UNIT 2: ACCOUNTING STANDARD 10 PROPERTY, PLANT AND EQUIPMENT

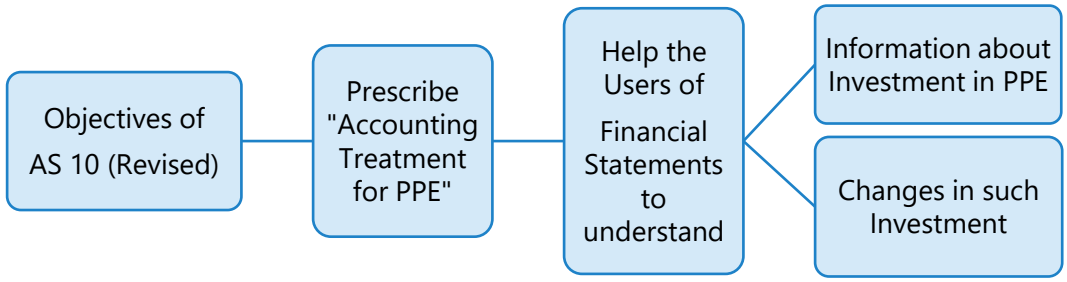
LEARNING OUTCOMES

After studying this unit, you will be able to comprehend the

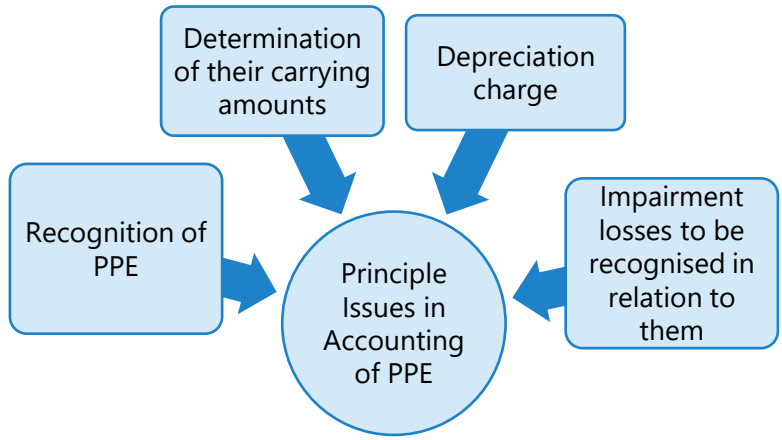
- Definition of PPE
- What is the Recognition Criteria for PPE
  - Initial Costs
  - Subsequent Costs
- Measurement at Recognition
  - What is included in elements of Cost
  - Measurement of Cost
- Measurement after Recognition
  - Cost Model
  - Revaluation Model
- Depreciation
  - Depreciable Amount and Useful life
  - Depreciation Method
- Retirement in case of PPE
- Derecognition aspects
- Disclosure requirements.

2.1 INTRODUCTION

The objective of this Standard is to prescribe accounting treatment for Property, Plant and Equipment (PPE).



The principal issues in Accounting for PPE are:



2.2 SCOPE OF THE STANDARD

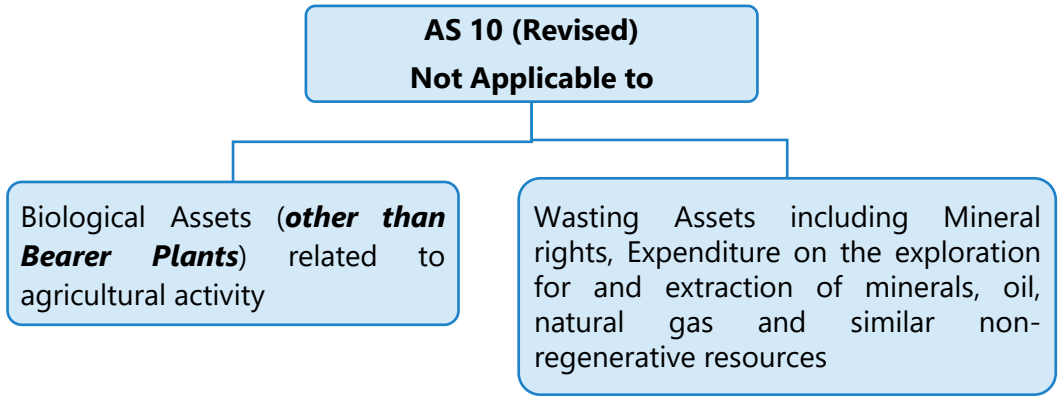
As a general principle, AS 10 (Revised) should be applied in accounting for PPE.

Exception:

When another Accounting Standard requires or permits a different accounting treatment.

Example:

AS 19 on Leases, requires an enterprise to evaluate its recognition of an item of leased PPE on the basis of the transfer of risks and rewards. However, it may be noted that in such cases other aspects of the accounting treatment for these assets, including depreciation, are prescribed by this Standard.



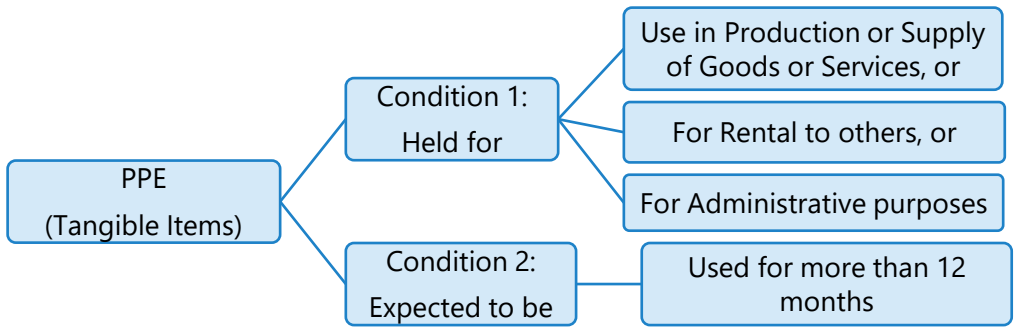
Note: AS 10 (Revised) applies to Bearer Plants but it does not apply to the produce on Bearer Plants.

Clarifications:

1. AS 10 (Revised) applies to PPE used to develop or maintain the assets described above.
2. Investment property (defined in AS 13 (Revised)), should be accounted for only in accordance with the Cost model prescribed in this standard.

2.3 DEFINITION OF PROPERTY, PLANT AND EQUIPMENT (PPE)

There are 2 conditions to be satisfied for a TANGIBLE item to be called PPE. PPE are *tangible items* that:



Note: Intangible items are covered under AS 26.

"Administrative purposes": The term 'Administrative purposes' has been used in wider sense to *include all business purposes.* Thus, PPE would include assets used for:

- Selling and distribution
- Finance and accounting
- Personnel and other functions of an Enterprise.

Items of PPE may also be acquired for safety or environmental reasons.

The acquisition of such PPE, although not directly increasing the future economic benefits of any particular existing item of PPE, may be necessary for an enterprise to obtain the future economic benefits from its other assets.

Such items of PPE qualify for recognition as assets because they enable an enterprise to derive future economic benefits from related assets in excess of what could be derived had those items not been acquired.

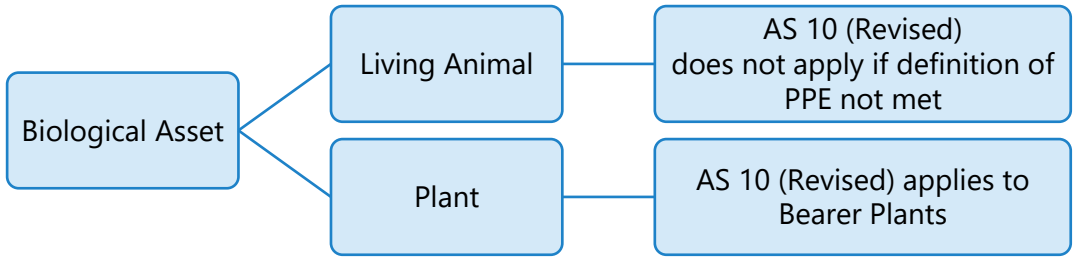
Example:

A chemical manufacturer may install new chemical handling processes to comply with environmental requirements for the production and storage of dangerous chemicals; related plant enhancements are recognised as an asset because without them the enterprise is unable to manufacture and sell chemicals.

The resulting carrying amount of such an asset and related assets is reviewed for impairment in accordance with AS 28 'Impairment of Assets'.

2.4 OTHER DEFINITIONS

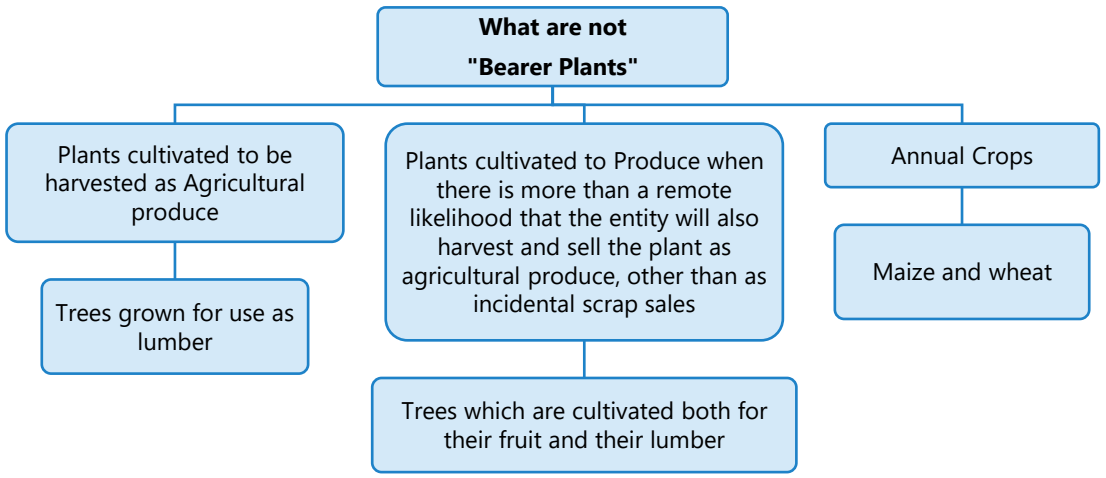
1. **Biological Asset**: An Accounting Standard on "Agriculture" is under formulation, which will, inter alia, cover accounting for livestock. Till the time, the Accounting Standard on "Agriculture" is issued, accounting for livestock meeting the definition of PPE, will be covered as per AS 10 (Revised).



2. **Bearer Plant**: Is a plant that (satisfies all 3 conditions):

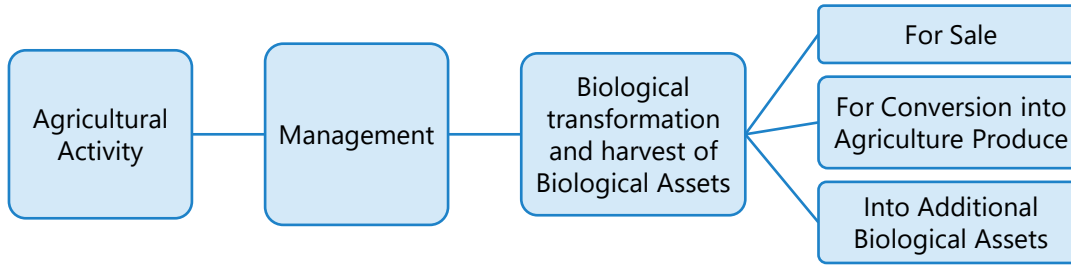
Is used in the production or supply	•Of Agricultural produce
Is expected to bear produce	•For more than a period of 12 months
Has a remote likelihood of being sold as Agricultural produce	•Except for incidental scrap sales

Note: When bearer plants are no longer used to bear produce they might be cut down and sold as scrap. For example - use as firewood. Such incidental scrap sales would not prevent the plant from satisfying the definition of a Bearer Plant.



