

CHAPTER 4

AS 10 - PROPERTY, PLANT AND EQUIPMENT

1. **Recognition Amount of PPE:** PPE shall be recognized at two stages
 - (a) Initial Recognition
 - (b) Subsequent Recognition
2. **Initial recognition of PPE:** Initially all PPE shall be recognized at cost price either it is being acquired /purchase or self-generated.

Notes:

- (i) **Any expenses/cost incurred** in relation to PPE shall be capitalized if such expenditure is necessary to bring the asset to the location and condition and it to be capable of operating in the manner as intended by the management;
- (ii) **Cost includes following:**
 - (a) its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates;
 - (b) 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 e.g. Registration and stamp duty cost, 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/trial run (reduce by any sale of scrap from trial run) etc.
 - (c) allocable cost
 - (d) the **initial estimate of the costs of dismantling and removing** the item and restoring the site on which it is located. Such amount shall be recorded at PV.
- (iii) **Cost does not include**
 - (a) administrative and general overhead
 - (b) Costs incurred in introducing a new product or service
 - (c) cost of opening a new facility or inauguration cost of new business
 - (d) Cost of conducting business in a new location
 - (e) Abnormal loss or operating loss.
 - (f) Free sample distribution of product.
- (iv) **Cost does not include any imputed cost / notional profit.**

Ex 1. Installment cost of the machinery in the market is Rs. 2,000 whereas actual cost incurred by x Ltd on installing Machine is Rs. 1,500. In this case installation cost is capitalized by Rs. 1,500.

Ex. 2 X Ltd issue an instrument from selling dept. to constructed dept for Rs. 11, 000 whereas actual cost is Rs. 10,000. In this case amount is capitalized by Rs. 10,000
- (v) Any cost incurred on PPE after it is ready to use **should not be capitalized.**
- (vi) Any expenses incurred or any income earned during construction shall **not be capitalized** or decapitalized if such income or expenses **are not related** to constructed asset.
- (vii) **Decommissioning restoration and other liabilities(DROL) / Cost of dismantling, removal and site restoration:** If any DROL is aimed at the time of disposal of assets then provisions of such cost shall be capitalized at its present value.

- (viii) **Borrowing cost** shall be treated as per the provisions of AS 16.
- (ix) **In case any payment is deferred** then difference between actual amount paid and cash price shall be recognized as interest amount. Such interest expenses shall be treated as per AS 16. **E.g.** X Ltd purchased an equipment for Rs. 30,000 as on 1/04/20X1 and amount is payable as on 1/04/20X2 whereas cash price is Rs. 28,000. Pass JE for acquisition Equipment.

Solution:

Journal entry

1. As on 1/04/20X1

Equipment A/c	Dr	28,000	
To payable A/c			28,000

2. As on 1/04/20X2

Payable A/c	Dr	28,000	
Interest expenses A/c	Dr	2,000	
To Bank A/c			30,000

Note: If there is a time gap between two payments is more than one year then IRR shall be calculated for the purpose of recording Interest Expenses.

- (x) **Calculation of cost price if assets are acquired in combined manner:** In such case cost of each asset shall be calculated in the ratio of their fair value

Example: X Ltd purchased four plant and machinery for Rs. 10,000. Calculate cost price of each machine if the fair values of machineries are given below

Name of Machinery	Fair Value (Rs.)
A	1,500
B	2,500
C	3,500
D	5,000
Total	12,500

Solution: Calculation of cost price of each machinery.

