CA FOUNDATION

CHANKYA NITI

Subject : Accounts

Depreciation & Amortisation

By- CA Rishabh Rohra

Depreciation → Tangible Asset

Amortisation → Intangible Asset

Why do we charge Depreciation..??

Benefit 12M>

Concept of Depreciation

Tangible Assets are assets that have a physical substance i.e., they can be seen and touched, held for use in the production or supply of goods or services, for rental to others, or for administrative purposes. Useful life of tangible asset is based on expected usage. Property, plant and equipment are tangible items that:

(a) are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and

(b) are expected to be used during more than a period of twelve months.

These are also called fixed assets in common parlance. When a fixed asset is purchased, it is recorded in books of account at its original or acquisition/purchase cost. However fixed assets are used to earn revenues or save costs for several accounting periods in future with the same acquisition cost until the concerned fixed asset is sold or discarded. For example, acquisition of a machinery expected to be in use for 10 years in the production of finished goods will earn revenues over the next 10 years. Similarly, an ATM machine installed by a bank will result in cost savings over the expected life of such ATM machines for the bank in terms of not requiring to employ personnel to dispense cash for customers. Since the life of such assets exceeds one year, it is therefore necessary that a part of the acquisition cost of such fixed assets be treated or allocated as an expense in each of the accounting period in which the asset is utilized.

Why do we charge Depn....?

The amount or value of fixed assets allocated in such manner to respective accounting period is called depreciation. Value of such assets decreases with passage of time mainly due to following reasons.

1. Wear and tear due to its use in business
2. Efflux of time (even when it is not being used)
3. Obsolescence due to technological or other changes
4. Decrease in market value
5. Depletion mainly in case of mines and other natural reserves

It is important to account for value of portion of property, plant and equipment utilized for generating revenue during an accounting year to ascertain true income. In other words, against the income/cost savings generated during a period, it is essential to book a portion of the cost of the asset utilized in generating such income/cost savings. This portion of cost of Property, Plant & Equipment allocated to an accounting year is called depreciation.

Factors in the Measurement of Depreciation

Estimation of exact amount of depreciation is not easy as it involves lot of estimation. Generally following factors are taken into consideration for calculation of depreciation.

1. Cost of asset including expenses for installation, commissioning, trial run etc.
2. Estimated useful life of the asset (both in terms of time & also utility/units).
3. Estimated scrap value (if any) at the end of useful life of the asset.

The above mentioned factors can be explained, in detail, as follows

Depn calculate → (1) Cost of Asset
(2) Estimated useful life
(3) Residual / Scrap value
} person to person Different hoti hai

Demo → cost ₹1.5L
(-) 0.5L
₹1L

Machine → COA = 50L + 10L + 3L + 2L + 3L + 2L + 1.5L + 1L
= ₹72.5L

↓
Cost of Acq.
or
Cost of Asset

Inauguration Expense → ₹20L
Insurance → ₹5L
↳ P&L Dr. ✓

Asset +
↳ NO

Cost of Property, Plant and Equipment comprises:

(a) its purchase price, including non-refundable import duties and purchase taxes, after deducting trade discounts and rebates.

(b) any cost directly attributable to bring the asset to the location and condition necessary for it to be capable of operating in a manner intended by the enterprise.

(c) the initial estimate of the costs of dismantling, removing, the item and restoring the site on which an asset is located.

Examples of directly attributable costs are:

(a) cost of employee benefits arising directly from acquisition or construction of an item of property, plant and equipment.

(b) cost of site preparation

(c) initial delivery and handling costs
(d) installation and assembly costs
(e) cost of testing whether the asset is functioning properly, after deducting the net proceeds from selling the items produced while testing (such as samples produced while testing)
(f) professional fees e.g. engineers hired for helping in installation of a machine

Thus, all the expenses which are necessary for the asset to bring it in condition and location of desired use will become part of cost of the asset. However, following expenses should not become part of cost of asset:

(a) costs of opening new facility or business, such as inauguration costs;
(b) cost of introducing new product or service (for example cost of advertisement or promotional activities).

(c) cost of conducting business in a new location or with a new class of customer (including cost of staff training); and
(d) administration and other general overhead costs.

Once an asset has been brought to its intended condition and location of use, no cost should be recognized as part of cost of the asset unless there is major repair or addition which increases the useful life of the asset or improves the production capacity of the asset. Accordingly, cost incurred while an item is capable of operating in intended manner but it is not yet put to use or is used at less than full capacity should not be capitalized as part of cost of the asset. Similarly, cost of relocation of an asset should not be capitalized.

Any additions made to a particular item of property, plant and equipment after it is initially put to use are depreciated over the remaining useful life of the asset. Any addition or extension which has a separate identity and is capable of being used after the existing asset is disposed of, is accounted for separately. Therefore, it is important to maintain an asset register capturing asset wise details of cost, rate of depreciation, date of capitalization etc. All these details need to be captured for any additions to existing assets as well. In the absence of the adequate information, it will be very difficult to compute depreciation expense year on year. Also, at the time of disposal or discard of a particular asset, it will not be possible to compute gain or loss on such disposal/discard.

Depreciation Method

- Straight Line method
  - OR
  - Fixed Instalment method
    - Hint:- Depn @10% on original cost
- Written Down Value method
  - or
  - Reducing Bal. method
  - or
  - Diminishing Bal. method
- Sum of Digit method
- Unit method/ Hours method/ Tonnes method

How to decide whether YE is 31|03 or 31|12.... ??

Question → 2020-21

Year Start 01|04|2020

Year end 31|03|2021

Question → 2020

Year Start 01|01|20

Year end 31|12|20

QUESTION (Illustration -1 – Page No. 5.11 ICAI Module)

Jain Bros. acquired a machine on 1st July, 2021 at a cost of ₹ 14,00,000 and spent ₹ 1,00,000 on its installation. The firm writes off depreciation at 10% p.a. of the original cost every year. The books are closed on 31st December every year.