Agricultural Produce is the harvested product of Biological Assets of the enterprise.

3. **Agricultural Activity:** Is the management by an Enterprise of:
   - Biological transformation; and
   - Harvest of Biological Assets
     - For sale, Or
     - For conversion into Agricultural Produce, Or
     - Into additional Biological Assets



2.5 RECOGNITION CRITERIA FOR PPE

The *cost of an item of PPE* should be recognised as an asset *if, and only if*:

- It is probable that future economic benefits associated with the item will flow to the enterprise, and
- The cost of the item can be measured reliably.

Notes:

1. It may be appropriate to aggregate individually insignificant items, such as moulds, tools and dies and to apply the criteria to the aggregate value.
2. An enterprise may decide to expense an item which could otherwise have been included as PPE, because the amount of the expenditure is not material.

Illustration 1 (Capitalising the cost of "Remodelling" a Supermarket)

Entity A, a supermarket chain, is renovating one of its major stores. The store will have more available space for in store promotion outlets after the renovation and will include a restaurant. Management is preparing the budgets for the year after the store reopens, which include the cost of remodelling and the expectation of a

15% increase in sales resulting from the store renovations, which will attract new customers. State whether the remodelling cost will be capitalised or not.

Solution

The expenditure in remodelling the store will create future economic benefits (in the form of 15% of increase in sales) and the cost of remodelling can be measured reliably, therefore, it should be capitalised.

Treatment of Spare Parts, Stand by Equipment and Servicing Equipment

Case I If they meet the definition of PPE as per AS 10 (Revised):

- Recognised as PPE as per AS 10 (Revised)

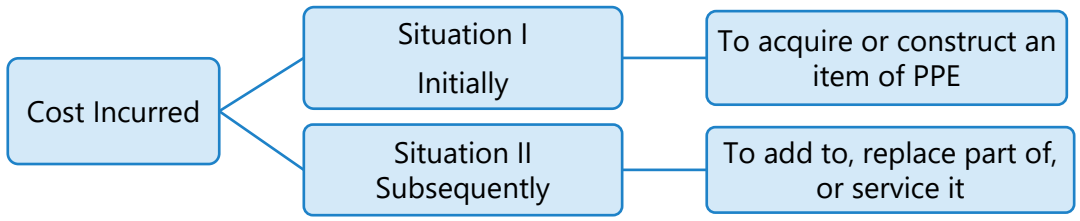
Case II If they do not meet the definition of PPE as per AS 10 (Revised):

- Such items are classified as Inventory as per AS 2 (Revised)

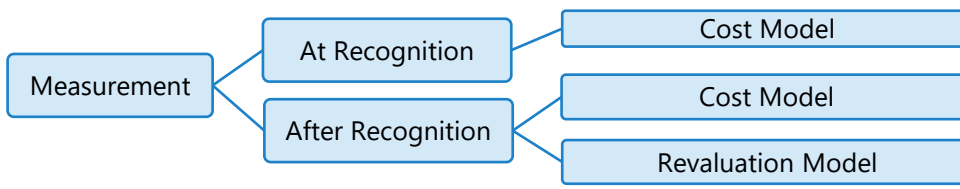
When do we apply the above criteria for Recognition?

An enterprise evaluates under this recognition principle all its costs on PPE at the time they are incurred.

These costs include costs incurred:



2.6 MEASUREMENT OF PPE

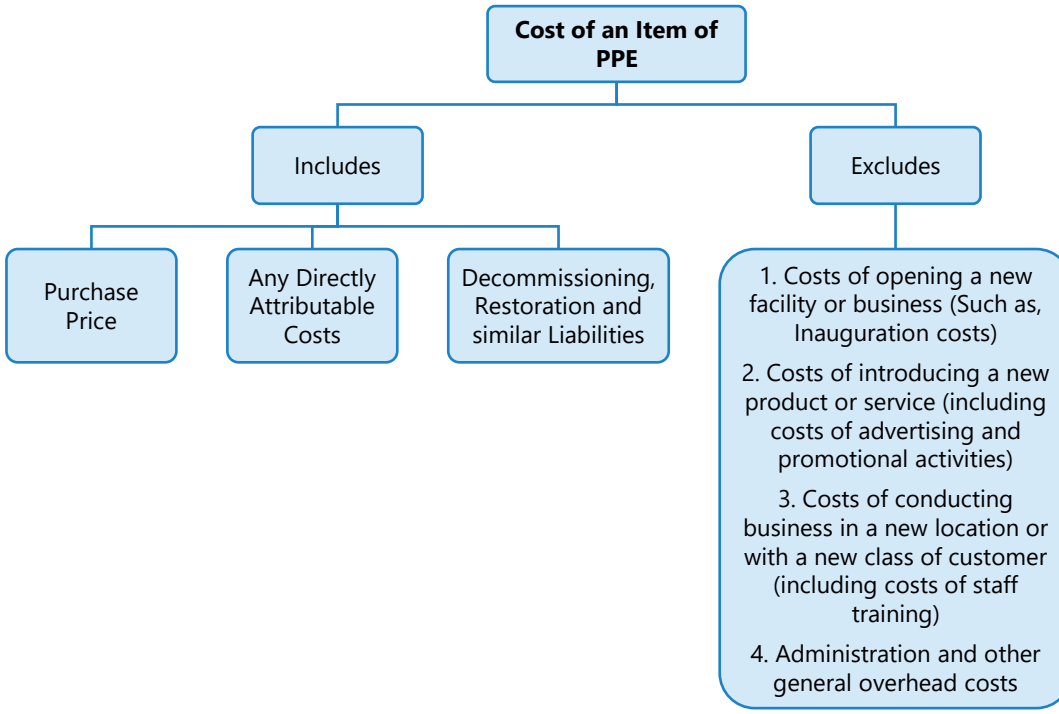


2.7 INITIAL RECOGNITION

An item of PPE that qualifies for recognition as an asset should be measured at its cost.

What are the elements of Cost?

Cost of an item of PPE comprises:



Let us understand the above in detail.

A. Purchase Price:

- It includes import duties and non –refundable purchase taxes.
- It requires deduction of Trade discounts and rebates

B. Directly Attributable Costs:

Any costs directly attributable to bringing the asset to the 'location and condition' necessary for it to be capable of operating in the manner intended by management. Recognition of costs in the carrying amount of an item of PPE

ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

The following costs are not included in the carrying amount of an item of PPE:

1. Costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity.
2. Initial operating losses, such as those incurred while demand for the output of an item builds up. And
3. Costs of relocating or reorganising part or all of the operations of an enterprise.

Examples of directly attributable costs are:

1. Costs of employee benefits (as defined in AS 15) arising directly from the construction or acquisition of the item of PPE
2. Costs of site preparation
3. Initial delivery and handling costs
4. Installation and assembly costs
5. Costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment)
6. Professional fees

Examples of costs that are not costs of an item of property, plant and equipment are:

(a) costs of opening a new facility or business, such as, inauguration costs

(b) costs of introducing a new product or service (including costs of advertising and promotional activities)

(c) costs of conducting business in a new location or with a new class of customer (including costs of staff training)

(d) administration and other general overhead costs

Note: Some operations occur in connection with the construction or development of an item of PPE but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management. These incidental operations may occur before or during the construction or development activities.

Example:

Income may be earned through using a building site as a car park until construction starts because incidental operations are not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, the income and related expenses of incidental operations are recognised in the Statement of Profit and Loss and included in their respective classifications of income and expense.

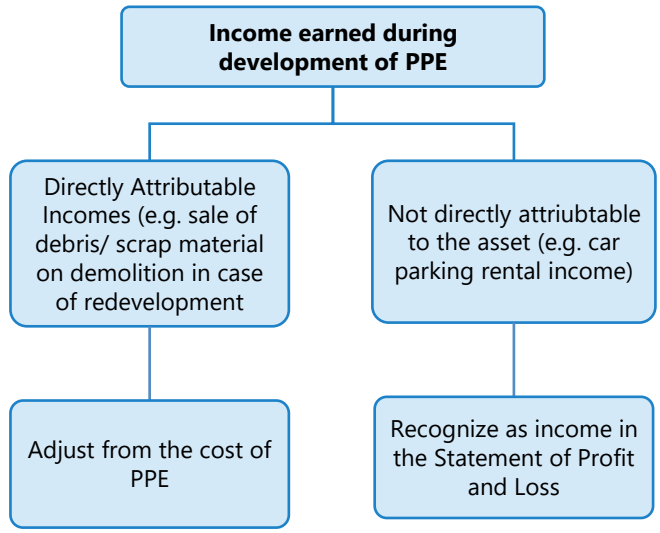


Illustration 2

Entity A has an existing freehold factory property, which it intends to knock down and redevelop. During the redevelopment period the company will move its production facilities to another (temporary) site. The following incremental costs will be incurred:

1. *Setup costs of ₹5,00,000 to install machinery in the new location.*
2. *Rent of ₹15,00,000*

3. *Removal costs of ₹ 3,00,000 to transport the machinery from the old location to the temporary location.*

Can these costs be capitalised into the cost of the new building?

Solution

Constructing or acquiring a new asset may result in incremental costs that would have been avoided if the asset had not been constructed or acquired. These costs are not to be included in the cost of the asset if they are not directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. The costs to be incurred by the company are in the nature of costs of relocating or reorganising operations of the company and do not meet the requirement of AS 10 (Revised) and therefore, cannot be capitalised.

Illustration 3

Omega Ltd. contracted with a supplier to purchase machinery which is to be installed in its one department in three months' time. Special foundations were required for the machinery which were to be prepared within this supply lead time. The cost of the site preparation and laying foundations were ₹ 1,40,000. These activities were supervised by a technician during the entire period, who is employed for this purpose of ₹ 45,000 per month. The machine was purchased at ₹ 1,58,00,000 and ₹ 50,000 transportation charges were incurred to bring the machine to the factory site. An Architect was appointed at a fee of ₹ 30,000 to supervise machinery installation at the factory site. You are required to ascertain the amount at which the Machinery should be capitalized.

Solution

Particulars			₹
Purchase Price		Given	1,58,00,000
Add:	Site Preparation Cost	Given	1,40,000
	Technician's Salary	Specific/Attributable overheads for 3 months (45,000 x 3)	1,35,000
	Initial Delivery Cost	Transportation	50,000
	Professional Fees for Installation	Architect's Fees	30,000
Total Cost of Machinery			1,61,55,000

Illustration 4 (Capitalisation of directly attributable costs)

Entity A, which operates a major chain of supermarkets, has acquired a new store location. The new location requires significant renovation expenditure. Management expects that the renovations will last for 3 months during which the supermarket will be closed.

Management has prepared the budget for this period including expenditure related to construction and remodelling costs, salaries of staff who will be preparing the store before its opening and related utilities costs. What will be the treatment of such expenditures?

Solution

Management should capitalise the costs of construction and remodelling the supermarket, because they are necessary to bring the store to the condition necessary for it to be capable of operating in the manner intended by management. The supermarket cannot be opened without incurring the remodelling expenditure, and thus the expenditure should be considered part of the asset.

