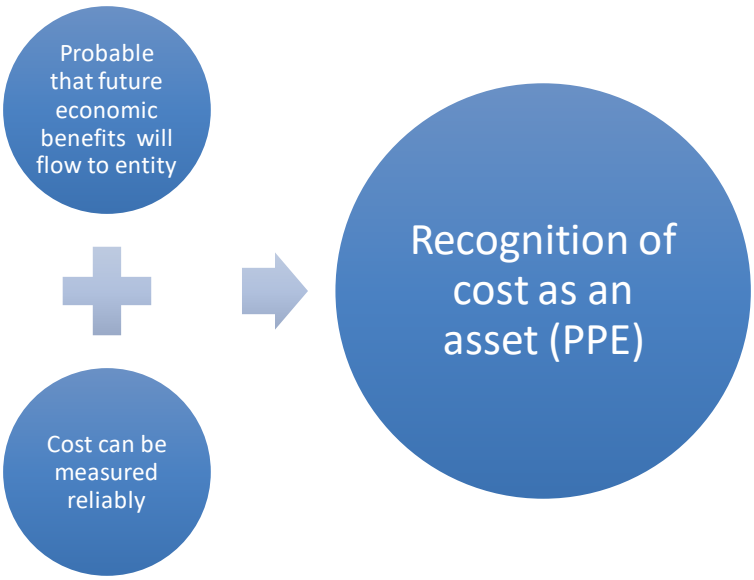
Identify whether above items are PPE or not

Definition of PPE: Solution to Case Study 1

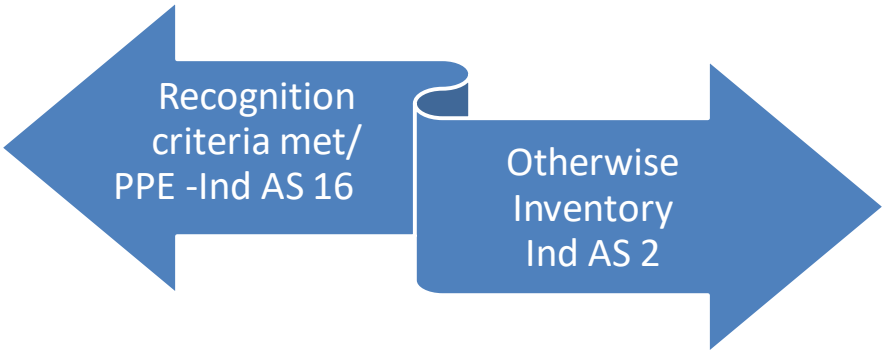
Land	Plant	Machine	Building
• PPE	• PPE	• PPE	• Investment property

Truck - Goods Transportation	Furniture and fixture	Laptops	SAP Software
• PPE	• PPE	• PPE	• No

Recognition criteria



Spare parts, Standby Equipments and Servicing equipment



Subsequent Costs

Same criteria followed as of initial recognition. Added in carrying amount of PPE if recognition criteria is met.

Probable that future economic benefits will flow and cost can be measured reliably.

Day to day servicing cost which includes labour and consumables needs to be expensed off

It can be in the form of Replacement Cost, Major Inspections, Overhauls etc.

Subsequent Costs -Replacement of Parts

Some items are a series of linked parts which require regular replacement at different intervals ⇒ different useful lives

The carrying amount of an item recognises the cost of replacing a part:

- when that cost is incurred
- if the recognition criteria are satisfied

The carrying amount of replaced parts is derecognised

Replacement cost – Case Study 2

Illustration 8

MS Ltd. has acquired a heavy machinery at a cost of ₹ 1,00,00,000 (with no breakdown of the component parts). The estimated useful life is 10 years. At the end of the sixth year, one of the major components, the turbine requires replacement, as further maintenance is uneconomical. The remainder of the machine is perfect and is expected to last for the next four years. The cost of a new turbine is ₹ 45,00,000. The discount rate assumed is 5%.

Can the cost of the new turbine be recognised as an asset, and, if so, what treatment should be used?