Required

Show the Machinery Account and Depreciation Account for the year 2021 and 2022.

YE 31/12/21 31/12/22

purchase cost	14L
+ Installation	1L
cost of Acquisition	15L

Depn → Rate 10% P.a of original cost → If 12m machine use → 10% Depn

Date of purchase → 01/07/21 → YE 31/12/21 6m

YE 31/12/22 12m

Depn for year ending 31/12/21 → 15,00,000 × 10% × $\frac{6}{12}$ = ₹ 75,000

Depn for year ending 31/12/22 → 15,00,000 × 10% × $\frac{12}{12}$ = ₹ 1,50,000

01/07/21

Machinery A/c Dr. 14,00,000
To Bank A/c 14,00,000

Machinery A/c Dr. 1,00,000
To Bank A/c 1,00,000

31/12/21

Depreciation A/c Dr. 75,000
To Machinery A/c 75,000

P&L A/c Dr. 75,000
To Depreciation A/c 75,000

31/12/22

Depreciation A/c Dr. 1,50,000
To Machinery A/c 1,50,000

P&L A/c Dr. 1,50,000
To Depreciation A/c 1,50,000

Depn calculate → period end / Year End

OR

Date of Sale

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/07/21	To Bank A/c	14,00,000	31/12/21	By Depreciation A/c	75,000
	To Bank A/c (Installation exp.)	1,00,000	31/12/21	By Bal c/d	14,25,000
		15,00,000			15,00,000
01/01/22	To Bal b/d	14,25,000	31/12/22	By Depreciation A/c	1,50,000
			31/12/22	By Bal c/d	12,75,000
		14,25,000			14,25,000
01/01/23	To Bal b/d				

Depreciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/12/21	To Machinery A/c	75,000	31/12/21	By P&L A/c	75,000
		75,000			75,000
31/12/22	To Machinery A/c	1,50,000	31/12/22	By P&L A/c	1,50,000
		1,50,000			1,50,000

QUESTION (Illustration -2 – Page No. 5.12 ICAI Module)

Jain Bros. acquired a machine on 1st July, 2021 at a cost of ₹ 14,00,000 and spent ₹ 1,00,000 on its installation. The firm writes off depreciation at 10% p.a. every year. The books are closed on 31st December every year.

1st year Depn → COA
2nd year onwards → Reduce value

Required

Show the Machinery Account on diminishing balance method for the year 2021 and 2022.

WDV, RBM

1st year
i.e year ending
31/12/21

Depn = 15,00,000 × 10% × 6/12 = ₹75,000

∴ Value of machinery as on 31/12/21 = 15L (-) 0.75L = 14,25,000

2nd year
i.e year ending
31/12/22

Depn = 1425000 × 10% × 12/12 = ₹1,42,500

∴ Value of machinery on 31/12/22 = 1425000 (-) 142500 = 12,82,500

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/07/21	To Bank A/c	14,00,000	31/12/21	By Depreciation A/c	75,000
	To Bank A/c (Installation exp.)	1,00,000	31/12/21	By Bal c/d	14,25,000
		15,00,000			15,00,000
01/01/22	To Bal b/d	14,25,000	31/12/22	By Depreciation A/c	1,42,500
			31/12/22	By Bal c/d	12,82,500
		14,25,000			14,25,000
01/01/23	To Bal b/d	12,82,500			

Depreciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/12/21	To Machinery A/c	75,000	31/12/21	By P&L A/c	75,000
		75,000			75,000
31/12/22	To Machinery A/c	1,42,500	31/12/22	By P&L A/c	1,42,500
		1,42,500			1,42,500

QUESTION (Illustration -7 – Page No. 5.18 ICAI Module)

A firm purchased on 1st January, 2020 certain machinery for ₹ 5,82,000 and spent ₹ 18,000 on its erection. On July 1, 2020 another machinery for ₹ 2,00,000 was acquired. On 1st July, 2021 the machinery purchased on 1st January, 2020 having become obsolete was auctioned for ₹ 3,86,000 and on the same date fresh machinery was purchased at a cost of ₹ 4,00,000.

Depreciation was provided for annually on 31st December at the rate of 10 per cent p.a. on written down value.

Required

Prepare machinery account.

M1 01/01/20 582000 + 18000 = ₹6,00,000

M2 01/07/20 = ₹2,00,000

M3 01/07/21 = ₹4,00,000

2020

2021

01/07/21

₹3,86,000

Sold

Particulars	M1	M2	M3
COA	₹6,00,000	₹2,00,000	₹4,00,000
Date of Purchase	01/01/20	01/07/20	01/07/21
Date of sale	01/07/21	–	–
Sale value	₹3,86,000	–	–
01/01/20 to 31/12/20			
Month used	12m	6m	
Depreciation @10%	₹60,000 (6L×10%×12/12)	₹10,000 (2L×10%×6/12)	X
Value of machinery on YE	₹5,40,000	₹1,90,000	
01/01/21 to 31/12/21			
month used	6m	12m	6m
Depreciation	₹27,000	₹19,000	₹20,000 (4L×10%×6/12)
Value of machine on Dt. of sale	₹5,13,000	–	
Sold for	₹3,86,000	–	
Loss	₹1,27,000	–	