However, if the cost of salaries, utilities and storage of goods are in the nature of operating expenditure that would be incurred if the supermarket was open, then these costs are not necessary to bring the store to the condition necessary for it to be capable of operating in the manner intended by management and should be expensed.

Illustration 5 (Operating costs incurred in the start-up period)

An amusement park has a 'soft' opening to the public, to trial run its attractions. Tickets are sold at a 50% discount during this period and the operating capacity is 80%. The official opening day of the amusement park is three months later. Management claim that the soft opening is a trial run necessary for the amusement park to be in the condition capable of operating in the intended manner. Accordingly, the net operating costs incurred should be capitalised. Comment.

Solution

The net operating costs should not be capitalised but should be recognised in the Statement of Profit and Loss.

Even though it is running at less than full operating capacity (in this case 80% of operating capacity), there is sufficient evidence that the amusement park is capable of operating in the manner intended by management. Therefore, these costs are specific to the start-up and, therefore, should be expensed as incurred.

C. Decommissioning, Restoration and similar Liabilities:

Initial estimate of the costs of dismantling, removing the item and restoring the site on which it is located, referred to as 'Decommissioning, Restoration and similar Liabilities', the obligation for which an enterprise incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.

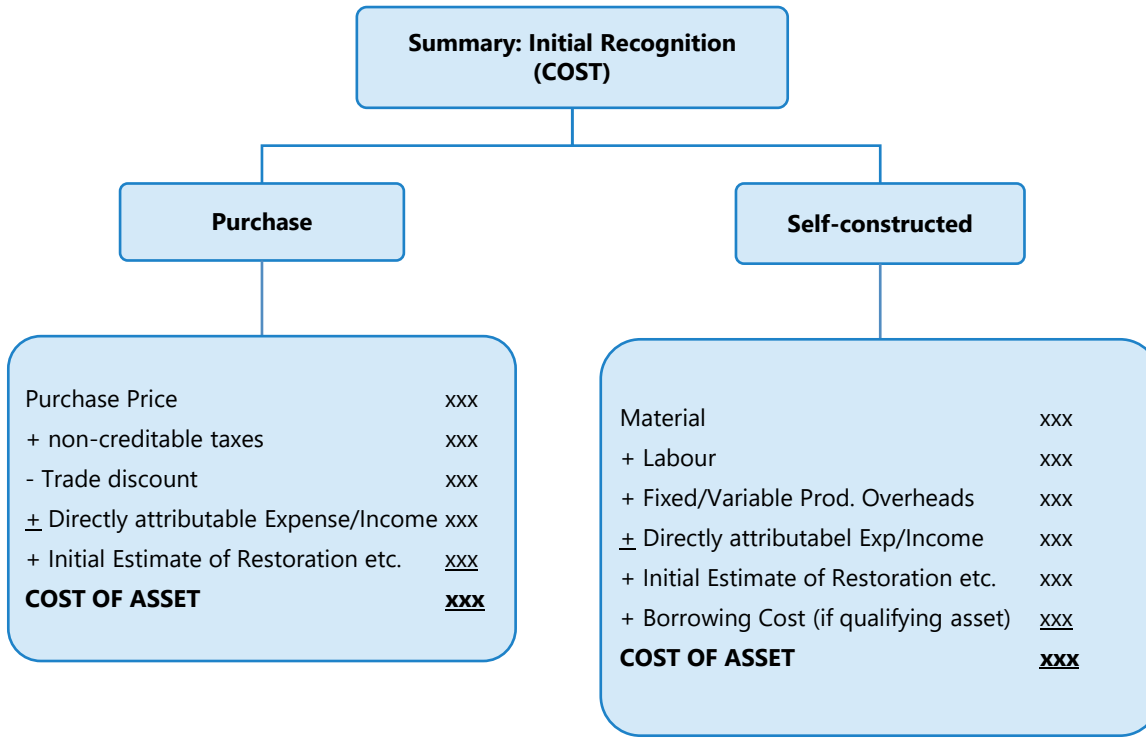
Exception: An enterprise applies AS 2 (Revised) "Valuation of Inventories", to the costs of obligations for dismantling, removing and restoring the site on which an item is located that are incurred during a particular period as a consequence of having used the item to produce inventories during that period.

Note: The obligations for costs accounted for in accordance with AS 2 (Revised) or AS 10 (Revised) are recognised and measured in accordance with AS 29 (Revised) "Provisions, Contingent Liabilities and Contingent Assets".

2.8 COST OF A SELF-CONSTRUCTED ASSET

Cost of a self-constructed asset is determined using the same principles as for an acquired asset.

1. If an enterprise makes similar assets for sale in the normal course of business, the cost of the asset is usually the same as the cost of constructing an asset for sale (Refer AS 2). Therefore, any internal profits are eliminated in arriving at such costs.
2. Cost of abnormal amounts of wasted material, labour, or other resources incurred in self constructing an asset is not included in the cost of the asset.
3. AS 16 on Borrowing Costs, establishes criteria for the recognition of interest as a component of the carrying amount of a self-constructed item of PPE.
4. Bearer plants are accounted for in the same way as self-constructed items of PPE before they are in the location and condition necessary to be capable of operating in the manner intended by management.



2.9 PPE ACQUIRED IN EXCHANGE FOR A NON-MONETARY ASSET OR ASSETS OR A COMBINATION OF MONETARY AND NON-MONETARY ASSETS:

Cost of such an item of PPE is measured at fair value unless:

(a) Exchange transaction lacks commercial substance; or

(b) Fair value of neither the asset(s) received nor the asset(s) given up is reliably measurable.

Note:

1. The acquired item(s) is/are measured in this manner even if an enterprise cannot immediately derecognise the asset given up.

2. The fair value of an asset is reliably measurable if (a) the variability in the range of reasonable fair value measurements is not significant for that asset or (b) the probabilities of the various estimates within the range can be reasonably assessed and used when measuring fair value. If an enterprise is able to measure reliably the fair value of either the asset received or the asset given up, then the fair value of the asset given up is used to measure the cost of the asset received unless the fair value of the asset received is more clearly evident.

3. If the acquired item(s) is/are not measured at fair value, its/their cost is measured at the carrying amount of the asset(s) given up.

4. An enterprise determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows are expected to change as a result of the transaction. An exchange transaction has commercial substance if:

   (a) the configuration (risk, timing and amount) of the cash flows of the asset received differs from the configuration of the cash flows of the asset transferred; or

   (b) the enterprise-specific value of the portion of the operations of the enterprise affected by the transaction changes as a result of the exchange;

   (c) and the difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

   For the purpose of determining whether an exchange transaction has commercial substance, the enterprise-specific value of the portion of operations of the enterprise affected by the transaction should reflect post-tax cash flows. In certain cases, the result of these analyses may be clear without an enterprise having to perform detailed calculations.

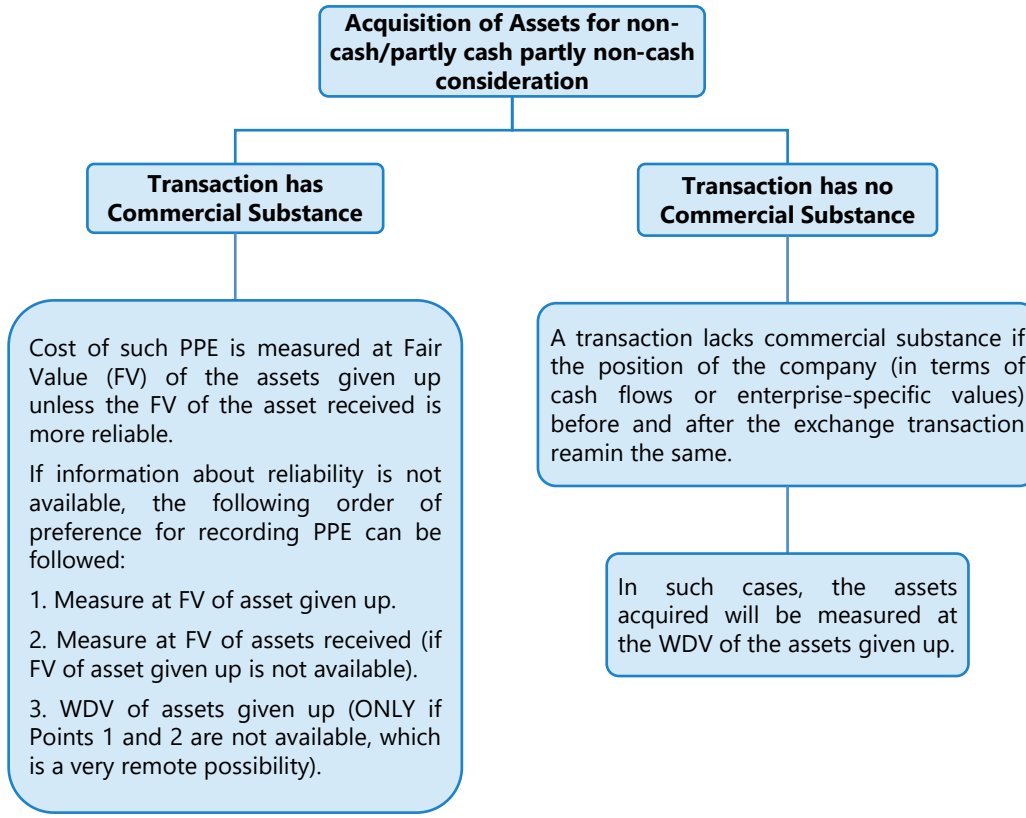


Illustration 6 (Consideration received comprising a combination of non-monetary and monetary assets)

Entity A exchanges land with a book value of ₹ 10,00,000 for cash of ₹ 20,00,000 and plant and machinery valued at ₹ 25,00,000. What will be the measurement cost of the assets received. (Consider that the transaction has commercial substance)?

Solution

In the given case, Plant & Machinery is valued at ₹ 25,00,000, which is assumed to be fair value in absence of information. Further, since fair value of land (asset given up) is not given, the transaction will be recorded at fair value of assets acquired of ₹ 45,00,000 (₹ Cash 20,00,000 + ₹ Plant & Machinery 25,00,000). Since land of book value ₹ 10,00,000 is transferred in exchange of assets worth ₹ 45,00,000, a gain of ₹ 35,00,000 will be recognised in the books of Entity A.

The following journal entry will be passed in the books of Entity A:

Cash/ Bank A/c	Dr.	20,00,000	
Plant & Machinery A/c	Dr.	25,00,000	
To Land			10,00,000
To Profit on Sale of Land (balancing figure)			35,00,000

Illustration 7 (Exchange of assets that lack commercial substance)

Entity A exchanges car X with a book value of ₹ 13,00,000 and a fair value of ₹ 13,25,000 for cash of ₹ 15,000 and car Y which has a fair value of ₹ 13,10,000. The transaction lacks commercial substance as the company's cash flows are not expected to change as a result of the exchange. It is in the same position as it was before the transaction. What will be the measurement cost of the assets received?

Solution

Since the transaction lacks commercial substance, the entity recognises the assets received at the book value of car X. Therefore, it recognises cash of ₹ 15,000 and car Y as PPE with a carrying value of ₹ 12,85,000.

The following journal entry will be passed in the books of Entity A:

Cash/ Bank A/c	Dr.	15,000	
Car Y A/c (balancing figure)	Dr.	12,85,000	
To Car X A/c			13,00,000

Determination of Cost in special cases:

Cost of an item of PPE is the cash price equivalent at the recognition date.