Replacement cost –Solution to Case Study 2

The new turbine will produce economic benefits to MS Ltd., and the cost is measurable. Hence, the item should be recognised as an asset. The original invoice for the machine did not specify the cost of the turbine; however, the cost of the replacement ₹ 45,00,000 can be used as an indication (usually by discounting) of the likely cost, six years previously.

If an appropriate discount rate is 5% per annum, ₹ 45,00,000 discounted back six years amounts to ₹ 33,57,900 [₹ 45,00,000/$(1.05)^6$], i.e., the approximate cost of turbine before 6 years.

The current carrying amount of the turbine which is required to be replaced of ₹ 13,43,160 would be derecognised from the books of account, (i.e., Original Cost ₹ 33,57,900 as reduced by accumulated depreciation for past 6 years ₹ 20,14,740, assuming depreciation is charged on straight-line basis.)

The cost of the new turbine, ₹ 45,00,000 would be added to the cost of machine, resulting in a revision of carrying amount of machine to ₹ 71,56,840. (i.e., ₹ 40,00,000* – ₹ 13,43,160 + ₹ 45,00,000).

*Original cost of machine ₹ 1,00,00,000 reduced by accumulated depreciation (till the end of 6 years) ₹ 60,00,000.

Subsequent costs - Major inspections/overhauls

Regular major inspections for faults may be a condition of continuing to operate an item.

The cost of each major inspection is recognised in the carrying Amount - as a replacement , if the recognition criteria are satisfied.

Any remaining carrying amount relating to the previous inspection is derecognized irrespective of whether previous inspection was separately identified and depreciated.

Inspection cost - Case Study 3

Uddan Ltd buys an aircraft for 90 Lakhs. Under civil aviation rules, the aircraft requires a major inspection every three years at a cost of 5 lakh. Three year after purchase it undergoes its first major inspection. The cost in relation to this inspection amounting to 7 Lakhs.

Explain how the same should be accounted for in accordance with the requirements of Ind AS 16?

Inspection cost - Solution to Case Study 3

The original carrying value would have been allocated as follows:-

Aircraft + Cost of Inspection = 85 Lakhs + 5 Lakhs = 90 Lakhs

Ind AS 16 provides that in such case Original cost of inspection is derecognised and the new inspection cost will be recognised in the carrying amount. So, New inspection cost will be accounted for as an asset addition and the original cost as an asset disposal.

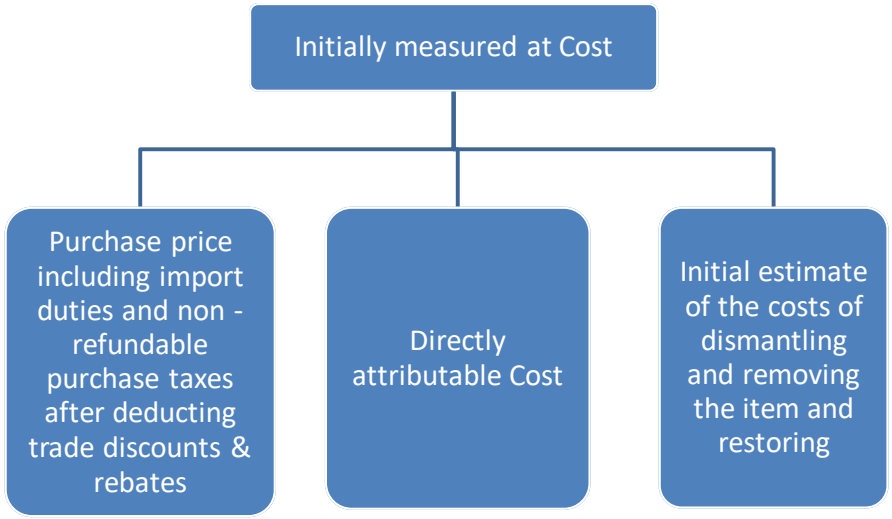
Gross Block

Aircraft = 85 Lakhs

Inspection Component = Original Cost of Inspection (-)derecognition of original inspection+ New inspection Cost

