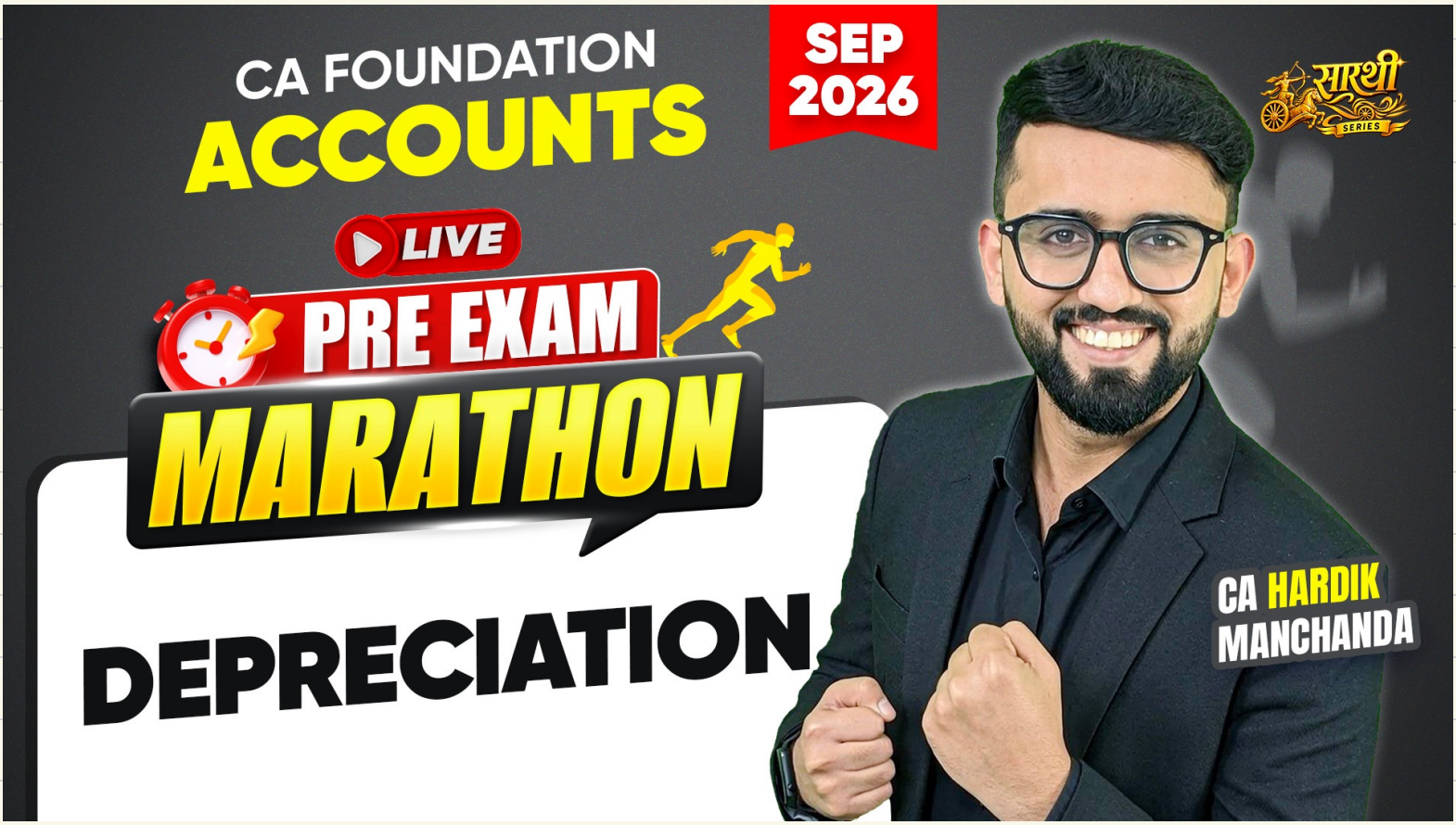


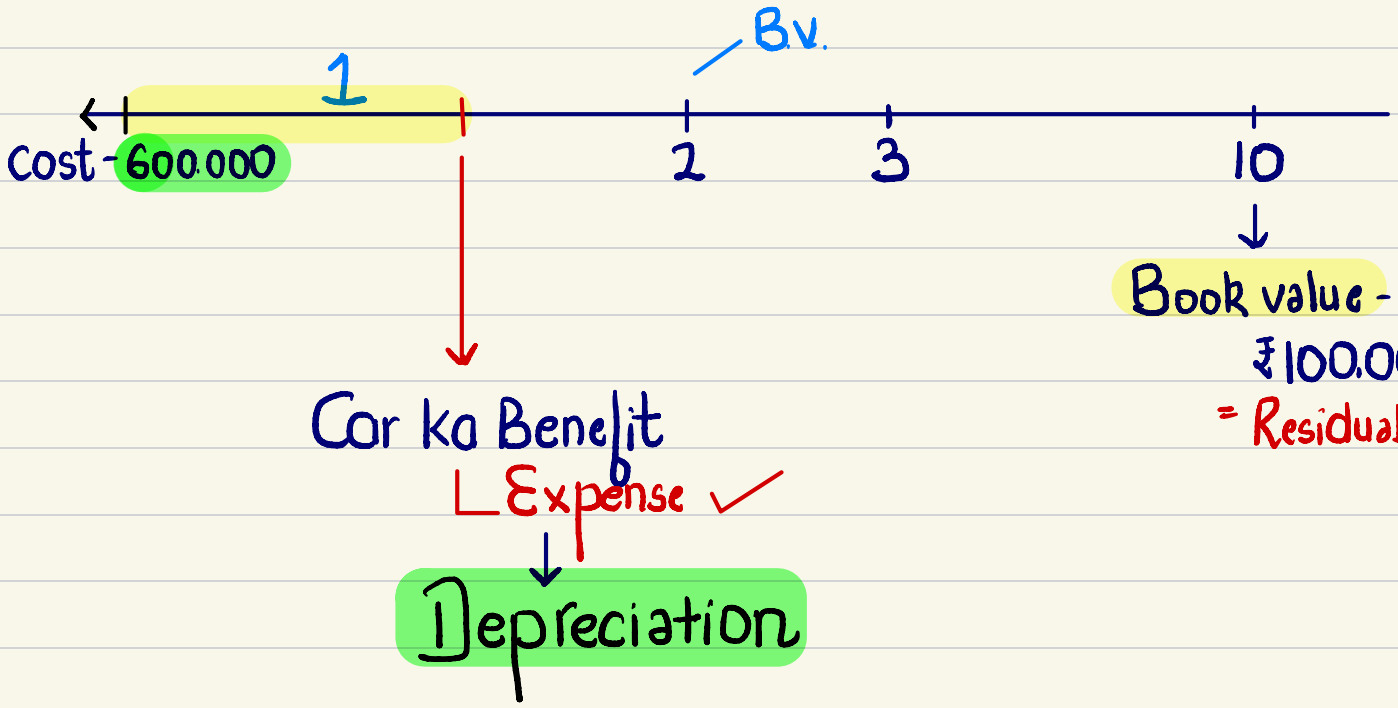
↓

Dep - 8-10 Marks - Q2(b)

↓

Imp Ques + Concepts

Methods - Sep25



– Dep is the Systematic allocation of Depreciable amt of a Tangible Asset over its useful life.

Eg. $\frac{500.000}{10}$ = ₹50.000 p.a.
↓
Depreciation

B.V at end of 1st year = 600.000 - 50.000
= ₹550.000

→ Fixed Assets - Tangible : Property, Plant & Equipment [PPE]
↳ No Dep on Land because life cannot be determined.

Eg- 1/4/24 - ₹600.000 - Cost
24-25 - Dep (50.000) — Expense

31/3/25 - 5,50,000 — Balance Sheet - Asset
↳ Book value.

Imp point:

1] ✓ 1/4/25 - ₹40,000
1/5/25 - Installation – Ready to use

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

2] 1/4/25 - ₹40,000
1/5/25 - Installation
↓
Started using from 1/6/25