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/20	To Bank A/c - M1	5,82,000	31/12/20	By Depreciation A/c M1 60,000	
	To Bank A/c - M1 (Installation)	18,000		M2 10,000	70,000
			31/12/20	By Bal c/d M1 5,40,000	
01/07/20	To Bank A/c - M2	2,00,000		M2 1,90,000	7,30,000
		8,00,000			8,00,000
01/01/21	To Bal b/d	7,30,000	01/07/21	By Depreciation A/c - M1	27,000
01/07/21	To Bank A/c - M3	4,00,000		By Bank A/c	3,86,000
				By Loss on Sale of Asset - P&L A/c	1,27,000
			31/12/21	By Depreciation - M2 19,000	
				M3 20,000	39,000
				By Bal c/d →	5,51,000
		11,30,000			11,30,000

01/01/20	Machinery A/c Dr.	5,82,000	
	To Bank A/c		5,82,000
	Machinery A/c Dr	18,000	
	To Bank A/c		18,000
01/07/20	Machinery A/c Dr	2,00,000	
	To Bank A/c		2,00,000
31/12/20	Depreciation A/c Dr.	70,000	
	To Machinery A/c		70,000
	P&L A/c Dr.	70,000	
	To Depreciation A/c		70,000
01/07/21	Depreciation A/c Dr.	27,000	
	To Machinery A/c		27,000
	Bank A/c Dr.	3,86,000	
	Loss on sale of Asset A/c Dr	1,27,000	
	To Machinery A/c		5,13,000
	Machinery A/c Dr	4,00,000	
	To Bank A/c		4,00,000
31/12/21	Depreciation A/c Dr	39,000	
	To Machinery A/c		39,000
	P&L A/c Dr	1,93,000	
	To Depreciation A/c		66,000
	To Loss on sale of Asset A/c		1,27,000

QUESTION (Illustration -3 – Page No. 5.13 ICAI Module)

M/s Akash & Co. purchased a machine for ₹ 10,00,000. Estimated useful life and scrap value were 10 years and ₹ 1,20,000 respectively. The machine was put to use on 1.1.2017.

10 years

₹1,20,000

01/01/22 to 31/12/22 → Depn

Required

Show Machinery Account and Depreciation Account in their books for 2022 by using sum of years digits method.

Year → 10

Sum = 10+9+8+7+6+5+4+3+2+1 = 55

formulae = $\frac{n \times (n+1)}{2}$

$= \frac{10 \times (10+1)}{2}$

$= \frac{10 \times 11}{2}$ i.e 55

Sum of Digit method → Alteration of WDV method

1st → cost

2nd → Reduced value

Depn ↓

Depn under Sum of Digit ⟶ 1st year = $\frac{10,00,000 (-) 1,20,000}{55} \times 10$

2017

+

2nd year = $\frac{10,00,000 (-) 1,20,000}{55} \times 9$

2018

+

3rd year = $\frac{10,00,000 (-) 1,20,000}{55} \times 8$

2019

+

4th year = $\frac{10,00,000 (-) 1,20,000}{55} \times 7$

2020

+

5th year = $\frac{10,00,000 (-) 1,20,000}{55} \times 6$

2021

∴ Tot. Depn for 5 years

$= \left[\frac{101 - 1.21}{35}\right] \times 40$

$= 6,40,000$

Value of Machine as on 01/01/22

~~(A) 10,00,000 (-) 1,20,000 (-) 6,40,000~~

01/01/17 COA

5 year total Depn

✓(B) 10,00,000 (-) 6,40,000

$= 3,60,000$

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/22	To Bal b/d	3,60,000	31/12/22	By Depreciation A/c $\left[\frac{10,00,000 \leftrightarrow 1,20,000}{55}\right] \times 5$	80,000
			31/12/22	By Bal c/d	2,80,000
		3,60,000			3,60,000
01/01/23	To Bal b/d	2,80,000			

QUESTION (Illustration -4 – Page No. 5.14 ICAI Module)

A machine was purchased for ₹ 30,00,000 having an estimated total working of 24,000 hours. The scrap value is expected to be ₹ 2,00,000 and anticipated pattern of distribution of effective hours is as follows :

Year	
1 – 3	3,000 hours per year
4 - 6	2,600 hours per year
7 - 10	1,800 hours per year

Required

Determine Annual Depreciation under Machine Hour Rate Method.

	Hours
1	3,000
2	3,000
3	3,000
4	2,600
5	2,600
6	2,600
7	1,800
8	1,800
9	1,800
10	1,800

Depreciation under machine Hour method $= \frac{\text{COA (-) Scrap value}}{\text{Hours}} \times \text{No. of Hour used}$

SLM $= \frac{\text{COA (-) Scrap value}}{\text{life}}$

↓

Depn p.a

↳ 12m

$= \frac{₹30,00,000 \text{ (-) } ₹2,00,000}{24,000 \text{ Hours}}$

Depreciation for Year 1-3 $= \frac{30,00,000 \text{ (-) } 2,00,000}{24,000} \times 3,000 = ₹3,50,000$ p.a for year 1, 2, 3

Depreciation for Year 4-6 $= \frac{30,00,000 \text{ (-) } 2,00,000}{24,000} \times 2,600 = ₹3,03,333$ p.a for year 4, 5, 6

Depreciation for Year 7-10 $= \frac{30,00,000 \text{ (-) } 2,00,000}{24,000} \times 1,800 = ₹2,10,000$ p.a for year 7, 8, 9, 10

QUESTION (Illustration -5 – Page No. 5.15 ICAI Module)

A machine is purchased for ₹ 20,00,000. Its estimated useful life is 10 years with a residual value of ₹ 2,00,000. The machine is expected to produce 1.5 lakh units during its life time. Expected distribution pattern of production is as follows:

Year	Production
1-3	20,000 units per year
4-7	15,000 units per year
8-10	10,000 units per year

Required

Determine the value of depreciation for each year using production units method.

