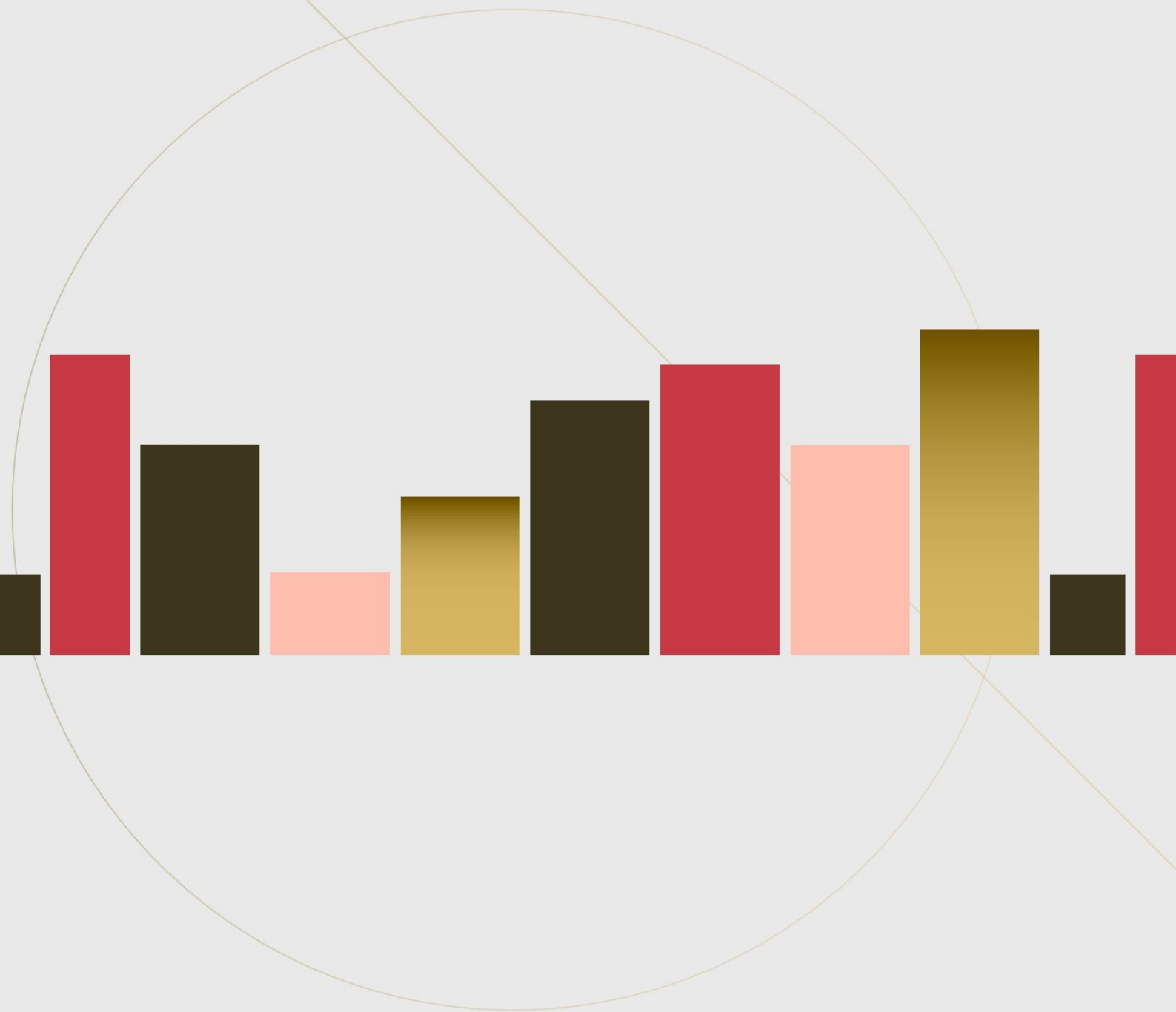


DEPRECIATION



Depreciation & Amortization

↓
" Fall in the value of Tangible Asset "

14th Jan, 24
Car - ₹ 600,000

30th Jan, 24
₹ 5,80,000

↓ 20,000

↳ Depreciation ✓

↳ As per common parlance

↳ As per Accounting ✗

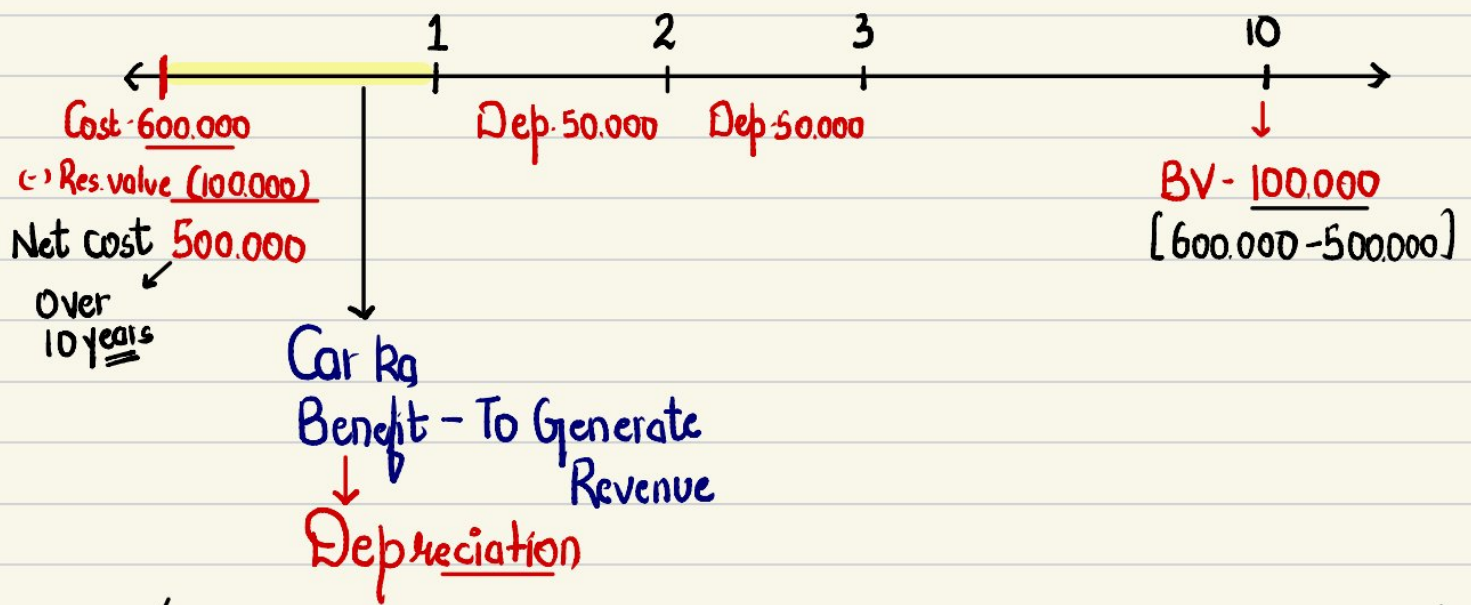
₹ 600,000 - Cap Exp
↓ ↓ ↓
Asset ✓ Expense ✗ Benefit > 1 year

→ Estimated useful life. 10 years

→ Estimated Salvage/Residual value. ₹ 100,000

Net Cost - ₹ 600,000 - ₹ 100,000
 - ₹ 500,000

↓
Depreciable Amt.
(Cost - Residual value)



→ (Dep is the systematic allocation of Depreciable Amt of a Tangible Asset over its useful life)

$$\text{Ex. } \frac{500.000}{10} = 250.000 \text{ p.a.}$$

↓
Dep

→ Fixed Tangible Asset - Property, Plant & Equipment (PPE)

↓
Exception: No Depreciation on land because useful life cannot be determined.

→ PPE is shown in the Bal. sheet at Book value / Written down Value

Ex. 1/4/23 600.000 - Cost

23-24 Dep - 50.000 → Expense

31/3/24 550.000 → Book value

→ Value of Asset decreases due to the foll. reasons:

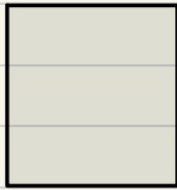
Normal wear
& Tear due to its
use in business.

Efflux of
time even when
it is not used.

Obsolescence due
to technological
changes.

Decrease in
Market value

→ **Depletion** in case of Natural Resources:



Mining
Company.

Coal Mining

2 crores - 10,000 tonne - useful life

Cap Exp

Benefit

1st year - 2000 tonne

Depletion - $\frac{2 \text{ crore}}{10,000} = 2000/\text{tonne}$

= 2000×2000

= ₹ 40,00,000

Imp. Ques.