It is not imp. that Asset must be used to be Depreciated.

→ Factors in the Measurement of Dep.

- Cost of an Asset
- Estimated useful life
- Estimated Residual value.

1. Cost of an Asset



Jassi

Machine = 510.000

Montu

Canada

Machine

Warehouse

Installation - 2000
Site preparation - 3000
Testing - 5000

Ready to use

List price -	500.000
(-) Trade disc -	(50.000)
	450.000
+ Tax [Non-Refundable]	20.000
	470.000
Dismantle Cost	10.000
	480.000

Transport - ₹5000

Indian port
Import Duty ₹5000
[Non-Refundable]

Shipping Transport ₹10.000

- All the expenses which is necessary for Asset to bring it in condition & location for desired use, will become part of cost of an Asset.

Ready to use

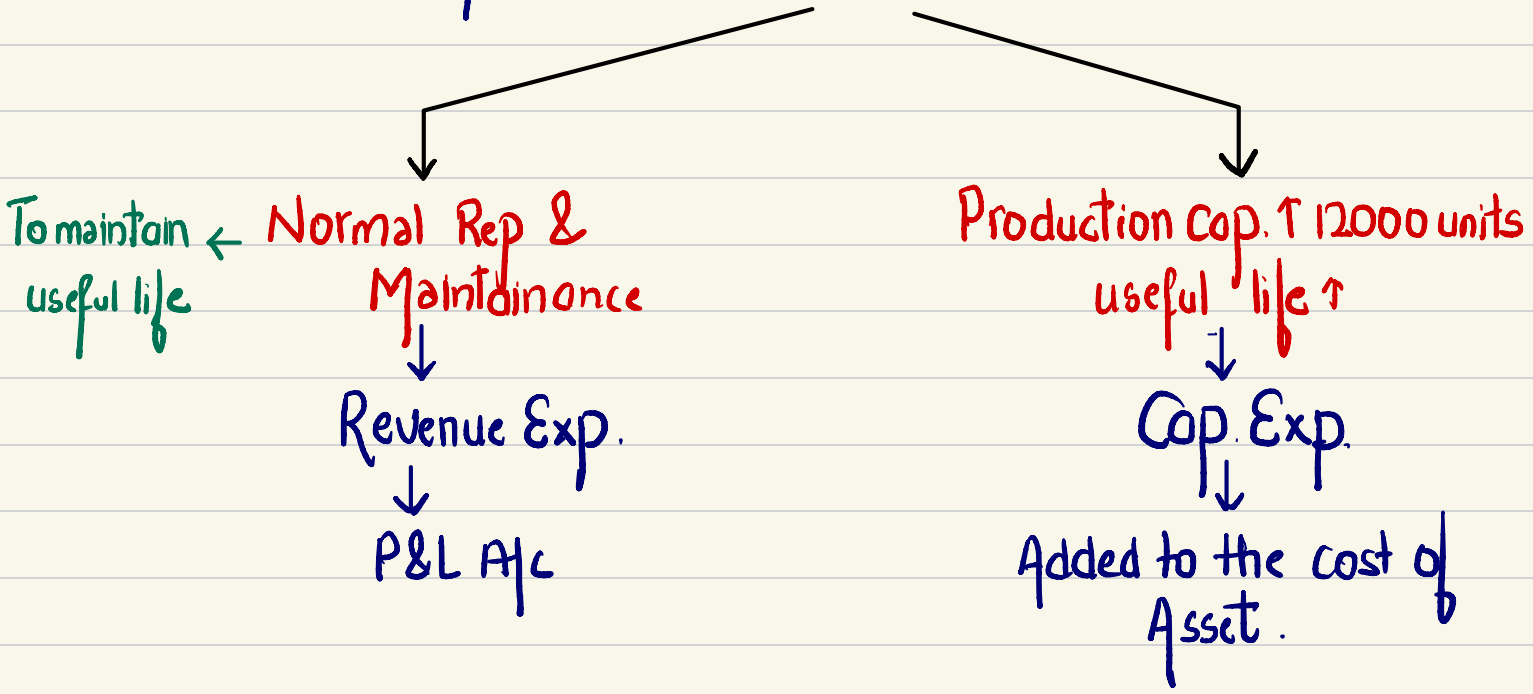
→ Inauguration Cost : Not included in the cost of an Asset.