Depreciation under production unit method = $\frac{\text{COA (-) Scrap value}}{\text{Units}} \times$ No. of unit produced

Depreciation for year 1-3 = $\frac{₹20,00,000 \text{ (-) } ₹2,00,000}{1,50,000} \times 20,000 = ₹2,40,000$ p.a for year 1, 2, 3

Depreciation for year 4-7 = $\frac{₹20,00,000 \text{ (-) } ₹2,00,000}{1,50,000} \times 15,000 = ₹1,80,000$ p.a for year 4, 5, 6, 7

Depreciation for year 8-10 = $\frac{₹20,00,000 \text{ (-) } ₹2,00,000}{1,50,000} \times 10,000 = ₹1,20,000$ p.a for year 8, 9, 10

QUESTION (Illustration -6 – Page No. 5.16 ICAI Module)

M/s Surya & Co. took lease of a quarry on 1-1-2019 for ₹ 1,00,00,000. As per technical estimate the total quantity of mineral deposit is 2,00,000 tonnes. Depreciation was charged on the basis of depletion method. Extraction pattern is given in the following table:

$\frac{1,00,00,000 \text{ (-) } 0}{2,00,000} \times$ tonnes extracted.

Year	Quantity of Mineral extracted	
2019	2,000 tonnes	→ Depreciation = ₹1,00,000
2020	10,000 tonnes	→ Depreciation = ₹5,00,000
2021	15,000 tonnes	→ Depreciation = ₹7,50,000

Required

Show the Quarry Lease Account and Depreciation Account for each year from 2019 to 2021.

Quarry Lease A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/19	To Bank A/c	1,00,00,000	31/12/19	By Depreciation A/c	1,00,000
			31/12/19	By Bal c/d	99,00,000
		1,00,00,000			1,00,00,000
01/01/20	To Bal b/d	99,00,000	31/12/20	By Depreciation A/c	5,00,000
			31/12/20	By Bal c/d	94,00,000
		99,00,000			99,00,000
01/01/21	To Bal b/d	94,00,000	31/12/21	By Depreciation A/c	7,50,000
			31/12/21	By Bal c/d	86,50,000
		94,00,000			94,00,000
01/01/22	To Bal b/d	86,50,000			

Depreciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/12/19	To Quarry lease A/c	1,00,000	31/12/19	By P&L A/c	1,00,000
		1,00,000			1,00,000
31/12/20	To Quarry lease A/c	5,00,000	31/12/20	By P&L A/c	5,00,000
		5,00,000			5,00,000
31/12/21	To Quarry lease A/c	7,50,000	31/12/21	By P&L A/c	7,50,000
		7,50,000			7,50,000

QUESTION (Illustration -8 – Page No. 5.19 ICAI Module)

On April 1, 2019 Shubra Ltd. purchased a machinery for ₹ 12,00,000. On Oct 1, 2021, a part of the machinery purchased on April 1, 2019 for ₹ 80,000 was sold for ₹ 45,000 and a new machinery at a cost of ₹ 1,58,000 was purchased and installed on the same date. The company has adopted the method of providing 10% p.a. depreciation on the written down value of the machinery.

Required : Show the necessary ledger accounts for the years ended 31st March, 2020 to 2022 assuming that (a) 'Provision for Depreciation Account' is not maintained (b) Provision for Depreciation Account is maintained.

	M1 - Part 1	M1 - Part 2	M2
Date of purchase	₹ 11,20,000	₹ 80,000	1,58,000
Cost of Acquisition	01/04/19	01/04/19	01/10/21
Date of sale	-	01/10/21	-
sale value	-	₹ 45,00	-
01/04/19 to 31/03/20			
Month used	12m	12m	
Depreciation cy	₹ 1,12,000	₹ 8,000	X
Value of machine after Depn	₹ 10,08,000	₹ 72,000	
01/04/20 to 31/03/21			
month used	12m	12m	
Depreciation cy	₹ 1,00,800	₹ 7,200	X
Value of machinery after Depn	₹ 9,07,200	₹ 64,800	

∴

	M1 - Part 1	M1 - Part 2	M2	
Date of purchase	₹ 11,20,000	₹ 80,000	1,58,000	
Cost of Acquisition	01/04/19	01/04/19	01/10/21	
Date of sale	-	01/10/21	-	
sale value	-	₹45,00	-	
01/04/21 to 31/03/22				
Month used	12m	6m	6m	
Depreciation @ 9%	₹90,720	₹3,240	₹7,900	303520
Value of machine after Depn	₹8,16,480	₹61,560	₹1,50,100	7900
Sold for	-	₹45,000	-	3,11,420
loss on sale	-	₹16,560	-	
Tot. Depn till Date	₹3,03,520	₹18,440	₹7900	

∴

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/04/19	To Bank A/c	12,00,000	31/03/20	By Depreciation A/c	1,20,000
			31/03/20	By Bal c/d	10,80,000
		12,00,000			12,00,000
01/04/20	To Bal b/d	10,80,000	31/03/21	By Depreciation A/c	1,08,000
			31/03/21	By Bal c/d	9,72,000
		10,80,000			10,80,000
01/04/21	To Bal b/d	9,72,000	01/10/21	By Depreciation	3,240
01/10/21	To Bank A/c	1,58,000		By Bank A/c	45,000
				By loss on sale of Asset - P&L	16,560
			31/03/22	By Depreciation A/c [90720 + 7900]	98,620
				By Bal c/d	9,66,580
		11,30,000			11,30,000

Depriciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/03/20	To Machinery A/c	1,20,000	31/03/20	By P&L A/c	1,20,000
		1,20,000			1,20,000
31/03/21	To Machinery A/c	1,08,000	31/03/21	By P&L A/c	1,08,000
		1,08,000			1,08,000
01/10/21 31/03/22	To Machinery A/c To Machinery A/c	3,240 98,620	31/03/22	By P&L A/c	1,01,860
		1,01,860			1,01,860

Depreciation → Normal [i.e without prov]

