Example 2: (Finance Lease – Books of Lessee)

Lease Term = 5 Years; Fair Value = 25,00,000; Down Payment = 3,00,000; Annual Lease Payment = 5,00,000;

Guaranteed Residual Value = 4,00,000 & Discount Rate is 12%. Show Accounting for Lessee.

Solution: -

Step 1 :- Fair value OF Asset = 25,00,000

Step 2 :- PV OF MLP (MLP = DP + Annual Rent + GRV)

Year	MLP		PVF@12%	PV (Amt.)
0	300000	DP	1	300000
1	500000	ALP	0.893	446500
2	"	"	0.797	398500
3	"	"	0.712	356000
4	"	"	0.636	318000
5	"	"	0.567	283500
5	400000	GRV	0.567	226800
				23,29,300

Conclusion :- Lessee shall record the Asset Under F/L at lower OF :-

a) Step 1 (FV) = 25,00,000

(OR) b) Step 2 (PV) = 23,29,300

Journal Entry at Commencement of Lease :-

Leased Asset a/c Dr. 2329300

To Bank a/c 300000

To Lease liab. a/c 2029300 → opng o/s

Step3:- Calculation of Interest (Finance Charges)

Year	Opng. o/s	F/C @12%	MLP	Closg o/s
1	2029300	243516	(500000)	1772816
2	1772816	212738	(500000)	1485554
3	1485554	178266	(500000)	1163820
4	1163820	139658	(500000)	803478
5	803478	96522 (BIF)	(900000)	0

1) Pv of ALP @ 12% for 500000 pa = ( )

2) Pv of GRV @ 12% for 400000 = 0

3) DP 0

500000 13% ⇒ 1758615

5yr

500000 / 1.13 = = = = = GT

Pv 13%

1 500000

2 400000

3 600000 Pv 1600890

4 700000

500000 ÷ 1.13 = M+

400000 = = M+

600000 = = = M+

700000 = = = = M+

1600889

Q101

As per AS 19 (Lease), Under F/L Lessee shall Recorded the Asset & Lease Liability at lower of :-

a) Fair value at Inception

or

b) PV of Minimum Lease Payments

Note:- MLP = DP + ALP + GRV

Step 1:- Fair Value = 20,00,000

Step 2:- PV of MLP at 15%

Year	MLP Amt	PVF	PV (Amt)
1	625000	0.8696	
2	"	0.7561	

3	11	0.6575
4	750000	0.5718
		18,55,850

Conclusion :- Hence Lease Liability shall be recognised at 18,55,850/-

Step3:- Calculation OF Finance Charges :-

Year	OP. O/s	Fc@15%	MLP	Closg O/s
1	1855850	278378	(625000)	1509228
2	1509228	226384	(625000)	11,10,612
3	11,10,612	166592	(625000)	652204
4	6,52,204	97796	(750000)	0

At Begining of 4th year :-

Case 1:- Ownership is transferred to Lessee
(GRV has to be paid)

4th year

F/c a/c Dr.	97796	
To LL a/c		97796

LL a/c Dr.	750000	
To Bank		750000

(No other entry is required except Dep.)

Case 2:- Ownership is not Transferred to Lessee
(GRV is not required to be paid)

Asset A/c

Beg of 4th yr.	To Bal. b/d	463963	By Dep 463963

assuming 4 year life

LL a/c

4th End. To Bank (ALP)	625000	4th Beg By Bal.	652204
To P&L (B/F)	125000	By FC	97796
Reversal of liability			

Case 3

Life = 5 yrs.
For Depreciat.

4th End

Asset (Dr) 371170

LL (Cr.) 125000

LL a/c Dr. 125000

P&L Dr. 246170

To Asset a/c 371170

Class Ex:-2 (When Fv becomes lower)

Fv of Asset = 20,00,000

ALP = 500000

LT = 6 yrs.