Eg - 1/4/2026 Cost of an Asset - ₹510,000

Useful life - 5 years
Prod. capacity - 10,000 units.

2026-27

Expenditure - ₹50,000



- Once an Asset is ready to use, no exp. should be added to the cost of Asset, unless exp. incurred increases the useful life / production capacity of an Asset.

→ Methods of Depreciation

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

Cost of an Asset : ₹510,000
Useful life : 5 years
Residual value : ₹10,000

Depreciable value = Orig. cost - Residual value
= 510,000 - 10,000
= ₹500,000

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

$$\text{Dep p.a.} = \frac{\text{Orig. cost} - \text{Residual value}}{\text{Useful life}}$$

a] $$\text{Dep (\%)} = \frac{\text{Dep}\ 100{,}000}{\text{Total Dep value}\ 500{,}000} \times 100 = 20\% \text{ p.a.}$$

20% → Dep. value

1st year : $500{,}000 \times \frac{20}{100} = ₹100{,}000$

b] Dep C.I. = $\frac{100.000}{510.000} \times 100$ = 19.61 I.

Original cost — on orig. cost

1st year - 510.000 x $\frac{19.61}{100}$ = ₹100.000

→ Dep p.a. = Original cost x Dep C.I.

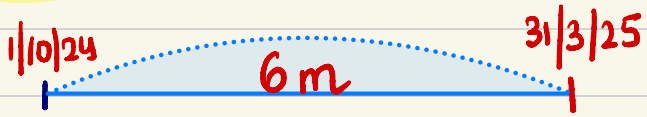
This is applicable for exam.

Eg - Orig. cost : ₹100.000
Res. value - ₹10.000
Dep is charged @ 10% p.a.

Dep p.a. = 100.000 x $\frac{10}{100}$

= ₹10.000

Eg - 1st Oct 2024 = ₹100.000 - orig. cost
Salvage value = ₹ 10.000
Dep = 10% p.a.



Dep (24-25)

100.000 x $\frac{10}{100} \times \frac{6}{12}$ = ₹5000

1SLoc

Illustration 1: Jain Bros. acquired a machine on 1st July, 2021 at a cost of Rs. 14,00,000 and spent Rs. 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.

JOURNAL

2021 1st July	Mach. A/c Dr. To Bank	1500,000	1500,000
6m			
31st Dec	Dep A/c Dr. To Mach A/c $\left[1500.000 \times \frac{10}{100} \times \frac{6}{12}\right]$	75000 → Nominal	75000 └ Asset ↓
31st Dec	P&L A/c Dr. To Dep A/c	75000	75000
31st Dec 2022	Dep A/c Dr. To Mach. A/c $\left[1500.000 \times \frac{10}{100}\right]$	150.000	150000
31st Dec 2022	P&L A/c Dr. To Dep	150,000	150.000

Machinery A/c

Dr.

Date	Particulars	₹	Date	Parti.	₹
2021			2021		
July 1	To Bank	1500,000	Dec 31	By Dep.	75000
			Dec 31	by bal c/d	1425000
		1500,000			1500,000
2022			2022		
Jan 1	To bal. b/d	1425000	Dec 31	By Dep	150,000
			Dec 31	By bal c/d	1275000
		1425000			1425000

Book value
Balance sheet

Dep A/c

Dr. Cr.

Date	Particulars	₹	Date	Parti.	₹
2021			2021		
Dec 31	To Mach. A/c	75000	Dec 31	By p&L A/c	75000
2022			2022		
Dec 31	To Mach A/c	150,000	Dec 31	By p&L A/c	150,000

→ Accumulated Dep / Provision for Dep.

Eg- Mach ₹100,000
Dep - ₹10,000

└ Dep Dr. 10,000
To Mach. 10,000

Balance Sheet

	Asset
	Mach 90,000 ← After Dep

Method-1

Mach.
100,000
(10,000) ← Dep. 10,000
90,000

Method-2

Mach.
100,000

Dep.
10,000
→ Accumulate
↓
Seperate A/c
↓
Accumulated Dep A/c
↓
Dep. A/c Dr. 10,000
To Acc. Dep 10,000
↓
Cr. bal.
↓

Shown as reduction from Mach. A/c → CONTRA ASSET A/c

Balance Sheet

Cr. bal ← Liab.	Assets — Dr. bal
	Mach. 100.000
	↳ Acc. Dep (10,000) 90,000

2nd year

Method 1

Dep Dr. 10.000
To Mach. 10.000

P&L A/c

Method 2

P&L A/c

Dep Dr. 10.000
To Acc Dep A/c 10.000

Acc. Dep A/c -20.000

Balance Sheet

Assets
Mach. 80000

Balance Sheet

Assets	
Mach - 100.000	
↳ Acc Dep (20.000)	80,000

Mach- original cost
Acc Dep- Total Dep.

Acc. Dep A/c

Cr.

Date	Part	₹	Date	Part	₹
	To bal c/d (Cr. bal)	10,000	1st Year End	By Dep A/c	10,000
2nd yr End	To bal c/d	20,000	2nd year	by bal b/d by Dep	10,000 10,000

2. Written down value / Reducing Balance Method
Diminishing Balance Method

Eg- 1/4/22 - Cost 100,000
Res. value 10,000
Dep - 10% p.a. on WDV.
↳ Dep % x WDV

Cost - 100,000
(-) Dep (22-23) - 10,000
31/3/23 - WDV 90,000 — Book value
1/4/23

↓ Dep (23-24) - 9000 (90,000 x 10%)
31/3/24 - WDV 81000

↓ Dep (24-25) - 8100 (81000 x 10%)
31/3/25 - WDV 72900

Accelarated Method of Dep.

