AS 19 Leases

Question 1

ABC Ltd. took a machine on lease from XYZ Ltd., the fair value being Rs. 10,00,000. The economic life of the machine as well as the lease term is 4 years. At the end of each year, ABC Ltd. pays Rs. 3,50,000. The lessee has guaranteed a residual value of Rs. 50,000 on expiry of the lease to the lessor. However, XYZ Ltd. estimates that the residential value of the machinery will be Rs. 35,000 only. The implicit rate of return is 16% and PV factors at 16% for year 1, year 2, year 3 and year 4 are 0.8621, 0.7432, 0.6407 and 0.5523 respectively. You are required to calculate the value of machinery to be considered by ABC Ltd. and the finance charges for each year. ***(MTP 5 Marks Apr'19, Oct'19, Mar'19, RTP May 20, RTP Nov 18)***

Answer 1

As per AS 19 "Leases", the lessee should recognize the lease as an asset and a liability at the inception of a finance lease. Such recognition should be at an amount equal to the fair value of the leased asset at the inception of lease. However, if the fair value of the leased asset exceeds the present value of minimum lease payment from the standpoint of the lessee, the amount recorded as an asset and liability should be the present value of minimum lease payments from the stand point of the lessee.

Value of machinery

In the given case, fair value of the machinery is Rs. 10, 00,000 and the net present value of minimum lease payments is Rs. 10, 07,020 (Refer working Note). As the present value of the machine is more than the fair value of the machine, the machine and the corresponding liability will be recorded at value of Rs. 10,00,000.

Calculation of finance charges for each year

Year	Finance charge	Payment	Reduction in outstanding liability	Outstanding liability
	(Rs.)	(Rs.)	(Rs.)	(Rs.) 10,00,000
1st year beginning	-	-	-	
End of 1st year	1,60,000	3,50,000	1,90,000	8,10,000
End of 2nd year	1,29,600	3,50,000	2,20,400	5,89,600
End of 3rd year	94,336	3,50,000	2,55,664	3,33,936
End of 4th year	53,430	3,50,000	2,96,570	37,366

Working Note:

Present value of minimum lease payments

Annual lease rental x PV factor

Rs. 3,50,000 x (0.8621 + 0.7432 + 0.6407+ 0.5523) *Rs. 9,79 ,405*

Present value of guaranteed residual value Rs. 50,000 x (0.5523) *Rs.27,615*

Rs. 10,07,020

Question 2

A Ltd. sold machinery having WDV of Rs. 40 lakhs to B Ltd. for Rs. 50 lakhs and the same machinery was leased back by B Ltd. to A Ltd. The lease back is operating lease. Explain the accounting treatment as per AS 19 in the following cases:

(i) Sale price of Rs. 50 lakhs is equal to fair value.

(ii) Fair value is Rs. 45 lakhs and sale price is Rs. 38 lakhs.

(iii) Fair value is Rs. 40 lakhs and sale price is Rs. 50 lakhs.

(iv) Fair value is Rs. 46 lakhs and sale price is Rs. 50 lakhs

(v) Fair value is Rs. 35 lakhs and sale price is Rs. 39 lakhs.

(MTP 5 Marks Mar'18, Oct'18, PYP 5 Marks, May '18) (Same concept different figures PYP 5 Marks Jan 21, MTP 5 Marks Oct'20, MTP 5 Marks Oct'21, Old & New SM)

Answer 2

Following will be the treatment in the given cases:

(i) When sale price of Rs. 24 lakhs are equal to fair value, A Ltd. should immediately recognise the profit of Rs. 4 lakhs (i.e. 24 – 20) in its books.

(ii) When fair value is Rs. 20 lakhs & sale price is Rs. 24 lakhs then profit of Rs. 4 lakhs are to be deferred and amortised over the lease period.

(iii) When fair value is Rs. 22 lakhs & sale price is Rs. 25 lakhs, profit of Rs. 2 lakhs (22 – 20) to be immediately recognised in its books and balance profit of Rs.3 lakhs (25–22) is to be amortised/deferred over lease period.

(iv) When fair value of leased machinery is Rs. 25 lakhs & sale price is Rs. 18 lakhs, then loss of Rs. 2 lakhs (20–18) to be immediately recognised by A Ltd. in its book's provided loss is not compensated by future lease payment.