= +5 Lakhs - 5 Lakhs + 7 Lakhs = 7 Lakhs

Measurement at initial recognition



Directly attributable costs -Examples

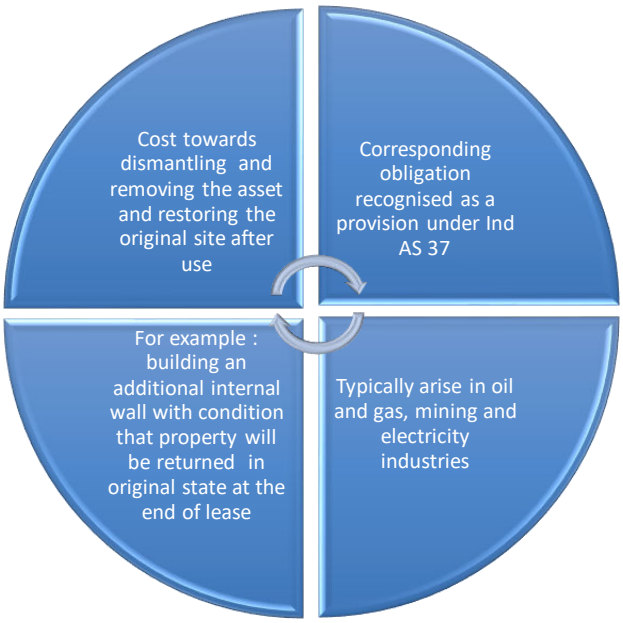
Cost directly related to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by the management.

- Employee benefits cost arising directly from construction or acquisition of PPE
- Cost of Site Preparation
- initial delivery and handling costs
- installation and assembly costs
- Professional Fees
- Costs of testing - whether the asset is working properly after deducting proceeds from sale of any product produced during the testing period

Directly attributable costs -Examples

- Costs of conducting business in a new location or with a new class of customer (including costs of staff training)
- Costs incurred in introducing a new product or service
- Costs of opening a new facility
- Administrative and other general overhead costs

Decommissioning cost



Measurement at Initial recognition- Case Study 4

- ABC Ltd purchased furnace machinery for a gross price of Rs. 200 crores. The seller granted 0.5% rebate on the gross price of the machinery. The gross price includes excise duty Rs. 20 crores for which input credit can be claimed by the company.
- It also incurred Rs. 15 crores as transportation costs, handling charges and insurance. Rs. 5 crores for installation and Rs. 3 crores for testing and professional fees.
- It has earned Rs. 0.2 crores from selling goods produced out of testing.
- The company borrowed Rs. 100 crores for financing the new purchase @10%. The entire process of purchase to make the operation took 15 months. The loan was outstanding during this period.
- The company earned Rs. 0.1 crores from short term parking of the money borrowed pending payment to supplier and meeting all costs.
- What should be the Initial Cost of the Machinery?

Measurement at Initial recognition- Solution to Case Study 4

Cost Items	Amount in crores	
Purchase price	200	
Less: Rebate @ 0.5% of 200	(1)	
Less: Refundable Taxes	(20)	179
Transportation, handling and Insurance		15
Installation Charges		5
Testing and professional charges	3	
Less: Sale proceeds from goods produced in the testing process	(0.2)	2.8
Borrowing Costs capitalised (100x 10%x 15/12)	12.5	
Less: Earning from short term parking of borrowed funds pending utilisation	(0.1)	12.4
Initial Cost of Machinery		216.20