A. If payment is deferred beyond normal credit terms:

Total payment *minus* Cash price equivalent

- is recognised as an interest expense over the period of credit
- unless such interest is capitalised in accordance with AS 16

B. PPE purchased for a Consolidated Price:

Where several items of PPE are purchased for a consolidated price, the consideration is apportioned to the various items on the basis of their respective fair values at the date of acquisition.

Note: In case the fair values of the items acquired cannot be measured reliably, these values are estimated on a fair basis as determined by competent valuers.

C. PPE held by a lessee under a Finance Lease:

The cost of an item of PPE held by a lessee under a finance lease is determined in accordance with AS 19 (Leases).

D. Government Grant related to PPE:

The carrying amount of an item of PPE may be reduced by government grants in accordance with AS 12 (Accounting for Government Grants).

2.10 TREATMENT OF SUBSEQUENT COSTS

Cost of day-to-day servicing

Meaning

Costs of day-to-day servicing are primarily the costs of labour and consumables and may include the cost of small parts. The purpose of such expenditures is often described as for the 'Repairs and Maintenance' of the item of PPE.

Accounting Treatment:

An enterprise does not recognise in the carrying amount of an item of PPE the costs of the day-to-day servicing of the item. Rather, these costs are recognised in the Statement of Profit and Loss as incurred.

Replacement of Parts of PPE

Parts of some items of PPE may require replacement at regular intervals.

Examples

1. A furnace may require relining after a specified number of hours of use.
2. Aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe.
3. Major parts of conveyor system, such as, conveyor belts, wire ropes, etc., may require replacement several times during the life of the conveyor system.

4. Replacing the interior walls of a building, or to make a non-recurring replacement.

Accounting Treatment

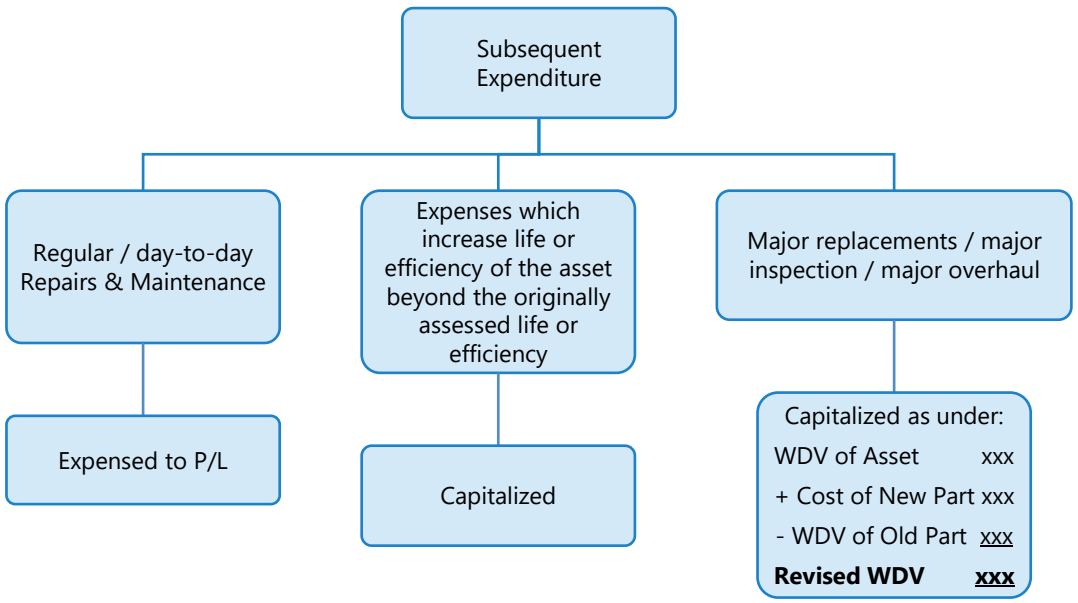
An enterprise recognises in the carrying amount of an item of PPE the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met.

Note: The carrying amount of those parts that are replaced is derecognised in accordance with the de-recognition provisions of this Standard.

Regular Major Inspections - Accounting Treatment

In certain cases, a condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each such major inspection is performed, its cost is recognised in the carrying amount of the item of PPE as a replacement, if the recognition criteria are satisfied.

Any remaining carrying amount of the cost of the previous inspection (as distinct from physical parts) is derecognised.



The WDV of the old part / inspection (in case of major replacements / inspection) can be determined through the following sources (in order of preference):

(i) Breakup from suppliers' invoice

(ii) Fair value of the part / inspection at the time of purchase

If it is not practicable for an enterprise to determine the carrying amount of the replaced part/ inspection, it may use the cost of the replacement or the estimated cost of a future similar inspection as an indication of what the cost of the replaced part/ existing inspection component was when the item was acquired or constructed.

The WDV of the old part / inspection is computed after deducting the applicable depreciation.

Illustration 8

What happens if the cost of the previous part/inspection was/ was not identified in the transaction in which the item was acquired or constructed?

Solution

De-recognition of the carrying amount occurs regardless of whether the cost of the previous part/inspection was identified in the transaction in which the item was acquired or constructed.

Illustration 9

What will be your answer in the above question, if it is not practicable for an enterprise to determine the carrying amount of the replaced part/inspection?

Solution

It may use the cost of the replacement or the estimated cost of a future similar inspection as an indication of what the cost of the replaced part/existing inspection component was when the item was acquired or constructed.

MEASUREMENT AFTER RECOGNITION

An enterprise should choose

- Either Cost model,
- Or Revaluation model

as its accounting policy and should apply that policy to an entire **class of PPE**.

Class of PPE: A class of PPE is a grouping of assets of a **similar nature and use** in operations of an enterprise.

Examples of separate classes:

(a)	Land	(b)	Land and Buildings
(c)	Machinery	(d)	Ships
(e)	Aircraft	(f)	Motor Vehicles
(g)	Furniture and Fixtures	(h)	Office Equipment
(j)	Bearer plants		

Cost Model

After recognition as an asset, an item of PPE should be carried at:

Cost**-** Any Accumulated Depreciation**-** Any Accumulated Impairment losses

Revaluation Model

After recognition as an asset, an item of PPE whose fair value can be measured reliably should be carried at a revalued amount.

Fair value at the date of the revaluation	—
Less: Any subsequent accumulated depreciation	(—)
Less: Any subsequent accumulated impairment losses	(—)
Carrying value	—

Revaluation for entire class of PPE

If an item of PPE is revalued, the entire class of PPE to which that asset belongs should be revalued.

Reason

The items within a class of PPE are revalued simultaneously to avoid selective revaluation of assets and the reporting of amounts in the Financial Statements that are a mixture of costs and values as at different dates. It will ensure true and fair view of financial statements.

Illustration 10 (Revaluation on a class by class basis)

Entity A is a large manufacturing group. It owns a number of industrial buildings, such as factories and warehouses and office buildings in several capital cities. The industrial buildings are located in industrial zones, whereas the office buildings are in central business districts of the cities. Entity A's management want to apply the revaluation model as per AS 10 (Revised) to the subsequent measurement of the office buildings but continue to apply the historical cost model to the industrial buildings.

State whether this is acceptable under AS 10 (Revised) or not with reasons?

Solution

Entity A's management can apply the revaluation model only to the office buildings. The office buildings can be clearly distinguished from the industrial buildings in terms of their function, their nature and their general location.AS 10 (Revised) permits assets to be revalued on a class by class basis.

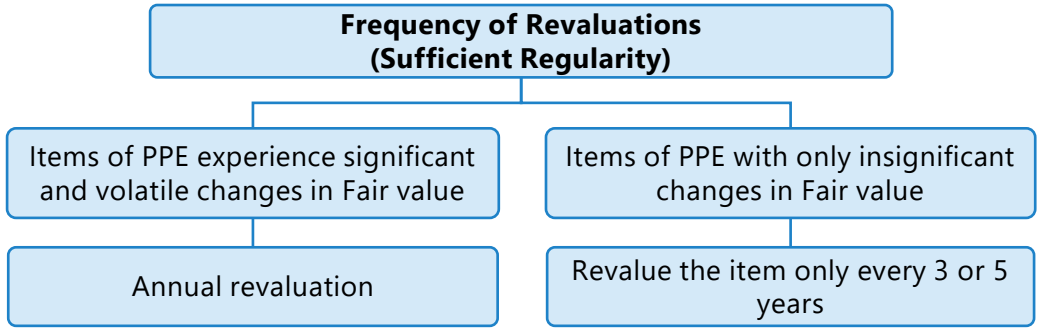
The different characteristics of the buildings enable them to be classified as different PPE classes. The different measurement models can, therefore, be applied to these classes for subsequent measurement.

However, all properties within the class of office buildings must be carried at revalued amount.

Frequency of Revaluations

Revaluations should be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using Fair value at the Balance Sheet date.

The frequency of revaluations depends upon the changes in fair values of the items of PPE being revalued.



Determination of Fair Value

Fair value of items of PPE is usually determined from market-based evidence by appraisal that is normally undertaken by professionally qualified valuers.

If there is no market-based evidence of fair value because of the specialised nature of the item of PPE and the item is rarely sold, except as part of a continuing business, an enterprise may need to estimate fair value using an income approach *Based on (Discounted cash flow projections) Ora depreciated replacement cost approach* which aims at making a **realistic estimate of the current cost** of acquiring or constructing an item that has the same service potential as the existing item.

Accounting Treatment of Revaluations

When an item of PPE 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:

A. Technique 1: Gross carrying amount is adjusted in a manner that is consistent with the revaluation of the carrying amount of the asset.

Gross carrying amount

- May be restated by reference to observable market data, or
- May be restated proportionately to the change in the carrying amount.

Accumulated depreciation at the date of the revaluation is

- Adjusted to equal the difference between the gross carrying amount and the carrying amount of the asset after taking into account accumulated impairment losses

Case Study on Technique I

PPE is revalued to ₹ 1,500 consisting of ₹ 2,500 Gross cost and ₹ 1,000 Depreciation based on observable market data.

Details of the PPE before and after revaluation are as follows:

Particulars	Cost/ Revalued Cost	Accumulated depreciation	Net book value
PPE before revaluation (assumed)	1,000	400	600
Fair Value			1,500
Revaluation Gain			900
Gain allocated proportionately to cost and depreciation	1,500 (900 x 1,000/600)	600 (900 x 400/600)	900
PPE after revaluation	2,500	1,000	1,500

The increase on revaluation is ₹ 900 (i.e., ₹ 1,500 – ₹ 600).

The following journal entry will be passed:

PPE	Dr.	1,500	
To Accumulated Depreciation			600
To Gain on Revaluation*			900

* Accounting treatment discussed later

B. Technique 2: Accumulated depreciation Is eliminated against the Gross Carrying amount of the asset

Case Study on Technique II

(Taking the information given in the above Example)

Details of the PPE before and after revaluation are as follows:

Particulars	Cost/Revalued Cost	Accumulated depreciation	Net book value
PPE before revaluation (assumed)	1,000	400	600
PPE after revaluation	1,500		1,500
Revaluation gain	500	400	

The increase on revaluation is ₹ 900 (i.e., ₹ 500 + ₹ 400).

