

5. IND AS 116 - LEASES

Practical Example 1: (Accounting for Lessee's Books)

1. Lease Term = 6 years
2. IRI = 9% p.a.
3. Down Payment = 2,50,000 at Beginning
4. Initial Direct Cost = 1,20,000
5. Fixed Lease Payments = 5,00,000 For 1st year, further increased by 10% every year.
6. Annual Payments to be made at the end of every year.
7. Other Information:

Guaranteed Residual Value (GRV)	4,50,000
Purchase price option	25,00,000
Penalty for termination if terminated before 6 years	1,80,000

- It is reasonably certain that the lease term will not exceed 5 years and the lessee has to terminate and will pay the penalty.
- PV of decommissioning cost after 5th year is 3,00,000/-.

Show the Accounting in the books of Lessee as per INDAS 116.

Solution:

1. Lease Term is 5 Years

2. Calculation of Lease Liability:

Year	Lease Payment	Amount	PV factor @9%	PV Amount
1	Fixed LP	5,00,000	0.917	4,58,500
2	Fixed LP	5,50,000	0.842	4,63,100
3	Fixed LP	6,05,000	0.772	4,67,060
4	Fixed LP	6,65,500	0.708	4,71,174
5	Fixed LP	7,35,050	0.650	4,75,833
5	GRV	4,50,000	0.650	2,92,500
5	Penalty	1,80,000	0.650	1,17,000
Initial Measurement of Lease Liability				27,45,507

3. Calculation of ROU Asset:

Initial measurement of Lease Liability	27,45,507
Add: Down Payment	2,50,000
Add: Initial Direct Cost	1,20,000
Add: PV Of Decommissioning Cost	3,00,000
Cost Of ROU	34,15,507

4. Journal Entry for Initial Recognition:

ROU asset a/c Dr.	34,15,507
To Lease Liability a/c	27,45,507
To Lessor / Bank a/c	2,50,000
To Bank / Creditor a/c	1,20,000
To Provision for decom. Liability a/c	3,00,000

5. Annual Depreciation on ROU = $34,15,507 / 5 = 6,83,101$

6. Schedule of Interest on Lease Liability:

Year	Opening O/s	Interest @ 9%	Lease payment	Closing O/s
1	27,45,507	2,47,096	(5,00,000)	24,92,603
2	24,92,603	2,24,334	(5,50,000)	21,66,937
3	21,66,937	1,95,024	(6,05,000)	17,56,961
4	17,56,961	1,58,127	(6,65,500)	12,49,588
5	12,49,588	1,12,462	(13,62,050)	0

Practical Example 2: (Calculation of Interest Rate Implicit in Lease)

1. Initial Direct Cost = 50,000
2. Lease Term = 4 years
3. Annual Lease Payment = 1,50,000 p.a.
4. Guaranteed Residual Value = 75,000
5. Unguaranteed Residual Value = 25,000
6. Fair value at Beginning at Lease term = 5,00,000

Calculate IRR?

Solution:

- a) Fair value + IDC = 5,50,000
- b) Consider two rates on trial basis as under:
 - 1st rate 10 % = 5,43,781/-
 - 2nd rate 9% = 5,56,800/-

$$\text{IRR} = 9\% + (6,800 \div 13,019)\% = 9.52\%$$

Practical Example 3: (Foreign Currency)

Lease term is 4 years.

Annual lease payment is \$ 10,000, payable at end of each year.

Discount rate is 10%.

Dollar Rupee Rates are as under:

1. Spot Rate as on Beginning of Lease = ₹82/- Per \$
2. Avg. Rate = ₹82.18/- per \$
3. Closing Ex. Rate = ₹82.5/- per \$

Sow the accounting treatment for the above.