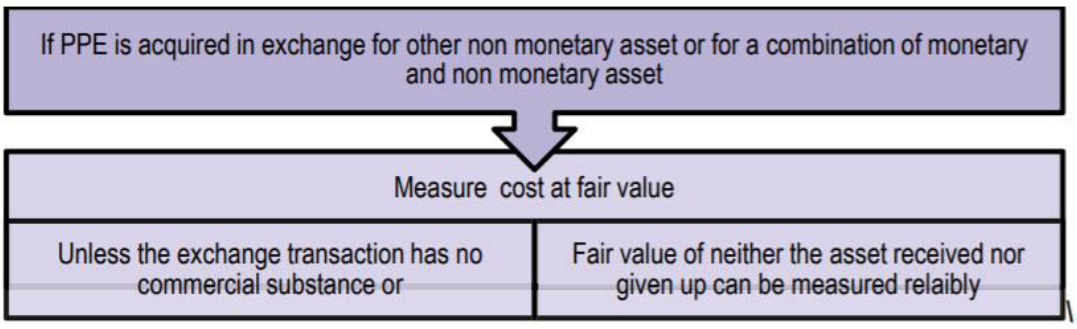
Deferred Payment credit

(Paragraph 23 and 72 of Ind AS 16)

- Cost of an item of PPE is the cash price equivalent at the recognition date.
- In case payment is deferred beyond normal credit terms:

  Difference between the cash price equivalent and total payment is recognised as interest over the period of credit unless such interest is capitalised.

Exchange of Assets



Exchange of Assets – Case Study 5

Illustration 2 – Exchange of Assets

Pluto Ltd owns land and building which are carried in its balance sheet at an aggregate carrying amount of ₹ 10 million. The fair value of such asset is ₹ 15 million. It exchanges the land and building for a private jet, which has a fair value of ₹ 20 million, and pays additional ₹ 3 million in cash.

Show the necessary treatment as per Ind AS 16.

Exchange of Assets – Solution to Case Study 5

Solution

Provided that the transaction has commercial substance, the entity should recognised the private jet at a cost of ₹ 18 million (its fair value) and should recognise a profit on disposal of the land and building of ₹ 5 million, calculated as follow:

		(₹ 000)
Recognition of fair value of asset acquired (15,000 + 3,000)		18,000
Less:	Carrying amount of land and building disposed	(10,000)
	Cash Paid	(3,000)
Profit on exchange of assets		5,000

The required journal entry is therefore as follow:

Property, Plant and Equipment (Private Jet)	Dr.	18,000	
To Property, Plant and Equipment (Land and Building)			10,000
To Cash			3,000
To Profit on exchange of assets			5,000

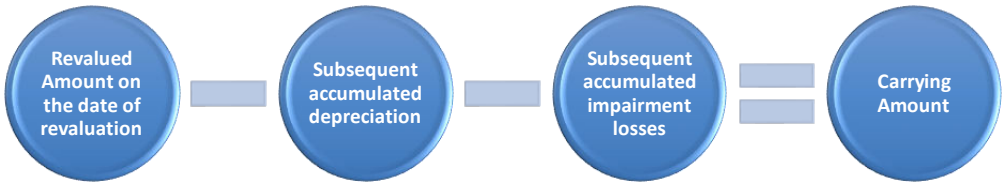
Measurement subsequent to Initial recognition

- Can choose either **Cost model** or **Revaluation model** as its accounting policy.
- Accounting policy should be applied to the whole of a **class** of property, plant and equipment and not merely to individual assets within a class.

Cost model

Revaluation Model

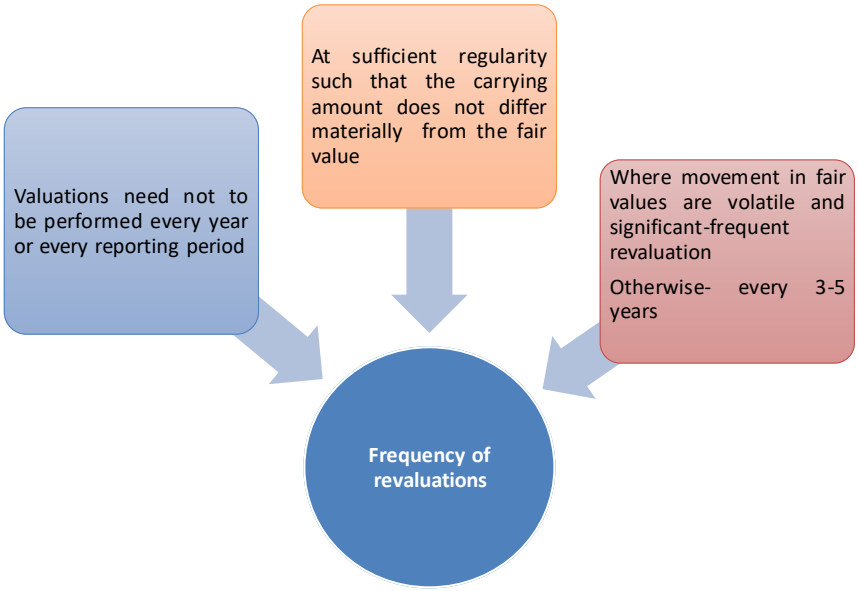
✓ After initial recognition, PPE to carried at revalued amount, being its **fair value** at the revaluation date.