↓

Dep - higher in Initial years
lower in subsequent years

Eg- Mach - ₹100,000
Dep - 20% p.a.
useful life - 5 years

Original Cost	WDV Method
Dep p.a = ₹20,000	↓ Book value at end of useful life will not be Zero.
B.V. at end of 5 years 100,000 - (20,000 x 5) = Zero	

→ Profit / Loss on sale of Machinery

Profit = Selling price − Book value

↓

Cost − Dep till date of Sale.

Eg- 1/4/2020 - ₹100,000
WDV @ 12·1 p.a.

a] Sold on 30/6/23 - ₹55000

1/4/20 -	100,000
Dep (20-21) -	(12000)
WDV - 31/3/21	88000
Dep (21-22)	(10560)
WDV - 31/3/22	77440
Dep (22-23)	(9293)
WDV - 31.3.23	68147

$68147 \times \frac{12}{100} \times \frac{3}{12}$

Dep (1/4/23 - 30/6/23) -	(2044)
WDV - 30/6/23	66103 — B.V. on date of sale
Sale price	(55000)
Loss →	11,103

JOURNAL

30/6/23 Bank A/c Dr. 55000
To Mach. A/c 55000

30/6/23 Loss on Sale of Mach Dr. 11,103
To Mach. A/c 11,103

66103 BV

↓

Bank Dr. 55000
Loss on Sale Dr. 11,103
To Mach. A/c 66103

b] Sold on 30/6/23 - ₹75000
WDV on 30/6/23 - ₹66103
Gain ₹8897

30/6/23 Bank A/c Dr. 75000
To Mach. A/c 75000

Cr. 66103

30/6 Mach. Dr. 8897
To Gain on Sale of Mach. 8897

↓

Bank Dr. 75000
To Mach 66103
To gain on sale 8897

Mach. A/c

Dr	Cr.
	By Bank 66103

↓

Not for exams

Dr Mach. A/c Cr.

To gain 8897	By Bank 75000
	Cr. 66103

a) 80,000
b) 1,20,000

Illustration 8: On April 1, 2019 Shubra Ltd. purchased a machinery for Rs. 12,00,000. On Oct 1, 2021, a part of the machinery purchased on April 1, 2019 for Rs. 80,000 was sold for Rs. 45,000 and a new machinery at a cost of Rs. 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.

a] Prov. for Dep A/c is not maintained.

Machinery A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2019			2020		
Apr 1	To Bank A/c		Mar 31	By Dep A/c	
	M1 - 1120,000			M1 - 112000	
	M2 - 80,000	1200000		M2 - 8000	120,000
			Mar 31	By bal c/d	
				M1 - 1008000	
				M2 - 72000	10,80,000
		1200,000			1200,000
2020			2021		
Apr 1	To bal. b/d		Mar 31	By Dep	
	M1 - 10,08,000			M1 - 100800	
	M2 - 72,000	10,80000		M2 - 7200	108000
			Mar 31	By bal c/d	
				M1 - 907200	
				M2 - 64800	972000
		1080,000			10,80,000
2021			2021		
Apr 1	To bal. b/d		Oct 1	By Dep (M2)	3240
	M1 - 907200			[64800 x 10/100 x 6/12]	
	M2 - 64800	972000		By Bank	45000
				By loss on sale (WN1)	16560
Oct 1	To Bank [M3]	153000			

Dep A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2020 Mar 31	To Mach. A/c	120000	2020 Mar 31	By P&L A/c	120000
2021 Mar 31	To Mach A/c	108000	2021 Mar 31	By P&L A/c	108000
2021 Oct 1	To Mach A/c (M2)	3240			
2022 Mar 31	To Mach A/c M1 - 90720 M3 - 7900	98620	2022 Mar 31	By P&L A/c	101860
		101860			101860

WN1 Gain / Loss on Sale of Mach.

Book value as on 1st oct, 21 - 61560
[64800 - 3240]

Sale value - 45000

Loss 16560

b) Prov. for Dep A/c is Maintained.

Machinery A/c → Original Cost

Dr. Cr.

Date	Part	₹	Date	Part	₹
2019 Apr 1	To Bank A/c		2020 Mar 31	By bal c/d	
	M1 - 1120,000			M1 - 1120,000	
	M2 - 80,000	1200,000		M2 - 80,000	1200,000
2020 Apr 1	To bal. b/d		2021 Mar 31	By bal c/d	
	M1 - 1120,000			M1 - 1120,000	
	M2 - 80,000	1200,000		M2 - 80,000	1200,000
2021 Apr 1	To bal. b/d		2021 Oct 1	By prov for Dep (M2)	18440
	M1 - 11,20,000			By Bank	45000
	M2 - 80,000	12,00,000		By Loss on Sale	16560
Oct 1	To Bank (M3)	158000	2022 Mar 31	By bal c/d	
				M1 - 1120,000	
				M3 - 158000	1278000
		1358000			1358000

Dep A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2020 Mar 31	To prov. for Dep.		2020 Mar 31	By P&L A/c	120,000
	M_1 - 112000				
	M_2 - 8000	120,000			
2021 Mar 31	To prov. for Dep.		2021 Mar 31	By P&L A/c	108000
	M1 100800				
	$[11,20,000 - 112000] \times \frac{10}{100}$				
	M_2 - 7200	108000			
	$[80,000 - 8000] \times \frac{10}{100}$				
2021 Oct 1	To prov. for Dep	3240	2022 Mar 31	By P&L A/c	101860
	$[80,000 - 15200] \times \frac{10}{100} \times \frac{6}{12}$				
2022 Mar 31	To prov. for Dep				
	M_1 - 90720				
	$[1120,000 - 212800] \times \frac{10}{100}$				
	M_3 - 7900	98620			
	$[158000 \times \frac{10}{100} \times \frac{6}{12}]$				
		101860			101860

Prov. for Dep A/c

→ Jo Mach. Business me hain, uska total Dep.

Dr. ↑ Cr.