Solution:

1) INITIAL RECOGNITION AT SPOT RATE

PV of \$10,000 @ 10% for 4 years	\$ 31,698.65
Lease liability (in ₹)	\$ 31698.65 × 82 = 25,99,290

2) Subsequent measurement of Lease Liability

At Beg. - lease liability	\$31,69,8.65	82.00/-	25,99,290
At End - Interest @ 10%	\$ 3,16,9.87	82.18/-	2,60,500

At End - Lease Payment	\$ 10,000	82.50/-	8,25,000
At End - Closing Bal. (monetary item)	\$24,868.52		20,34,790 Carrying Amt.
At End - Closing Bal. as per Closing Ex. Rate	\$24,86,8.52 × 82.5		20,51,653 Remeasured Amt.
Change in Lease Liability (Increase)			16,863/-

3) Journal entry for change in lease liability:

Profit & loss A/c	Dr.	16,863
To Lease Liability A/c		16,863

Practical Example 4: (Remeasurement of Lease Liability)

- Lease period = 5 years (2 years renewal period certain to exercise)
- Fixed Payment = 1,20,000 pa payable at the end of each year
- Incentive of 20% in 1st year only.
- Above payment shall be increased based on Current price index
- Current index = 1,000
- Guaranteed Residual Value = 50,000
- Payment for 2 years renewal period = 1,50,000 pa
- Purchase option at Rs. 2,00,000 (It is certain to exercise after 7th year)
- Discount Rate = 10%
- Initial Direct Cost = 25,000
- Down Payment = 1,00,000
- Estimated cost of decommissioning after 15 years = 1,30,000
- Consumer Price Index at the 4th year beginning = 1,200

Calculate Lease Liability & ROU Asset at the beginning & any change due to change in index.

Solution:

1) Calculation of Lease Liability at Initial Recognition

Year	Lease Payments	PV @ 10 %
1	96,000	0.909
2	1,20,000	0.826
3	1,20,000	0.751
4	1,20,000	0.683
5	1,20,000	0.621
6	1,50,000	0.564
7	1,50,000 + 12,00,000	0.513
	Total PV	12,10,134

2) Calculation of ROU Asset

Down Payment	1,00,000
Lease Liability	12,10,134
Initial Direct Cost	25,000
PV of Decommissioning Cost	31,121

ROU ASSET	13,66,255
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3) Interest Schedule

Year	Opening O/S	Interest @ 10%	Lease Payment	Closing O/S
1	12,10,134	1,21,013	96,000	12,35,147
2	12,35,147	1,23,515	1,20,000	12,38,662
3	12,38,662	1,23,866	1,20,000	12,42,528

Carrying amount at 4th year beginning = 12,42,528

4) Remeasurement of LP and LL due to change in consumer price index:

Year	Lease Payment	PV @ 10%
	1,20,000/1,000*1,200	
4	1,44,000	0.909
5	1,44,000	0.826
6	1,80,000	0.751
7	1,80,000 + 12,00,000	0.683
		13,27,714

Increase in Lease Liability = 13,27,714 - 12,42,528 = 85,186

5) Journal Entry for Increase in LL:

ROU Asset a/c	Dr	85,186
	To Lease Liability a/c	85,186

Practical Example 5: (Lease modification due to Increase in lease term)

Original terms:

Lease Term = 4 years
Discount Rate = 10%
Annual Lease Payment = 2,50,000 (at year end)
Guaranteed Residual Value (GRV) = 1,20,000

After 2 years:

Lease Term increased by 3 more years
Lease Payment for such 3 more years would be 3,00,000 p.a.
Estimated GRV is now = 90,000
Discount rate = 9%.

Solution:

1) Initial Recognition:

ROU Asset a/c	Dr	8,74,428
	To Lease Liabilities a/c	8,74,428
(Present value of Lease Payment @ 10% for 4 years)		

2) Lease liabilities schedule:

Year	Opening O/S	Interest@10%	Installment	Closing O/S
1	8,74,428	87,443	(2,50,000)	7,11,871

2	7,11,871	71,187	(2,50,000)	5,33,058
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3) Carrying Amount of lease liability at the beginning of 3rd year = 5,33,058

4) ROU Asset at beginning of 3rd year = $8,74,428 \div 4 \times 2 = 4,37,214$

5) Modification Accounting

New revised Lease Term (remaining) = 5 years

Year	Lease Payments	PV factor @ 9%	PV Amount
1	2,50,000	0.917	2,29,250
2	2,50,000	0.842	2,10,500
3	3,00,000	0.772	2,31,600
4	3,00,000	0.708	2,12,400
5	3,00,000	0.650	1,95,000
6	90,000	0.596	53,640
Revised Lease Liability			11,32,390