✓If a **single item** of PPE is revalued, then the **entire class** of PPE to which that item belongs should be revalued.

✓Class of assets : *a grouping of assets of a **similar nature** and use in an entity's operations*

Revaluation Model



Revaluation gains and losses

First-time	Increase		Decrease	
	Revaluation reserve (OCI)		P&L	
Subsequent	**Increase**	**Decrease**	**Increase**	**Decrease**
	Revaluation reserve (OCI)	First adjust from RR, then excess in P&L	First charged to P&L to the extent of earlier debit, then remaining to RR	P&L

Transfers from revaluation surplus to retained earnings are made in following circumstances and are not made through profit or loss:

1. When the asset is derecognized, and
2. When the asset is used: Diff between depreciation based on revalued carrying amount and asset's original cost

Revaluation Surplus adjustments- Case Study 6

ABC dynamics Limited has purchased two buildings A & B for Rs. 10 lakhs and 15 lakhs respectively as on April 1, 2013. The Company is using these building to running its office and maintaining its godown. The company is using revaluation model for subsequent recognition of its all class of building. The fair value of building is as follows as at following dates:

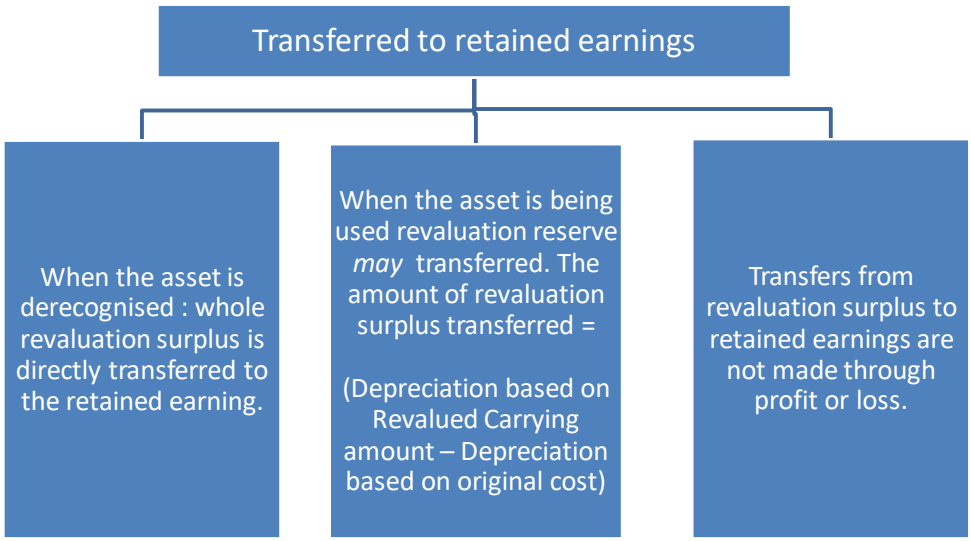
Particulars	Building A	Building B
As at Mar 31, 2014	14 Lakhs	14 Lakhs
As at Mar 31, 2015	9 Lakhs	16 Lakhs
As at Mar 31, 2016	11 lakhs	13 lakhs

Calculate carrying amount of Building A and B and treatment of revaluation gains and losses along with balances if any in Revaluation Surplus A/c as at Mar 31, 2014, 2015 and 2016.