Name of Machinery	Cost Price (Rs.)
A	$(10,000/12500) \times 1,500 = \text{Rs. } 1,200$
B	$(10,000/12500) \times 2,500 = \text{Rs. } 2,000$
C	$(10,000/12500) \times 3,500 = \text{Rs. } 2,800$
D	$(10,000/12500) \times 5,000 = \text{Rs. } 4,000$

- (xi) In case any PPE is purchased and need to demolition of existing structure for the purpose of using the PPE, then any demolition expenses (Net of any recovery) shall be capitalised.
- (xii) **Treatment of discount received on PPE**
- (a) Trade Discount: **Reduce from cost of PPE.**
 - (b) Settlement Discount: **Considered as other income (As followed by ICAI in CA Final)**
- (xiii) **PPE acquired in an exchange for a non –monetary asset or a combination of monetary and non-monetary:**

The cost of such an item of PPE is **measured at fair value only if:**

- (a) the exchange transaction **have commercial substance;** and
- (b) **the fair value** of either the asset received or the asset given up **is reliably measurable.**

*1 If none of conditions is fulfilled then acquired PPE shall be recorded at book value of asset surrendered.

*2 If any consideration is paid or received in cash, it shall be adjusted accordingly.

*3 Any difference between the recorded PPE and the de-capitalization of PPE shall be transferred to SPL.



*4 If the fair value of both the asset given up and the asset obtained can be reliably measured, the acquired PPE shall be valued at the fair value of the asset surrendered, unless the fair value of the acquired PPE is more reliably measured.

3. **Subsequent recognition of PPE:** There are 2 models used for subsequent recognition of PPE
- Cost Model
 - Revaluation model

Entity can use **any one model** as its accounting policy on the basis of class of asset.

4. **Cost model under subsequent recognition:** Under cost model asset shall subsequently recorded at historical cost as reduced by Accumulated Depreciation and Impairment loss as per AS 28.
5. **Revaluation model under subsequent recognition:** Under revaluation model **asset shall be shown at fair value at the date of revaluation less any subsequent** accumulated depreciation and subsequent accumulated impairment losses.

Following points are relevant in case entity follow revaluation model:

- In case entity follow revaluation model then it should be **on the basis of class of asset** and shall be shown **as its accounting policy**.
- A class of PPE** is a grouping of assets of a **similar nature and use** in an entity's operations.
- Treatment of revaluation surplus or deficit arising on revaluation:**

First time revaluation	Gain		Transfer into Revaluation Reserve
	Loss		Transfer into P & L A/c
Subsequently Revaluation	Gain	Earlier Gain	Transfer into Revaluation Reserve
		Earlier Loss	To the extent earlier loss gain shall be credited into P&L A/c and balance transfer into Revaluation Reserve
	Loss	Earlier Gain	Adjust with Revaluation Reserve as appeared in Balance Sheet, balance charged into P&L A/c
		Earlier Loss	Transfer into P & L A/c

Note: The revaluation surplus included in equity in respect of an item of PPE may be transferred directly to revenue reserve when the asset is derecognized.

- Accounting treatment of revaluation reserve:** There are 2 alternative

Alternative 1: Depreciation elimination approach

(a)	Accumulated depreciation A/c	Dr. (At B.V.)	XXX	
	TO PPE A/c			XXX
	&			
(b)	PPE A/c	Dr.	XXX	
	To revaluation reserve A/c	(With revaluation amount)		XXX

Alternative 2: Restatement approach: Following steps are followed

Step 1: Calculate revaluation surplus by comparing Book value with fair value of PPE.

Step 2: Calculate % of revaluation surplus, in comparison with the book value of PPE.

Step 3: Pass Journal entry.

PPE A/c (At cost x % of surplus)	Dr.	XXX	
To Accumulated depreciation A/c (At BV X % of surplus)			XXX
To Revaluation Reserve A/c (With Revalued amount)			XXX