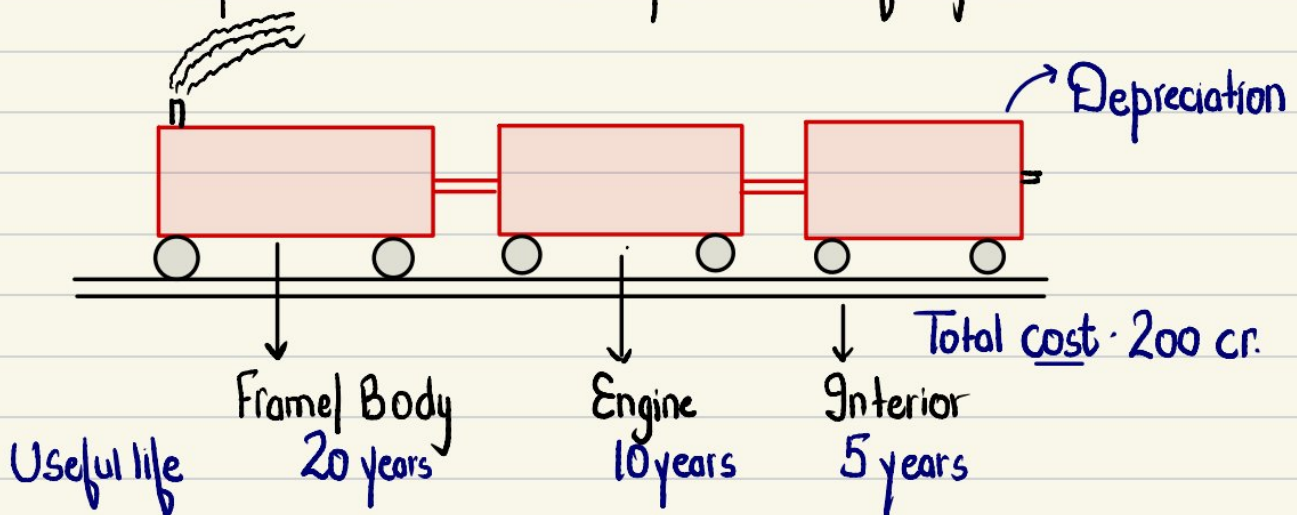
- 1) 1/4/23 - ₹30,000
1/5/23 - Installation - Ready to use

→ Dep of an Asset begins when it is available for use / Ready to use.

- 2) 1/4/23 - ₹30,000
1/5/23 - Installation → Dep begins.
↓
Started using from 1/6/23

→ It is not imp that Asset must be used to be Dep recd.

→ Depreciation on Components of Assets.



- 1) Separately identifiable components
2) Significant value
3) Diff useful life, then each component should be Separately dep.

→ Objectives of Providing Depreciation.

1. To ascertain correct profit. - Financial Performance
2. True financial position - Balance Sheet

↓
Book value (Cost - Dep)

3. Funds for Replacement.

$$\begin{array}{|c|} \hline \text{Revenue} \\ \hline 100,000 \\ \hline \end{array} - \begin{array}{|c|} \hline \text{Exp.} \\ \hline 10,000 \\ \hline \end{array} = \text{Profit } ₹90,000 \rightarrow \text{Owner}$$

$$\text{Cash } 100,000 - 0 = \text{Cash } ₹100,000 - 90,000 = \text{Cash } ₹10,000$$

Cost of Asset - 50,000

Dep - 5 years - ₹10,000 p.a.

4. Ascertainment of cost of production.

Mach. ₹100,000

↓

Dep ₹10,000 ✓

Mfg exp. 20,000 - 100 units

Dep - 10,000

30,000

pu - ₹200 X
₹300

→ Factors in the Measurement of Dep.

Cost of Asset

Estimated Useful life

Estimated Residual / Salvage Value

1) Cost of an Asset



INDIA

Warehouse

Installation - 2000
Site preparation - 3000
Testing - 5000

Transport - ₹5000

Indian port

- Import Duty - ₹5000
[Non-Refundable]



Canada

Machine

List price - 500,000
(-) Trade disc. (50,000)
450,000
+ Tax 20,000
[Non-Refundable]
470,000

Dismantle cost 10,000
480,000

Shipping Transport - 10,000

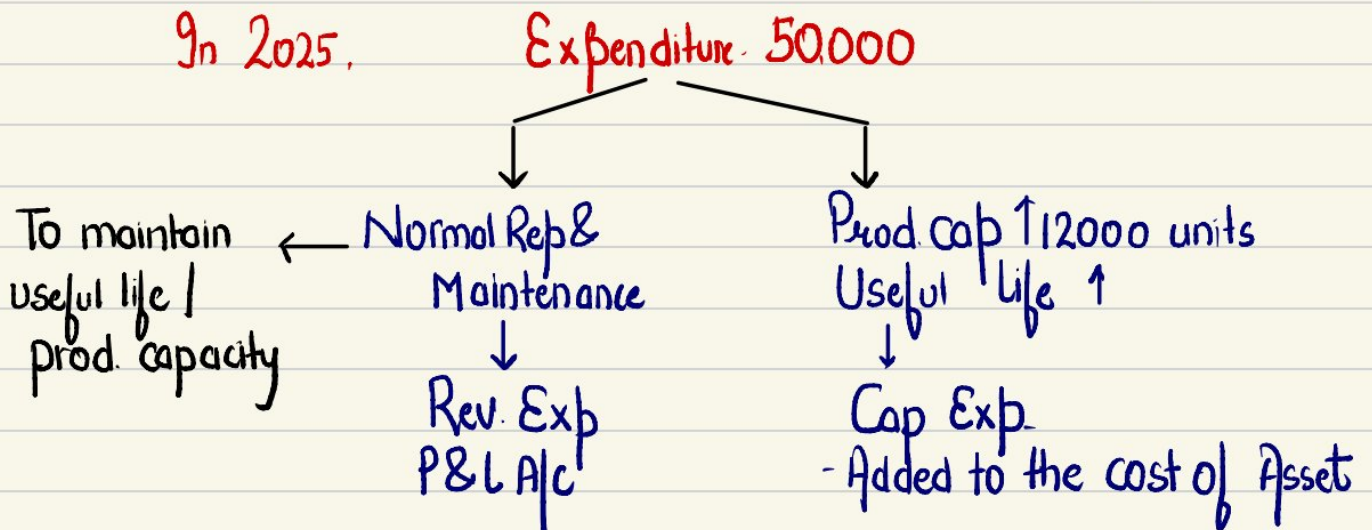
Cost - ₹5,10,000

→ All the expenses which are necessary for Asset to bring it in **Condition & Location** for desired use, will become part of Cost of an Asset.

→ Inauguration cost - Not included in the cost of Asset.

Example: 1/4/23 - Cost of Asset - ₹510,000

↳ Limited useful life - 5 years
↳ Prod. capacity - 10,000 units



→ Once an Asset is ready to use, no exp. should be added to the **cost of Asset**, unless exp. incurred increases the useful life / efficiency of an Asset.

→ Methods of Depreciation

1. Straight Line Method / Equal Installment Method / Original Cost Method.

Cost of an Asset: ₹500,000
Estimated useful life: 5 years
Estimated Residual value: ₹100,000

Depreciable value = 500,000

$$\text{Dep pa} = \frac{500,000}{5} = ₹100,000 \text{ pa.}$$

$$\text{Dep} = \frac{\text{Original cost} - \text{Salvage value}}{\text{Useful life}}$$

→ Eq. amt of Dep is charged every year during the useful life of an Asset.

$$\text{a) Dep [\%]} = \frac{100,000}{500,000} \times 100 = \underline{20\%} \text{ pa.}$$

$$\text{1st year: } 500,000 \times \frac{20}{100} = ₹100,000 \rightarrow \text{Dep.} \times \text{Dep value}$$

$$\text{b) Dep [\%]} = \frac{100,000}{510,000} \times 100 = 19.61\% \text{ pa.}$$

$$\text{1st year: } 510,000 \times 19.61\% = ₹100,000 - \text{Dep.} \times \text{Or. Cost}$$

→ This is applicable for exams.