Dis. Rate = 10%

↓

NO USE

Step 1 ⇒ Fv = 20,00,000 ✓

Step 2 ⇒ Pv = 21,77,630 ✓

Conclusion ⇒ Hence Asset & LL value = 20,00,000

Step 3 :- F/C

Year	OPB	F (10%)	MLP	Closg
1	20,00,000	200000	(500000)	17000000
2	17	170000	(5)	137000
3	1370000	137000	(5)	10,07,000
4	10,07,000	100700	(5)	607700
5	607700	60770	(5)	168470
6	168470	331530	(5)	0

This is Wrong Calculation

Recalule the New Dis. Rate

↓

Trial & ERROR method

12% ⇒ 2055700

14% ⇒ 1944333

12% +

↑ in %	2	?
↓ in ₹	111367	55700

13%

Books of Lessor Under F/L

- Deemed Seller (Lessor)
- Asset will be De Recognised
- Lease Receivable to be Recognised
- Finance Income → @ Dis. Rate → @ IRI

Imp Terms For Lessor :-

1) ERV => Est. Residual Value (₹200000)
2) GRV => Guaranteed RV (₹180000)
3) UGRV => Unguaranteed RV (₹20000)
   → ERV − GRV
4) GIL => Gross Investment in Lease
   → GIL = MLP + UGRV
   => DP + ALP + GRV + UGRV
   - DP + ALP + GRV → itna to Pakka milega as per agreement
   - UGRV → Ye wala bhi mil sakta hai as per expectation

5) NIL ⇒ Net Investment in Lease

↳ PV OF GIL @ Dis. Rate

* NIL should always be equal to Initial Fair value OF Asset

→ Agar आज अपनी मर्जी Asset को Sale Kar du Cash में तो कितना milna chahie → NIL = FV = PV of GIL

A/c entry by Lessor :- (F/L – Non Dealer Lessor)

1) Lease Receivable a/c Dr. ⟶ NIL
   To Asset a/c ⟶ Book Value
(difference in P&L)

2) Bank a/c Dr.
   To Lease Receivable a/c

Year end ⇒ 3) L. Receivable Dr.
   To Finance Income a/c (P&L)

Rent received 4) Bank a/c Dr.
To Lease Receivable

"No Dep. shall be Charged by Lessor"

Ex:-4 (Pg.no. 7.7)

Books of Lessor

1) MLP = 100000 + (250000 × 5) + 80000 = 1430000

2) GIL = MLP + UGRV ⇒ 1430000 + 70000

3) UGRV = ERV − GRV ⇒ 150000 − 80000
⇒ 70000

4) Pv of GIL i.e NIL :-

a) DP = 100000 ~~+250000~~
b) Pv of ALP @ 9% for 5yrs = 972413
c) Pv of GRV @ 9% for 5th yr. = 51995
d) Pv of UGR @ 9% for 5th yr. = 45495

11,69,903

5) Recognition of Lease Receivable at 11,69,903

L.R a/c Dr. To Asset

6) Receipt of DP :- 100000

Bank a/c Dr.
To Lease Receivable

7) Calculation of Finance Income :-

Year	OP. Bal ↓ after deducting DP	F.I @9%	GIL	Closg
1	1069903	96291	250000	916194
2	916194	82457	(250000)	748651
3	748651	67379	(250000)	566030
4	566030	50943	(250000)	366973
5	366973	33027 (B/F)	400000	0
		330097		

400000 ↓
250000
+150000 → assuming it is recovered

Assume that Lessor Could Recovery only 100000 other that 5th yr. Lease Rent of 250000

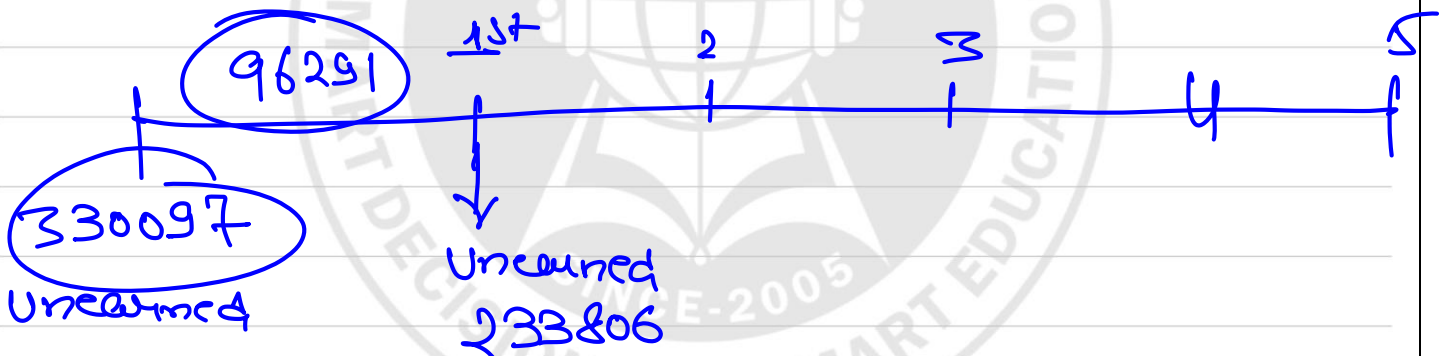
Year	Opng	FI	GIL	Closg
5	366973	(16973) B/F	350000 (250000 + 100000)	0

P&L Dr. side

8) Calculate Unearned Finance Income at Commence of Lease :-

GIL – NIL

1500000 – 1169903 = 330097



Q202

1) GIL = 43 lacs.