6) Increase In Lease Liability = $11,32,390 - 5,33,058 = 5,99,332$

7) Journal entry for change in Lease Liability:-

ROU Asset a/c	Dr.	5,99,332
	To Lease Liability a/c	5,99,332

- 3rd year Interest = $11,32,390 \times 9\% = 1,01,915/-$ (Transfer to P&L)
- Revised Depreciation = $[(43,7214 + 604376) \div 5] = 2,08,318/-$ (Transfer to P&L)

Practical Example 6: (Lease modification due to change in consideration only)

Original Terms:

Lease Term = 5 years

Lease payments = 3,00,000 pa. It is to be paid at the end of each year.

Discount rate = 7%

Lease Modification:

Lease payments changed at the beginning of 3rd year.

Revised lease payment = 3,25,000 (for remaining period)

Revised discount rate = 8%

Solution:

1) Initial Recognition of lease liability and ROU asset

Lease liability	ROU Asset
PV of 3,00,000 p.a. for 5 years @ 7% = 12,30,059	12,30,059

2) Subsequent measurement

Lease Liability		ROU Asset
1 st Year Opening	12,30,059	WDV at 3 rd year beginning
(+) Interest	86,104	= (12,30,059 ÷ 5 × 3)
(-) Payment	(3,00,000)	= 7,38,035
2 nd Year Opening	10,16,163	
(+) Interest	71,131	
(-) Lease Payment	(3,00,000)	
3 rd Year Opening	7,87,294	

3) Lease Modification:

Lease Payment (Revised) = 3,25,000 p.a.

Lease Term = 3 years

Revised Discount rate = 8.1 %

Revised Lease Liability = PV of 3,25,000 p.a. @ 8% for 3 years = 8,37,557

Change in Lease Liability:

Revised Lease Liability	8,37,557
(-) Carrying amount	7,87,294
Change in Lease Liability	50,263

4) Journal entry for change in lease liability:

ROU Asset a/c	Dr.	50,263
To Lease Liability a/c		50,263

- Revised Carrying Amount of ROU Asset = 7,38,035 + 50,263 = 7,88,298
- Revised Depreciation = 2,62,766

Practical Example 7: (Lease modification due to decrease in lease term)**Original Terms:**

Lease Term = 8 years

Discount rate = 8% p.a.

Annual lease rent = 1,80,000 pa. It is to be paid at the end of each year.

Guaranteed Residual Value (GRV) = 1,00,000

Modification after 3 years:

Revised Lease Term (Remaining) = 3 Years

Revised discount rate = 9% p.a.

Annual lease Rent = 2,00,000 pa. It is to be paid at the end of each year.

Guaranteed Residual Value (GRV) = 1,40,000

Show the necessary accounting treatment for lease modification.

Solution:**1) Initial Recognition**

Lease Liability	ROU Asset
(PV of 1,80,000 p.a. for 8 years @ 8%) + (PV of 1,00,000 p.a. for 8 th year @ 8%) = 10,88,422	10,88,422

2) Subsequent Measurement at 4th year Beginning

- ROU Asset Carrying Amount = $10,88,422 \div 8 \times 5 = 6,80,264$
- Carrying amount of Lease Liability = 7,86,747

3) Modification:**Step 1: Change lease liability and ROU Asset****Lease liability:**

Revised LL = PV of 2,00,000 p.a. at 8% for 3 years (including GRV) = 6,26,556

Decrease in Lease Liability = $7,86,747 - 6,26,556 = 1,60,191$

ROU Asset:

Revised ROA Carry amount = $6,80,264 \div 5 \times 3 = 4,08,158$

Decrease in ROU = $6,80,264 - 4,08,158 = 2,72,106$

Loss (P&L) a/c	Dr.	1,11,915
Leaves liability a/c	Dr.	1,60,191
To ROU Asset a/c		2,72,106