For ex-

Orig. cost - ₹100,000

Res. value - ₹10,000

Dep is charged @ 10% p.a. [Original cost]

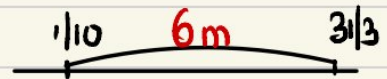
$$\text{Depreciation} - \frac{10}{100} \times 100,000 \\ = ₹10,000$$

Example-

1st Oct 2022 - ₹100,000

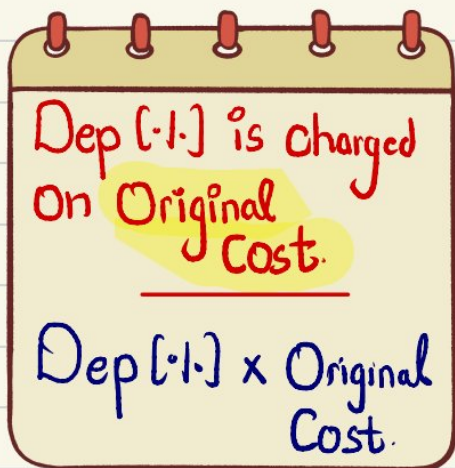
Salvage value - ₹10,000

Dep - 10% p.a. [12 months]



$$\text{Dep [2022-23]} - ₹100,000 \times \frac{10}{100} \times \frac{6}{12} \\ - ₹5,000 \quad \text{Time period}$$

$$\text{Dep [2023-24]} - 100,000 \times \frac{10}{100} \\ = ₹10,000$$



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.

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

1st July.
2021

Machine A/c	Dr	1500,000
	To Bank A/c	1500,000

31st Dec,
2021

Depreciation A/c Dr. 75000 → Nominal
To Machine A/c 75000

$\left(1500.000 \times \frac{10}{100} \times \frac{6}{12} \right)$

31st Dec

P&L A/c	Dr.	75000
To	Dep A/c	75000

2022
31st Dec

Dep A/c	Dr.	150,000	
	To Machine A/c		150,000

31st Dec	P&L A/c Dr.	150.000	
	To Dep Al		150.000

Machine A/c

Dr			Cr		
Date	Part	₹	Date	Part	₹
2021 July 1	To Bank A/c	1500.000	2021 Dec 31	By Dep A/c by bal. cld	75000 1425000
		<u>1500.000</u>		Book value ↓ Balance Sheet	<u>1500.000</u>
2022 Jan 1	fo bal bld	1425000	2022 Dec 31	by Dep A/c by bal cld	150.000 1275000
		<u>1425000</u>			<u>1425000</u>

Dr			Depreciation A/c			Cr	
Date	Part	₹	Date	Part	₹		
2021 31 Dec	To Mach. A/c	<u>75000</u>	2021 31 Dec	by p&L A/c	<u>75000</u>		
2022 31 Dec	To Mach A/c	<u>150.000</u>	2022 31 Dec	by p&L A/c	<u>150.000</u>		

→ Accumulated Dep / Provision for Dep

Ex. Mach. ₹100,000
Dep. ₹10,000

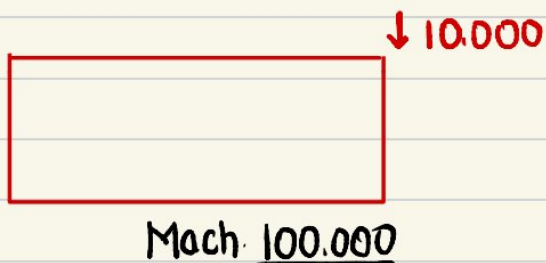
— Dep Dr 10,000
To Mach A/c 10,000

Balance Sheet

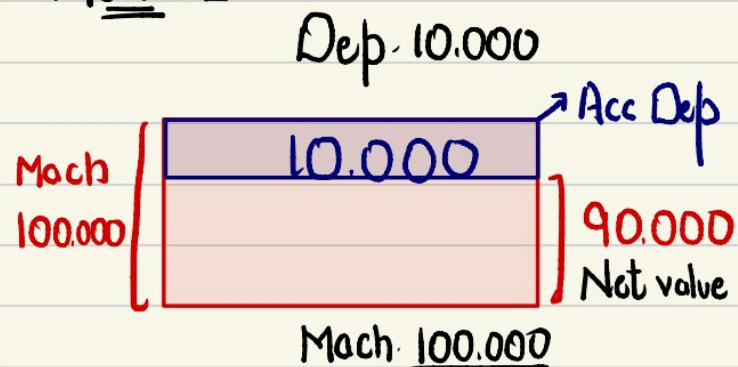
	Asset
	Mach - 90,000 → After Dep.

Method 1

Mach. 100,000
Dep. ₹10,000



Method 2



Acc Dep A/c

→ Dep Dr. 10,000
To Acc Dep 10,000

Balance Sheet

Mach. 100.000	
Cr. Acc Dep <u>10.000</u>	90.000

2nd year

Method-1

Dep 10.000
To Mach A/c 10.000

Method-2

Dep Dr. 10.000
To Acc. Dep 10.000

Acc. Dep - 20.000

Balance Sheet

Mach. 80.000	
--------------	--

Balance Sheet

<u>Asset</u>	
Mach. 100.000	
Cr. Acc Dep <u>20.000</u>	80.000

Acc. Dep A/c

	<u>Cr.</u>
To bal cld <u>10.000</u>	1st year by Dep <u>10.000</u>
To bal cld <u>20.000</u>	2nd year by bal bld 10.000 by Dep <u>10.000</u>

→ Prov. for Dep / Acc. Dep → Contra Asset

↓
Shown as Reduction
from Assets
↳ Cr. balance

2. Written Down value Method / Reducing balance Method / Diminishing Balance Method.

Ex- 1/4/19. Cost - 100,000
Res. value - 10,000
Dep - 10% p.a on WDV

Max Dep
1st year Dep [19.20] - 10,000
31/3/2020 - WDV - 90,000

↓ Dep [20.21] - $90,000 \times 10\% = \underline{9,000}$
31/3/21 - WDV 81,000

↓ Dep [21.22] $81,000 \times 10\% = \underline{8,100}$
31/3/22 - WDV 72,900

→ Accelerated Method of Depreciation.

↓
Dep - higher in Initial years
Dep - lower in Subsequent years.

Ex- Machine - ₹100,000
Dep - 20% p.a.
Useful life - 5 years

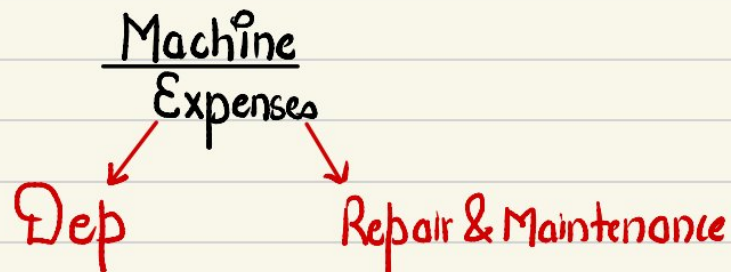
- Original cost method
Book value at the
end of 5th year -
 $₹100,000 - ₹100,000 = \underline{\text{Zero}}$

Written down Value
Book value at the end of
5th year = will not be Zero

Dep. is charged
on Book value / WDV.
Dep [1] x WDV

→ As per WDV method, value of Asset cannot be Zero.

* Burden on Profit & Loss A/c.



1. WDV method

	Dep.	Rep & Maint	
Initial years	↑	↓	} Equal Burden on p&L A/c
Subsequent years	↓	↑	

2. Original cost Method

	Dep.	Rep & Maint	
Initial years	Same	↓	} Unequal Burden on p&L A/c
Subsequent years	Same	↑	

Question:

CCW Ltd. purchased a Machine for Rs 60,000 , plus ^{Input} CGST & SGST @ 6% each on Dec 01, 2022 and spent Rs 10,000 on its overhaul and installation before putting it to operation. It is expected that the machine can be sold for Rs 5,000 at the end of its useful life of 10 years. Another machine costing Rs. 50,000 was purchased on 1st June, 2023 having useful life of 10 years with no residual value. Prepare Machine account, Depreciation A/c and Provision for depreciation account for the years ending 31st March, 2023 & 2024 charging depreciation @ 12% p.a. on written down value.