Date	Part	₹	Date	Part	₹
			2020 Mar 31	By Dep M1 - 112000 M2 - 8000	120000
2020 Mar 31	To bal c/d M1 - 112000 M2 - 8000	120000			
			2020 Apr 1	By bal b/d M1 - 112000 M2 - 8000	120000
2021 Mar 31	To bal c/d M1 - 212800 M2 - 15200	228000	2021 Mar 31	By Dep A/c M1 - 100800 M2 - 7200	108000
		228000			228000
			2021 Apr 1	By bal b/d M1 - 212800 M2 - 15200	228000
2021 Oct 1	To Mach. A/c	18440	Oct 1	By Dep (M2)	3240
2022 Mar 31	To bal c/d M1 - 303520 M3 - 7900	311420	2022 Mar 31	By Dep M1 - 90720 M3 - 7900	98620

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 Mach Sold is tlf from Mach. A/c to Mach. Disposal A/c

If prov. for Dep is maintained.

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

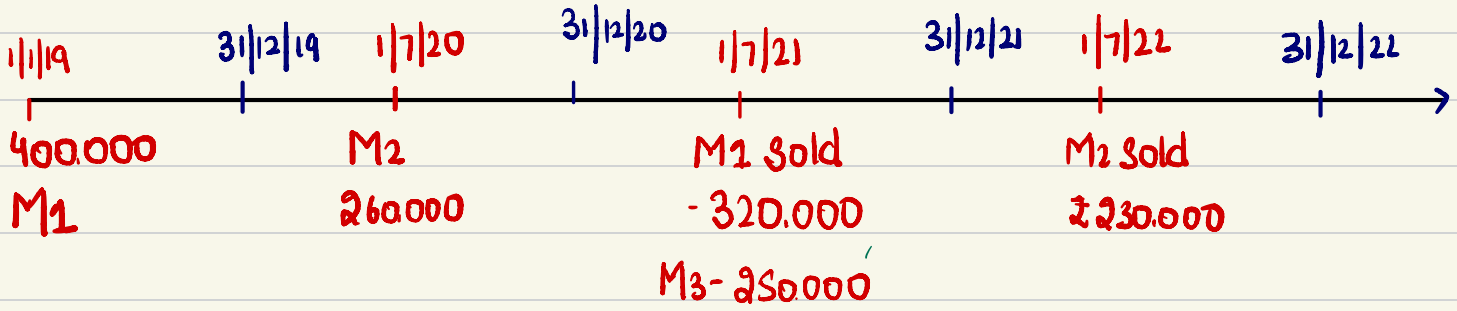
→ Acc. Dep of Mach Sold is tlf from Acc. Dep A/c to Mach. Disp A/c

Illustration 9: A firm purchased second hand machinery on 1st January, 2019 for Rs. 3,00,000, subsequent to which Rs. 60,000 and Rs. 40,000 were spent on its repairs and installation, respectively. On 1st July, 2020 another machinery was purchased for Rs. 2,60,000. On 1st July, 2021, the first machinery having become outdated was auctioned for Rs. 3,20,000 and on the same date, another machinery was purchased for Rs. 2,50,000.

On 1st July, 2022, the second machinery was also sold off and it fetched Rs. 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: (a) Machinery Account for the years ending Dec. 31, 2019 to 2022 and (b) Machinery Disposal Account.



Machine A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
1.1.2019	To Bank A/c (M1) (300000 + 60,000 + 40,000)	400,000	31.12.19.	By Dep A/c	40,000
				By bal c/d (M1)	360,000
1.1.2020	To bal. b/d (M1)	360000	31.12.20	By Dep	
1.7.20	To Bank A/c (M2)	260,000		M1 - 40,000	
				M2 - 13000 [260000 x 10/100 x 6/12]	53000
				by bal c/d	
				M1 - 320,000	
				M2 - 247000	567000

Dr. Cr.

Date	Part	₹	Date	Part	₹
2021			2021		
Jan 1	To bal bld		July 1	By Dep [M1]	20,000
	M1 - 320,000			[400,000 x 10/100 x 6/12]	
	M2 - 247,000	567000			BV.
				By Mach Disp (M1)	300,000
July 1	To Bank (M3)	250,000			
			Dec 31	By Dep	
				M2 - 26000	
				M3 - 12500	38500
				[250,000 x 10/100 x 6/12]	
				by bal cld	
				M2 - 221000	
				M3 - 237500	458500
		817000			817000
2022			2022		
Jan 1	To bal bld		July 1	By Dep (M2)	13000
	M2 - 221000			[260,000 x 10/100 x 6/12]	
	M3 - 237500	458500			
			July 1	By Mach Disp (M2)	208000
			Dec 31	By Dep (M3)	25000
				By bal cld (M3)	212500
		458500			458500

Machine Disposal A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2021			2021		
July 1	To Mach. (M1)	300000			
	To gain on sale	20000	July 1	By Bank A/c	320000
2022			2022		
July 1	To Mach (M2)	208000	July 1	By Bank	230000
	To gain on sale	22000			

Question 2: The Machinery Account of a Factory showed a balance of Rs. 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.

288920

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

N2

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.

WN1

	M1	M2
1.1.2020	437400	
Dep@10%	43740	
31.12.2020	393660	
1.1.2021		437000
Dep@10%	(39366)	(43700)
WDV- 31.12.2021	354294	393300
1.1.2022		

1900.000

M1	M2	M3
354294	393300	1152406

Machinery A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2022 Jan 1	To bal b/d		2022 1st June	By Dep- M1 [354294 × 10/100 × 5/12]	14762
	M1 - 354294				
	M2- 393300				
	M3- 1152406	1900000		By Bank	75000
				By Loss on Sale (WN)	264532
June 1	To Bank A/c (M4) [280000+8920]	288920	1st June	By Dep- M2 [393300 × 10/100 × 5/12]	16388
				By Loss [393300-16388]	376912
			Dec 31	By Dep	
				M3- 115241	
				M4- 16854	132095
				[288920 × 10/100 × 7/12]	
				By bal c/d	
				M3- 1037165	
				M4- 272066	1309231

WN1 M1

Book value as on 1st June, 22 = 354294 - 14762
= ₹ 339532

Sale value = ₹ 75000

Loss = ₹ 264532

Question - PYQ JUNE 2023: The following balances appear in the books of Dheeraj Enterprises:

Particulars	Amt.
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 Rs. 2,00,000 was sold for Rs. 1,10,000 and on the same date another Machinery was purchased for Rs. 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.