2) Pv of GIL = 2830920

3) Unearned = 1469080

FI

4)

	FI
1	424638
2	368333
3	303583
4	229121
5	143403 (B/F)

Q204

Books of Lessee

Step 1:- Fair value of Asset = 50,00,000

Step 2:- Present value of MLP @ 15%.

MLP = (1600000 × 4) + 300000 = 67,00,000

a) Pv of 1600000 for 4 years @ 15% = 45,68,000
1600000 × 2.855

b) Pv of 300000 at 4th yr. @ 15% = 171540
300000 × 0.5718

47,39,540

Conclusion, the value of Lease Liability is lower of :- a) Fv i.e 56,00,000

&

b) Pv of MLP i.e 4739540

L. Liab. = 47,39,540

Books of lessor

Unearned Finance Income = GIL − NIL

1) GIL = MLP + UGRV ⇒ 6700000 + 150000
⇒ 6850,000

2) UGRV = ERV − GRV ⇒ 150000

3) Pv of GIL (ie NIL) @ 15% :-

(i) Pv of 1600000 P.a For 4 years = 4568000
1600000 × 2.855

(ii) Pv of 300000 at 4th yr. = 171540

(iii) Pv of 150000 at 4th yr. = 85770
150000 × 0.5718

NIL = 4825310

4) Unearned FI = 6850,000 − 48,25,310

= 20,24,690/-

Ex:- Investment = 500000 Current Outflow

	Return
1	150000
2	"
3	"
4	"
5	"
	750000

Future Inflow

~~Assume 10% is ROI → 568618~~

Assume 14% is ROI → 514962

Assume 16% is ROI → 491144

14% (+)

↑ in %	2	2	1.256
↓ in ₹	23818	14962	

15.256 % ROI ←

Investment = 1250000

	Inflow
1	300000
2	400000
3	500000
4	600000

Rate ?

~~104.1388771~~

15.1.

The Rate at which Sum of Pv of future Inflow is equal to Current Investment is my ROI

15% → 1235137

14.5% → 1249280

14.5.1. —

↑ in %	0.5	x
↓ in ₹	14143	720

0.025

14.5 − 0.025 = 14.475 %

15% —

fin %	0.5	?
↑in Value	14143	14863

0.525

14.475

Example 3: (Calculation of Interest Rate Implicit in Lease)

FV = 20,00,000, Annual Lease Rent = 4,50,000 p.a., Term = 5 years, GRV = 1,00,000, UGRV = 2,00,000. Calculate Interest Rate Implicit in Lease.

Solution

1) FV + IDC = 2000000 + 0 = 20 lacs.

2) GIL ⇒ MLP + UGRV = 25,50,000 lacs.

IRI ⇒ It is a rate at which PV of GIL should be equal to FV + IDC

Year	GIL
1	450000
2	"
3	"
4	"
5	750000

7% → 8%

2058984 → 20,00,894

7% +

↑ in %	1	?
↑ in ₹	58090	58984

7% + 1.015% = 8.015%

IRI
(Discounting Rate)

GIL

NIL → PV of GIL @ Dis.

= FV + IDC

IRI = 10%

GRV/UGRV = 0

FV = 120000

Annual Lease Rent = X (equal)

Term = 4 year

1	X	0.909
2	X	0.826
3	X	0.751
4	X	0.683
		3.169X = 120000

2.64%

$$X = \frac{120000}{3.169}$$

$$= 37866.8/-$$

IRI = 12% Profit

FV = 2500000

IDC = 200000

ALP = ? (equal)

GRV = 400000

UGR = 200000

Term = 5 yrs.