Depreciation → Question with prov. for depn

↓

JE :-

Depn A/c Dr

To Prov. for Depn

* Machinery A/c Dr. → COA @Purchase
Cr. → COA @sale

* Depn A/c → Dr. → Prov. for Depn A/c
Cr. → P&L A/c trf

B

Dr.	Value of machinery	→ ₹12,78,000
Cr. (-)	Prov. for Depn	→ ₹ 3,11,420
		₹9,66,580

BS → presentation

Machinery A/c ← @ COA

Date	Particulars	₹	Date	Particulars	₹
01/04/19	To Bank A/c	12,00,000	31/03/20	By Bal c/d	12,00,000
		12,00,000			12,00,000
01/04/20	To Bal b/d	12,00,000	31/03/21	By Bal c/d	12,00,000
		12,00,000			12,00,000
01/04/21	To Bal b/d	12,00,000	01/10/21	By Machinery Disposal A/c	80,000
01/10/22	To Bank A/c	1,58,000	31/03/22	By Bal c/d	12,78,000
		13,58,000			13,58,000
01/04/22	To Bal b/d	12,78,000			

Depriciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/03/20	To Prov. for Dep^{n} A/c	1,20,000	31/03/20	By P&L A/c	1,20,000
		1,20,000			1,20,000
31/03/21	To Prov. for Dep^{n} A/c	1,08,000	31/03/21	By P&L A/c	1,08,000
		1,08,000			1,08,000
01/10/21	To Prov. for Dep^{n} A/c	3,240	31/03/22	By P&L A/c	1,01,860
31/03/22	To Prov. for Dep^{n} A/c	98,620			
		1,01,860			1,01,860

Prov. for Depn A/c → Always Cr.

Date	Particulars	₹	Date	Particulars	₹
31/03/20	To Bal c/d	1,20,000	31/03/20	By Depreciation A/c	1,20,000
31/03/21	To Bal c/d	2,28,000	01/04/20 31/03/21	By Bal b/d By Depn A/c	1,20,000 1,08,000
		2,28,000			2,28,000
01/10/21	To machinery Disposal A/c →	18,440	01/04/21 01/10/21	By Bal b/d By Depreciation A/c	2,28,000 3,240
Tot. Depn of part Sold →	To Bal c/d →	3,11,420	31/03/22	By Depreciation A/c	98,620
		3,29,860			3,29,860
			01/04/22	By Bal b/d	3,11,420

Machinery Disposal A/c

Date	Particulars	₹	Date	Particulars	₹
01/10/21	To Machinery A/c	80,000	01/10/21	By Prov. for Depn A/c	18,440
				By Bank A/c	45,000
				By Loss on sale of Asset ↳ P&L A/c	16,560
		80,000			80,000

JE:- Depn A/c Dr
To Prov. for Depn

Machinery Disposal A/c Dr
To Machinery A/c

Prov. for Depn A/c Dr.
To Machinery Disposal A/c

Bank A/c Dr.
Loss on Sale of Asset Dr
To Machinery Disposal A/c

Prov. for Depn Alc → maintained →

- Machinery Alc
- Depn
- Prov. for Depn Alc
- Machinery Disposal Alc

↳ Not maintained
[i.e. Normal Que] → If Question specifically say make Machinery Disposal Alc, then only we will make it.

QUESTION (Illustration -9 – Page No. 5.21 ICAI Module)

A firm purchased second hand machinery on 1st January, 2019 for ₹ 3,00,000, subsequent to which ₹ 60,000 and ₹ 40,000 were spent on its repairs and installation, respectively. On 1st July, 2020 another machinery was purchased for ₹ 2,60,000. On 1st July, 2021, the first machinery having become outdated was auctioned for ₹ 3,20,000 and on the same date, another machinery was purchased for ₹ 2,50,000. On 1st July, 2022, the second machinery was also sold off and it fetched ₹ 2,30,000. Depreciation was provided on machinery @ 10% on the original cost annually on 31st December, under the straight line method.

Required

Prepare the following accounts in the books of the company: (i) Machinery Account for the years ending Dec. 31, 2019 to 2022 and (ii) Machinery Disposal Account.

M1 → COA 4L

M2

M1

sold

M3

M2

YE

SLM

2019
2020
2021
2022

Provi. for Depn → maintain → Machinery Disposal A/c → COA
↳ Not maintained → Machinery Disposal A/c → after Depn

	M1	M2	M3
Date of purchase	01/01/19	01/07/20	01/07/21
Cost of Acquisition	₹4,00,000	₹2,60,000	₹2,50,000
Date of sale	01/07/21	01/07/22	—
sale value	₹3,20,000	₹2,32,000	—
01/01/19 to 31/12/19			
Month used	12M	X	X
Depreciation cy	₹40,000		
Value of machine after Depn	₹3,60,000		
01/01/20 to 31/12/20			
month used	12M	6M	X
Depreciation cy	₹40,000	₹13,000	
Value of machinery after Depn	₹3,20,000	₹2,47,000	

∴

	M1	M2	M3
Date of purchase	01101119	01107120	01107121
Cost of Acquisition	₹4,00,000	₹2,60,000	₹2,50,000
Date of sale	01107121	01107122	—
sale value	₹3,20,000	₹2,30,000	—
01101121 to 31112121			
Month used	6m	12m	6m
Depreciation cy	✓ ₹20,000	✓ ₹26,000	✓ ₹12,500
Value of machine after Depn	✓ ₹3,00,000	₹2,21,000	₹2,37,500
Sold for	₹3,20,000	—	—
Profit	₹ 20,000	—	—
01101122 to 31112122			
Month used	X	6m	12m
Depn for cy		₹13,000	₹25,000 → 10% of
Value after Depn		₹2,08,000	₹2,12,500
Sold for		₹2,30,000	
profit		22,000	