WN 1

	Mach.	Prov. for Dep.
1st Apr 18	200000	
Dep 18-19	(20000)	20000
WDV - 31.3.19	180000	
Dep 19-20	(18000)	18000
WDV - 31.3.20	162000	
Dep 20-21	(16200)	16200
WDV - 31.3.21	145800	
1.4.21		54200

Machinery A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2021					
1st Apr	To bal. bld		Oct1	By Mach. Disp	200,000
	M1 - 10,00,000				
	M2 - 200,000	1200,000			
			2022		
			Mar31	By bal cld	
Oct1	To Bank (M3)	480,000		M1 - 10,00,000	
				M3 - 480,000	1480,000

Prov. for Dep. A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
			2021		
			Apr 1	By bal. b/d	
				M1 410800	
				M2 54200	465000
Oct 1	To Mach. Disp	61490			
			Oct 1	By Dep (M2) (200000 - 54200) × 10/100 × 6/12	7290
			2022		
			Mar 31	By Dep	
2022				M1 (10,00,000 - 410800) × 10/100	58920
Mar 31	To bal c/d				
	M1 - 469720				
	M3 - 24000	493720		M3 - (450,000 × 10/100 × 6/12)	24000
					82920

Mach. Disposal A/c

Dr. Cr.

Date	Part	₹	Date	Part	₹
2021 Oct 1	To Mach.	200.000	2021 Oct 1	By Prov. for Dep	61490
				By Bank	110.000
				By Loss	28510
		200.000			200.000

WN2

B.V. = 200.000 - 61490

= 138510

Sale value : (110.000)

Loss = 28510

— Change in Method of Dep.

Eg- Machine 1/4/21 - 200,000
SLM @ 10% p.a.

21-22 - Dep (20,000)
WDV 31.3.22 180,000

22-23 Dep (20,000)
WDV 31.3.23 160,000

↓

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

1.4.23 - WDV - ₹160,000

23-24 - Dep - 160000 × 15%
= ₹24000

31.3.24 WDV = ₹136000

Eg- 1/4/21 - Mach - 200,000
WDV - 10% p.a.

21-22 Dep - 20,000

31.3.22 WDV 180,000
└ Orig cost

1.4.22 Method changed to SLM.
Useful life - 4 years
Salvage value - 20,000

$$\text{Dep (22-23)} = \left[\frac{180{,}000 - 20{,}000}{4}\right] = ₹40{,}000 \text{ per year.}$$

150,000

Question - PYQ NOV 2022: A purchased a machinery for Rs. 1,30,000 on 1st April, 2019 and paid Rs. 20,000 for freight & installation charges. On 1st October, 2021 another machine was purchased for 50,000 and sold old machinery for Rs. 1,00,000. The machine purchased on 1st October, 2021 was installed on 1st January, 2022.

Under existing practice, the company is charging depreciation @ 20% p.a. on the original cost. However, from 1st April, 2021 it decided to adopt WDV method and charge depreciation @15% p.a. You are required to prepare Machinery Account from 1st April, 2019 to 31st March, 2022.

Machinery A/c

Dr | Cr.

Date	Part	₹	Date	Part	₹
2019	(M1)		2020		
Apr 1	To Bank A/c [130,000 + 20,000]	150,000	Mar 31	By Dep (M1)	30,000
				By bal c/d	120,000
2020			2021		
Apr 1	To bal b/d (M1)	120,000	Mar 31	By Dep (M1) [150,000 × 20/100]	30,000
				by bal c/d	90,000
2021			2021		
Apr 1	To bal b/d (M1)	90,000	Oct 1	By Dep (M1) [90,000 × 15/100 × 6/12]	6750
Oct 1	To Bank (M2)	50,000	2022	By Bank	100,000
Oct 1	To gain on Sale (WN1)	16750	Mar 31	By Dep (M2) [50,000 × 15/100 × 3/12]	1875
				by bal c/d (M2)	48125
		156750			156750

WN1 Book value of M1 as on 1st oct 2021 = 90000 - 6750
= 83250

Sale value = 100,000

Gain on sale = 16750

Note: Dep is charged from the date, Asset becomes ready to use i.e. 1st Jan, 2022.

→ Revision of Estimated useful life

1/4/21 Machine - 100,000
Estimated useful life - 5 years
Salvage value - NIL

2021-22 Dep = 20,000
31.3.22 WDV = 80,000

2022-23 Dep = 20,000
31.3.23 WDV = 60,000

As per previous estimate, Remaining useful life = 3 years

Revised estimate = 2 years

Dep (23-24) = $\frac{60,000}{2}$ = ₹30,000

Illustration 11: A Machine costing Rs. 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.

7 years

Dep p.a. = $\frac{600,000}{10}$ = ₹60,000

Dep for 3 years = 60,000 x 3 = ₹180,000

WDV at end of 3rd year = 600,000 - 180000
= ₹420,000

As per previous estimate, Remaining useful life = 7 years

Revised estimate = 5 years

Dep for 4th year = $\frac{420,000}{5}$ = ₹84000

Question 3: The LG Transport company purchased 10 trucks at Rs. 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 Rs. 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 Rs. 50,00,000. The company write off 20% on the original cost per annum. The company observe the calendar year as its financial year. Give Motor Truck A/c for 2 years ended 31st Dec, 2022. 1/1/21 - 31/12/21 - 1/1/22 - 31/12/22

	Truck [I]	Truck [II]
WN I		
1.4.2019	4500000	4,05,00,000
Dep	675000	60,75,000
WDV - 31.12.2019	3825000	3,44,25,000
Dep [2020]	900000	8100000
WDV - 31.12.2020 (1.1.21)	2925000	2,63,25,000

Motor Truck A/c

Dr | Cr.