Revaluation Surplus adjustments- Solution to Case Study 6

Particulars	Building A			Building B		
	Carrying value	Revaluation reserve	P&L for the year	Carrying value	Revaluation reserve	P&L for the year
Balance c.f/wd	10			15		
Add: Revaluation gain/ (loss)	4	4	-	(1)	-	(1)
As at Mar 31, 2014	14	4	-	14	-	(1)
As at Apr 1, 2014	14	4		14		
Add: Revaluation gain/ (loss)	(5)	(4)	(1)	2	1	1
As at Mar 31, 2015	9	-	(1)	16	1	1
As at Apr 1, 2015	9	-		16	1	
Add: Revaluation gain/ (loss)	2	1	1	(3)	(1)	(2)
As at Mar 31, 2016	11	1	1	13	-	(2)

Utilisation of Revaluation Surplus



Accumulated Depreciation of Revalued Assets

When an item of property, plant and equipment is revalued, the carrying amount of that asset is adjusted to the revalued amount.

At the date of the revaluation, the asset is treated in one of the following ways:

The accumulated depreciation is **restated** proportionately with the gross carrying amount, so that the carrying amount after the revaluation equals the revalued amount.

The accumulated depreciation is **eliminated** against the gross carrying amount and the net amount restated to the revalued amount.

Accumulated Dep on revaluation - Case Study 7

- Kabadi Inc. has an item of plant with an initial cost of Rs. 100,000. At the date of revaluation accumulated depreciation amounted to Rs. 55,000. The fair value of asset, by reference to transactions in similar assets, is assessed to be Rs. 65,000.

- Find out the entries to be passed as per Ind AS 16?

Accumulated Dep on revaluation – Solution to Case Study 7

Method -I:

Carrying amount (100,000 – 55,000) =		45,000
Fair value (revalued amount)		65,000
Surplus	20,000	
% of surplus (20,000/ 45,000)		44.44%

Entries to be Made:

Asset (100,000 x 44.44%)	Dr	44,440		
Accumulated Depreciation (55,000 x 44.44%)			Cr	24,440
Surplus on Revaluation			Cr	20,000

Accumulated Dep on revaluation – Solution to Case Study 7

Method – II:

Accumulated depreciation	Dr	55,000	
Asset Cost	Cr		55,000
Asset Cost	Dr	20,000	
Revaluation reserve	Cr		20,000

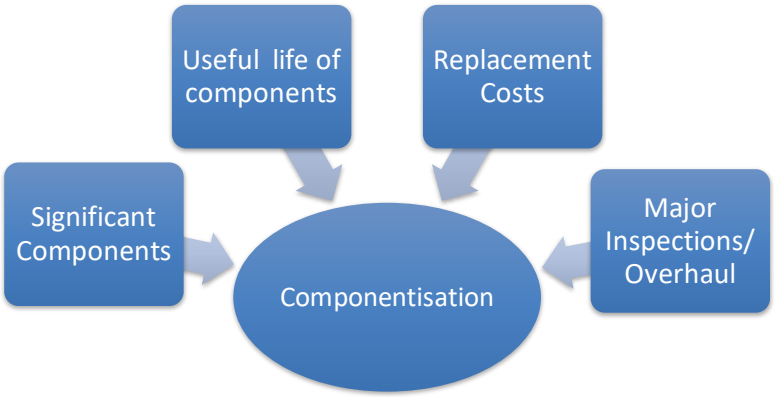
The net result is that the asset has a carrying amount of Rs. 65,000 i.e (100,000 – 55,000 + 20,000).

Depreciation

- The **depreciable amount** of an asset
- should be allocated on a **systematic basis**
- over its **useful life.**

Depreciation charges should be recognised as an expense unless they are included in the carrying amount of another asset.

Component Approach – Key Consideration



Each major part of an item of PPE with cost being significant in relation to total cost of the item – should be depreciated separately. If different parts have same useful life and depreciation method such parts may be grouped for determining depreciation charge.