- (vii) Revaluation Reserve is **not a free reserve** & cannot be used for distribution of dividend.
 - (viii) Depreciation will be calculated on revalued amount and charged into P&L A/c.
 - (ix) **Further treatment/Utilisation of Revaluation Reserve:** There are two alternatives:
Alternative 1: The amount of the surplus transferred into revenue reserve that would be the difference between depreciation based on the revalued carrying amount of the asset and depreciation based on the asset's original cost.
 (Transfers from revaluation surplus to revenue reserve are not made through P&L)
Alternative 2: No changes in the balance of revaluation Reserve till the date of de-recognition of PPE
*** Whatever alternative is being followed by the entity shall be shown as its accounting policy.**
6. **Depreciation:** is a systematic allocation/amortization of depreciable amount (*1) of PPE over the useful life (*2) of the PPE.
- *1 Depreciable amount** = cost or other amount substituted for cost - Expected residual value.
- *2 Useful life is:**
- (a) **the period over which** an asset is expected to be available for use by an entity; or
 - (b) **the number of units expected** to be obtained from the asset by an entity.
- Relevant points for depreciation:**
- (i) **Depreciating shall be charged on the basis of component of assets.** From the point of view in calculation of depreciation on component basis following points are relevant:
 - (a) Cost of each component shall be calculated in the ratio of fair value of each component.
 - (b) For each component expected life and expected scrap value shall be identify separately.
 - (c) Suppose, X Ltd purchased machinery which has 3 major components in such a case remainder part of the machinery shall be considered as another separate component.
 - (d) 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.
 - (ii) **Methods of charging depreciation:** The depreciation **method used reflects the pattern in which entity derive expected benefit from the asset.** There is no specific method given by As 10, that simply specify it should be on the basis of systematic allocation of depreciable amount. **Generally there are 3 methods used:**
 - (1) Production unit method (more appropriate method) – **Usage Basis**
 - (2) WDV Method – **Time Basis**
 - (3) SLM Method. – **Time Basis**
 - (iii) In case there is any change in the **method of depreciation** then such change shall be taken on prospective basis and it is considered **as changes in accounting estimate** as per AS 5.
 - (iv) At each reporting date entity shall reassessed **its depreciable amount, estimated scrap value and useful life of asset.** In case there is any change then such change shall be considered as change in accounting estimate and its impact shall be taken on prospective basis.
 - (v) Depreciation shall be charged irrespective of company follow either cost model or revaluation model.
 - (vi) The entity can use different methods of depreciation **if either the nature or the use of the asset is different.**



- (vii) Depreciation shall be charged from the date when **asset is ready to use/ available for use**
- (viii) **Depreciation shall be ceased:**
- (1) From the date when asset is retired from active use and held for disposal; or
 - (2) If estimated scrap value \geq the carrying amount of asset.
- * The above **case shall be reviewed at the end of each year** and if it is held that any of the above condition does not exist on reporting date then depreciation shall be charged again.
- Note 1: Depreciation **does not cease when the asset becomes idle or is retired from active use** unless the asset is fully depreciated.
- Note 2: Under usage methods of depreciation (i.e. production of unit method), depreciation will be Nil during the periods when there is no production.
- (ix) In case **land and building are purchased together** then for the purpose of charging of depreciation segregate total amount among land and building.

7. **Retired Asset:** Assets **are not in active use**. Such asset shall be shown at lower of:

- (a) Carrying Amount; or
- (b) Estimated net selling Price.

If $NSP < \text{Carrying Amount} = \text{Difference}$ shall be charged into SPL

8. **Disposal/Derecognition/Sale of asset:** The carrying amount of PPE should be derecognised:

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

Any difference between sale value and book value shall be transferred **into P&L A/c** except in a case where PPE is sold and lease back under AS 19.

#In case any profit on sale of PPE or sale price of PPE, shall not be considered as revenue from operations.

9. **Replacement of any asset/component:** In this case

- (a) **New PPE shall be capitalized;** and
- (b) **Old PPE shall be de-capitalized:** Any difference between proceeds amount and carrying amount shall be transferred into SPL.

Note: In case the carrying amount or cost of the replaced part is not available:

Step 1: Calculate the cost of the replaced part as the **present value of its current cost**.