Step 2: Remeasure Lease Liability @ Revised Discounting Rate

(PV of 2,00,000 p.a. for 3 years @ 9%) + (PV of 1,40,000 p.a. for 3rd year @ 9%) = 6,14,364

Decreases in Lease Liability = $6,26,556 - 6,14,364 = 12,191$

Journal entry for decrease in lease liability:

Lease Liability a/c	Dr.	12,191
To ROU asset a/c		12,191

Note: New carrying amount of ROU = $4,08,158 - 12,191 = 3,95,967$

Example 8: (Lease Modification due to decrease in ROU Scope):

Lease of a 1,500 sq ft space at 5,20,000 p.a. rent for 5 years. Discount rate = 6%.

After 2 years, Lessee requested to reduce the space to 1000 sq ft at revised Lease Payment = 4,00,000 p.a. Discount rate = 7%. Show the necessary accounting treatment.

Solution:-**1. Initial Recognition**

Lease liability	ROU Asset
PV of 5,20,000 for 5 years @ 6% = 21,90,429	21,90,429

2. Subsequent Measurement

Lease liability	ROU Asset
Carrying amount at 3 rd year beginning = 13,89,996	13,14,257

3. Modification (Step 1)

Revised Lease Liability (Proportionately)	Revised ROU
= $13,89,966 \div 1,500 \times 1000$	= $13,14,257 \div 1,500 \times 1000$
= 9,26,644/-	= 8,76,171
decrease in Lease Liability = 4,63,322	decrease in ROU Asset = 4,38,086

4. Journal entry for lease modification

Lease Liability a/c	Dr	4,63,322
	To ROU Account	4,38,086
	To Gain Account	25,236

5. Remeasure Lease Liability thru ROU (Step 2)

Year	Lease Payments	PV factor @7%	PV Amount
3	4,00,000	0.935	3,74,000
4	4,00,000	0.873	3,49,200
5	4,00,000	0.816	3,26,400
			10,49,600

$$\text{Increase in LL} = 10,49,600 - 9,26,644 = 1,22,956$$

6. Journal entry for lease modification: -

ROU Asset a/c	Dr.	1,22,956
	To Lease Liability a/c	1,22,956

Practical Example 9: (Increase in scope of ROU Asset without Standalone SP)

Lease term = 7 years

Lease payments = 80,000 p.a.

Discount Rate original = 7% P.a.

Scope = 2,000 sq ft space

At the beginning of 3rd year, additional space of 1000 sq ft taken from same lessor at additional payment of 30,000/- p.a. which doesn't represent stand-alone price

Revised discount rate = 8% p.a.

Show the necessary accounting treatment.

Solution:-

1) Initial measurement:

ROU Asset a/c	Dr,	4,31,143
	To Lease Liability a/c	4,31,143

2) Carrying amount of 3rd year Beginning:

$$\text{ROU Asset} = 4,31,143 \div 7 \times 5 = 3,07,959$$

Lease liability @ 7% = 3,28,016 (PV of 80,000 pa for 5 years)

3) Lease Modification:

Additional ROU @ 30000/- lease payment

Remeasure Existing Lease liability @ Revised Discount Rate (PV of 80,000 for 5 years @ 8% = 3,19,417)	Calculate Additional Lease Liability For 30,000 @ 8% p.a. for 5 Years = 1,19,781 ROU Asset Dr. 1,19,781 To lease Liability 1,19,781
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4) Reduction in lease liability = 3,28,016 - 3,19,417 = 8,599

Journal entry for decrease in lease liability:-

Lease Liability a/c	Dr.	8,599
To ROU Asset		8,599

5) Depreciation & Interest for 3rd year

ROU Revised = 3,07,959 - 8,599 + 1,19,781 = 4,19,141

Depreciation = 83,828 /-

Interest @ 8% on revised LL = 3,19,417 + 1,19,781 = 4,39,198 × 8% = 35,136

Practical Example 10: (Non-Dealer Lessor Finance Lease)

Lease term = 6 years

IRR = 8% p.a.