Depreciation

- Depreciation of an asset begins when it is **available for use**, i.e. when it is in the location and condition necessary for it to be capable of operating in the manner intended by management.
- Depreciation is charged till point, residual value is greater than and equal to carrying amount.
- Depreciation ceases when an asset is **derecognized** or **held for sale under Ind AS 105**.
- Depreciation **does not stop** automatically **when an asset is idle.**

Depreciation Method

Depreciation method adopted should reflect the pattern in which the asset's FEB are expected to be consumed by the entity.

If there is significant change in expected pattern of consumption, method of depreciation to be changed in lines with the future benefits.

SLM – Constant charge

WDV – Diminishing charge

Sum of Units – Charge based on expected outputs

Change in Method is accounted for as a change in an accounting estimate.(Ind AS 8)

Change in Depreciation Method- Case Study 8

Illustration 7: Change in Depreciation Method

An entity acquired an asset 3 years ago at a cost of ₹ 5 million. The depreciation method adopted for the asset was 10 percent reducing balance method.

At the end of Year 3, the entity estimates that the remaining useful life of the asset is 8 years and determines to adopt straight –line method from that date so as to reflect the revised estimated pattern of recovery of economic benefits.

Show the necessary treatment in accordance of Ind AS 16.

Change in Depreciation Method- Solution to Case Study 8

Solution

Change in Depreciation Method shall be accounted for as a change in an accounting estimate in accordance of Ind AS 8 and hence will have a prospective effect.

Depreciation Charges for year 1 to 11 will be as follows:

Year 1	₹ 500,000
Year 2	₹ 450,000
Year 3	₹ 405,000
Year 4 to Year 11 (refer W.N.)	₹ 455,625 p.a.

Change in Depreciation Method- Solution to Case Study 8

Working Note:

Year	Opening balance of asset (a)	Depreciation @ 10% on (a)	Closing balance of asset (c) = (a)- (b)
1	50,00,000	5,00,000	45,00,000
2	45,00,000	4,50,000	40,50,000
3	40,50,000	4,05,000	36,45,000

Year 3 onwards method of depreciation has been changed from reducing balance method to straight line method for which it is assessed that the remaining useful life is 8 years. Hence revised depreciation would be calculated as follows:

Revised depreciation as per straight line method = (Carrying amount as at the end of the 3rd year – Residual value) / Remaining useful life

= 36,45,000/8 years = Rs.4,55,625 per annum (for year 4 to year 11).

Change in estimate of useful life and Residual Value

Useful life and residual value are to be reviewed at every year end.

If there is any change in Useful life/ RV, the same is treated as changes in estimates and accounting will be done prospectively.

Future annual depreciation will be revised basis the new useful life.

Change in useful life- Case Study 9

Illustration 12

XYZ Ltd. purchased an asset on 1st January, 20X0, for ₹ 1,00,000 and the asset had an estimated useful life of ten years and a residual value of nil. The company has charged depreciation using the straight-line method at ₹ 10,000 per annum. On 1st January, 20X4, the management of XYZ Ltd. Reviews the estimated life and decides that the asset will probably be useful for a further four years and, therefore, the total life is revised to eight years. How should the asset be accounted for remaining years?

Solution

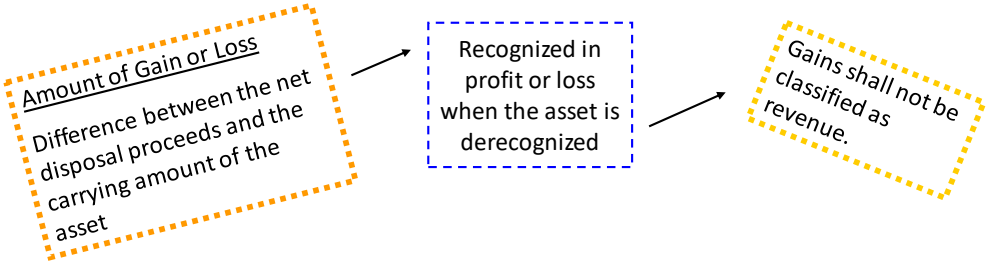
Change in useful economic life of an asset is change in accounting estimate, which is to be applied prospectively, i.e., the depreciation charge will need to be recalculated. On 1st January, 20X4, when the asset's net book value is ₹ 60,000. The company should amend the annual provision for depreciation to charge the unamortised cost (namely, ₹ 60,000) over the revised remaining life of four years. Consequently, it should charge depreciation for the next four years at ₹ 15,000 per annum.