The following journal entries will be passed:

Accumulated Depreciation	Dr.	400	
To PPE			400

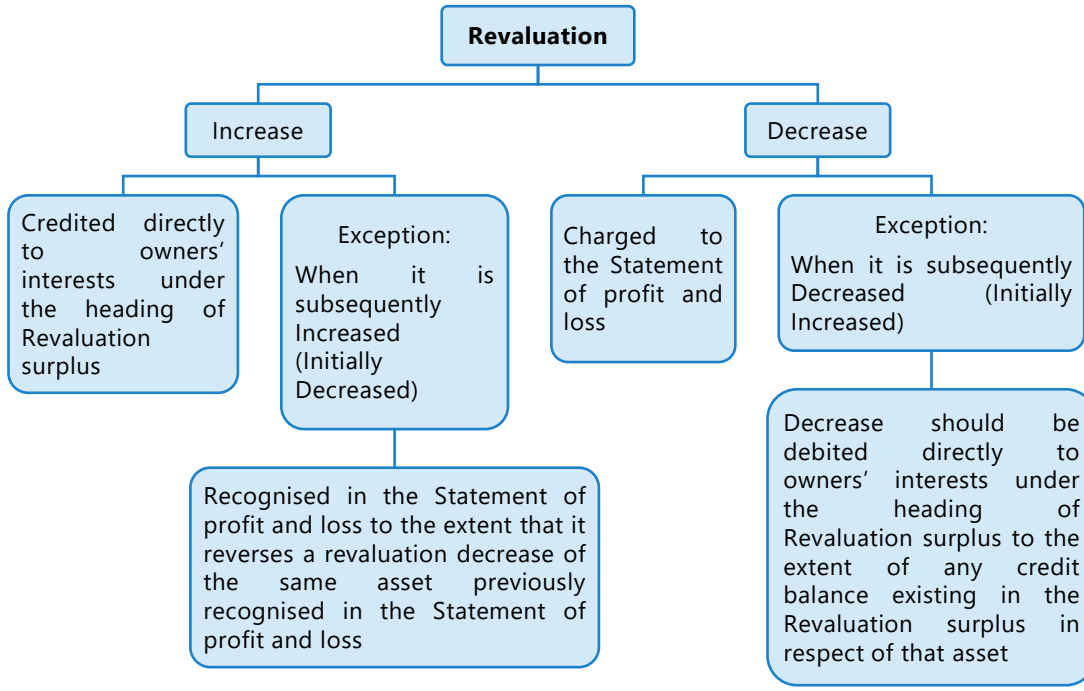
(Accumulated depreciation eliminate against gross carrying amount of asset)

Therefore, carrying amount of asset is reduced to = 1,000 – 400 = 600

PPE	Dr.	900	
To Gain on Revaluation*			900

* Gain on Revaluation 1,500 – 600 = 900 recognized entirely in PPE, accounting treatment of this gain to be discussed later.

Revaluation – Increase or Decrease



Treatment of Revaluation Surplus

The revaluation surplus included in owners' interests in respect of an item of PPE may be transferred to the Revenue Reserves when the asset is derecognised.

Case I: When whole surplus is transferred:

When the asset is:

- Retired; Or
- Disposed of

Case II: Some of the surplus may be transferred as the asset is used by an enterprise:

In such a case, the amount of the surplus transferred would be:

Depreciation (based on Revalued Carrying amount) – Depreciation (based on Original Cost)

Transfers from Revaluation Surplus to the Revenue Reserves are not made through the Statement of Profit and Loss.

Depreciation

Component Method of Depreciation:

Each part of an item of PPE with a cost that is significant in relation to the total cost of the item should be depreciated separately. An enterprise allocates the amount initially recognised in respect of an item of PPE to its significant parts and depreciates each such part separately.

Example:

It may be appropriate to depreciate separately the airframe and engines of an aircraft, whether owned or subject to a finance lease.

Is Grouping of Components possible?

Yes. *A significant part of an item of PPE may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be grouped in determining the depreciation charge.*

Accounting Treatment

Depreciation charge for each period should be recognised in the Statement of Profit and Loss unless it is included in the carrying amount of another asset.

Examples on Exception

AS 2 (Revised): Depreciation of manufacturing plant and equipment is included in the costs of conversion of inventories as per AS 2 (Revised).

AS 26: Depreciation of PPE used for development activities may be included in the cost of an intangible asset recognised in accordance with AS 26 on Intangible Assets.

Depreciable Amount and Depreciation Period

Depreciable amount is:

Cost of an asset (or other amount substituted for cost i.e. revalued amount) less Residual value.

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

Useful life is:

(a) the period over which an asset is **expected to be available** for use by an enterprise; or

(b) the number of production or similar units expected to be obtained from the asset by an enterprise.

The residual value of an asset is the **estimated amount** that an enterprise would **currently obtain** from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

All the following **factors** are considered **in determining the useful life** of an asset:

(a) **expected usage** of the asset. Usage is assessed by reference to the expected capacity or physical output of the asset.

(b) **expected physical wear and tear**, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle.

(c) **technical or commercial obsolescence** arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset. Expected future reductions in the selling price of an item that was produced using an asset could indicate the expectation of technical or commercial obsolescence of the asset, which, in turn, might reflect a reduction of the future economic benefits embodied in the asset.

(d) **legal or similar limits** on the use of the asset, such as the expiry dates of related leases.

Illustration 11

Entity A has a policy of not providing for depreciation on PPE capitalised in the year until the following year, but provides for a full year's depreciation in the year of disposal of an asset. Is this acceptable?

Solution

The depreciable amount of a tangible fixed asset should be allocated on a systematic basis over its useful life. The depreciation method should reflect the pattern in which the asset's future economic benefits are expected to be consumed by the entity.

Useful life means the period over which the asset is expected to be available for use by the entity. Depreciation should commence as soon as the asset is acquired and is available for use. Thus, the policy of Entity A is not acceptable.

Review of Residual Value and Useful Life of an Asset

Residual value and the useful life of an asset should be reviewed at least at each financial year-end and, if expectations differ from previous estimates, the change(s) should be accounted for as a change in an accounting estimate in accordance with AS 5 'Net Profit or Loss for the Period, Prior Period Items and Changes in Accounting Policies'.

Example:

As per accounting policy of NS Limited, engaged in shipping business, residual value of Steel containers is 5%. Based on the external factors, steel prices have increased in recent past and based on the recent data, company has observed that realized scrap value is approximately 10% of the cost of the container. The company does not anticipate any material movement in the steel price in the foreseeable future.

In the above case, based on the yearly review of residual value of Steel containers, company should revise the residual value to 10%. The above change shall be treated as change in accounting estimate as per AS 5 and should be applied prospectively.

Illustration 12 (Change in estimate of useful life)

Entity A purchased an asset on 1st January 20X1 for ₹ 1,00,000 and the asset had an estimated useful life of 10 years and a residual value of nil.

On 1st January 20X5, the directors review the estimated life and decide that the asset will probably be useful for a further 4 years.

Calculate the amount of depreciation for each year, if company charges depreciation on Straight Line basis.

Solution

The entity has charged depreciation using the straight-line method at ₹ 10,000 per annum i.e (1,00,000/10 years).

On 1st January 20X5, the asset's net book value is [1,00,000 – (10,000 x 4)] ₹ 60,000.

The remaining useful life is 4 years.

The company should amend the annual provision for depreciation to charge the unamortised cost over the revised remaining life of four years.

Consequently, it should charge depreciation for the next 4 years at ₹ 15,000 per annum i.e. (60,000 / 4 years).

Note: Depreciation is recognised even if the Fair value of the Asset exceeds its Carrying Amount. Repair and maintenance of an asset do not negate the need to depreciate it.

Commencement of period for charging 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 the management.

Illustration 13

Entity B constructs a machine for its own use. Construction is completed on 1st November 20X1 but the company does not begin using the machine until 1st March 20X2. Comment.

Solution

The entity should begin charging depreciation from the date the machine is ready for use – that is, 1st November 20X1. The fact that the machine was not used for a period after it was ready to be used is not relevant in considering when to begin charging depreciation.

Cessation of Depreciation

I. Depreciation ceases to be charged when asset's residual value exceeds its carrying amount.

The residual value of an asset may increase to an amount equal to or greater than its carrying amount. If it does, depreciation charge of the asset is zero unless and until its residual value subsequently decreases to an amount below its carrying amount.

Illustration 14 (Depreciation where residual value is the same as or close to Original cost)

A property costing ₹ 10,00,000 is bought in 20X1. Its estimated total physical life is 50 years. However, the company considers it likely that it will sell the property after 20 years.

The estimated residual value in 20 years' time, based on 20X1 prices, is:

Case (a) ₹ 10,00,000

Case (b) ₹ 9,00,000.

Calculate the amount of depreciation.

Solution

Case (a)

The company considers that the residual value, based on prices prevailing at the balance sheet date, will equal the cost.

There is, therefore, no depreciable amount and depreciation is correctly zero.

Case (b)

The company considers that the residual value, based on prices prevailing at the balance sheet date, will be ₹ 9,00,000 and the depreciable amount is, therefore, ₹ 1,00,000.

Annual depreciation (on a straight-line basis) will be ₹ 5,000 [{10,00,000 – 9,00,000} ÷ 20].

II. Depreciation of an asset ceases at the earlier of:

- The date that the asset is retired from active use and is held for disposal, and
- The date that the asset is derecognised.

Therefore, depreciation does not cease when the asset becomes idle or is retired from active use (but not held for disposal) unless the asset is fully depreciated.

However, under usage methods of depreciation, the depreciation charge can be zero while there is no production.

Land and Buildings

Land and buildings are separable assets and are accounted for separately, even when they are acquired together.

A. Land: Land has an unlimited useful life and therefore is not depreciated.

Exceptions: Quarries and sites used for landfill.

Depreciation on Land:

I. If land itself has a limited useful life:

It is depreciated in a manner that reflects the benefits to be derived from it.

II. If the cost of land includes the costs of site dismantlement, removal and restoration:

That portion of the land asset is depreciated over the period of benefits obtained by incurring those costs.

B. Buildings:

Buildings have a limited useful life and therefore are depreciable assets.

An increase in the value of the land on which a building stands does not affect the determination of the depreciable amount of the building.

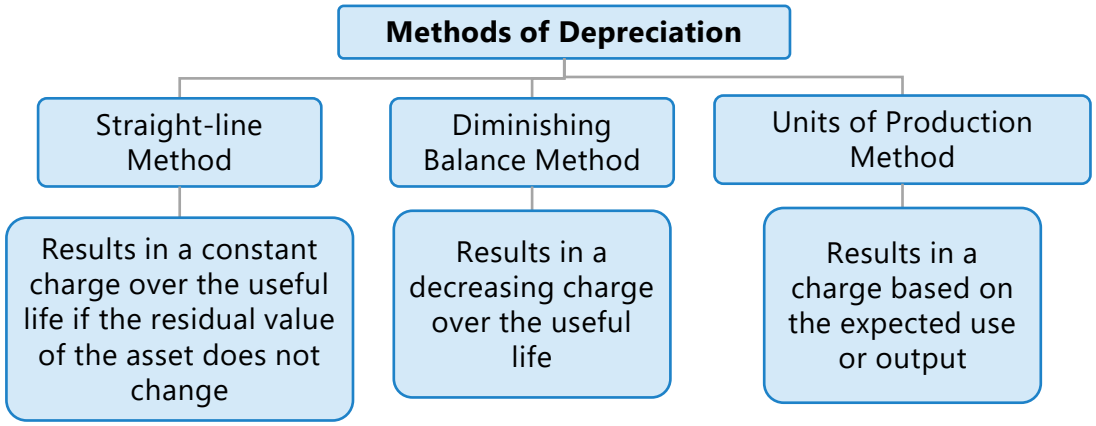
Depreciation Method

The enterprise selects the method that most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The depreciation method used should reflect the pattern in which the future economic benefits of the asset are expected to be consumed by the enterprise.