Machine A/c

Dr			Cr		
Date	Part	₹	Date	Part	₹
2022 Dec 1	To Bank A/c (60,000 + 10,000)	<u>70,000</u>	2023 Mar 31	by bal cld	<u>70,000</u>
2023 Apr 1 June 1	To bal bld (M.) To Bank A/c (M.)	70,000 50,000	2024 Mar 31	by bal cld M1 - 10,000 M2 - 50,000	<u>120,000</u>
		<u>120,000</u>			

Depreciation A/c

Dr			Cr		
Date	Part	₹	Date	Part	₹
2023 Mar 31	To Acc Dep A/c $\left[10,000 \times \frac{12}{100} \times \frac{4}{12} \right]$	2800	2023 Mar 31	by P&L A/c	2800
2024 Mar 31	To Acc Dep A/c M ₁ - $\left[10,000 - 2800 \right] \times \frac{12}{100}$ 8064 M ₂ - $\left[50,000 \times \frac{12}{100} \times \frac{10}{12} \right]$ - 5000	13064	2024 Mar 31	By P&L A/c	13064

Acc. Dep. A/c

Dr			Cr		
Date	Part	₹	Date	Part	₹
2023 Mar 31	To bal old	<u>2800</u>	2023 Mar 31	by Dep	<u>2800</u>
			2023 Apr 1	by bal. bld (M1)	2800
2024 Mar 31	To bal old M ₁ - 10864 M ₂ - <u>5000</u>	<u>15864</u>	2024 Mar 31	by Dep M ₁ - 8064 M ₂ - <u>5000</u>	<u>13064</u> <u>15864</u>

Balance Sheet as on 31st Mar, 2024

	<u>Assets</u>	
	Machine - 120,000	
	↳ Acc Dep <u>(15864)</u>	104136

* Profit / loss on Sale of Machinery

$$\text{Profit} = \text{Selling price} - \text{Cost price}$$

$$\text{Profit on Mach.} = \text{Sale price of Machinery} - \text{Book value on the date of sale of Mach.}$$

↓
Original cost - Dep, till date of sale

Example: 1/4/2018 - ₹100,000
WDV @ 12% pa.

a) Sold on 30/6/2021 - ₹55,000

1/4/18 -	100,000
Dep [18-19]	<u>12,000</u>
WDV - 31/3/19	88,000
Dep [19-20]	<u>10,560</u>
31/3/20 - WDV	77,440
Dep [20-21]	<u>9,293</u>
31/3/21 - WDV	68,147

Dep [1/4/21 - 30/6/21] (2,044)
WDV - 30/6/21 66,103 → Book value on date of Sale

Sale price - 55,000
Loss 11,103

↓
Dr. balance

JOURNAL

30/6/21 Bank A/c Dr. 55000
To Machine A/c 55000

30/6/21 Loss on Sale of Mach. A/c 11,103
To Mach. A/c 11,103

66,103
Book value

✓ Bank A/c Dr. 55000
loss on Sale of Mach. Dr. 11,103
To Mach A/c 66,103

b) Sold on 30/6/21. ₹75000
WDV as on 30/6/21. ₹ 66103

Gain - ₹8897

30/6/21 Bank A/c Dr. 75000
To Mach. A/c 75000

30/6/21 Mach A/c Dr. 8897
To gain on Sale of Mach A/c 8897

Cr. 75000
Dr. 8897
Cr. 66103 - Book value

Not for Exams ✓ Bank Dr. 75000 ✓
To Mach A/c 66103
To gain on sale 8897

ILLUSTRATION 7

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.

1/1/20	1/7/20	31/12/20	1/7/21	31/12/21
600,000	200,000		M ₁ Sold	
M ₁	M ₂		₹ 3,86,000	
			M ₃ - ₹ 4,00,000	

Mach. A/c

Date	Part	₹	Date	Part	₹
2020			2020		
Jan 1	To Bank A/c (M ₁)	600,000	Dec 31	By Dep	
July 1	To Bank A/c (M ₂)	200,000		M ₁ - 60,000	
				M ₂ - 10,000	70,000
			Dec 31	by bal. cld	
				M ₁ - 540,000	
				M ₂ - 190,000	730,000
		<u>800,000</u>			<u>800,000</u>

2021 Jan 1	To bal bld M ₁ - 540.000 M ₂ - <u>190.000</u>	730.000	2021 July 1	By Dep (M ₁) $\left[540.000 \times \frac{10}{100} \times \frac{6}{12} \right]$	27000
July 1	To Bank (M ₃)	400.000	July 1	By Bank by loss on sale (WN 1)	386000 127000
			Dec 31	By Dep M ₂ - 19000 M ₃ - <u>20.000</u>	39000
			Dec 31	by bal. old M ₂ - 171000 M ₃ - <u>380.000</u>	551000
		<u>11.30.000</u>			<u>1130.000</u>

WN 1 Profit / Loss on Sale of Mach

Book value as on 1st July, 21 - 540.000 - 27000
= 513000
Sale value - 386000
Loss 127000

ILLUSTRATION 8

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.

↓
Mach. A/c

a) Machinery A/c					
Dr			Cr		
Date	Part	₹	Date	Part	₹
2019 April	To Bank A/c M ₁ - 11.20,000 M ₂ - <u>80,000</u>	1200,000	2020 Mar 31	By Dep M ₁ - 112000 M ₂ - <u>8000</u>	120,000
				by bal. cld M ₁ - 10,08,000 M ₂ - <u>72000</u>	10,80,000
		<u>1200,000</u>			<u>1200,000</u>
2020 April	To bal bld M ₁ - 10,08,000 M ₂ - <u>72000</u>	10,80,000	2021 Mar 31	By Dep M ₁ - 100800 M ₂ - <u>7200</u>	108000
			Mar 31	by bal. cld M ₁ - 907200 M ₂ - <u>64800</u>	972000
					<u>10,80,000</u>

2021 April	To bal. bld M ₁ - 907200 M ₂ - <u>64800</u>	972000	2021 Oct 1	By Dep (M ₂) $\left[64800 \times \frac{10}{100} \times \frac{6}{12} \right]$	3240
Oct 1	To Bank A/c (M ₃)	158000	Oct 1	By Bank By loss on sale	45000 16560
			2022 Mar 31	by Dep M ₁ - 90720 M ₃ - <u>7900</u>	98620
				by bal. cld M ₁ - 816480 M ₃ - <u>150100</u>	<u>966580</u>

Machinery A/c

Date	Part	₹	Date	Part	₹
2019 April	To Bank A/c M ₁ - 11,20,000 M ₂ - <u>80,000</u>	<u>1200,000</u>	2020 Mar 31	by bal old M ₁ - 11,20,000 M ₂ - <u>80,000</u>	<u>1200,000</u>
2020 April	To bal bld M ₁ - 11,20,000 M ₂ - <u>80,000</u>	1200,000	2021 Mar 31	by bal old M ₁ - 11,20,000 M ₂ - <u>80,000</u>	1200,000
2021 April	To bal bld M ₁ - 11,20,000 M ₂ - <u>80,000</u>	1200,000	2021 Oct 1	By prov for Dep By Bank By loss on sale	18440 45000 16560
Oct 1	To Bank A/c (M ₂)	158000	2022 Mar 31	by bal old M ₁ - 11,20,000 M ₃ - <u>158000</u>	<u>1278000</u>

Prov. for Dep A/c → At Mach. business me hain, usko Total Dep.

Date	Part	₹	Date	Part	₹
2020 Mar 31	So bal cld M ₁ - 112000 M ₂ - <u>8000</u>	<u>120.000</u>	2020 Mar 31	By Dep M ₁ - 112000 M ₂ - <u>8000</u>	<u>120.000</u>
			2020 Apr 1	by bal bld M ₁ - 112000 M ₂ - <u>8000</u>	120.000
2021 Mar 31	To bal. cld M ₁ - 212800 M ₂ - <u>15200</u>	<u>228000</u> <u>228000</u>	2021 Mar 31	By Dep M ₁ - 100800 M ₂ - <u>7200</u>	<u>108000</u> <u>228000</u>
			2021 Apr 1	by bal bld M ₁ - 212800 M ₂ - <u>15200</u>	228000
2021 Oct 1	To Machinery A/c	18440	2021 Oct 1	by Dep ^(M₂) $[80.000 - 15200] \times \frac{10}{12} \times \frac{6}{100}$	3240
2022 Mar 31	To bal cld M ₁ - 303620 M ₃ - <u>7900</u>	<u>311420</u>	2022 Mar 31	By Dep M ₁ - 90120 M ₃ - <u>7900</u>	<u>98620</u>

a] Oct 1 Bank Dr. ✓
Loss on Sale Dr.
To Machine
↓
Book
Value

b] i) Prov. for Dep Dr. 18440
To Machine A/c 18440
ii) Bank A/c Dr. 45000
Loss on Sale Dr. 16560
To Mach. 61560

Machine Disposal A/c

To Show Sale of Machinery in a separate A/c.

Treatment

If prov. for Dep
is not maintained.

→ Book value of Machine
Sold is tlf from Machine A/c
to Machine Disposal A/c.

If prov. for Dep
is maintained.

→ Original cost of Machine
Sold is tlf from Machine A/c to
Machine Disposal A/c.

→ Acc. Dep (Total) of Machine
Sold is tlf from Acc. Dep A/c to
Machine Disposal A/c.

ILLUSTRATION 9

— 400,000

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.