(v) When fair value is Rs. 18 lakhs & sale price is Rs. 19 lakhs, then the loss of Rs. 2 lakhs (20–18) to be immediately recognised by A Ltd. in its books and profit of Rs. 1 lakh (19–18) should be amortised/deferred over lease period.

Question 3

Sun Limited wishes to obtain a machine costing Rs. 30 lakhs by way of lease. The effective life of the machine is 14 years, but the company requires it only for the first 5 years. It enters into an agreement with Star Ltd., for a lease rental for Rs. 3 lakhs p.a. payable in arrears and the implicit rate of interest is 15%. The chief accountant of Sun Limited is not sure about the treatment of these lease rentals and seeks your advice. You are required to explain the necessary accounting treatment in line with AS 19. (use annuity factor at @ 15% for 3 years as 3.36) ***(MTP 5 Marks, Aug'18, RTP Nov '19, RTP May 21)***

Answer 3

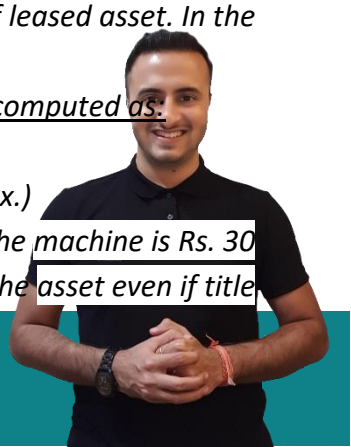
As per AS 19 'leases', a lease will be classified as finance lease if at the inception of the lease, the present value of minimum lease payment amounts to at least substantially all of the fair value of leased asset. In the given case, the implicit rate of interest is given at 15%.

The present value of minimum lease payments at 15% using PV– Annuity Factor can be computed as:

Annuity Factor (Year 1 to Year 5) 3.36 (approx.)

Present Value of minimum lease payments (Rs. 3 lakhs each year) Rs. 10.08 lakhs (approx.)

Thus, present value of minimum lease payments is Rs. 10.08 lakhs and the fair value of the machine is Rs. 30 lakhs. In a finance lease, lease term should be for the major part of the economic life of the asset even if title



is not transferred. However, in the given case, the effective useful life of the machine is 14 years while the lease is only for five years. Therefore, lease agreement is an operating lease. Lease payments under an operating lease should be recognized as an expense in the statement of profit and loss on a straight-line basis over the lease term unless another systematic basis is more representative of the time pattern of the user's benefit.

Question 4

You are required to give the necessary journal entry at the inception of lease to record the asset taken on finance lease in books of lessee from the following information:

Lease period = 5 years;

Annual lease rents = Rs. 50,000 at the end of each year.

Guaranteed residual value = Rs. 25,000

Fair Value at the inception (beginning) of lease = Rs. 2,00,000

Interest rate implicit on lease is = 12.6% (Discounted rates for year 1 to 5 are .890, .790, .700, .622 and .552 respectively). ***(MTP 5 Marks April 21, April 22)***

Answer 4

Present value of minimum lease payment is computed below:

Year	MLP Rs.	DF (12.6%)	PV Rs.
1	50,000	0.890	44,500
2	50,000	0.790	39,500
3	50,000	0.700	35,000
4	50,000	0.622	31,100
5	50,000	0.552	27,600
5	25,000	0.552	13,800
			1,91,500

Present value of minimum lease payment = Rs. 1,91,500 Fair value of leased asset = Rs. 2,00,000

As per AS 19, on the date of inception of Lease, Lessee should show it as an asset and corresponding liability at lower of Fair value of leased asset at the inception of the lease and present value of minimum lease payments from the standpoint of the lessee.

The accounting entry at the inception of lease to record the asset taken on finance lease in books of lessee is suggested below:

	Rs.	Rs.
Asset A/c Dr.	1,91,500	
To Lessor (Lease Liability) A/c		1,91,500
(Being recognition of finance lease as asset and liability)		

Question 5

S. Square Private Limited has taken machinery on finance lease from S.K. Ltd. The information is as under:

Lease term = 4 years

Fair value at inception of lease = ₹ 20,00,000 Lease rent = ₹ 6,25,000 p.a. at the end of year Guaranteed residual value = ₹ 1,25,000 Expected residual value = ₹ 3,75,000 Implicit interest rate = 15% Discounted rates for 1st year, 2nd year, 3rd year and 4th year are 0.8696, 0.7561, 0.6575 and 0.5718 respectively.
You are required to calculate the value of the lease liability as per AS-19 and also disclose impact of this on Balance sheet and Profit & loss account at the end of year 1.