The method selected is applied consistently from period to period unless:

- There is a change in the expected pattern of consumption of those future economic benefits; Or

- That the method is changed in accordance with the statute to best reflect the way the asset is consumed.



Review of Depreciation Method

The depreciation method applied to an asset should be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method should be changed to reflect the changed pattern.

Such a change should be accounted for as a change in an accounting estimate in accordance with AS 5.

Depreciation Method based on Revenue

A depreciation method that is based on revenue that is generated by an activity that includes the use of an asset is not appropriate. Because the price component of revenue may be affected by inflation, which has no bearing upon the way in which an asset is consumed.

Illustration 15 (Determination of appropriate Depreciation Method)

Entity B manufactures industrial chemicals and uses blending machines in the production process. The output of the blending machines is consistent from year to year and they can be used for different products.

However, maintenance costs increase from year to year and a new generation of machines with significant improvements over existing machines is available every 5 years. Suggest the depreciation method to the management.

Solution

The straight-line depreciation method should be adopted, because the production output is consistent from year to year.

Factors such as maintenance costs or technical obsolescence should be considered in determining the blending machines' useful life.

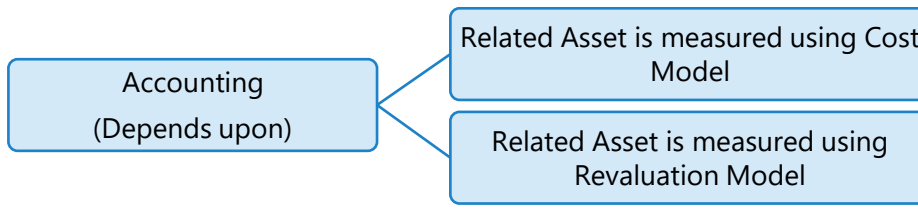
Changes in Existing Decommissioning, Restoration and other Liabilities

The cost of PPE may undergo changes subsequent to its acquisition or construction on account of:

- Changes in Liabilities
- Price Adjustments
- Changes in Duties
- Changes in initial estimates of amounts provided for Dismantling, Removing, Restoration, and
- Similar factors

The above are included in the cost of the asset.

Accounting for the above changes:



A. If the related asset is measured using the Cost model

Changes in the Liability should be added to, or deducted from, the cost of the related asset in the current period

Note: Amount deducted from the cost of the asset should not exceed its carrying amount. If a decrease in the liability exceeds the carrying amount of the asset, the excess should be recognised immediately in the Statement of Profit and Loss.

If the adjustment results in an addition to the cost of an asset

- Enterprise should consider whether this is an indication that the new carrying amount of the asset may not be fully recoverable.

Note: If it is such an indication, the enterprise should test the asset for impairment by estimating its recoverable amount, and should account for any impairment loss, in accordance with applicable Accounting standards.

B. If the related asset is measured using the Revaluation model:

Changes in the liability alter the revaluation surplus or deficit previously recognised on that asset, so that:

(i) Decrease in the liability credited directly to revaluation surplus in the owners' interest

Exception

*It should be recognised in the Statement of Profit and Loss to the extent that it reverses a revaluation deficit on the asset that was previously recognised in the Statement of Profit and Loss.

Note: In the event that a decrease in the liability exceeds the carrying amount that would have been recognised had the asset been carried under the cost model, the excess should be recognised immediately in the Statement of Profit and Loss.

(ii) Increase in the liability should be recognised in the Statement of Profit and Loss

Exception

*It should be debited directly to Revaluation surplus in the owners' interest to the extent of any credit balance existing in the Revaluation surplus in respect of that asset

Caution

A change in the liability is an indication that the asset may have to be revalued in order to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the balance sheet date.

The adjusted depreciable amount of the asset is depreciated over its useful life.

What happens if the related asset has reached the end of its useful life?

All subsequent changes in the liability should be recognised in the Statement of Profit and Loss as they occur.

Note: This applies under both the cost model and the revaluation model.

Accounting for Compensation for Impairment:

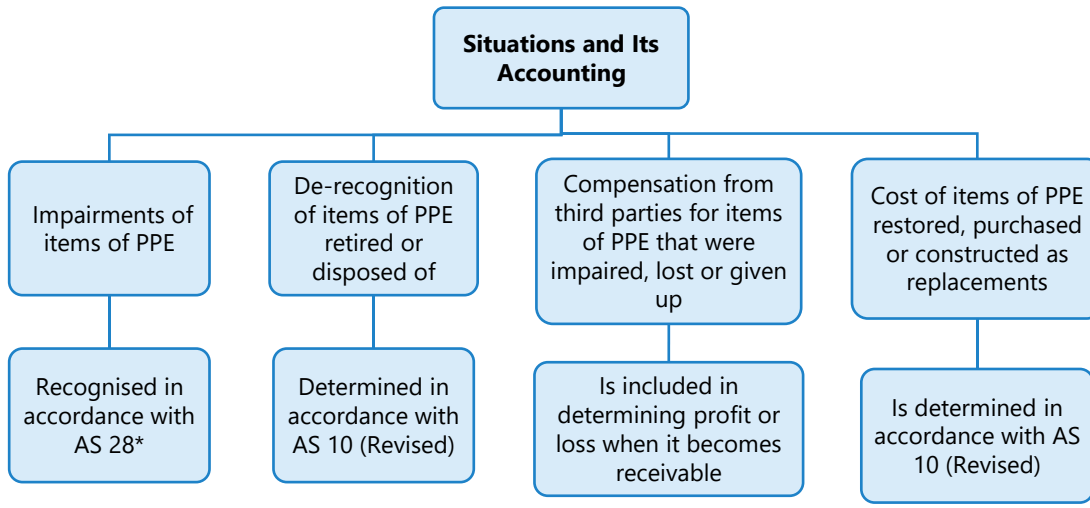


Illustration 16 (Gain on replacement of Insured Assets)

Entity A carried plant and machinery in its books at ₹ 2,00,000. These were destroyed in a fire. The assets were insured 'New for old' and were replaced by the insurance company with new machines that cost ₹ 20,00,000. The machines were acquired by the insurance company and the company did not receive ₹ 20,00,000 as cash compensation. State, how Entity A should account for the same?

Solution

Entity A should account for a loss in the Statement of Profit and Loss on de-recognition of the carrying value of plant and machinery in accordance with AS 10 (Revised).

Entity A should separately recognise a receivable and a gain in the income statement resulting from the insurance proceeds under AS 29 (Revised)* once receipt is virtually certain. The receivable should be measured at the fair value of assets that will be provided by the insurer.

Retirements

Items of PPE retired from active use and held for disposal should be stated at the lower of:

- Carrying Amount, and
- Net Realisable Value

Note: Any write-down in this regard should be recognised immediately in the Statement of Profit and Loss.

De-recognition

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

- On disposal
  - By sale
  - By entering into a finance lease, or
  - By donation, Or
- When no future economic benefits are expected from its use or disposal

Accounting Treatment

Gain or loss arising from de-recognition of an item of PPE should be included in the Statement of Profit and Loss when the item is derecognised unless AS 19 on Leases, requires otherwise on a sale and leaseback (AS 19 on Leases, applies to disposal by a sale and leaseback.)

Where,

Gain or loss arising from de-recognition of an item of PPE

= Net disposal proceeds (if any) - Carrying Amount of the item

Note: Gains should not be classified as revenue, as defined in AS 9 'Revenue Recognition'. The consideration receivable on disposal of an item of property, plant and equipment is recognised in accordance with the principles enunciated in AS 9.

Exception

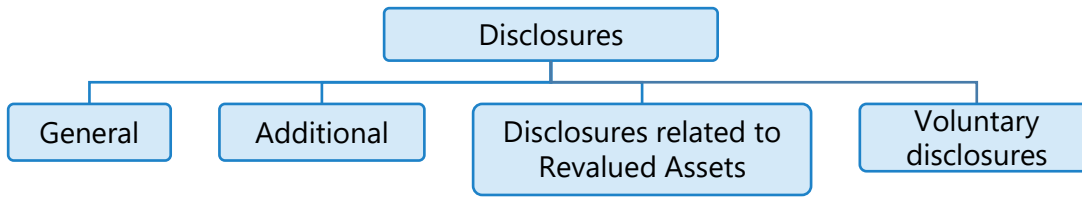
An enterprise that in the course of its ordinary activities, routinely sells items of PPE that it had held for rental to others should transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale.

The proceeds from the sale of such assets should be recognised in revenue in accordance with AS 9 on Revenue Recognition.

Determining the date of disposal of an item

An enterprise applies the criteria given in AS 9 for recognising revenue from the sale of goods.

Disclosure



General Disclosures

The financial statements should disclose, for each class of PPE:

(a) The measurement bases (i.e., cost model or revaluation model) used for determining the gross carrying amount;

(b) The depreciation methods used;

(c) The useful lives or the depreciation rates used.

In case the useful lives or the depreciation rates used are different from those specified in the statute governing the enterprise, it should make a specific mention of that fact;

(d) The gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period; and

(e) A reconciliation of the carrying amount at the beginning and end of the period showing:

(i) additions

(ii) assets retired from active use and held for disposal

(iii) acquisitions through business combinations

(iv) increases or decreases resulting from revaluations and from impairment losses recognised or reversed directly in revaluation surplus in accordance with AS 28

(v) impairment losses recognised in the statement of profit and loss in accordance with AS 28

(vi) impairment losses reversed in the statement of profit and loss in accordance with AS 28

(vii) depreciation

(viii) net exchange differences arising on the translation of the financial statements of a non-integral foreign operation in accordance with AS 11

(ix) other changes

Additional Disclosures

The financial statements should also disclose:

(a) The existence and amounts of restrictions on title, and property, plant and equipment pledged as security for liabilities;

(b) The amount of expenditure recognised in the carrying amount of an item of property, plant and equipment in the course of its construction;

(c) The amount of contractual commitments for the acquisition of property, plant and equipment;

(d) If it is not disclosed separately on the face of the statement of profit and loss, the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost or given up that is included in the statement of profit and loss; and

(e) The amount of assets retired from active use and held for disposal.

Disclosures related to Revalued Assets

If items of property, plant and equipment are stated at revalued amounts, the following should be disclosed:

(a) The effective date of the revaluation;

(b) Whether an independent valuer was involved;

(c) The methods and significant assumptions applied in estimating fair values of the items;

(d) The extent to which fair values of the items were determined directly by reference to observable prices in an active market or recent market transactions on arm's length terms or were estimated using other valuation techniques; and

(e) The revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders.

(f) Disclosure of the methods adopted and the estimated useful lives or depreciation rates.

(g) Disclosures as per AS 5, applicable if any.

(h) Information on impaired PPE.

Voluntary disclosures:

An enterprise is encouraged to disclose the following:

(a) the carrying amount of temporarily idle property, plant and equipment;

(b) the gross carrying amount of any fully depreciated property, plant and equipment that is still in use;

(c) for each revalued class of property, plant and equipment, the carrying amount that would have been recognised had the assets been carried under the cost model;

(d) the carrying amount of property, plant and equipment retired from active use and not held for disposal.

Reference: The students are advised to refer the full text of AS 10 (Revised) "Property, Plant and Equipment" (2016).

TEST YOUR KNOWLEDGE

MCQ

1. *As per AS 10 (Revised) 'Property, plant and equipment', which of the following costs is not included in the carrying amount of an item of PPE*

   (a) Costs of site preparation

   (b) Costs of relocating

   (c) Installation and assembly costs.