Step 2: Calculate the carrying amount on the date of replacement:

= Cost calculated in Step 1 – Depreciation up to the replacement date

10. **Subsequent costs**

- (i) **Repair & maintenance:** day-to-day servicing cost is recognised in SPL as incurred.
- (ii) **Replacement parts:** An entity includes **the cost of replacing a part of PPE in its carrying amount when the recognition criteria are met**. The carrying amount of the replaced parts is **derecognized** according to this Standard's derecognition provisions
- (iii) **Major inspections or overhauls:** Where an asset **requires regular overhauls or major inspection** in order to continue to operate, the cost of the overhaul is treated as an additional component and depreciated over the period to the next overhaul.
Any remaining carrying amount of the cost of the previous inspection is derecognized in accordance with the derecognition provisions of this Standard.

11. **Any Change in expected amount of provision for DROL:** once shall be credited/debited into provision for DROL A/c and other impact shall be given as follows:
Case-1 If asset is maintained at historical cost/using cost model:
 ➤ Adjusted with the book value of PPE
Case-2 If PPE is maintained by using revaluation model:
 ➤ If balance of revaluation reserve is available then adjust with amount of revaluation reserve
 ➤ In case balance of revaluation reserve is not available then another impact shall be given into P&L A/c
12. **Compensation from third parties for items of PPE that were impaired, lost or given up:**
 Sometime assets is damaged or loss but compensated by 3rd Party e.g. Insurance Claim.
Accounting Treatment:
 ➤ **Impairments** of items of PPE are recognized is - as per AS 28;
 ➤ **De-recognition** of items of PPE retired or disposed is - as per AS 10;
 ➤ **Compensation from 3rd parties** for items of PPE that were impaired, lost or given up is included in determining profit or loss when it becomes receivable; and
 ➤ **The cost of items of PPE** restored, purchased or constructed as replacements is as per AS 10.
13. **Spare parts, stand-by equipment and servicing equipment:** are recognised as per AS 10 when they meet the definition of PPE. Otherwise, such items are classified as inventory as per AS 2.
14. **Non-Applicability:**
 (a) **Biological assets** related to agricultural activity **other than bearer plants**.
 (b) **Wasting Assets** including Mineral rights, Expenditure on the exploration for & extraction of minerals, oil, natural gas and similar non-regenerative resources.
 # However, this Standard applies to PPE used to develop or maintain above assets.
 *A bearer plant is a living plant that:
 (a) is used in the production or supply of agricultural produce;
 (b) is expected to bear produce for more than a period of 12 months; and
 (c) has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.
15. **Some relevant issues/points under AS 10**
 (i) **Are any criteria in AS 10 to identify Unit?** AS 10 does not prescribe the unit of measure for recognition, i.e., what constitutes an item of property, plant and equipment. Thus, **judgement is required** in applying the recognition criteria to an entity's specific circumstances.
 (ii) **To record PPE whether ownership is required or not?** **This issue is explained through this example:**
 X Ltd set up a factory in Uk and incurred cost of Rs. 10crores to build a road for the convenient of its transport. It is used by the company as well as by the general public. The estimated useful life of such factory is 15 years. Shall such road cost is to be capitalized by X Ltd? (Here issue is whether ownership is required or not)
Answer: The recognition criteria of PPE under AS 10, specify that PPE shall be recognized if following two conditions are fulfilled
 (a) it is probable that **future economic benefits** associated with the item will flow to the entity; and
 (b) the **cost of the item can be measured** reliably.
 On the basis of above 2 conditions road cost shall be capitalized by entity.
 Further AS 10 does not explain the criteria of unit or component so it is a subjective matter. Further in each AS substance over form works. It means legal ownership is not required if asset is substantially used by the entity.
Conclusion: In the given case it is advisable to capitalize road expenditure as a separate PPE and amortize over the period of 15 years.

PRACTICAL QUESTIONS

1. Shrishti Ltd. contracted with a supplier to purchase machinery which is to be installed in its Department A 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 Rs. 1,41,870. These activities were supervised by a technician during the entire period, who is employed for this purpose of Rs. 45,000 per month. The technician's services were given by Department B to Department A, which billed the services at Rs. 49,500 per month after adding 10% profit margin.