Retirements and disposals

The carrying amount of an item of PPE shall be derecognised:

(a) on disposal

(b) when no future economic benefits are expected from its use or disposal.



Multiple Choice Questions

1. A change in depreciation method is a…

a) Change in accounting policy

b) Change in accounting estimate

c) Change in accounting method

d) Change in accounting standard

Answer (b).

Para 61 of Ind AS 16 - Change in Depreciation Method shall be accounted for as a change in an accounting estimate in accordance with Ind AS 8.

2. When an asset is sold or disposed of, where is the gain or loss recognised?

a) Asset disposal account

b) Profit and loss

c) Revaluation reserve

d) Depreciation

Answer (b).

Para 68 of Ind AS 16 - The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in profit or loss

3. Under Ind AS 16, how often should the useful life of an asset be reviewed?

a) At least at each financial year end

b) Every six months

c) At management's discretion

d) Never

Answer (a).

Para 61 of Ind AS 16 - The depreciation method applied to an asset shall be reviewed at least at each financial year end

4.How should an item of PPE be initially recognised in the financial statements?

a) Measure at market value

b) Measure at cost

c) Measure at net realisable value

d) Measure at fair value

Answer (b).

Para 15 of Ind AS 16 - An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.

5. If one large asset has a number of individual components with different useful lives, how should this be depreciated?

a) Treat as one asset

b) Break down into different components

c) Expense it all

d) Treat as one asset, but disclose in the notes to the financial statements

Answer (b).

Para 43 of Ind AS 16 - Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.

6. Under Ind AS 16, which two subsequent accounting treatments are allowed subsequently to initial recognition?

a) Cost model and present value model

b) Cost model and revaluation model

c) Fair value model and revaluation model

d) Fair value model and cost model

Answer (b).

Para 29 of Ind AS 16 - An entity shall choose either the cost model or the revaluation model as its accounting policy and shall apply that policy to an entire class of property, plant and equipment.

7. When it is _____that future economic benefits associated with an asset will flow to the entity, and the costs can be _____ measured, it should be recognised as an asset.

a) Possible, reasonably

b) Possible, reliably

c) Probable, reliably

d) Probable, reasonably

Answer (c).

Para 7 of Ind AS 16 - The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:

a) future economic benefits is probable; and

b) Cost can be measured reliably.

8. Which of the following is not an asset that falls under the scope of Ind AS 16?

a) Tangible assets

b) Assets held for the production or supply of goods or services

c) Assets held for sale in the normal course of business

d) Assets expected to be used for more than one period

Answer (c).

Assets, which are held for sale in the normal course of business, are accounted for using Ind AS 2 -Inventories

9. When the revaluation model is used for PPE the gain or loss should be included in

a) Income for the period.

b) Gain from revaluation on the income statement.

c) A revaluation surplus account in OCI

d) An extraordinary gain or loss on the income statement.

Answer (c).

Para 39 of Ind AS 16 - If a revaluation results in an increase in value, it should be credited to other comprehensive income and accumulated in equity under the heading “revaluation surplus” unless it represents the reversal of a revaluation decrease of the same asset previously recognised as an expense, in which case it should be recognised in profit or loss.

10. Which of these is an allowable cost of an asset under Ind AS 16?

a) Professional fees

b) General overheads

c) Initial operating losses

d) Administration expenses

Answer (a)

Para 17 (f) of Ind AS 16 - Professional fees are allowed as a cost of an asset, so long as the costs incurred is directly related to the asset.

THANK YOU

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