   (d) initial delivery and handling costs

2. *As per AS 10 (Revised) 'Property, Plant and Equipment', an enterprise holding investment properties should value Investment property*

   (a) as per fair value

   (b) under discounted cash flow model.

   (c) under cost model

   (d) under cash flow model

3. *A plot of land with carrying amount of ₹ 1,00,000 was revalued to ₹ 1,50,000 at the end of Year 2. Subsequently, due to drop in market values, the land was determined to have a fair value of ₹ 1,30,000 at the end of Year 4. Assuming that the entity adopts Revaluation Model, what would be the accounting treatment of Revaluation?*

   (a) Initial upward valuation of ₹ 50,000 credited to Revaluation Reserve. Subsequent downward revaluation of ₹ 20,000 debited to P/L.

   (b) Initial upward valuation of ₹ 50,000 credited to P/L. Subsequent downward revaluation of ₹ 20,000 debited to P/L.

   (c) Initial upward valuation of ₹ 50,000 credited to Revaluation Reserve. Subsequent downward revaluation of ₹ 20,000 debited to Revaluation Reserve.

   (d) Initial upward valuation of ₹ 50,000 debited to P/L. Subsequent downward revaluation of ₹ 20,000 credited to P/L.

4. *A plot of land with carrying amount of ₹ 1,00,000 was revalued to ₹ 90,000 at the end of Year 2. Subsequently, due to increase in market values, the land was determined to have a fair value of ₹ 1,05,000 at the end of Year 4. Assuming that the entity adopts Revaluation Model, what would be the accounting treatment of Revaluation?*

   (a) Initial downward valuation of ₹ 10,000 debited to Revaluation Reserve. Subsequent upward revaluation of ₹ 15,000 credited to P/L.

   (b) Initial downward valuation of ₹ 10,000 debited to P/L. Subsequent upward revaluation of ₹ 15,000 credited to P/L.

   (c) Initial downward valuation of ₹ 10,000 debited to P/L. Subsequent upward revaluation of ₹ 10,000 credited to P/L and ₹ 5,000 credited to Revaluation Reserve.

   (c) Initial downward valuation of ₹ 10,000 credited to P/L. Subsequent upward revaluation of ₹ 10,000 debited to P/L and ₹ 5,000 debited to Revaluation Reserve.

5. *On sale of an asset which was revalued upwards, what would be the treatment of Revaluation Reserve?*

   (a) The Revaluation Reserve is credited to P/L since the profit on sale of such asset is now realized.

   (b) The Revaluation Reserve is credited to Retained Earnings as a movement in reserves without impacting the P/L.

   (c) No change in Revaluation Reserve since profit on sale of such asset is already impacting the P/L.

   (d) The Revaluation Reserve is reduced from the asset value to compute profit or loss.

6. *A machinery was purchased having an invoice price ₹ 1,18,000 (including GST ₹ 18,000) on 1 April 20X1. The GST amount is available as input tax credit. The rate of depreciation is 10% on SLM basis. The depreciation for 20X2-X3 would be*

(a) ₹ 10,000.

(b) ₹ 11,800.

(c) ₹ 9,000.

(d) ₹ 10,500.

Theory Questions

7. *A company changed its method of depreciation from SLM to WDV. How should the change be recognised?*

8. *A company has debited the Building Account with the Cost of the Land on which the building stands and has provided depreciation on such total cost. Comment on the accounting treatment.*

9. *An entity is setting up a manufacturing plant. Construction of the plant is completed in August and the plant is ready for commercial production in November. However, the entity commences production in March. When should be company start charging depreciation.*

10. *Which factors should be considered by a company while determining useful life?*

11. *An entity gave the following Note in its Financial Statements:*

'The company chooses not to charge depreciation on Property, Plant and Equipment on account of:

(a) *Annual Maintenance Contracts being expensed thereby ensuring timely repairs of Plant and Machinery.*

(b) *Depreciation being a non-cash expense has no impact on cash flows. Accordingly, it is not necessary to depreciate an asset when repairs and maintenance charges are expensed in the Statement of Profit and Loss.*

(c) *The values of certain assets like Property increase with passage of time, and hence charging depreciation does not make sense.*

(d) *At the end of the useful life, the asset is ultimately sold, and since the asset is at cost due to no depreciation, exact profit or loss on sale of the asset is stated.'*

You are required to state the appropriateness of the above accounting policy in line with the relevant Accounting Standards.

Practical Questions

12. *With reference to AS-10 Revised, classify the items under the following heads:*

HEADS

(i) Purchase Price of Property, plant and Equipment (PPE)

(ii) Directly attributable cost of PPE or

(iii) Cost not included in determining the carrying amount of an item of PPE.

ITEMS

(1) Import duties and non-refundable purchase taxes.

(2) Initial delivery and handling costs.

(3) Initial operating losses, such as those incurred while demand for the output of an item builds up.

(4) Costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity.

(5) Trade discounts and rebates.

(6) Costs of relocating or reorganizing part or all of the operations of an enterprise.

(7) Installation and assembly costs.

(8) Administration and other general overhead costs.

13. *ABC Ltd. is installing a new plant at its production facility. It has incurred these costs:*

1.	*Cost of the plant (cost per supplier's invoice plus taxes)*	*₹25,00,000*
2.	*Initial delivery and handling costs*	*₹2,00,000*

3.	Cost of site preparation	₹ 6,00,000
4.	Consultants used for advice on the acquisition of the plant	₹ 7,00,000
5.	Interest charges paid to supplier of plant for deferred credit	₹ 2,00,000
6.	Estimated dismantling costs to be incurred after 7 years	₹ 3,00,000
7.	Operating losses before commercial production	₹ 4,00,000

Please advise ABC Ltd. on the costs that can be capitalised in accordance with AS 10 (Revised).

14. *Arka Ltd. purchased machinery for ₹ 3,000 lakhs. Depreciation was charged at 10% on SLM basis for a useful life of 10 years. At the end of Year 4, the machinery was revalued to ₹ 2,700 lakhs and the same was adopted. What will be the carrying amount of the asset at the end of Year 5 and Year 6? Assume no change in the useful life.*

15. *Skanda Ltd. acquired a machinery for ₹ 2,50,00,000 five years ago. Depreciation was charged at 10% p.a. on SLM basis, useful life being 10 years. At the beginning of Year 3, the machinery was revalued to ₹ 3,00,00,000 with the surplus on revaluation being credited to Revaluation Reserve. Depreciation was provided on the revalued amount over the balance useful life of 8 years. The machinery was sold in the current year for ₹ 1,12,50,000. Give the accounting treatment for the above in the Company's accounts. What will be the treatment if the machinery fetched only ₹ 42,50,000 now?*

16. *Akshar Ltd. installed a new Plant (not a qualifying asset), at its production facility, and incurred the following costs:*

- *Cost of the Plant (as per supplier's invoice): ₹ 30,00,000*
- *Initial delivery and handling costs: ₹ 1,00,000*
- *Cost of site preparation: ₹ 2,00,000*
- *Consultant fee for advice on acquisition of Plant: ₹ 50,000*

- *Interest charges paid to supplier against deferred credit: ₹ 1,00,000*
- *Estimate of Dismantling and Site Restoration costs: ₹ 50,000 after 10 years (Present Value is ₹ 30,000)*
- *Operating losses before commercial production: ₹ 40,000*

The company identified motors installed in the Plant as a separate component and a cost of ₹ 5,00,000 (Purchase Price) and other costs were allocated to them proportionately. The company estimates the useful life of the Plant and those of the Motors as 10 years and 6 years respectively and SLM method of Depreciation is used.

At the end of Year 4, the company replaces the Motors installed in the Plant at a cost of ₹ 6,00,000 and estimated the useful life of new motors to be 5 years. Also, the company revalued its entire class of Fixed Assets at the end of Year 4. The revalued amount of Plant as a whole is ₹ 25,00,000. At the end of Year 8, the company decides to retire the Plant from active use and also disposed the Plant as a whole for ₹ 6,00,000.

There is no change in the Dismantling and Site Restoration liability during the period of use. You are required to explain how the above transaction would be accounted in accordance with AS 10.

17. *Bharat Infrastructure Ltd. acquired a heavy machinery at a cost of ₹ 1,000 lakhs, the breakdown of its components is not provided. The estimated useful life of the machinery is 10 years. At the end of Year 6, the turbine, which is a major component of the machinery, needed replacement, as further usage and maintenance was uneconomical. The remainder of the machine is in good condition and is expected to last for the remaining 4 years. The cost of the new turbine is ₹ 450 lakhs. Give the accounting treatment for the new turbine, assuming SLM Depreciation and a discount rate of 8%.*

18. *Preet Ltd. intends to set up a steel plant, for which it has acquired a dilapidated factor having an area of 5,000 acres at a cost of ₹ 60,000 per acre. Preet Ltd. has incurred ₹ 1.10 crores on demolishing the old Factory Building thereon. A sum of ₹ 63,00,000 (including 5% GST thereon) was realized from the sale of material salvaged from the site. Preet Ltd. incurred Stamp Duty and Registration Charges of 7% of land value, paid legal and consultancy charges ₹ 8,00,000 for land acquisition and incurred ₹ 1,25,000 on title guarantee insurance. Compute the value of the land acquired.*

ANSWERS/SOLUTIONS

MCQs

1.	(b)	**2.**	(c)	**3.**	(c)	**4.**	(c)	**5.**	(b)	**6.**	(a)

Theory Questions

7. As per AS 10, Property, Plant and Equipment, the depreciation method applied to an asset should be reviewed at least at each financial year-end and, if there has been a significant change in the expected pattern of consumption of the future economic benefits embodied in the asset, the method should be changed to reflect the changed pattern. Such a change should be accounted for as a change in an accounting estimate in accordance with AS 5.

   Accordingly, the change in method of depreciation should be accounting for as a change in accounting estimate, prospectively.

8. As per AS 10, Property, Plant and Equipment, 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 should be depreciated separately. Further, Land and buildings are separable assets and are accounted for separately, even when they are acquired together. With some exceptions, such as quarries and sites used for landfill, land has an unlimited useful life and therefore is not depreciated. Buildings have a limited useful life and therefore are depreciable assets.

   In the given case, land should not be depreciated unless it has a limited useful life. Accordingly, it is incorrect to debit the cost of land to the Building Account and provide depreciation on the aggregate cost.

9. As per AS 10, Property, Plant and Equipment, 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.

   In the given case, since the plant is ready for commercial production in November, depreciation shall commence from November. The date of

commencement of commercial production is irrelevant for charging depreciation.

10. All the following factors are considered in determining the useful life of an asset:

(a) expected usage of the asset. Usage is assessed by reference to the expected capacity or physical output of the asset.

(b) expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance programme, and the care and maintenance of the asset while idle.

(c) technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset. Expected future reductions in the selling price of an item that was produced using an asset could indicate the expectation of technical or commercial obsolescence of the asset, which, in turn, might reflect a reduction of the future economic benefits embodied in the asset.

(d) legal or similar limits on the use of the asset, such as the expiry dates of related leases.

11. Depreciation refers to writing off the value of the asset over its useful life. Such write-off is necessitated on account of normal wear-and-tear, usage, or obsolescence. Since items of Property, Plant and Equipment are generally used in generating revenue, the pro-rated write-off in value of such item should be recorded in the books against the income earned by such an asset.

Providing depreciation is mandatory, in spite of the fact that repairs are expensed in the Statement of Profit and Loss, or the value of the Property is appreciating. Depreciation is a systematic allocation of cost of the asset against the income generated from the continued use of the asset. Further, the Companies Act, 2013 mandates depreciation to be charged in order to determine the correct profits. Thus, not charging depreciation would result in non-compliance with the Companies Act provisions as well.