∴

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/19	To Bank A/c	3,00,000	31/12/19	By Depreciation A/c	40,000
	To Bank A/c - Repair	60,000	31/12/19	By Bal c/d	3,60,000
	To Bank A/c - Install	40,000			
		4,00,000			4,00,000
01/01/20	To Bal b/d	3,60,000	31/12/20	By Depreciation A/c [40000 + 13000]	53,000
01/07/20	To Bank A/c	2,60,000	31/12/20	By Bal c/d	5,67,000
		6,20,000			6,20,000
01/01/21	To Bal b/d	5,67,000	01/07/21	By Depreciation A/c	20,000
01/07/21	To Bank A/c	2,50,000	01/07/21	By Machinery Disposal A/c	3,00,000
			31/12/21	By Depreciation A/c [26000 + 12500]	38,500
			31/12/21	By Bal c/d	4,58,500
		8,17,000			8,17,000

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/22	To Bal b/d	4,58,500	01/07/22	By Depreciation A/c	13,000
				By Machinery Disposal A/c	2,08,000
			31/12/22	By Depreciation A/c	25,000
				By Bal c/d	2,12,500
		4,58,500			4,58,500

Depreciation A/c

Date	Particulars	₹	Date	Particulars	₹
31/12/19	To Machinery A/c	40,000	31/12/19	By P&L A/c	40,000
		40,000			40,000
31/12/20	To Machinery A/c	53,000	31/12/20	By P&L A/c	53,000
		53,000			53,000
01/07/21	To Machinery A/c	20,000	31/12/21	By P&L A/c	58,500
31/12/21	To Machinery A/c	38,500			
		58,500			58,500
01/07/22	To Machinery A/c	13,000	31/12/22	By P&L A/c	38,000
31/12/22	To Machinery A/c	25,000			
		38,000			38,000

Machinery Disposal A/c

Date	Particulars	₹	Date	Particulars	₹
01/07/21	To Machinery A/c	3,00,000	01/07/21	By Bank A/c	3,20,000
	To Profit on sale of Asset – P&L A/c	20,000			
		3,20,000			3,20,000
01/07/22	To Machinery A/c	2,08,000	01/07/22	By Bank A/c	2,30,000
	To Profit on sale of Asset - P&L	22,000			
		2,32,000			2,32,000

Change in Method of Depreciation

1st Step → Calculate value of Asset on Date of change

2nd Step → Assume value calculated in Step1 = New COA

QUESTION (Illustration -10 – Page No. 5.24 ICAI Module)

M/s Anshul & Co. commenced business on 1st January 2017, when they purchased plant and equipment for ₹ 7,00,000. They adopted a policy of charging depreciation at 15% per annum on diminishing balance basis and over the years, their purchases of plant have been:

Date	Amount ₹
1-1-2018	1,50,000
1-1-2021	2,00,000

- On 1-1-2021 it was decided to change the method and rate of depreciation to straight line basis. On this date remaining useful life was assessed as 6 years for all the assets purchased before 1.1.2021 with no scrap value and 10 years for the asset purchased on 1.1.2021.

Required

Calculate the difference in depreciation to be adjusted in the Plant and Equipment Account for the year ending 31st December, 2021.

Value of Plant & Equipment on Date of change

Particulars	M1	M2
Date of Purchase	01/01/17	01/01/18
Cost of Acquisition	₹ 7,00,000	₹ 1,50,000
01/01/17 to 31/12/17		
Depn CY	₹1,05,000	X
Value after Depn	₹5,95,000	
01/01/18 to 31/12/18		
Depn CY	₹89,250	₹ 22,500
Value after Depn	₹5,05,750	₹1,27,500
01/01/19 to 31/12/19		
Depn CY	₹75,863	₹19,125
Value after Depn	₹ 4,29,887	₹1,08,375
01/01/20 to 31/12/20		
Depn CY	₹64,483	₹16,256
Value after Depn	₹3,65,404	₹92,119

Depn for the year 2021 [i.e 01/01/21 to 31/12/21] → M1 = 3,65,404 (-) 0 / 6 i.e 60,901

M2 = 92,119 (-) 0 / 6 i.e 15,353

M3 = 2,00,000 (-) 0 / 10 i.e 20,000

Machinery A/c

Date	Particulars	₹	Date	Particulars	₹
01/01/21	To Bal b/d (3,65,404 + 92,119)	4,57,523	31/12/21	By Depreciation A/c	96,254
				By Bal c/d	5,61,269
01/01/21	To Bank A/c	2,00,000			
		6,57,523			6,57,523

QUESTION (Illustration - 11 – Page No. 5.25 ICAI Module)

A Machine costing ₹ 6,00,000 is depreciated on straight line basis, assuming 10 years working life and Nil residual value, for three years. The estimate of remaining useful life after third year was reassessed at 5 years.

Required

Calculate depreciation for the fourth year.