Down payment = 2,00,000

Annual lease Rent = 3,00,000 p.a. (paid at the end of each year)

Carrying Amount of Asset = 15,00,000

Estimated UGRV = 1,50,000

At the end of 2nd year:- Estimated UGRV = 1,35,000

At the end of 4th year:- Estimated UGRV = 1,60,000

Prepare Lease Receivable account for 6 years.

Solution:

1) Initial Recognition

Lease receivable = PV. of (Lease Payment + UGRV)

Year	GIL	PV. Of @ 8%	PV Amount
0	2,00,000	1	2,00,000
1	3,00,000	0.926	2,77,800
2	3,00,000	0.857	2,57,100
3	3,00,000	0.794	2,38,200
4	3,00,000	0.735	2,20,500
5	3,00,000	0.681	2,04,300
6(including UGRV)	4,50,000	0.630	2,83,500
			16,81,390

Lease Receivable account Dr.	16,81,390
To Asset account	15,00,000
To P&L account	1,81,390

2) Subsequent Measurement

Lease receivable account

Date	Particulars	Amount	Date	Particulars	Amount
Y1 Beg.	To Asset To P&L	15,00,000 1,81,390	Y1 Beg.	BY bank (DP)	2,00,000
Y1 End	To finance Income	1,18,511	Y1 End	By Bank	3,00,000
			Y1 End	By Balance c/d	12,99,901
Y2 Beg	To Balance	12,99,901	Y2 Beg	By Bank	3,00,000
Y2 End	To Finance Income (B/F)	92,966	Y2 End	By Balance c/d (this balance is revised as per revised UGRV)	10,92,867

Alternatively:

Finance Income gross = $12,99,901 * 8\% = 1,03,993$

Difference in above account = $1,03,993 - 92,966 = 11,027$

Above difference is charged to P&L and deducted from finance income head

Lease Receivable Account (Continued)

Date	Particulars	Amount	Date	Particulars	Amount
Y3 Beg.	To Balance	10,92,867	Y3 End	By Bank	3,00,000
Y3 End	To Financial income	87,429	Y3 End	By Balance	8,80,296
Y4 Beg.	To Balance	8,80,296	Y4 End	By Bank	3,00,000
Y4 End	To Financial income (bal. fig.)	83,284	Y4 End	By Balance (revised balance as per 1,50,000 UGRV)	6,63,580
Y5 Beg.	To Balance	6,63,580	Y5 End	By Bank	3,00,000
Y5 End	To Financial income	53,086	Y5 End	By Balance c/d	4,16,666
Y6 Beg.	To Balance	4,16,666	Y6 End	By Bank (only Fixed LP)	3,00,000
Y6 End	To Financial income	33,333	Y6 End	By Balance c/d (its equal to UGRV)	1,50,000

Case 1: Lessor sold the Asset at 1,40,000

Bank A/c Dr.	1,40,000
Profit and Loss A/c Dr.	10,000
To Lease Receivable A/c	1,50,000

Case 2: Asset Taken back by lessor and not sold

Asset A/c Dr.	1,50,000
To Lease Receivable A/c	1,50,000

Practical Example 11: (Control is not transferred)

Building sold by Nishant to Vishal at ₹ 50,00,000, Same Building taken on lease by Nishant for entire remaining useful life. Incremental Borrowing Rate is 7% p.a. Lease term = 7 Years. Annual lease payment = 9,27,000

Show the necessary accounting treatment.

Solution:

In this transaction, control over the asset is not transferred by Nishant since asset is taken back by Nishant for life time Lease.

This is a **finance arrangement** where Nishant is a Borrower & Vishal is a Lender.

Books of Nishant:

- 1) Building shall not be Derecognized.
- 2) Nishant shall Continue to Depreciate the Building.
- 3) Money received by Nishant shall be treated as Loan taken from Vishal.
- 4) Nishant Shall Book interest Exp every year.

Beg.	Bank A/c	Dr.	50,00,000
	To Loan A/c		50,00,000
Year	Interest A/c	Dr.	3,50,000
End	To Loan A/c		3,50,000
Year	Loan A/c	Dr.	9,27,000
End	To Bank A/c		9,27,000

Books of Vishal:

Vishal shall not Recognise the Asset purchased.