Machinery A/c

2019 Jan1	To Bank A/c [300.000 + 40.000 + 60.000]	400.000	2019 Dec31	by Dep A/c by bal cld	40.000 <u>360.000</u>
2020 Jan1	To bal bld (M ₁)	360.000	2020 Dec31	By Dep M ₁ - 40.000 M ₂ - <u>13000</u>	53000
July1	To Bank A/c (M ₂)	2.60.000	Dec31	by bal cld M ₁ - 320.000 M ₂ - <u>247000</u>	<u>567000</u>
2021 Jan1	To bal. bld M ₁ - 320.000 M ₂ - <u>247000</u>	567000	2021 July1	By Dep (M ₁)	20.000
July1	To Bank A/c (M ₃)	250.000	July1	by Mach Disp.	300.000
			Dec31	by Dep M ₂ - 26000 M ₃ - <u>12500</u> by bal cld M ₂ - 221000 M ₃ - <u>237500</u>	<u>Bv</u> 38500 <u>458500</u>

2022 Jan 1	To bal bld M2 - 221000 M3 - 237500	458500	July 1, 2021 July 1	By Dep (M2) by Mach Disp	13000 208000
			Dec 31	By Dep (M3) by bal cld (M3)	25000 212500

Machinery Disposal A/c

Dr.

Date	Part	₹	Date	Part	₹
July 1 2021	To Mach A/c To gain on sale	300.000 20.000	July 1, 2021	by bank	320.000
2022 July 1	To Mach A/c To gain on sale	208000 22000	2022 July 1	by bank	230.000

Add. Ques

Following balances appear in the books of X Ltd. as on 1st April, 2019:

Particulars	Amount
Machinery Alc	500,000
Provision for Dep Alc	225,000

Original Cost

The machinery is depreciated @ 10% p.a. on the Fixed Installment Method.

On 1st October, 2019, a machinery which was purchased on 1st July, 2016 for Rs 1,00,000 was sold for Rs. 42,000 and on the same date a new machine was purchased for Rs 2,00,000. Prepare Machinery Account and Provision for Depreciation Account for the year ended 31st March, 2020. 19-20

WNI

	Machine	Prov. for Dep
1st July, 2016	100,000	
Dep [16-17]	<u>7,500</u>	7,500
WDV - 31.3.2017	92,500	
Dep [17-18]	<u>10,000</u>	10,000
WDV - 31.3.2018	82,500	
Dep [18-19]	<u>10,000</u>	<u>10,000</u>
WDV 31.3.2019	72,500	27,500
1.4.2019		

Machine A/c

Date	Part	₹	Date	Part	₹
2019 April	To bal. bld M ₁ - 100,000 M ₂ - <u>400,000</u>	500,000	2019 Oct 1	by prov for Dep by bank by loss on Sale	32500 42000 25,500
Oct 1	To Bank (M ₃) 200,000		Mar 31, 20	by bal cld M ₂ - 400,000 M ₃ - <u>200,000</u>	 600,000

Prov. for Dep A/c

Date	Part	₹	Date	Part	₹
2019 Oct 1	To Machine A/c (27500 + 5000)	32500	2019 April	by bal. bld M ₁ - 27500 M ₂ - <u>197500</u>	225000
2020 Mar 31	To bal cld M ₂ - 237500 M ₃ - <u>10,000</u>	<u>247500</u> <u>280000</u>	Oct 1	by Dep (M ₁)	5000
			2020 Mar 31	by Dep M ₂ - 40,000 M ₃ - <u>10,000</u>	<u>50000</u> <u>280000</u>

PYQ - June 2023

The following balances appear in the books of Dheeraj Enterprises:

	₹
Machinery account as on 01.04.2021	12,00,000
Provision for depreciation account as on 01.04.2021	4,65,000

On 1st October, 2021 the Machinery which was purchased on 1st April, 2018 for ₹ 2,00,000 was sold for ₹ 1,10,000 and on the same date another Machinery was purchased for ₹ 4,80,000. The firm has been charging depreciation at 10% p.a. on written down value of the Machinery every year. Prepare the Machinery account, Provision for Depreciation account and Machinery disposal account for the year ending 31st March, 2022.

21-22

(10 Marks)

WNI

1.4.2018
Dep (18-19)
WDV 31.3.19
Dep (19-20)
WDV 31.3.20
Dep (20-21)
WDV 31.3.21

Machine

200,000
20,000
180,000
18,000
162,000
16,200
145,800

Prov. for Dep

20,000
18,000
16,200
54,200

Mach. A/c

Date	Part	₹	Date	Part	₹
2021 Apri	To bal bld M ₁ - 200.000 M ₂ - <u>10.00.000</u>	1200.000	2021 Oct1	By Mach Disp	200.000
Oct1	To Bank A/c (M ₃)	480.000	2022 Mar31	by bal cld M ₂ - 10.00.000 M ₃ - <u>480.000</u>	<u>1480.000</u>
		<u>1680.000</u>			<u>1680.000</u>

Prov. for Dep A/c

Dr				Cr	
Date	Particulars	₹	Date	Part	₹
			2021 Apri	by bal bld M ₁ - 54200 M ₂ - <u>410800</u>	465000
2021 Oct1	To Mach Disposal A/c	61490	Oct1	by Dep (M ₁) $(200.000 - 54200) \times \frac{10}{100} \times \frac{6}{12}$	<u>7290</u>
2021 Mar31	To bal cld M ₂ - 469720 M ₃ - <u>24000</u>	493720	2022 Mar31	By Dep M ₂ - 58920 M ₃ - <u>24000</u>	<u>82920</u>
		<u>555210</u>			<u>555210</u>

Mach. Disposal A/c

Dr

Date	Part	₹	Date	Part	₹
2021 Oct1	To Mach. A/c	200.000	2021 Oct1	by Prov. for Dep	61490
				by bank	1.10.000
				by Loss on Sale	28510
		<u>200.000</u>			<u>200.000</u>

PQ-2 - Imp.

→ WDV

The Machinery Account of a Factory showed a balance of ₹ 19,00,000 on 1st January, 2022. Its accounts were made up on 31st December each year and depreciation is written off at 10% p.a. under the Diminishing Balance Method.

On 1st June 2022, a new machinery was acquired at a cost of ₹ 2,80,000 and installation charges incurred in erecting the machine works out to ₹ 8,920 on the same date. On 1st June, 2022 a machine which had cost ₹ 4,37,400 on 1st January 2020 was sold for ₹ 75,000. Another machine which had cost ₹ 4,37,000 on 1st January, 2021 was scrapped on the same date and it realised nothing.

Write a machinery account for the year 2022, allowing the same rate of depreciation as in the past, calculating depreciation to the nearest multiple of a Rupee.

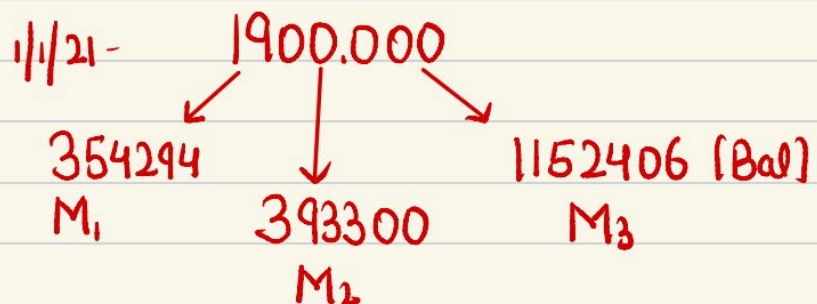
1/1/2022 1/6/22

bal - 1900.000 Mach - 2 88920

WDV

WN 1

	Machine 1	Mach 2
1.1.2020	437400	
Dep (2020)	<u>43740</u>	
WDV 31.12.2020	393660	
1.1.2021		437000
Dep (2021)	<u>39366</u>	<u>43700</u>
WDV 31.12.2021	354294	393300
1.1.2022		



Machine A/c

Date	Part	₹	Date	Part	₹
2022 Jan 1	To bal b/d M ₁ - 354294 M ₂ - 393300 M ₃ - <u>1152406</u>	1400.000	2022 June 1	By Dep (M ₁) by bank by loss on Sale	14762 75000 264532
June 1	To Bank A/c (M ₄)	288920	June 1	By Dep (M ₂) by loss	16388 376912
			Dec 31	by Dep M ₃ - 115241 M ₄ - <u>16854</u>	132045
			Dec 31	by bal c/d M ₃ - 1037165 M ₄ - <u>272066</u>	<u>1309231</u>
		<u>2188920</u>			<u>2188920</u>

→ Change in the Method of Depreciation

Ex.1 Machine - 1/4/19 ₹100,000
SLM - 10% p.a.
2019-20 Dep 10,000
31.3.20 WDV - 90,000

2020-21 Dep 10,000
31.3.21 WDV 80,000

Method of Dep. changed to WDV
@15% p.a.