₹84,000

Dep p.a as per SLM = (6,00,000 (-) 0) / 10 = ₹60,000

10 (-)3 7

∴ Depn as per SLM = (4,20,000 (-) 0) / 5 = ₹84,000 p.a

Depn Tot. for 3 year = 60,000 × 3 = ₹1,80,000

Value after Depn @ end of 3rd year = 6,00,000 (-) 180000 = 4,20,000

Revaluation of Property, Plant and Equipment

After recognizing an asset initially, the asset whose fair value could be reliably measured could be carried at the revalued amount, being the fair value at revaluation date and reduced by successively accumulated depreciation and successive accumulated impairment losses (permanent decline in value) (if any). If an entity opts for revaluation:

(a) Revaluations must be made at adequate intervals (say yearly) for ensuring that carrying amount doesn't differ substantially from that which would be determined if fair value at end of the reporting period is used

(b) In case an item of PPE is revalued, whole class of such PPE to which such asset belongs should be revalued

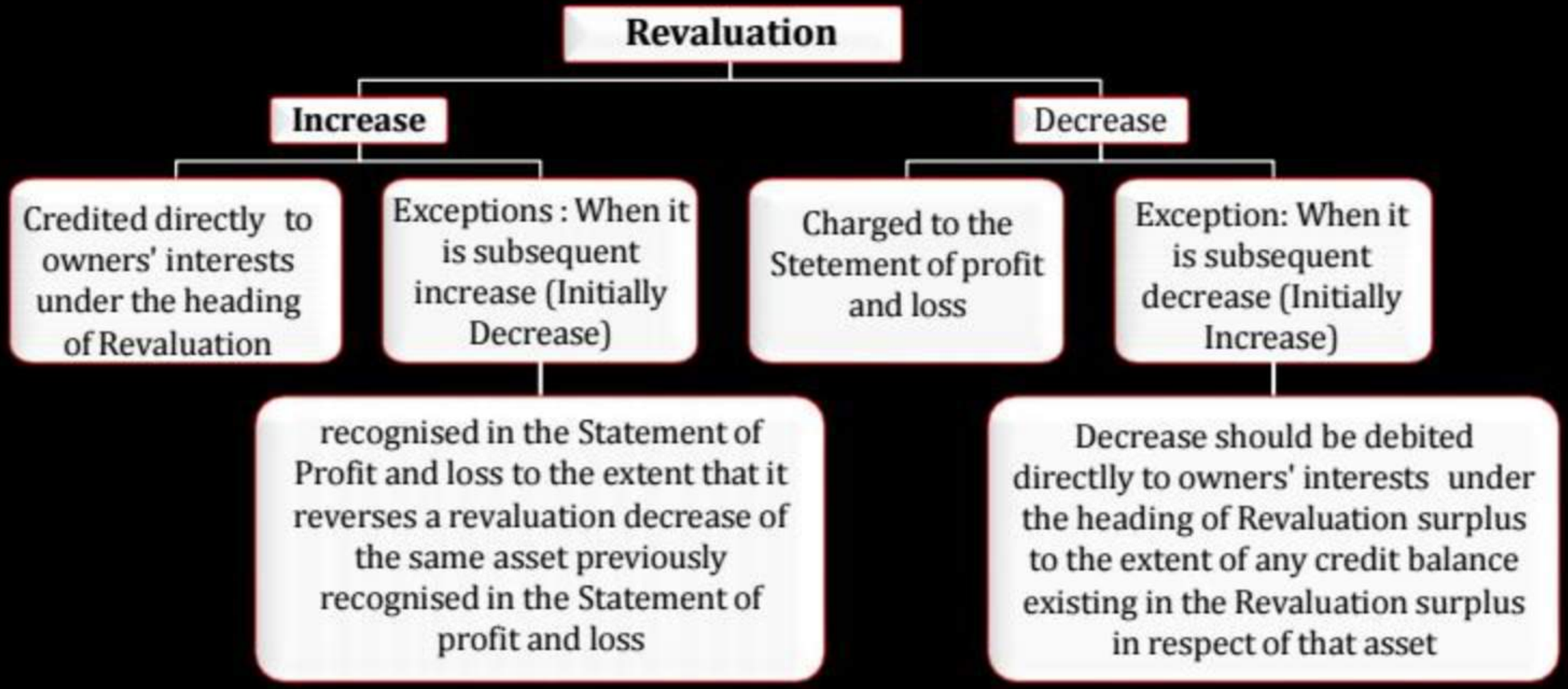
(c) In case the carrying amount of an asset increases due to revaluation, such increase should be credited to revaluation surplus and should be accumulated in equity. However, such increase should be recognized in Profit and Loss statement to the extent of reversal of a previous decrease of that asset that was recognized in the Profit and Loss statement.

(d) In case the carrying amount of an asset is decreased due to revaluation, such decrease should be recognized in the Profit and Loss account. However, such decrease should be debited to the revaluation surplus to the extent of reversal of a previous increase that was recognized in revaluation surplus for that asset.

(e) The Revaluation Surplus may be transferred directly to retained earnings when the asset is derecognized. This may involve transferring the whole of the surplus when the asset is retired or disposed of. Such transfer from Revaluation Surplus to Retained Earnings cannot be made through the Profit or Loss.

(f) Alternatively, where there is an upward revaluation, the excess depreciation on account of such upward revaluation may be transferred from Revaluation Surplus to Retained Earnings. Such transfer from Revaluation Surplus to Retained Earnings cannot be made through the Profit or Loss.

It may be pertinent to note that revaluation of Property, Plant and Equipment is an accounting policy choice, and not mandatory under the accounting standards or the Companies Act, 2013.


Revaluation
Increase
Decrease
Credited directly to owners' interests under the heading of Revaluation
Exceptions : When it is subsequent increase (Initially Decrease)
Charged to the Stetement of profit and loss
Exception: When it is subsequent decrease (Initially Increase)
recognised in the Statement of Profit and loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in the Statement of profit and loss
Decrease should be debited directlly to owners' interests under the heading of Revaluation surplus to the extent of any credit balance existing in the Revaluation surplus in respect of that asset

Revaluation of Asset

P&M
BS → 5,00,000

→ 1st Time Revaluation

MV 550000 → Increase → ₹50000 Revaluation surplus Cr.
BS 550000

→ 2nd Time

- MV ₹575000 → Revaluation surplus Cr. 25000 — BS 575000
- MV ₹530000 → Revaluation surplus Dr. 20000 — BS 530000
- MV ₹4,80,000 → Revaluation surplus Dr. 50000 — BS 480000

and Bal 20000 Dr. P&L A/c

MV ₹475000 → Decrease → ₹25,000
P&L A/c Dr.
BS 475000

→ 2nd Time

- MV 500000 → P&L A/c Cr. 25000 ∴ BS → 500000
- MV 520000 → P&L A/c Cr. 25000, Reval. surplus Cr. 20000 BS → 520000
- MV 460000 → P&L Dr. 15000 BS 460000

QUESTION (Illustration - 12 – Page No. 5.27 ICAI Module)

A machine of cost ₹ 12,00,000 is depreciated straight-line assuming 10 year working life and zero residual value for three years. At the end of third year, the machine was revalued upwards by ₹ 60,000 the remaining useful life was reassessed at 9 years.