The machine was purchased at ₹1,58,34,000 inclusive of IGST@12% for which input credit is available to Shrishti Ltd. Rs. 55,770 transportation charges were incurred to bring the machine to the factory site. An Architect was appointed at a fee of Rs. 30,000 to supervise machinery installation at the factory site.

Ascertain the amount at which the Machinery should be capitalized under AS 10 considering that IGST credit is availed by the Shristhi Limited. Internally booked profits should be eliminated in arriving at the cost of machine.

Solution: Calculation of Cost of Fixed Asset (i.e. Machinery)

Particulars		Rs.
Purchase Price	Given (Rs. 158,34,000 x 100/112)	1,41,37,500
Add: Site Preparation Cost	Given	1,41,870
Technician's Salary	Specific/Attributable overheads for 3 months (See Note) (45,000 x3)	1,35,000
Initial Delivery Cost	Transportation	55,770
Professional Fees for Installation	Architect's Fees	30,000
Total Cost of Asset		1,45,00,140

2. X Limited started construction on a building for its own use on April 1, 20X0. The following costs are incurred:

	₹
Purchase price of land	30,00,000
Stamp duty & legal fee	2,00,000
Architect fee	2,00,000
Site preparation	50,000
Materials	10,00,000
Direct labour cost	4,00,000
General overheads	1,00,000

Other relevant information:

Other relevant information: Material costing ₹ 1,00,000 had been spoiled and therefore wasted and a further ₹ 1,50,000 was spent on account of faulty design work. As a result of these problems, work on the building was stopped for two weeks during November, 20X0 and it is estimated that ₹ 22,000 of the labour cost relate to that period. The building was completed on 1st January, 20X1 and brought in use 1st April, 20X1. X Limited had taken a loan of ₹ 40,00,000 on 1st April, 20X0 for construction of the building. The loan carried an interest rate of 8% per annum and is repayable on 1st April, 20X2. Assume that the entity did not considered the construction period as substantial period of time as per AS 16.

Calculate the cost of the building that will be included in tangible non-current asset as an addition?

Solution: Only those costs which are directly attributable to bringing the asset into working condition for its intended use should be included. Administration and general costs cannot be included. Cost of abnormal amount of wasted material/ labor or other resources is not included as per AS 10. Here, the cost of spoilt materials and faulty designs are assumed to be abnormal costs. Also, it is assumed that the wastages and labor charges incurred are abnormal in nature. Hence, same are also not included in the cost of PPE.

Amount to be included in Property, Plant and Equipment (PPE):

	₹
Purchase price of land	30,00,000
Stamp duty & legal fee	2,00,000
Architect fee	2,00,000
Site preparation	50,000
Material (10,00,000 – 2,50,000)	7,50,000

Direct labour cost (4,00,000 – 22,000)	3,78,000
General overheads	Nil
Interest (In the given question Building is not a Qualify Asset)	Nil
Total to be capitalized	45,78,000

3. 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?

Solution:

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	₹ 1,87,50,000 – ₹ 1,12,50,000	₹ 1,87,50,000 – ₹ 42,50,000
= Loss recognized in Profit or Loss	= ₹ 75,00,000 (Loss)	= ₹ 1,45,00,000 (Loss)
Revaluation Surplus directly transferred to Retained Earnings	₹ 1,00,00,000	₹ 1,00,00,000

4. 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



5. XYZ Ltd has acquired a heavy road transporter at a cost of Rs 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, the Power train (one of its component) requires replacement, as further maintenance is uneconomical due to the off-road time required. The remainder of the vehicle is perfectly roadworthy and is expected to last for the next four years. The cost of a new power train is Rs 45,00,000. The discount rate assumed is 5%.

Can the cost of the new power train be recognized as an asset, and, if so, what treatment should be used?

Solution: 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 Rs. 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, Rs. 45,00,000 discounted back six years amounts to Rs. 33,57,900 [Rs. 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 Rs. 13,43,160 would be derecognised from the books of account, (i.e., Original Cost Rs. 33,57,900 as reduced by accumulated depreciation for past 6 years Rs. 20,14,740, assuming depreciation is charged on straight-line basis.)