2021-22 Dep 12,000
31.3.22 WDV 68,000

Ex.2 1/4/19 Machine - 100,000
WDV @ 10% p.a.

2019-20 Dep 10,000
31.3.20 WDV - 90,000 → will be treated as
Original cost

1.4.20 Method changed to SLM
Useful life - 4 years
Salvage value - ₹10,000

2020-21 Dep - $\left[\frac{90,000 - 10,000}{4} \right]$ ₹20,000
WDV - ₹70,000

Whenever any change in Dep Method is made, Such change is
treated as Change in Accounting Estimate

ILLUSTRATION 10

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.

1.1.21 Balance

WN1

	Plant ₁ 1.1.2017	Plant ₂ 1.1.2018
Orig. cost	700,000	150,000
Dep. 2017	<u>105,000</u>	
WDV. 31.12.2017	595,000	
Dep. 2018	<u>89,250</u>	<u>22,500</u>
WDV. 31.12.2018	5,05,750	1,27,500
Dep. 2019	<u>75,863</u>	<u>19,125</u>
31.12.2019	4,29,887	1,08,375
Dep. 2020	<u>64,483</u>	<u>16,256</u>
WDV. 31.12.20	3,65,404	92,119

1.1.2021 - WDV
Useful life
Dep as per SLM -
2021

365404
6 years
60900

92119
6 years
15353

Plant & Eq. A/c

Date	Part	₹	Date	Part	₹
2021 Jan 1	To bal. b/d P ₁ - 365404 P ₂ - <u>92119</u>	457523	2021 Dec 31	By Dep P ₁ - 60900 P ₂ - 15353 P ₃ - <u>20,000</u>	96253
Jan 1	To Bank (P ₃)	200.000		by bal. c/d P ₁ - 304804 P ₂ - 76766 P ₃ - <u>180.000</u>	<u>561270</u>
		<u> </u>			

ILLUSTRATION 11

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.

$$\text{Dep pa.} = \frac{600,000}{10} = ₹60,000$$

$$\text{Dep for 3 years} = ₹60,000 \times 3 = ₹1,80,000$$

$$\text{WDV at the end of 3rd year} = ₹6,00,000 - ₹1,80,000 = ₹4,20,000$$

→ As per Initial estimate, Remaining useful life - 7 years
Revised estimate - 5 years

$$\text{Dep for 4th year} = \frac{4,20,000}{5} = ₹84,000$$

PQ-3 - 9mp

The LG Transport company purchased 10 trucks at ₹ 45,00,000 each on 1st April 2019. On October 1st, 2021, one of the trucks is involved in an accident and is completely destroyed and ₹ 27,00,000 is received from the insurance in full settlement. On the same date another truck is purchased by the company for the sum of ₹ 50,00,000. The company write off 20% on the original cost per annum. The company observe the calendar year as its financial year.

31/12/2021

Give the motor truck account for two year ending 31 Dec, 2022.

1/1/2021 — 31/12/2022

Balance

WN1

1.4.19
Dep [2019]
31.12.19

Truck (1) - T₁
4500,000
675000
3825000

Truck (9) - T₂
4,05,00,000
60,75,000
3,44,25,000

Dep [2020]
31.12.2020

900,000
29,25,000

8100,000
2,63,25,000

Motor Truck A/c

Date	Part	₹	Date	Part	₹
1.1.2021	To bal bld		1.10.2021	By Dep (T ₁)	675000
	T ₁ - 2925000			By Bank	2700,000
	T ₂ - 2,63,25,000	29250000			
1.1.2021	To gain [p&L A/c]	450,000	31.12.2021	By Dep	
				T ₂ - 8100,000	
1.10.21	To Bank [T ₃]	50,00,000		T ₃ - 250,000	8350,000
			31.12.2021	by bal cld	
				T ₂ - 1,82,25,000	
				T ₃ - 4750,000	22975000

1.1.2021	To bal b/d		31.12.2021	By Dep A/c	
	T ₂ - 1,82,25,000			T ₂ - 8100.000	
	T ₃ - <u>47,50,000</u>	22975000		T ₃ - <u>10,00,000</u>	9100.000
				by bal c/d	
				T ₂ - 10125000	
				T ₃ - <u>3750.000</u>	<u>13875000</u>
		<u>22975000</u>			

RTP - Hw

A Firm purchased an old Machinery for ₹ 37,000 on 1st January, 2019 and spent ₹ 3,000 on its overhauling. On 1st July 2020, another machine was purchased for ₹ 10,000. On 1st July 2021, the machinery which was purchased on 1st January 2019, was sold for ₹ 28,000 and the same day a new machinery costing ₹ 25,000 was purchased. On 1st July, 2022, the machine which was purchased on 1st July, 2020 was sold for ₹ 2,000.

Depreciation is charged @ 10% per annum on straight line method. The firm changed the method and adopted diminishing balance method with effect from 1st January, 2020 and the rate was increased to 15% per annum. The books are closed on 31st December every year.

Prepare Machinery account for four years from 1st January, 2019

In the books of Firm
Machinery Account

		₹			₹
1.1.2019	To Bank A/c	37,000	31.12.2019	By Depreciation A/c	4,000
	To Bank A/c (overhauling charges)	3,000	31.12.2019	By Balance c/d	36,000
		<u>40,000</u>			<u>40,000</u>
1.1.2020	To Balance b/d	36,000	31.12.2020	By Depreciation A/c (₹ 5,400 + ₹ 750)	6,150
1.7.2020	To Bank A/c	10,000	31.12.2020	By Balance c/d (₹ 30,600 + ₹ 9,250)	39,850
		<u>46,000</u>			<u>46,000</u>
1.1.2021	To Balance b/d	39,850	1.7.2021	By Bank A/c(sale)	28,000
1.7.2021	To Bank A/c	25,000	1.7.2021	By Profit and Loss A/c (Loss on Sale – W.N. 1)	305
			31.12.2021	By Depreciation A/c (₹ 2,295 + ₹ 1,388 + ₹ 1,875)	5,558
				By Balance c/d (₹ 7,862 + ₹ 23,125)	30,987
		<u>64,850</u>			<u>64,850</u>
1.1.2022	To Balance b/d	30,987	1.7.2022	By Bank A/c (sale)	2,000
			1.7.2022	By Profit and Loss A/c (Loss on Sale – W.N. 1)	5,272
			31.12.2022	By Depreciation A/c (₹ 590 + ₹ 3,469)	4,059
			31.12.2022	By Balance c/d	<u>19,656</u>
		<u>30,987</u>			<u>30,987</u>

Revaluation of Property, Plant & Equipment

↙ Fair Market value

→ In case an item of PPE is revalued, whole class of such PPE to which Asset belongs should be revalued.