(MTP 5 Marks Nov '21 & April '23, Old & New SM) (Same concept different figures MTP 5 Marks Oct'22, PYP 5 Marks May '19)

Answer 5

According to AS 19 "Leases", the lessee should recognise the lease as an asset and a liability at an amount equal to the lower of the fair value of the leased asset at the inception of the finance lease and the present value of the minimum lease payments from the standpoint of the lessee. In calculating the present value of the minimum lease payments the discount rate is the interest rate implicit in the lease. Present value of minimum lease payments will be calculated as follows:

Year	Minimum Lease Payment ₹	Implicit interest rate (Discount rate @15%)	Present value ₹
1	6,25,000	0.8696	5,43,500
2	6,25,000	0.7561	4,72,563
3	6,25,000	0.6575	4,10,937
4	7,50,000	0.5718	4,28,850
Total	**26,25,000**		**18,55,850**

Present value of minimum lease payments ₹ 18,55,850 is less than fair value at the inception of lease i.e. ₹ 20,00,000, therefore, the asset and corresponding lease liability should be recognized at ₹ 18,55,850 as per AS 19.

Minimum Lease Payment of 4th year includes guaranteed residual value amounting ₹ 1,25,000

Question 6

Sun Limited leased a machine to Moon Limited on the following terms:

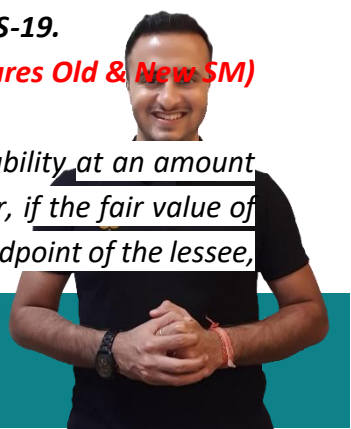
	(Amount in ₹)
Fair value at inception of lease	**50,00,000**
Lease Term	**4 Years**
Lease Rental per annum	**16,00,000**
Guaranteed residual value	**3,00,000**
Expected residual value	**4,50,000**
Implicit Interest rate	**15%**

Discounted rates for 1st year, 2nd year, 3rd year and 4th year are 0.8696, 0.7561, 0.6575 and 0.5718 respectively.
Calculate the value of Lease Liability and ascertain Unearned Finance Income as per AS-19.

(MTP 5 Marks Sep'22) (Same concept different figures Old & New SM)

Answer 6

According to AS 19 "Leases", the lessee should recognise the lease as an asset and a liability at an amount equal to the fair value of the leased asset at the inception of the finance lease. However, if the fair value of the leased asset exceeds the present value of the minimum lease payments from the standpoint of the lessee,



the amount recorded as an asset and a liability should be the present value of the minimum lease payments from the standpoint of the lessee. In calculating the present value of the minimum lease payments, the discount rate is the interest rate implicit in the lease. Present value of minimum lease payments will be calculated as follows:

Year	***Minimum Lease Payment ₹***	***Internal rate of return (Discount rate @15%)***	***Present value ₹***
1	*16,00,000*	*0.8696*	*13,91,360*
2	*16,00,000*	*0.7561*	*12,09,760*
3	*16,00,000*	*0.6575*	*10,52,000*
4	*19,00,000*	*0.5718*	*10,86,420*
Total	***67,00,000***		***47,39,540***

Present value of minimum lease payments i.e. ₹ 47,39,540 is less than fair value at the inception of lease i.e. ₹ 50,00,000, therefore, the value of lease is ₹ 47,39,540 and lease liability should be recognized in the books at ₹ 47,39,540 as per AS 19.

Calculation of Unearned Finance Income

As per AS 19 on Leases, unearned finance income is the difference between (a) the gross investment in the lease and (b) the present value of minimum lease payments under a finance lease from the standpoint of the lessor; and any unguaranteed residual value accruing to the lessor, at the interest rate implicit in the lease.