Yr	Gr
1	x
2	x
3	x
4	x
5	x
5	400000 + 200000

Sum of PV @ 12% = 27 lacs.

$$3.605x + (600000 \times 0.567) = 2700000$$

$$3.605x = 2700000 - 340200$$

$$x = 654591$$

EXAMPLE 6: (Calculation of Annual Lease Rent)

Fair Value of Asset = 15,00,000; Lease Term = 4 Years; IRI 12%; Down Payment = 1,00,000; GRV = 0 & UGRV = 1,25,000

Annual Lease Rent = Not Known (But it is equal every year)

Calculate Annual Lease Rent

Year	GIL	PVF
0	100000	1
1	x	0.893
2	x	0.797
3	x	0.712
4	x	0.636
4	125000	0.636

$$100000 + (3.037 \times x) + 79500 = 1500000$$

$$x = 434804$$

Q203

Given Information :-

1) Lease Term = 3 yrs.
2) FV = Cost = 1700000
3) UGRV = 133500
4) IRI = 10%
5) Annual L. Rent = x

Calculation of Annual Lease Rent :-

Year	GIL	PVF
1	x	0.909
2	x	0.826
3	x	0.751
3	133500	0.751
		2.486x + 100259

At 10%, 2.486x + 100259 should be equal to 1700000

Hence :- x = 643500 = Annual L. Rent

Calculation of Unearned F. Income

GIL − NIL

$[(643500 \times 3) + 133500] - 1700000 = 364000$

Exam Question (May '24)

As per AS 19 Leases, a Lease will be treated as Finance Lease when PV of MLP substantially covers the Initial Fair value of Asset.

For this purpose, Annual Lease payment is not given. Assuming it is Rs. x per annum.

Although, IRR of 12% is given. It is a rate at which Sum of PV of MLP + UGRV should be equal to Fairvalue + IDC.

Considering above IRR of 12%, Annual Lease Rent can be Calculated as Under:—

PV of MLP + UGRV = Fair Value

PV of Annual Lease Payment (i.e x) @ 12% = 2.4018x

(+) PV of UGRV (200000 × 0.7118) = 142360

FV = 1800000

$$2.4018x + 142360 = 1800000$$

$$x = 690166/-$$

Annual Lease payment = 690166/-

To Check is it a F/L or not, the Pv of Annual Lease payment should be equal to or Covers atleast 90% of Fair Value

Pv of 690166 for 3yrs. = 1657641
@ 12%
(690166 × 2.4018)

Fair Value = 1800000

Pv of LP Covers more than 90% of the Fair Value Hence it is a F/L.

Unearned FI

GIL	−	NIL
0		
+2070498	−	1800000 = 470498/-
+ 0		
+ 200000		
2270498		

Class Example For F/L :-

BV of Asset (Lessor) = 20 lacs.

Lease Term = 5 yrs. , DP = ~~250000~~ , 0

Annual Lease Rent = 500000

GRV = 300000 , ERV = 450000

IRI = 10%

IDC by Lessee = 50000

IDC by Lessor = 60000

Fair value = 2500,000

Required :- 1) Show A/c for Lessee also Calculate F/C

2) Show A/c for Lessor & Calculate FI

Sol) :-

Books of Lessee

Step 1 :- Fair value = 2500000

Step 2 :- Sum of Pv of MLP @ 10%.

a) Pv of Annual L. Payment for 5 yrs. = 1895500
500000 x 3.791

b) Pv of GRV at 5th yr. = 186300
300000 x 0.621

c) DP = 250000

2331800

Conclusion :- Lessee shall record Asset on Lease at lower of Fv & Pv of MLP
i.e 23,31,800/-

IDC incurred by Lessee shall be Capitalised to Asset.

Journal entry at Beg. :-

1) Asset on Lease a/c Dr. 2381800
To Bank a/c 300000
To Lease Liab. a/c 2081800

Finance Cost Every Year

Year	Opn Bal.	FC@10%	MLP	Clos. Bal.
1	2081800	208180	(500000)	1789980
2	1789980	178998	(500000)	1468978
3	1468978	146898	(500000)	1115876
4	1115876	111588	(500000)	727464
5	727464	72536	800000	0
		718200		

Books of Lessor

1) Gross Investment in Lease (GIL)

DP = 250000
ALP = 2500000
GRV = 300000
UGR = 150000

32,00,000

Year	GIL	Amt	Pv@10%
0	DP − IDC	190000	
1	ALP	500000	
2	"	"	BLS
3	"	"	
4	"	"	
5	"	"	
5	GRV + UGRV	450000	

2364808

Journal entry at Beg. :-

Bank a/c Dr. 190000 → DP − IDC
Lease Receivable Dr. 2174808] 2364808

To Asset a/c 20,00,000
To Gain (P&L) a/c 364808

Calculation of FI :-

Year	Op. Bal	FI @ 10%	CIL	Closg
1	2174808	217481	(500000)	1892289
2	1892289	189229	(500000)	1581518
3	1581518	158152	(500000)	1239670
4	1239670	123967	(500000)	863637
5	863637	86,363	950000	0
		775193		

1) Purchase 10 unit
To Bank

2) Trading 10 unit
To Purch.