Machine - ₹10,00,000

1st Time Revaluation

→ Upward Revaluation

FMV - ₹12,00,000

↓ Assets ↑

Journal - Machine Dr. 2,00,000

To Revaluation Reserve 2,00,000

↳ Unrealised Gain

2lac Reserve

Mach

2nd Time Revaluation

Book value - ₹8,00,000

a) FMV - ₹9,00,000

Mach. Dr. 1,00,000
To Rev. Res. 1,00,000

b) FMV - ₹7,00,000

Rev. Reserve Dr. 1,00,000
To Mach A/c 1,00,000

↓
Loss

c) FMV - ₹5,00,000

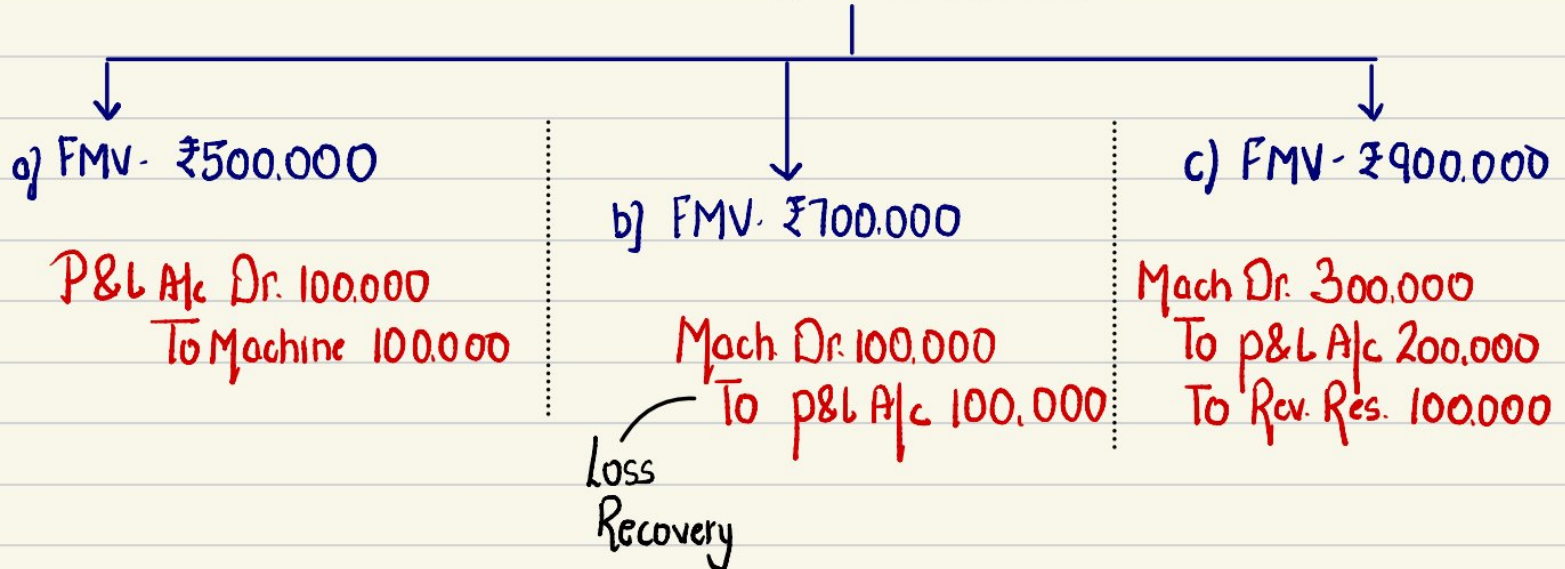
Rev. Res. Dr. 2,00,000
P&L A/c Dr. 1,00,000
To Mach 3,00,000

1st time Revaluation - Machine ₹10,00,000

Downward Revaluation
FMV - ₹8,00,000

→ P&L A/c Dr. 200,000 → Loss
To Machine A/c 200,000

2nd time Revaluation
BV - ₹6,00,000



PQ.5

Amazing group had Property, Plant & Equipment (PP&E) with a book value of ₹ 35,00,000 on 31st December, 2022. The balance in Revaluation Surplus on that date was ₹ 3,00,000. As part of their practice of revaluing the assets on yearly basis, another revaluation was carried out on 31st December, 2022. Evaluate the impact of Revaluation if the Fair Value as a result of Revaluation done on 31st December, 2022 was (a) ₹ 37,00,000 (b) ₹ 33,00,000 and (c) ₹ 31,00,000. Also, give the journal entries.

a) FMV - ₹ 37,00,000

Property, Plant & Eq. Dr. 200,000
To Rev. Res. A/c 200,000

b) FMV - ₹ 33,00,000

Rev. Res. A/c Dr. 200,000
To property, plant & Eq. 200,000

c) FMV - ₹ 31,00,000

Rev. Res. A/c Dr. 300,000
P&L A/c Dr. 100,000
To Prop. Plant & Eq. 400,000

Read Answer

PQ-4

A Machinery costing ₹ 20,00,000 is depreciated on straight line assuming 10 years working life and nil salvage value for four years. At the end of the fourth year, the machinery was revalued upwards by ₹ 80,000. The remaining useful life of the machinery was also reassessed as 8 years at the end of the fourth year. Calculate the depreciation for 5th Year.

$$\text{Dep p.a.} = \frac{20,00,000}{10} = ₹ 2,00,000$$

$$\begin{aligned}\text{Dep for 4 years} &= ₹ 2,00,000 \times 4 \\ &= ₹ 8,00,000\end{aligned}$$

$$\text{WDV at the end of 4th year} = ₹ 20,00,000 - ₹ 8,00,000 = ₹ 12,00,000$$

Revalued amount of Machinery - ₹ 12,80,000
As per Revised estimate, useful life - 8 years

$$\text{Dep for 5th year} = \frac{12,80,000}{8} = ₹ 1,60,000$$

H.W

ILLUSTRATION 12

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.

PQ.1

A firm's plant and machinery account at 31st December, 2021 and the corresponding depreciation provision account, broken down by year of purchase are as follows:

Year of Purchase	Plant and Machinery at cost Orig. cost ₹	Depreciation Provision ₹	Book value
2005 - 30/6/2005	2,00,000	2,00,000	- NIL
2011 - 30/6/2011	Scrap -170,000 130,000 → 3,00,000	130,000 130,000 → 3,00,000	- NIL
2012 - 30/6/2012	9:91 240,000 460,000 → 10,00,000	$\frac{9}{100} \times 9,50,000 = 85,500$ 9,50,000 - 9:91	
2013 - 30/6/2013	24:46 12:23 240,000 460,000 → 7,00,000	204,000 341,000 → 5,95,000	
2020	5,00,000	75,000	
2021	3,00,000	15,000	
	30,00,000	21,35,000	

Depreciation is at the rate of 10% per annum on cost. It is the Company's policy to assume that all purchases, sales or disposal of plant occurred on 30th June in the relevant year for the purpose of calculating depreciation, irrespective of the precise date on which these events occurred.

During 2022 the following transactions took place:

1. Purchase of plant and machinery amounted to ₹ 15,00,000 - 30/6/2022
2. Plant that had been bought in 2011 for ₹ 170,000 was scrapped.
3. Plant that had been bought in 2012 for ₹ 90,000 was sold for ₹ 5,000.
4. Plant that had been bought in 2013 for ₹ 2,40,000 was sold for ₹ 15,000.

You are required to:

Calculate the provision for depreciation of plant and machinery for the year ended 31st December, 2022. In calculating this provision you should bear in mind that it is the company's policy to show any profit or loss on the sale or disposal of plant as a completely separate item in the Profit and Loss Account. You are also required to prepare the following ledger accounts during 2022.

- (i) Plant and machinery at cost;
- (ii) Depreciation provision;
- (iii) Sales or disposal of plant and machinery.

Plant & Machinery A/c

Date	Particulars	₹	Date	Part	₹
2022 Jan 1	To bal. b/d M ₁ - 200.000 M ₂ (a) - 170.000 (b) - 130.000 M ₃ (a) - 90.000 (b) - 910.000 M ₄ (a) - 240.000 (b) - 460.000 M ₅ - 500.000 M ₆ - <u>300.000</u>	30.00.000	2022 June 30	By Mach. Disp. M ₂ (a) - 170.000 M ₃ (a) - 90.000 M ₄ (a) - <u>240.000</u>	500.000
			Dec 31	by bal. c/d M ₁ - 200.000 M ₂ (b) - 130.000 M ₃ (b) - 910.000 M ₄ (b) - 460.000 M ₅ - 500.000 M ₆ - 30.0000 M ₇ - <u>1500.000</u>	40.00.000
June 30	To Bank A/c (M ₇)	1500.000			
		<u>4500.000</u>			<u>4500.000</u>

Prov. for Dep A/c

Date	Particulars	₹	Date	Part	₹
2022 June 30	To Mach Disp. M2ca) - 170,000 M3ca) - 90,000 M4(a) - <u>216,000</u>	476,000	2022 Jan 1	by bal. bld M1 - 200,000 M2ca) - 170,000 cb) - 130,000 M3ca) - 85,500 cb) - 86,450 M4ca) - 204,000 - 39,100 M5 - 75,000 M6 - <u>15,000</u>	21,35,000
Dec 31	To bal cld M1 - 200,000 M2cb) - 130,000 M3cb) - 910,000 M4cb) - 437,000 M5 - 125,000 M6 - 48,000 M7 - <u>75,000</u>	19,22,000	June 30	By Dep M3ca) - 45,000 M4(w) - <u>12,000</u>	16,500
			Dec 31	by Dep M3cb) - 45,500 M4cb) - 46,000 M5 - 50,000 M6 - 30,000 M7 - <u>75,000</u>	2,46,500
		<u>23,98,000</u>			<u>23,98,000</u>

Machine Disposal A/c

Dr

Date	Particulars	₹	Date	Part	₹
2022 June 30	To Plant & Mach A/c M ₂ (a) - 170,000 M ₃ (a) - 90,000 M ₄ (a) - <u>240,000</u>	500,000	2022 June 30	by prov. for Dep M ₂ (a) - 170,000 M ₃ (a) - 90,000 M ₄ (a) - <u>216,000</u>	476,000
June 30	To gain on sale (M ₃ (a))	5,000	June 30	By Bank - M ₃ (a) - 5,000 M ₄ (a) - <u>15,000</u>	20,000
			June 30	by loss on sale (M ₄ (a))	9,000
		<u>505,000</u>			<u>505,000</u>

Note: If $\left[\frac{\text{Orig. cost} - \text{Acc Dep.}}{\text{Book value}} \right] < \text{Dep on Asset p.a.}$

then,

Dep will be equal to the remaining Book value.
Ex- Dep on M₃(a) p.a = 91,000, but the remaining B.V.
 is only ₹45,500 then Dep = ₹45,500

- Different Methods of Depreciation

3. Machine hour Method

	A	B
Cost	100,000	100,000
Useful life	5 yrs	5 yrs
As per sum, Dep	₹20,000 x	₹20,000 x
But, 1st year	$\frac{1000 \text{ hrs}}{\text{Benefit } \uparrow}$	$\frac{600 \text{ hrs.}}{\text{Benefit } \downarrow}$
Total hours	$\frac{5000 \text{ hrs}}{\text{Useful life}}$	5000 hrs

$$\begin{aligned} \text{Depreciation} &\rightarrow \frac{100,000}{5000} \times 1000 & \frac{100,000}{5000} \times 600 \\ &= ₹ 20,000 & ₹ 12,000 \end{aligned}$$

$$\text{Dep} = \frac{\text{Depreciable value}}{\text{Total Mach hours}} \times \text{Mach. hours per year}$$

ILLUSTRATION 4

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 :

Dep value. 2800.000

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.