Date	Part	₹	Date	Part	₹
2021			2021		
Jan 1	To bal bld		Oct 1	By Dep [T1]	675000
	T1 - 2925000			[4500000 × 20/100 × 9/12]	
	T2 - 2,63,25,000	2,92,50,000		By Bank A/c	2700000
Oct 1	To gain	450000			
	= 2700000 - [2925000 - 675000]		Dec 31	By Dep	
				T2 - 8100000	
				T3 - 250000	8350000
Oct 1	To Bank (T3)	50,00,000		[5000000 × 20/100 × 3/12]	
				by bal c/d	
				T2 - 1,82,25,000	
				T3 - 4750000	2297500

Revaluation OF PPE

→ Fair Market Value

Machine - ₹10,00,000

31/3/24 — Ist time Revaluation

I - upward Revaluation

FMV - ₹1200,000

Journal

Machine A/c Dr. 200,000
To Revaluation Reserve 200,000
└ unrealised Gain

2nd Time Revaluation

31/3/25 — Book value - ₹800,000

a] FMV - ₹900,000

Mach. Dr. 100,000
To Rev. Res 100,000

b] FMV - ₹700,000

Rev. Res. Dr. 100,000
To Mach 100,000

c] FMV - ₹500,000

Rev. Res Dr. 200,000
P&L A/c Dr. 100,000
To Mach 300,000

1st Time Revaluation

II → Downward Revaluation

31|3|24 — Machine - ₹10,00,000
FMV - ₹800,000

Journal → P&L A/c Dr. 200,000 (Loss)
To Mach. 200,000

31|3|25 — 2nd Time Revaluation

Book value - ₹600,000

a] FMV - ₹500,000

P&L A/c Dr. 100,000
To Mach. 100,000

b] FMV - ₹700,000

Mach. Dr. 100,000
To p&L A/c 100,000

↓
Loss Recovery

c] FMV - ₹900,000

Mach. Dr. 300,000
To p&L A/c 200,000
To Rev. Res. 100,000

↓
Gain

Gain - Revaluation Res. - Cr.
Loss - P&L A/c Dr.

Gain ↓ - Rev. Res. Dr.
Loss Recovery - P&L A/c Cr.

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

Question 5: Amazing group had Property, Plant & Equipment (PP&E) with a book value of Rs. 35,00,000 on 31st December, 2022. The balance in Revaluation Surplus on that date was Rs. 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) Rs. 37,00,000 (b) Rs. 33,00,000 and (c) Rs. 31,00,000. Also, give the journal entries.

a] FMV - ₹3700,000

PPE A/c Dr. 200,000
To Rev. Res. A/c 200,000

b] FMV - ₹3300,000

Rev. Res. A/c Dr. 200,000
To PPE A/c 200,000

c] FMV - ₹3100,000

Rev. Res A/c Dr. 300,000
P&L A/c Dr. 100,000 - Loss
To PPE A/c 400,000

→ Different Methods of Dep.

3. Machine hour Method

	M_1	M_2
Cost	100,000	100,000
useful life	5 years	5 years
As per SLM, Dep -	20,000	20,000
But, During 1st year	1000 hrs Benefit ↑	600 hrs. Benefit ↓
Total Mach. hours	5000 hrs	5000 hrs

useful life

Dep = $\frac{100,000}{5000} \times 1000$ $\frac{100,000}{5000} \times 600$

= ₹20,000 ₹12000

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

Illustration 4: A machine was purchased for Rs. 30,00,000 having an estimated total working of 24,000 hours. The scrap value is expected to be Rs. 2,00,000 and anticipated pattern of distribution of effective hours is as follows:

$\frac{2800000}{24000} \times 3000$

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	Depreciation
1 - 3	$\frac{2800000}{24000} \times 3000 =$ ₹ 350,000 per year
4-6	$\frac{2800000}{24000} \times 2600 =$ ₹ 3,03,333 per year
7-10	$\frac{2800000}{24000} \times 1800 =$ ₹ 210,000 per year

---

4. Production Unit Method

	M_1	M_2
Cost	100,000	100,000
Salvage value	10,000	10,000
	90,000	
Total prod. units	10,000	10,000
1st year	2000 units	3000 units
Dep p.a. =	$\frac{90,000}{10,000} \times 2000$	$\frac{90,000}{10,000} \times 3000$

= ₹18000 = ₹27000

$$\text{Dep} = \frac{\text{Depreciable value}}{\text{Total prod. units}} \times \text{Production during the year.}$$

Illustration 5: A machine is purchased for Rs. 20,00,000. Its estimated useful life is 10 years with a residual value of Rs. 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:

$\frac{1800000}{150000} \times 20000$

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.

Year	Depreciation
1-3	$\frac{1800000}{150000} \times 20000$ = ₹240000 per year
4-7	$\frac{1800000}{150000} \times 15000$ = ₹180000 per year
8-10	$\frac{1800000}{150000} \times 10000$ = ₹120000 per year

5. Depletion Method

↳ Extraction of Natural Resources.



H.C.F Ltd.

COAL

Estimate ↓ 5000 Tonne

↓

Lease - ₹10,00,000

Asset

1st year - 1500 tonne ⇒ $\frac{10,00,000}{5000} \times 1500$

$= ₹300,000$

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

Illustration 6: M/s Surya & Co. took lease of a quarry on 1-1-2019 for Rs. 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: Show the Quarry Lease Account and Depreciation Account for each year from 2019 to 2021.