Where:

1. Gross investment *in the lease is the aggregate of (i) minimum lease payments from the stand point of the lessor and (ii) any unguaranteed residual value accruing to the lessor.*

Gross investment *= Minimum lease payments + Unguaranteed residual value*

= [Total lease rent + Guaranteed residual value (GRV)] + Unguaranteed residual value (URV)

= [(₹ 16,00,000 ×4 years) + ₹ 3,00,000\ + ₹ 1,50,000 = ₹ 68,50,000

2. ***Present value of minimum lease payment from Lessor's view point***

Lease liability ₹ 47,39,540 + present value of (URV) unguaranteed residual value (₹ 1,50,000 x 0.5718) = ₹ 48,25,310.

Unearned Finance Income = (a) – (b) = ₹ 68,50,000 – ₹ 48,25,310= ₹ 20,24,690.

**Minimum Lease Payment of 4th year includes guaranteed residual value amounting i.e 16,00,000 + 3,00,000 =19,00,000.*

Question 7

(a) Classify the following into either operating or finance lease:

(i) If Present value (PV) of Minimum lease payment (MLP) = "X" ; Fair value of the asset is "Y" and X=Y.

(ii) Economic life of the asset is 7 years, lease term is 6.5 years, but asset is not acquired at the end of the lease term;

(iii) Economic life of the asset is 6 years, lease term is 2 years, but the asset is of special nature and has been procured only for use of the lessee.

(b) Viral Ltd. sold machinery having WDV of Rs. 40 lakhs to Saral Ltd. for Rs. 50 lakhs and the same machinery was leased back by Saral Ltd. to Viral Ltd. The lease back is in nature of operating lease. You are required to explain the treatment in the given cases –

(i) Fair value is Rs. 45 lakhs and sale price is Rs. 38 lakhs.

(ii) Fair value is Rs. 40 lakhs and sale price is Rs. 50 lakhs.

(iii) Fair value is Rs. 46 lakhs and sale price is Rs. 50 lakhs ***(RTP Nov 20, May 22)***

Answer 7

(a) *(i) The lease is a finance lease if X = Y, or if X substantially equals Y.*

(ii) The lease will be classified as a finance lease, since a substantial portion of the life of the asset is covered by the lease term.

(iii) Since the asset is procured only for the use of lessee, it is a finance lease.

(b) *As per AS 19, where sale and leaseback results in operating lease, then the accounting treatment in different situations is as follows:*

Situation 1: *Sale price = Fair Value*

Profit or loss should be recognized immediately.

Situation 2*: Sale Price < Fair Value*

Profit should be recognized immediately. The loss should also be recognized immediately except that, if the loss is compensated by future lease payments at below market price, it should be deferred and amortized in proportion to the lease payments over the period for which the asset is expected to be used.

Situation 3*: Sale Price > Fair Value*

The excess over fair value should be deferred and amortized over the period for which the asset is expected to be used.

Following will be the treatment in the situations given in the question:

(i) When fair value of leased machinery is Rs. 45 lakhs & sales price is Rs. 38 lakhs, then loss of Rs. 2 lakhs (40 – 38) to be immediately recognized by Viral Ltd. in its book's provided loss is not compensated by future lease payment.

(ii) When fair value is Rs. 40 lakhs & sales price is Rs. 50 lakhs then, profit of Rs. 10 lakhs is to be deferred and amortized over the lease period When fair value is Rs. 46 lakhs & sales price is Rs. 50 lakhs, profit of Rs. 6 lakhs (46 less 40) to be immediately recognized in its books and balance profit of Rs.4 lakhs (50−46) is to be amortized/deferred over lease period.

Question 8

Aksat International Limited has given a machinery on lease for 36 months, and its useful life is 60 months. Cost & fair market value of the machinery is Rs. 5,00,000. The amount will be paid in 3 equal annual installments and the lessee will return the machinery to lessor at termination of lease. The unguaranteed residual value at the end of 3 years is Rs. 50,000. IRR of investment is 10% and present value of annuity factor of Rs. 1 due at the end of 3 years at 10% IRR is 2.4868 and present value of Rs. 1 due at the end of 3rd year at 10% IRR is 0.7513.

You are required to comment with reason whether the lease constitute finance lease or operating lease. If it is finance lease, calculate unearned finance income. ***(RTP May 19)(MTP 5 Marks Sep '23)***

Answer 8

Determination of Nature of Lease

Present value of unguaranteed residual value at the end of 3rd year = Rs. 50,000 x 0.7513= Rs. 37,565

Present value of lease payments = Rs. 5,00,000 – Rs. 37,565= Rs. 4,62,435

The percentage of present value of lease payments to fair value of the equipment is(Rs. 4,62,435/ Rs. 5,00,000) x 100 = 92.487%.