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

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

6. A Ltd. had following assets. Calculate depreciation for the year ended 31st March, 2020 for each asset as per AS 10 (Revised):
- Machinery purchased for ₹ 10 lakhs on 1st April, 2015 and residual value after useful life of 5 years, based on 2015 prices is ₹ 10 lakhs.
 - Land for ₹ 50 lakhs.
 - A Machinery is constructed for ₹ 5,00,000 for its own use (useful life is 10 years). Construction is completed on 1st April, 2019, but the company does not begin using the machine until 31st March, 2020.
 - Machinery purchased on 1st April, 2017 for ₹ 50,000 with useful life of 5 years and residual value is NIL. On 1st April, 2019, management decided to use this asset for further 2 years only.

Solution: Computation of amount of depreciation as per AS 10

	₹
(i) Machinery purchased on 1/4/15 for ₹ 10 lakhs (having residual value of ₹ 10 lakhs) Reason: The company considers that the residual value, based on prices prevailing at the balance sheet date, will equal the cost. Therefore, there is no depreciable amount and depreciation is correctly zero.	Nil
(ii) Land (50 lakhs) (considered freehold) Reason: Land has an unlimited useful life and therefore, it is not depreciated.	Nil
(iii) Machinery constructed for own use (₹ 5,00,000/10) Reason: The entity should begin charging depreciation from the date the machine is ready for use i.e. 1st April, 2019. 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.	50,000
(iv) Machinery having revised useful life Reason: The entity has charged depreciation using the straight-line method at ₹ 10,000 per annum i.e (50,000/5 years). On 1st April, 2019 the asset's net book value is [50,000 – (10,000 x 2)] i.e. ₹ 30,000. The remaining useful life is 2 years as per revised estimate. The company should amend the annual provision for depreciation to charge the unamortized cost over the revised remaining life of 2 years. Consequently, it should charge depreciation for the next 2 years at ₹ 15,000 per annum i.e. (30,000 / 2 years).	15,000

7. On 1 April 20X1, Sun Ltd purchased some land for ₹ 10 million (including legal costs of ₹ 1 million) in order to construct a new factory. Construction work commenced on 1 May 20X1. Sun Ltd incurred the following costs in relation with its construction:
- Preparation and levelling of the land – ₹ 3,00,000.
 - Purchase of materials for the construction – ₹ 6.08 million in total.
 - Employment costs of the construction workers – ₹ 2,00,000 per month.
 - Overhead costs incurred directly on the construction of the factory – ₹ 1,00,000 per month.
 - Ongoing overhead costs allocated to the construction project using the company's normal overhead allocation model – ₹ 50,000 per month.
 - Income received during the temporary use of the factory premises as a car park during the construction period – ₹ 50,000.
 - Costs of relocating employees to work at the new factory – ₹ 300,000.
 - Costs of the opening ceremony on 31 January 20X1 – ₹ 150,000.

The factory was completed on 30 November 20X1 and production began on 1 February 20X2. The overall useful life of the factory building was estimated at 40 years from the date of completion. However, it is estimated that the roof will need to be replaced 20 years after the date of completion and that the cost of replacing the roof at current prices would be 30% of the total cost of the building.

At the end of the 40 -year period, Sun Ltd has a legally enforceable obligation to demolish the factory and restore the site to its original condition. The directors estimate that the cost of demolition in 40 years' time (based on prices prevailing at that time) will be ₹ 20 million. An annual risk adjusted discount rate which is appropriate to this project is 8%. The present value of ₹ 1 payable in 40 years' time at an annual discount rate of 8% is Rs. 0.046.

The construction of the factory was partly financed by a loan of ₹ 17.5 million taken out on 1 April 20X1. The loan was at an annual rate of interest of 6%. During the period 1 April 20X1 to 31 August 20X1 (when the loan proceeds had been fully utilised to finance the construction), Sun Ltd received investment income of ₹ 100,000 on the temporary investment of the proceeds.