2019 - 1/1/19 - 31/12/19

2019-20 - 1/4/19 - 31/3/20

WN

Year	Dep
2019	$\frac{1,00,00,000}{200000} \times 2000 = ₹100000$
2020	$\frac{100,00,000}{200,000} \times 10,000 = ₹500,000$
2021	$\frac{100,00,000}{200,000} \times 15000 = ₹750,000$

Quarry Lease A/c

Date	Part	₹	Date	Part	₹
2019 Jan 1	To Bank A/c	100,00,000	2019 Dec 31	By Dep	100,000
				by bal c/d	9900,000
2020 Jan 1	To bal b/d	9900000			

Depreciation A/c

Date	Part	₹	Date	Part	₹
2019 Dec 31	To Quarry Lease	100,000	2019 Dec 31	By P&L A/c	100000

6. Sum of years of Digit Method

Eg- Machine - ₹100,000 → Dep. value - ₹90,000
Residual value - ₹10,000
useful life - 5 years

Year	No. of years of Remaining Life		Depreciation
1	5	Ratio	90,000 x 5/15 = 30,000
2	4		90,000 x 4/15 = 24,000
3	3		90,000 x 3/15 = 18,000
4	2		90,000 x 2/15 = 12,000
5	1		90,000 x 1/15 = 6000
	15		

$$\text{Dep p.a} = \text{Depreciable value} \times \frac{\text{No. of years of Remaining Life}}{\text{Sum of years}}$$

→ Accelerated Method of Dep.

Sum of years = $\frac{n \times n+1}{2}$: $\frac{10 \times 11}{2}$ =

Eg- Cost of an Asset = ₹200,000
useful life = 10 years
Residual value = ₹20,000
} 180,000

Dep for 4th year ? ✓

$$Dep = 180{,}000 \times \frac{7}{55}$$

$$= ₹22909$$

Years	No. of km.
1	10
2	9
3	8
4	7
	6
	5
	4
	3
	2
10	1
	55

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

↓

$10 \times \frac{11}{2} = 55$

→ WDV at the beg. of 4th year

= Cost - Dep of 3 years

$$= 200{,}000 - \left[180{,}000 \times \frac{10}{55} + 180{,}000 \times \frac{9}{55} + 180{,}000 \times \frac{8}{55}\right]$$

$$200{,}000 - \left[\frac{180{,}000}{55} \times (10+9+8)\right]$$

$$= 200{,}000 - \left[180{,}000 \times \frac{27}{55}\right]$$

= ₹111636

Illustration 3: M/s Akash & Co. purchased a machine for Rs. 10,00,000. Estimated useful life and scrap value were 10 years and Rs. 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.

op. bal
└ cost - Dep

WN op bal. of Mach as on 1.1.2022

WDV as on 1.1.22 = Orig. cost - Dep of last 5 years

$= 10,00,000 - \left[8,80,000 \times \frac{40}{55} \right]$

$= ₹ 3,60,000$

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

Mach. A/c

Date	Part	₹	Date	Part	₹
2022 Jan 1	To bal. bld	3,60,000	2022 Dec 31	By Dep by bal. cld	80,000 2,80,000

7/36 6/36

Question - PYQ Sep 2025: 1/4/20 - 1/4/23 1080000 × 8/36

The following are the details of machineries held by the firm:

Machine	Purchase Date	Purchase value	Useful life	Scrap Value
M1	01/04/2020	11,00,000	8 years	20,000
M2	01/04/2022	9,40,000	8 years	40,000
M3	01/04/2024	8,10,000	5 years	-

The firm uses 'sum of years' digit' method for charging depreciation and maintains a separate account for it.

On 1st April 2024, the M1 machine has become obsolete and has been sold for Rs. 1,34,000. On the same date the estimated useful remaining life of M2 machine is reassessed at 3 years with Rs. 10,000 as scrap value.

You are required to prepare Machinery A/c, Provision for Dep A/c and Machine Disposal A/c for the year ending 31st March, 2024 and 31st March, 2025.

1/4/23

WN1

M1		Prov. for Dep	M2		Prov. for Dep
1.4.20	1100000				
Dep	10,80000 × 8/36	240000			
Dep. 2021	10,80,000 × 1/36	210000			

8+7+6

M1 M2

Dep from 1/4/20 - 31/3/23 $10,80,000 \times \left[\frac{21}{36}\right] - \left[\frac{8\times9}{2}\right]$

= ₹630,000

Dep from 1/4/21 - 31/3/23 900000 × 8/36

= 200000

Machine A/c

Dr | Cr.

Date	Part	₹	Date	Part	₹
2023			2024		
Apr 1	To bal. b/d		Mar 31	By bal. c/d	
	M1 - 1100,000			M1 - 1100,000	
	M2 940,000	2040,000		M2 940,000	2040,000
2024			2024		
Apr 1	To bal. b/d		Apr 1	By Mach Disp.	1100,000
	M1 - 1100,000			M1	
	M2 - 940,000	2040,000			
			2025		
Apr 1	To Bank	810,000	Mar 31	By bal c/d	
				M2 - 940,000	
				M3 - 810,000	1750,000

Prov. for Dep A/c

Dr Date	Part	₹	Date	Part	₹ Cr.
			2023 Apr 1	By bal. b/d	
				M1 - 630,000	
				M2 - 200,000	830,000
2024 Mar 31	To bal. c/d		2024 Mar 31	By Dep	
	M1 - 780,000			M1 - 150,000	
				[10,80,000 × 5/36]	
	M2 - 375000	1155000		M2 - 175000	325000
				[900000 × 7/36]	
2024 Apr 1	To Mach Disp - M1	780,000	2024 Apr 1	By bal b/d	
				M1 - 780000	
				M2 - 375000	1155000
			2025 Mar 31	By Dep	
2025 Mar 31	To bal c/d				
	M2 - 652500			M2 - 277500	
	M3 - 270,000	922500		M3 - 270,000	547500
				[810,000 × 5/15]	

Machine Disposal A/c

Dr | Cr.

Date	Part	₹	Date	Part	₹
2024 Apr 1	To Mach-M1	1100000	2024 Apr 1	By Prov. for Dep -M1	780000
				By Bank	134000
				By Loss on sale	186000
		1100000			1100000

WN2 Loss on Sale

BV as on 1st Apr 24 = 1100000 - 780000
= 320000

Sale value = 134000

Loss on Sale 186000

*

WN3 B.V. of M2 as on 1.4.24 = 940000 - 200000 - 175000
(Cost)

= 565000

Scrap value = ₹10,000

Dep value = ₹555000

Useful life = 3 years

Dep. (24-25) = 555000 × 3/(3+2+1) = 277500