Since, lease payments substantially covers the major portion of the fair value; the lease constitutes finance lease.

Calculation of Unearned Finance Income

Annual lease payment = Rs. 4,62,435/ 2.4868 = Rs. 1,85,956 (approx.)

Gross investment in the lease = Total minimum lease payments + unguaranteed residual value

= (Rs. 1,85,956 × 3) + Rs. 50,000

= Rs. 5,57,868 + Rs. 50,000 = Rs. 6,07,868

Unearned finance income

= Gross investment – Present value of minimum lease payments and unguaranteed residual value

= Rs. 6,07,868 – Rs. 5,00,000 = Rs. 1,07,868

Question 9

WIN Ltd. has entered into a three-year lease arrangement with Tanya sports club in respect of Fitness Equipment's costing ₹ 16,99,999.50. The annual lease payments to be made at the end of each year are structured in such a way that the sum of the Present Values of the lease payments and that of the residual value together equal the cost of the equipment's leased out. The unguaranteed residual value of the equipment at the expiry of the lease is estimated to be ₹ 1,33,500. The assets would revert to the lessor at the end of the lease. Given that the implicit rate of interest is 10%.

You are required to calculate the amount of the annual lease payment and the unearned finance income. Discounting Factor at 10% for years 1, 2 and 3 are 0.909, 0.826 and 0.751 respectively.

(RTP May'18, May '23)

Answer 9

I. Computation of annual lease payment to the lessor

	₹
Cost of equipment	*16,99,999.50*
Unguaranteed residual value	*1,33,500.00*
Present value of residual value after third year @ 10% (₹ 1,33,500 × 0.751)	*1,00,258.50*
Fair value to be recovered from lease payments (₹ 16,99,999.5– ₹ 1,00,258.5)	*15,99,741.00*
Present value of annuity for three years is 2.486	
Annual lease payment = ₹ 15,99,741/ 2.486	*6,43,500.00*

Computation of Unearned Finance Income

	₹
Total lease payments (₹ 6,43,500 x 3)	*19,30,500*
Add: Unguaranteed residual value	*1,33,500*
Gross investment in the lease	*20,64,000.00*
Less: Present value of investment (lease payments and residual value) (₹ 1,00,258.5+ ₹ 15,99,741)	*(16,99,999.50)*
Unearned finance income	*3,64,000.50*

Question 10

Classify the following into either operating lease or finance lease with reason:

(1) Economic life of asset is 10 years, lease term is 9 years, but asset is not acquired at the end of lease term.

(2) Lessee has option to purchase the asset at lower than fair value at the end of lease term.

(3) Lease payments should be recognized as an expense in the statement of Profit & Loss of a lessee.

(4) Present Value (PV) of Minimum Lease Payment (MLP) = "X" Fair value of the asset is "Y" And X = Y.

(5) Economics life of the asset is 5 years, lease term is 2 years, but the asset is of special nature and has been procured only for use of the lessee. ***(PYP 5 Marks, Nov '19, Old & New SM)***

Answer 10

(i) The lease will be classified as a finance lease, since a substantial portion of the life of the asset is covered by the lease term.

(ii) If it becomes certain at the inception of lease itself that the option will be exercised by the lessee, it is a Finance Lease.

(iii) It is an operating lease under which lease payments are recognized as expense in the profit and loss account of lessee to have better matching between cost and revenue.

(iv) The lease is a finance lease if X = Y, or where X substantially equals Y.

(v) Since the asset is of special nature and has been procured only for the use of lessee, it is a finance lease.

Question 11

A machine was given on 3 years' operating lease by a dealer of the machine for equal annual lease rentals to yield 30% profit margin on cost of ₹ 2,25,000. Economic life of the machine is 5 years and output from the machine is estimated as 60,000 units, 75,000 units, 90,000 units, 1,20,000 units and 1,05,000 units consecutively for 5 years. Straight line depreciation in proportion of output is considered appropriate. You are required to compute the following as per AS-19.