Trad

10	Sale 6

3) Bank 6 unit
To Sale

4) Inventory 4 unit
To Trading 4 unit

1) Inventory 10
To Bank

2) Bank/LR 6
To Sale 6

3) Sale 6/6
To Trading

4) COGS 6/6
To Invent

5) Trad. 6/6
To COGS

Trn

COG 6	Sale 6

Example 5: (Finance Lease - Dealer lessor)

Fair Value of Asset given = 15,00,000, Lease Rent p.a. = 5,50,000, Term = 3 years, GRV = 1,00,000, UGRV = 50,000, IRI = 10%, Book Value of Inventory Which is Leased = 13,80,000. This is Finance Lease. Show Accounting as per AS 19.

Solution:

Step 1:- Calculation of NIL :-

Year	GIL	PV @ 10%
1	550000	
2	"	
3	"	
3	150000	
		1480466

Lease Receivable Dr. 1480466

COGS Dr. 1342434 (B/F)

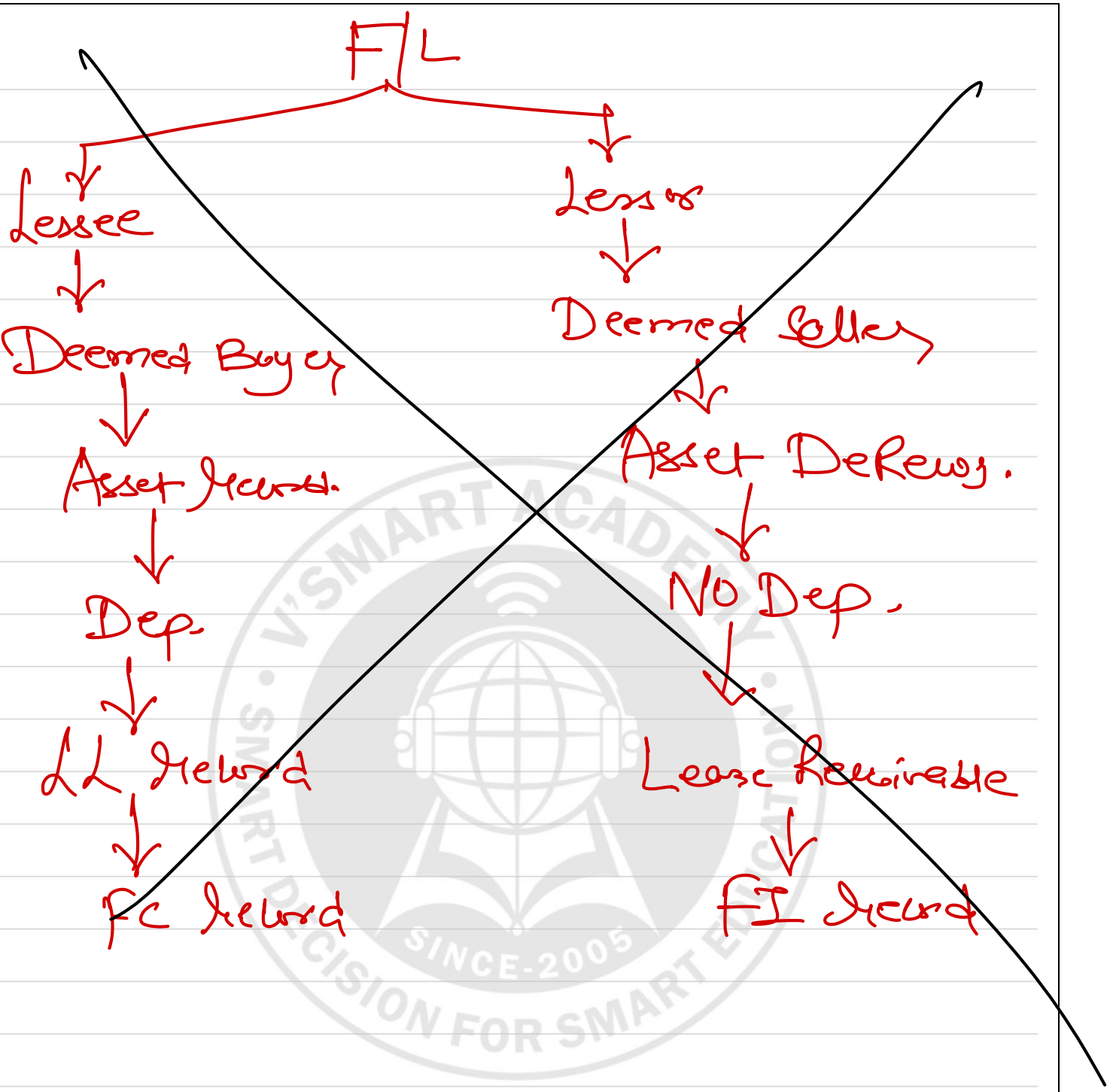
To Sale a/c 1442900

To Inventory 1380000

FV 1500000

PV 1442900

OF MLP



Life 10 yr.

3 yrs. 10% esclation

1 500000

2 550000

3 605000

1655000

÷

3

Sim = 551667

1st L. Rent 551667 (PSL)

To Bank 500000

To Lease equilization 51667

2nd L. Rent 551667 (PSL)

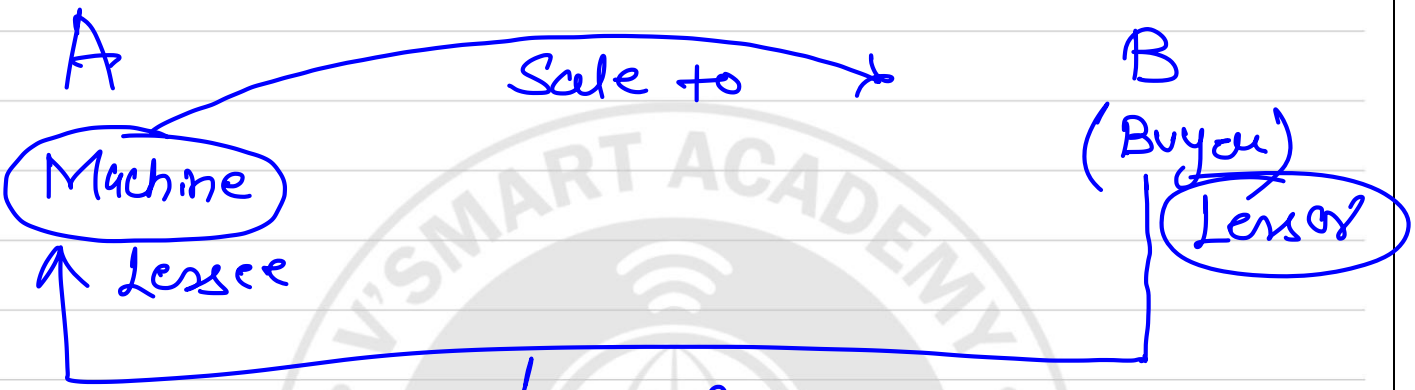
To Lease equ. 1667