Beg.	Loan To Nishant Dr.	50,00,000
	To Bank A/c	50,00,000
Year	Loan To Nishant Dr.	3,50,000
End	To Interest Income	3,50,000
Year	Bank Dr.	9,27,000
End	To Loan A/c	9,27,000

Practical Example 12: (Control is Transferred to Buyer & Sale Value = Fair Value)

Building owned by A Ltd. and sold to B Ltd. Consider following information:

Carrying Amount of Property	80,00,000
Useful Life of Building	20 Years
Property Sold at	1,00,00,000
Fair Value of Property	1,00,00,000
Same Building taken back by A Ltd. on Operating lease	
Lease Term	6 Years
Annual Lease Payments	6,00,000

Discount Rate	8% p.a.
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Solution:

1.	Total Gain to A Ltd.	Fair value less Carrying Amount	20,00,000 On entire building having 20 years life
2.	A Ltd. has taken back the Asset for 6 years that means A Ltd. has sold 14 years rights only. Hence Full Gain should not be recognised by A Ltd.		
3.	Lease Liability for A Ltd. (6 years Lease Term)	PV of LP @ 8%	27,73,728/- (this becomes the FV of 6 years Building)
4.	ROU to be recognised By A Ltd. (6 Years)	ROU shall be recognised From Carrying Amount of Building	$80,00,000 \div 10,000,000 \times$ $27,73,728 = 22,18,982$
5.	Ratio	(PV Of LP) \div FV	Right retained \div Total Rights for 20 years
6.	Gain in Respect of Rights actually retained (not Transferred) i.e. 6years (This gain should be ignored.)	Total Gain \times (PV of LP) \div FV	$20,00,000 \times 27,73,728 \div$ $1,00,00,000 = 54,746/-$
7.	Gain to be recognised		$20,00,000 - 54,746 = 14,45,254$

Journal Entry:

Bank account	Dr.	1,00,00,000
ROU asset a/c	Dr.	22,18,982
	To Building a/c	80,00,000
	To Lease Liability a/c	27,73,728
	To Gain (P&L)	14,45,254

Practical Example 13: (Control Transferred - Sale value is Higher than FV)

Sale Value	80,00,000
Fair Value	70,00,000
Carrying Amount	62,50,000
Lease Term	5 years
Annual Lease payment	5,00,000
Discount Rate	10%

Show the necessary accounting treatment.

Solution:

Since FV is 70 lacs Hence Rs.10 lacs Collected is treated as loan

1) Total Gain = FV-CA = 70,00,000 - 62,50,000 = 7,50,000

2) PV of Agreed payment

PV of 5,00,000 p.a. @10 % for 5 years	18,95,393
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18,95,393 divided into two parts	
Loan	PV OF Lease Payment.
10,00,000	8,95,395

3) Lease Liability to be recognised = 8,95,395

Loan to be recognised separately = 10,00,000

4) Ratio = (PV of LP : Fair value) = 8,95,395 : 70,00,000

5) Gain to be recognised = 7,50,000 - (7,50,000 × 8,95,395 ÷ 70,00,000) = 6,54,065

6) ROU Asset = 6,25,000 × 8,95,395 ÷ 70,00,000 = 7,99,458/-

7) Journal entry

Bank Account	Dr.	80,00,000
ROU Asset	Dr.	7,99,458
To Asset		62,50,000
To Lease liability		8,95,395
To Loan		10,00,000
To Gain		6,54,865

Practical Example 14: (Control Transferred - Sale Value is Lower than Fair Value)

Same as example 13 above with following Changes.

Sale	80,00,000
FV	85,00,000

Solution:

Total Gain	22,50,000
PV of LP	18,95,393
Ratio	18,95,393 ÷ 85,00,000
ROU Asset	(62,50,000 × 18,95,393 ÷ 85,00,000) + 5,00,000 = 18,93,671
Gain to be recognised	22,50,000 - (22,50,000 × 18,95,393 ÷ 85,00,000) = 17,48,278

Journal Entry:

Bank a/c	Dr.	80,00,000
ROU Asset	Dr.	18,93,671
To Asset		62,50,000
To LL		18,95,393
To Gain		17,48,278