(i) Annual Lease Rent

(ii) Lease Rent income to be recognized in each operating year and

(iii) Depreciation for 3 years lease

(PYP 5 Marks Dec'21, MTP 4 Marks March 21 , MTP 4 Marks May 20, Old & New SM)

Answer 11

i. Annual lease rent

Total lease rent = 130% of ₹ 2,25,000 X Output during lease period/ Total output

= 130% of ₹ 2,25,000 x (60,000 +75,000+ 90,000)/(60,000 + 75,000 + 90,000 + 1,20,000 + 1,05,000)

= 2,92,500 x 2,25,000 units/4,50,000 units = ₹ 1,46,250
Annual lease rent = ₹ 1,46,250 / 3 = ₹ 48,750

ii. Lease rent Income to be recognized in each operating year

Total lease rent should be recognized as income in proportion of output during lease period, i.e. in the proportion of 60,000: 75,000: 90,000 or 4:5:6
Hence income recognized in years 1, 2 and 3 will be as:
Year 1 ₹ 39,000,
Year 2 ₹ 48,750 and
Year 3 ₹ 58,500.

iii. Depreciation for three years of lease

Since depreciation in proportion of output is considered appropriate, the depreciable amount ₹ 2,25,000 should be allocated over useful life 5 years in proportion of output,
i.e. in proportion of 60 :75: 90 : 120 : 105 .
Depreciation for year 1 is ₹ 30,000, year 2 = 37,500 and year 3 = 45,000.

Question 12

What are the disclosures requirements for operating leases by the lessee as per AS-19?

(PYP 5 Marks May'22) (New SM)

Answer 12

As per AS 19, lessees are required to make following disclosures for operating leases:

(a) *the total of future minimum lease payments under non–cancelable operating leases for each of the following periods:*
(i) *not later than one year;*
(ii) *later than one year and not later than five years;*
(iii) *later than five years;*
(b) *the total of future minimum sublease payments expected to be received under non– cancelable subleases at the balance sheet date;*
(c) *lease payments recognized in the statement of profit and loss for the period, with separate amounts for minimum lease payments and contingent rents;*
(d) *sub–lease payments received (or receivable) recognised in the statement of profit and loss for the period;*
(e) *a general description of the lessee's significant leasing arrangements including, but not limited to, the following:*
(i) *the basis on which contingent rent payments are determined;*
(ii) *the existence and terms of renewal or purchase options and escalation clauses; and*
(iii) *restrictions imposed by lease arrangements, such as those concerning dividends, additional debt, and further leasing.*

Note: The Level II and Level III non-corporate entities (and SMCs) need not make disclosures required by (a), (b) and (e) above.

Question 13

Jaya Ltd. took a machine on lease from Deluxe Ltd., the fair value being ₹ 11,50,000. Economic life of the machine as well as lease term is 4 years. At the end of each year, lessee pays ₹ 3,50,000 to lessor. Jaya Ltd. has guaranteed a residual value of ₹ 70,000 on expiry of the lease to Deluxe Ltd., however Deluxe Ltd. estimates that residual value will be only ₹ 25,000. The implicit rate of return is 10% p.a. and present value factors at 10% are : 0.909, 0.826, 0.751 and 0.683 at the end of 1st, 2nd, 3rd and 4th year respectively. Calculate the value of machinery to be considered by Jaya Ltd. and the value of the lease liability as per AS-19. **(RTP Nov '23)**

Answer 12

According to para 11 of AS 19 "Leases", the lessee should recognise the lease as an asset and a liability at an amount equal to the fair value of the leased asset at the inception of the finance lease. However, if the fair value of the leased asset exceeds the present value of the minimum lease payments from the standpoint of the lessee, the amount recorded as an asset and a liability should be the present value of the minimum lease payments from the standpoint of the lessee.

In calculating the present value of the minimum lease payments, the discount rate is the interest rate implicit in the lease. Present value of minimum lease payments will be calculated as follows:

Year	**Minimum Lease Payment ₹**	**Internal rate of return (Discount rate @10%)**	**Present value ₹**
1	3,50,000	0.909	3,18,150
2	3,50,000	0.826	2,89,100
3	3,50,000	0.751	2,62,850
4	4,20,000*	0.683	2,86,860
Total	**14,70,000**		**11,56,960**

Present value of minimum lease payments ₹ 11,56,960 is more than fair value at the inception of lease i.e. ₹ 11,50,000, therefore, the lease liability and machinery should be recognized in the books at ₹ 11,50,000 as per AS 19.

* Minimum Lease Payment of 4th year includes guaranteed residual value amounting i.e. 3,50,000 + 70,000 = 4,20,000.