Year
1-3

$$\frac{\text{Dep } 2800.000}{24000} \times 3000 = ₹ 3,50,000 \text{ per year}$$

4-6

$$\frac{2800.000}{24000} \times 2600 = ₹ 3,03,333 \text{ per year}$$

7-10

$$\frac{2800.000}{24000} \times 1800 = ₹ 2,10,000 \text{ per year}$$

4. Production Unit Method

	A	B
Cost	100,000	100,000
Salvage Value	10,000	10,000
Useful life ← Total production units	10,000	10,000
1st year	2000 units	3000 units

Dep →

$\frac{90,000}{10,000} \times 2000$ $= ₹18,000$	$\frac{90,000}{10,000} \times 3000$ $= ₹27,000$
---	---

$$\text{Dep} = \frac{\text{Depreciable Amt of Asset}}{\text{Total prod. units}} \times \text{Prod. during the year}$$

ILLUSTRATION 5

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.

<u>Year</u>	<u>Dep</u>
1-3	$\frac{18,00,000}{1,50,000} \times 20,000 = ₹240,000 \text{ per year}$
4-7	$\frac{18,00,000}{1,50,000} \times 15,000 = ₹180,000 \text{ per year}$
8-10	$\frac{18,00,000}{1,50,000} \times 10,000 = ₹1,20,000 \text{ per year}$

5. Depletion Method ↳ Extraction of Natural Resources

H.G.F Ltd.



Estimate
5000 tonne
Useful life

↓
Lease - ₹10,00,000 ✓
Asset

$$\begin{aligned} \text{1st year} &= ₹ 1500 \text{ tonne} - \frac{10,00,000}{5000} \times 1500 \\ &= ₹ 300,000 \end{aligned}$$

→ Depletion is the allocation of cost of extraction of Natural Resources.

HW

ILLUSTRATION 6

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:

Year Quantity of Mineral extracted

2019	2,000 tonnes
2020	10,000 tonnes
2021	15,000 tonnes

Required Asset A/c

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

WN

Year

Dep.

2019

$$\frac{1,00,00,000}{200,000} \times 2000$$
$$= ₹100,000$$

2020

$$\frac{100,00,000}{200,000} \times 10,000$$
$$= ₹500,000$$

6. Sum of Years of Digit Method → Accelerating Method

Ex- Machine - ₹100,000) Depreciable value - ₹90,000
 Residual value - ₹10,000
 Useful life - 5 years

<u>Year</u>	No. of years of <u>Remaining life</u>	<u>Depreciation</u>
1	5	$90,000 \times \frac{5}{15} = ₹30,000$
2	4	$90,000 \times \frac{4}{15} = ₹24,000$
3	3	$90,000 \times \frac{3}{15} = ₹18,000$
4	2	$90,000 \times \frac{2}{15} = ₹12,000$
5	<u>1</u>	$90,000 \times \frac{1}{15} = ₹6,000$
	<u>15</u>	

$$\text{Dep} = \text{Dep. value} \times \frac{\text{No. of years of Rem. Life}}{\text{Sum of years}}$$

Ex- Cost of an Asset - ₹200,000
 Useful life - 10 years
 Res. value - ₹20,000

Dep for 4th year ?

$$\begin{aligned} \text{Dep} &= \text{Dep value} \times \frac{\text{No. of years of Rem. Life}}{\text{Sum of years}} \\ &= ₹180,000 \times \frac{7}{10 \times \frac{11}{2} = 55} \\ &= ₹22909 \end{aligned}$$

Year	No. of years of Rem Life
1	10
2	9
3	8
4	7
5	6
6	5
7	4
8	3
9	2
10	1
$\frac{n(n+1)}{2} = \frac{10 \times 11}{2} = 55$	

Book value
 WDV at the beg. of 4th year :
 → Orig. cost - Dep of last 3 years
 = 200,000 - $\left[180,000 \times \frac{27}{55} \right]$
 → ₹111636

ILLUSTRATION 3

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.

Required

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

2022

No. of years of Remaining life - 5 years
Sum of years - $\frac{10 \times 11}{2} = 55$

Dep for 2022 - $8,80,000 \times \frac{5}{55} = ₹ 80,000$

WDV as on 1.1.2022 - Orig. cost - Dep till 1.1.2022
[2017-2021]

→ $10,00,000 - [8,80,000 \times \frac{40}{55}]$
→ ₹ 360,000

Total Dep Just for understanding

Year	Rem. Life	Dep
2017	10	$8,80,000 \times \frac{10}{55}$
2018	9	$8,80,000 \times \frac{9}{55}$
2019	8	$8,80,000 \times \frac{8}{55}$
2020	7	
2021	6	$8,80,000 \times \frac{10}{55} + 8,80,000 \times \frac{9}{55}$
		→ $8,80,000 \times \frac{1}{55} \times (10 + 9 + 8 + 7 + 6)$

Machinery A/c

Date	Part	₹	Date	Part	₹
1.1.2022	To bal b/d	360.000	31.12.22	By Dep	80.000
				by bal c/d	280.000
		<u>360.000</u>			<u>360.000</u>

Dep A/c

Dr			Cr		
Date	Part	₹	Date	Part	₹
31.12.22	To Mach A/c	80.000	31.12.22	By p&L A/c	80.000

AMORTIZATION

↓
Dep of Intangible Assets

↓
As per AS 26,

→ Identifiable, non-Monetary Asset without Physical Substance.

1. Identifiable - Separable. it can be sold, rented or exchange.
2. Monetary Assets - Money held & Assets to be received in fixed Amt of Money.

Ex- Computer Softwares, Patents, Copyrights, Licenses, Goodwill. etc.

Amortisation - "Systematic allocation of Dep Amt of Intangible Asset over its useful life."

↓
Cost - Salvage value

↓
Generally taken as zero

unless :

- a) there is a commitment by third party, Or
- b) An Active Market for Asset exists.

Imp points:

1. Amortisation should commence when Asset is available for use.
2. Assumption- Max. useful life of Intangible Asset: 10 years, unless evidence exists to the contrary.
3. Amortization Method used should reflect the pattern in which economic benefit of an asset is consumed.
→ If nothing is mentioned, use SLM.

ILLUSTRATION 13

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.

2L

Required

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

$$\begin{aligned} \text{Cost of Patent} &= ₹ 28,00,000 + ₹ 2,00,000 \\ &= ₹ 30,00,000 \end{aligned}$$

$$\begin{aligned} \text{Amortization - pa} &= \frac{\text{Dep. Value}}{\text{Useful life}} = \frac{30,00,000}{10} \end{aligned}$$

$$= ₹ 3,00,000$$

Patent A/c

Dr			Cr.		
Date	Port	₹	Date	Port	₹
1/7/21	To Bank A/c [28,00,000 + 2,00,000]	30,00,000	31/12/21	By Amortisation [3,00,000 × $\frac{6}{12}$]	1,50,000
		=====		by bal cld	28,50,000
1/1/22	To bal b/d	28,50,000	31/12/22	by Amortisation by bal cld	3,00,000 25,50,000
		=====			=====

Amortization A/c

Dr.

Date	Part	£	Date	Part	£
31/12/21	To Patent A/c	<u>150,000</u>	31/12/21	by P&L A/c	<u>150,000</u>
31/12/22	To Patent A/c	<u>300,000</u>	31/12/22	by P&L A/c	<u>300,000</u>

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.

Calculate amortisation for the fourth year.

→ Amort for 4th year = $\frac{1260.000}{5}$, ₹252000