The argument laid down by the company and the reasons for the same being invalid are discussed below.

(a) Annual Maintenance Contracts being expensed thereby ensuring timely repairs of Plant and Machinery:

The fact that the company enters into Annual Maintenance Contracts for timely repairs can be regarded as a running cost. Such expense is incurred in order to ensure that the machine continues to run as intended. Thus, it implies that because the machine is being utilized, it will need regular repairs. In other words, continuous use is resulting in normal wear-and-tear which is the reason why depreciation should be charged by the company. By stating that the company incurs Annual Maintenance Expenses, the company is recording only the 'maintenance expenses', but not the wear-and-tear requiring the maintenance in the first place. Hence, this argument put forth by the company is not valid.

(b) Depreciation being a non-cash expense has no impact on cash flows. Accordingly, it is not necessary to depreciate an asset when repairs and maintenance charges are expensed in the Statement of Profit and Loss.

When viewed from the prism of depreciation alone, it appears that the fact that depreciation is a non-cash item is correct. However, it must be noted that at the time of procurement of the asset, the company would have paid cash. Depreciation is after all writing off this amount over the life of the asset. Hence the argument that depreciation is a non-cash item is not valid. Depreciation is writing off the cost of the asset (which was already paid for) over the useful life of the asset, and hence is mandatory.

(c) The values of certain assets like Property increase with passage of time, and hence charging depreciation does not make sense.

Certain assets like immovable property do increase in value with the passage of time. However, such assets are 'used for the purposes of business' and are not 'held for sale' or held as investment property. Accordingly, since the asset is being used for carrying on business,

providing depreciation will give a true and fair view of the results of the company, and hence the argument that the value of the property appreciates is not valid.

If the company wants to show the fair market value of the PPE, then it has the option to apply Revaluation model. However, depreciation is mandatory to be charged in Revaluation model also.

(d) At the end of the useful life, the asset is ultimately sold, and since the asset is at cost due to no depreciation, exact profit or loss on sale of the asset is stated.'

The value of any asset, after usage, will reduce. Accordingly, the argument that the 'exact profit or loss on sale of the asset' will be obtained is incorrect. Due to usage of the asset, the value of the asset would be lower than the cost. Charging depreciation would seek to bring the book value approximating to such reduced value. Thereafter, on sale of the asset, the true profit or loss would be available. Accordingly, this argument is also invalid.

It may be pertinent to note that Accounting Standard 1, Disclosure of Accounting Policies states that Disclosure of accounting policies or of changes therein cannot remedy a wrong or inappropriate treatment of the item in the accounts. In other words, the company cannot be absolved of the fact that it has not complied with the relevant accounting standards merely by giving a disclosure of incorrect policies or practices being followed.

Thus, the company's stand of disclosing the incorrect policy as a remedy is not correct. The company is suggested to charge depreciation on a systematic basis over the useful life of the asset thereby complying with the Accounting Standards.

Practical Questions

12. Heads

(i) Purchase price of PPE

(iii) Directly attributable cost of PPE

(iii) Cost not included in determining the carrying amount of an item of PPE

Items		Classified under Head
1	Import duties and non-refundable purchase taxes	(i)
2	Initial delivery and handling costs	(ii)
3	Initial operating losses, such as those incurred while demand for the output of an item builds up	(iii)
4	Costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity.	(iii)
5	Trade discounts and rebates (deducted for computing purchase price)	(i)
6	Costs of relocating or reorganizing part or all of the operations of an enterprise.	(iii)
7	Installation and assembly costs	(ii)
8	Administration and other general overhead costs	(iii)

13. According to AS 10 (Revised), these costs can be capitalised:

1.	Cost of the plant	₹ 25,00,000
2.	Initial delivery and handling costs	₹ 2,00,000
3.	Cost of site preparation	₹ 6,00,000
4.	Consultants' fees	₹ 7,00,000
5.	Estimated dismantling costs to be incurred after 7 years	₹ 3,00,000
		₹ 43,00,000

Note: Interest charges paid on "Deferred credit terms" to the supplier of the plant (not a qualifying asset) of ₹ 2,00,000 and operating losses before commercial production amounting to ₹ 4,00,000 are not regarded as directly attributable costs and thus cannot be capitalised. They should be written off to the Statement of Profit and Loss in the period they are incurred.

14.

Particulars	***₹ in lakhs***
Original Cost of the Asset	3,000.00
Less: Depreciation for 4 years (₹ 3,000 lakhs x 10% x 4 years)	(1,200.00)
Book Value at the end of Year 4	1,800.00
Add: Revaluation Surplus (balancing figure)	900.00
Revalued Amount as given (= revised depreciable value)	2,700.00
Less: Depreciation for Year 5 (₹ 2,700 lakhs ÷ 6 years)	450.00
Carrying Amount at the end of Year 5	2,250.00
Less: Depreciation for Year 6 (₹ 2,700 lakhs ÷ 6 years)	450.00
Carrying Amount at the end of Year 6	1,800.00

15.

Particulars	**₹**
Original Cost of the Asset	2,50,00,000
Less: Depreciation for 2 years (₹ 2,50,00,000 x 10% x 2 years)	50,00,000
Book Value at the beginning of Year 3	2,00,00,000
Add: Revaluation Surplus (balancing figure)	1,00,00,000
Revalued Amount as given (= revised depreciable value)	3,00,00,000
Less: Depreciation for Years 3-5 (₹ 3,00,00,000 ÷ 8 yrs x 3 yrs)	1,12,50,000
Carrying Amount at the end of Year 5	**1,87,50,000**

The treatment of Gain / Loss on Disposal / Revaluation is as below:

Particulars	**Disposal Proceeds = ₹ 1,12,50,000**	**Disposal Proceeds = ₹ 42,50,000**
Book Value Less Disposal Proceeds = Loss recognized in Profit or Loss	₹ 1,87,50,000 – ₹ 1,12,50,000 = ₹ 75,00,000 (**Loss**)	₹ 1,87,50,000 – ₹ 42,50,000 = ₹ 1,45,00,000 (**Loss**)
Revaluation Surplus directly transferred to Retained Earnings	₹ 1,00,00,000	₹ 1,00,00,000

16.

1. Cost at Initial Recognition:

Particulars	**₹**
Cost of the Plant (as per Invoice)	30,00,000
Initial Delivery and Handling Costs	1,00,000
Cost of Site Preparation	2,00,000
Consultants' Fees	50,000
Estimated Dismantling and Site Restoration Costs	30,000
Total Cost of Plant including Motors	33,80,000
Less: Cost of Motors identified as a separate component (1/6)*	5,63,333
Cost of the Plant (excluding Motors – balance 5/6)	**28,16,667**

* Purchase price of Motors = ₹ 5,00,000 out of ₹ 30,00,000 i.e., 1/6 of value of Plant

Note: Since the asset is not a qualifying asset, payment of interest to the supplier is not capitalized. Further, operating losses of ₹ 40,000 incurred before commercial production is not a directly attributable cost, and hence excluded from cost of asset. These costs are expensed to the P/L as and when they are incurred.

2. Recognition of Motors Replacement

Particulars	**₹**
Cost of Motors determined above	5,63,333
Less: Depreciation for 4 years (as per SLM) 5,63,333 ÷ 6 years x 4 years	3,75,555
Carrying Amount of Motors at the end of Year 4	**1,87,778**

Accounting: The company should derecognize the existing Carrying Amount of Motors replaced of ₹ 1,87,778. Further, the acquisition cost of new motors of ₹ 6,00,000 would be capitalized as a separate component. This amount will be depreciated over the next 5 years at ₹ 6,00,000 ÷ 5 years = ₹ 1,20,000 p.a.

3. Revaluation

Particulars	**₹**
Cost of the Plant at initial recognition [from (1) above]	28,16,667
Less: SLM Depreciation for 4 years: ₹ 28,16,667 ÷ 10 years x 4 years	11,26,667
Carrying Amount of Plant at the end of Year 4	16,90,000
Revalued Amount of Plant (Excluding Motors, since the same is treated as a separate component: ₹ 25,00,000 – ₹ 6,00,000)	19,00,000
Therefore, Gain on Revaluation credited to Revaluation Reserve	**2,10,000**
Revised Depreciation Charge p.a.: 19,00,000 ÷ 6 years	**3,16,667**

4. Derecognition

Particulars	***Motors***	***Plant (excluding Motors)***
Cost / Revalued Amount at end of Year 4	6,00,000	19,00,000
Less: Depreciation for Years 5-8	1,20,000 x 4 = 4,80,000	3,16,667 x 4 =12,66,668
Carrying Amount before Disposal / De-recognition	1,20,000	6,33,332
Less: Disposal Proceeds ₹ 6,00,000 allocated in ratio of carrying amount	95,575	5,04,425
Loss to be written off to P/L	**24,425**	**1,28,907**

Notes:

(a) The Revaluation Surplus of ₹ 2,10,000 would be transferred directly to Retained Earnings.

(b) The allocation of disposal proceeds of ₹ 6,00,000 for the plant as whole is apportioned based on carrying amount of motors and plant (excluding motors)

Alternatively, it may be apportioned as 1/6 towards motors and 5/6 plant (excluding motors) based on the reasoning that the initially, motors amounted to 1/6 of the entire plant. This approach may not be preferable because there has been a revaluation of the plant (excluding motors) and a disposal and subsequent acquisition of the Motor, which is not in the initial proportion of 5/6 and 1/6 respectively.

17. As per AS 10, Property, Plant and Equipment, the derecognition of the carrying amount of components of an item of Property, Plant and Equipment occurs regardless of whether the cost of the previous part / inspection was identified in the transaction in which the item was acquired or constructed. If it is not practicable for an enterprise to determine the carrying amount of the replaced part/ inspection, it may use the cost of the replacement or the estimated cost of a future similar inspection as an

indication of what the cost of the replaced part/ existing inspection component was when the item was acquired or constructed.

In the given case, the new turbine will produce economic benefits to Bharat Infrastructure Ltd. and the cost is measurable. Since the recognition criteria is fulfilled, the same should be recognised as a separate item of Property, Plant and Equipment. However, since the initial breakup of the components is not available, the cost of the replacement of ₹ 450 lakhs can be used as an indication based on the guidance given above, discounted at 8% for the 6-year period lapsed.

Thus, estimate of cost 6 years back = ₹ 450 lakhs ÷ 1.08^6 = ₹ 283.58 lakhs

Current carrying amount of turbine (to be de-recognised) = Estimated cost ₹ 283.58 lakhs (–) SLM depreciation at 10% (useful life 10 years) for 6 years ₹ 170.15 lakhs= ₹ 113.43 lakhs.

Hence revised carrying amount of the machinery will be as under:

Particulars	**₹ in lakhs**
Historical Cost [₹ 1,000 lakhs (–) SLM Depreciation at 10% (10 year life) for 6 years]	400.00
Add: Cost of new turbine	450.00
Less: Derecognition of current carrying amount of old turbine	(113.43)
New Carrying Amount of Machinery	**736.57**

18.

Particulars	**₹**
Purchase Price: 5,000 acres x ₹ 60,000 per acre	3,000.00
Stamp Duty and Registration Charges at 7%	210.00
Legal and Consultancy Fees	8.00
Title Guarantee Insurance	1.25
Demolition Expenses (Net of Salvage Income) [₹ 110 lakhs (–)₹ 60 lakhs (₹ 63 lakhs x 100/105)]	50.00
Cost of Land	**3,269.25**