To Bank 550000

3rd L. Rent a/c Dr. 551666
L. equi. a/c Dr. 53334

To Bank 605000

Sale and Lease Back



Sale & Oper. Lease

1) SP = Selling price (actual)

2) CA = Carrying Amt (Bv)

Gain/Loss ⇒ SP − CA

3) FV = Fair value (Market price)

Rule-1 Loss → P&L

CA = 100000
SP = 90000
FV = 95000

Actual Loss = 10000 P&L

Bank 90
Loss 10 (P&L)
To Asset 100

Rule-2 Profit

SP − CA

Profit upto FV → P&L

Profit Over & above FV → D&A

CA = 100000
SP = 120000
FV = 118000

P = 20000
- 18000 → P&L
- 2000 → D&A

CA = 100000
SP = 112000
FV = 105000

Profit 12

Bank 112000
To Asset 100000
To Gain (P&L) 5000
To Def Gain 7000

Rule-3

It applies only when

Impairment Loss

CA > FV

CA = 100000
FV = 90000
SP = 92000

actual loss = 8000

Impair. Loss ⇒ CA − FA = 10000
P&L

P&L Dr. 10000
To Asset 10000

Revised CA = 90000
SP = 92000
profit 2000

Rule 2

D&A

CA = 500000

FV = 475000

SP = 490000

Imp. Loss = 25000 (P&L)

P&L
To Ass. 25 / 25

Revised Ass. 475000
SP 490000
Profit 15000 D&A

Bank 490
To Ass. 475
To Def. 15
Gain