Required

Calculate depreciation for the fourth year

Depn p.a @ SLM = $\frac{12,00,000 \text{ (-) } 0}{10}$ i.e 1,20,000

∴ Depn for 3 years = 1,20,000 × 3

= ₹ 3,60,000

Revised value = 8,40,000 + 60,000

= 9,00,000

∴ Depn = $\frac{9,00,000 \text{ (-) } 0}{9}$ = ₹1,00,000 p.a

∴ value @ end of 3rd year = 12L (-) 3.6L

= 8.4L

Difference between Tangible and Intangible Assets

Tangible Assets	Intangible Assets
These are assets that have a physical substance i.e., they can be seen and touched, held for use in the production or supply of goods or services, for rental to others, or for administrative purposes.	These are identifiable assets that do NOT have a physical substance, held for use in the production or supply of goods or services, for rental to others, or for administrative purposes.
Tangible Assets have a finite life based on expected usage.	Intangible Assets have a finite life based on contractual terms. In some cases, intangible assets could also have an indefinite life e.g. purchased goodwill.
Useful life is based on expected usage, with no presumption laid down for the same.	Useful life of Intangible Assets is presumed not to exceed 10 years unless evidence exists to the contrary.

Intangible Asset assume max useful life 10 years

Tangible Assets	Intangible Assets
Tangible Assets are depreciated over the useful life. In other words, writing off the value of tangible assets on an annual basis is known as depreciation.	Intangible Assets are amortised over the useful life. In other words, writing off the value of intangible assets on an annual basis is known as amortisation.
Examples include Property, Machinery, Vehicles etc.	Examples include software, streaming rights, landing rights, trademarks, patents etc.

Amortisation

The concept of amortisation in case of intangible assets is similar to the concept of depreciation in case of tangible assets. In other words, 'depreciation of an intangible asset' is called AMORTISATION.

Amortisation can be defined as 'the systematic allocation of the depreciable amount of an intangible asset over its useful life'. Depreciable amount is the cost of an asset less its residual value.

Useful life is either:

(a) the period of time over which an asset is expected to be used by the enterprise; or

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

Residual value is the amount which an enterprise expects to obtain for an asset at the end of its useful life after deducting the expected costs of disposal.
The depreciable amount of an intangible asset should be allocated on a systematic basis over the best estimate of its useful life. Amortisation should commence when the asset is available for use. It is presumed that the useful life of an intangible asset will not exceed ten years from the date when the asset is available for use unless evidence exists to the contrary. For instance, given the rapid changes in technology, computer software and many other intangible assets are susceptible to technological obsolescence. Therefore, it is likely that their useful life will be short. Similarly, intangible assets with contractual rights for a period exceeding ten years, will be amortised over such extended period rather than the presumed period of ten years.

Similar to depreciation, the amortisation method used should reflect the pattern in which the asset's economic benefits are consumed by the enterprise. If that pattern cannot be determined reliably, the straight-line method should be used. The amortisation charge for each period should be recognised as an expense unless permitted or required to be included in the carrying amount of another asset.

Given the nature of intangible assets, the residual value of an intangible asset should be assumed to be zero unless:

(a) there is a commitment by a third party to purchase the asset at the end of its useful life; or

(b) there is an active market for the asset and:

  (i) residual value can be determined by reference to that market; and

  (ii) it is probable that such a market will exist at the end of the asset's useful life.

The amortisation period and the amortisation method should be reviewed at least at each financial year end. If the expected useful life of the asset is significantly different from previous estimates, the amortisation period should be changed accordingly. If there has been a significant change in the expected pattern of economic benefits from the asset, the amortisation method should be changed to reflect the changed pattern.

QUESTION (Illustration - 13 – Page No. 5.31 ICAI Module)

Kumar R&D Co. registered a patent (the patent meets the criteria of an intangible asset) on 1st July, 2021 developed at a cost of ₹ 28,00,000 and spent ₹ 2,00,000 towards legal fees and registration. The patent is granted for a period of 10 years. The books are closed on 31st December every year.

Required

Show the Patent Account and Amortisation Account for the year 2021 and 2022.

Tot. cost = 28L + 2L
= 30L

Amortisation p.a = $\frac{30,00,000 \ (-) \ 0}{10}$ i.e ₹3,00,000 p.a

QUESTION (Illustration - 14 – Page No. 5.32 ICAI Module)

Prime Streaming Co. acquired the streaming rights of a movie for ` 18,00,000 with the contracted duration of the streaming period being 10 years. At the beginning of the fourth year, based on the decline in viewership, Prime Streaming Co. decided to stream the movie only for the next 5 years.

Required

Calculate amortisation for the fourth year.

$$\frac{18,00,000}{10} = ₹1,80,000$$

$$\text{Revised Amorti} = \frac{12,60,000 \ (-) \ 0}{5}$$

$$= ₹2,52,000 \text{ p.a}$$

3 year Amortisation = 180000 × 3

= ₹5,40,000

∴ Value of Streaming Right = 18,00,000 (-) 5,40,000

= 12,60,000


THANK
YOU