Required: Compute the carrying amount of the factory in the Balance Sheet of Sun Ltd at 31 March 20X2. You should explain your treatment of all the amounts referred to in this part in your answer.

Solution: Computation of the cost of the factory

Description	Included in PPE Rs 000	Explanation
Purchase of land	10,000	Both the purchase of the land and the associated legal costs are direct costs of constructing the factory.
Preparation and leveling	300	A direct cost of constructing the factory
Materials	6,080	A direct cost of constructing the factory
Employment costs of construction workers	1,400	A direct cost of constructing the factory for a seven-month period
Direct overhead costs	700	A direct cost of constructing the factory for a seven-month period
Allocated overhead costs	Nil	Not a direct cost of construction
Income from use as a car park	Nil	Not essential to the construction so recognised directly in profit or loss
Relocation costs	Nil	Not a direct cost of construction
Opening ceremony	Nil	Not a direct cost of construction
Finance costs	612.5	Capitalise the interest cost incurred in a seven-month period (purchase of land would not trigger off capitalisation since land is not a qualifying asset. Infact, the construction started from 1st May, 20X1)
Investment income on temporary investment of the loan proceeds	(100)	offset against the amount capitalized
Demolition cost recognised as a provision	920	Where an obligation must recognise as part of the initial cost



Total	19,912.50	All of the net finance cost of 512.50 (612.50 – 100) has been allocated to the depreciable amount. Also acceptable to reduce by allocating a portion to the non-depreciable land element principle
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Computation of accumulated depreciation and Carrying Amount

Total depreciable amount	9,912.50	
Depreciation must be in two parts:		
Depreciation of roof component	49.56	$9,912.50 \times 30\% \times 1/20 \times 4/12$
Depreciation of remainder	57.82	$9,912.50 \times 70\% \times 1/40 \times 4/12$
Total depreciation	<u>107.38</u>	
Computation of carrying amount	<u>19,805.12</u>	$19,912.50 - 107.38$

8. In the books of Optic Fiber Ltd., plant and machinery stood at Rs. 6,32,000 on 1.4.2013. However on scrutiny it was found that machinery worth Rs. 1,20,000 was included in the purchase on 1.6.2013. On 30.6.2013 the company disposed a machine having book value of Rs. 1,89,000 on 1.4.2013 at Rs. 1,75,000 in part exchange of a new machine costing Rs. 2,56,000. The company charges depreciation @20% WDV on plant and machinery.

You are required to calculate:

- Depreciation to be charged to P/L
- Book Value of Plant and Machinery A/c as on 31.3.2014
- Loss on exchange of machinery .

Solution:

(i) Total Depreciation to be charged in the Profit and Loss Account

Depreciation on old machinery in use [20% of (6,32,000-1,89,000)]	Rs. 88,600
Add: Depreciation on machine included in purchase @ 20% of Rs.1,20,000 for 10 months	20,000
Add: Depreciation on new machine @ 20% of Rs. 2,56,000 for 9 months	38,400
Add: Depreciation on machine disposed of (20% on Rs. 1,89,000 for 3 months)	9,450
Total depreciation to be charged in Profit and Loss A/c	1,56,450

(ii) Book Value of Machinery in the Balance Sheet as on 31.03.2014

Opening Balance	Rs. 6,32,000
Less: Book value of machine sold	(1,89,000)
Add: Purchase of new machine	2,56,000
Add: Machinery included in purchase	1,20,000
Less: Depreciation on machinery in use (88,600+20,000+38,400)	(1,47,000)
	6,72,000

(iii) Loss on Exchange of Machine

Book value of machine as on 1.4.2013	Rs. 1,89,000
Less: Depreciation for 3 months @ 20%	(9,450)
Written Down Value as on 30.6.2013	1,79,550
Less: Exchange value	(1,75,000)
Loss on exchange of machine	4,550