### Problems under Hire Purchase system

From the following particulars, give journal entries in the books of the hire purchaser Mr. Ashok assuming that he has adopted cash price method. Cash price - Rs. 20,580; rate of interest- 5%; down payment- Rs.8,000; annual instalments paid at the end of the year - I- Rs.4,000; II - Rs.3,000; III - Rs.7,000. The asset is subject to depreciation on written down value method at 10% p.a.

#### Solution:

Here the Hire Purchase Price, Cash Price, Rate of Interest and the amount of annual instalment is given, hence we need not calculate the Cash price. But the amount of annual interest has to be calculated with the help of a working note.

Working Note I: Calculation of interest:

Statement showing calculation of interest	Rs.
Cash price of the computer as on 1st Jan [I year]	20,580
- Down payment	<u>8,000</u>
Outstanding balance of cash price at the beginning of the I year	12580
+ interest for the I year [12,580x5%]	<u>629</u>
Total amount outstanding at the end of the I year	13,209
- Instalment paid on 31st Dec [I year]	<u>4000</u>
Outstanding balance of cash price at the beginning of the II year	9,209
+ interest for the II year [9,209x5%]	<u>460</u>
Total amount outstanding at the end of the II year	9,669
- Instalment paid on 31 <sup>st</sup> Dec [II year]	<u>3,000</u>
Outstanding balance of cash price at the beginning of the III year	6,669
+ interest for the III year (last year) [6,669-	<u>331</u>
7,000]	
Total amount outstanding at the end of the III year	7,000
- Instalment paid on 31st Dec [III year]	7,000

Total interest = 629 [I yr] + 460 [II yr] + 331 [III yr] = Rs.1420

Check: Total Interest = Hire purchase price - Cash price

Hire purchase price= Down payment + total amount of instalments

$$8.000 + 14.000 = 22.000$$

Total interest = 22,000 - 20,580 = Rs.1420

Working note II - Calculation of depreciation

Depreciation is calculated on the cash price of the asset using written down balance method @ 10% p.a

Year I- cash price of the asset

 $Rs.20,580 \times 10\% = 2,058$ 

Year II- cash price of the asset Rs.20,580- 2058 =18,522 1,852

 $Rs.18,522 \times 10\% =$ 

Year III - cash price of the asset Rs.18,522- 1,852= 16,670

 $Rs.16,670 \times 10\% = 1,667$ 

# Journal entries in the books of Ashok [hire purchaser]

Year	Year	Particulars	L.F	Debit [Rs]	Credit [Rs.]
Dr	Year I				
To Hire Vendor's a/c   Being asset purchased on hire purchase basis   Seleging asset purchased on hire p	Jan 1	Asset a/c		20,580	
Being asset purchased on hire purchase basis   Hire Vendor's a/c		Dr			20,580
Jan 1		To Hire Vendor's a/c			
To Bank a/c   Being down payment made to Hire vendor   Being down payment made to Hire vendor   629   629		[Being asset purchased on hire purchase basis]			
Being down payment made to Hire vendor    629   1   1   1   1   1   1   1   1   1	Jan 1			8,000	
Dec 31		To Bank a/c			8,000
Dr					
To Hire Vendor's a/c   Being interest on first instalment due	Dec 31			629	
Being interest on first instalment due					629
Dec 31		=			
To Bank a/c   [Being I instalment paid to hire vendor]		[Being interest on first instalment due]			
Being I instalment paid to hire vendor	Dec 31	<u> </u>		4,000	
Dec 31					4,000
To Asset a/c   Being depreciation for the year   Dr   2,687   To Interest a/c   2,058		[Being I instalment paid to hire vendor]			
Being depreciation for the year	Dec 31	· ·		2,058	
Dec 31		To Asset a/c			2,058
To Interest a/c		[Being depreciation for the year]			
To Depreciation a/c   Being interest & depreciation transferred to P/L   a/c	Dec 31	Profit or Loss a/c Dr		2,687	
Being interest & depreciation transferred to P/L a/c		To Interest a/c			629
Year II		To Depreciation a/c			2,058
Year II         460           Dec 31         Interest a/c Dr To Hire Vendor's a/c [Being interest on second instalment due]         Dr 3,000           Dec 31         Hire Vendor's a/c To Bank a/c [Being II instalment paid to hire vendor]         Dr 1,852           Dec 31         Depreciation a/c To Asset a/c [Being depreciation for the year]         Dr 2,312           Dec 31         Profit or Loss a/c To Interest a/c To Depreciation a/c [Being interest & depreciation transferred to P/l a/c]         460           Year III         Interest a/c To Hire Vendor's a/c [Being interest on first instalment due]         331           Dec 31         Hire Vendor's a/c [Being interest on first instalment due]         Dr 7,000           Dec 31         Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]         Dr 7,000           Dec 31         Depreciation a/c To Asset a/c [Being depreciation for the year]         Dr 1,667           Dec 31         Profit or Loss a/c Dr 1,998		[Being interest & depreciation transferred to P/l			
Dec 31		a/c]			
Dr	Year II				
Dr	Dec 31	Interest a/c		460	
Being interest on second instalment due		Dr			460
Dec 31		To Hire Vendor's a/c			
Dec 31		[Being interest on second instalment due]			
To Bank a/c [Being II instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c To Interest a/c To Depreciation a/c [Being interest & depreciation transferred to P/L a/c]  Year III  Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c To Asset a/c [Being depreciation for the year]	Dec 31	Hire Vendor's a/c Dr		3,000	
Being   I instalment paid to hire vendor   Dr   1,852   To Asset a/c   Being depreciation for the year   Dr   2,312   To Interest a/c   460   To Depreciation a/c   1,852   EBeing interest & depreciation transferred to P/L a/c   Dr   331   Dr   331   To Hire Vendor's a/c   Being interest on first instalment due   Dec 31   Depreciation a/c   Being I instalment paid to hire vendor   Dr   To Asset a/c   Being depreciation a/c   Dr   1,667   To Asset a/c   Being depreciation for the year   Dr   1,998   Dec 31   Profit or Loss a/c   Dr   1,998   Dr   1,998   Dr   Dr   1,998   Dr   Dr   Dr   Dr   Dr   Dr   Dr   D		<u> </u>		,	3,000
Dec 31					,
To Asset a/c   [Being depreciation for the year]	Dec 31			1,852	
Being depreciation for the year   Dec 31   Profit or Loss a/c   Dr   2,312   460   To Interest a/c   1,852   Eleing interest & depreciation transferred to P/L   a/c   Dr   331   Dr   331   Dr   331   Dr   331   Dr   To Hire Vendor's a/c   Eleing interest on first instalment due   Dec 31   Hire Vendor's a/c   Being I instalment paid to hire vendor   Dr   To Asset a/c   Eleing depreciation for the year   Dr   1,667   To Asset a/c   Eleing depreciation for the year   Dr   1,998   Dec 31   Profit or Loss a/c   Dr   1,998   Dr   Dr   1,998   Dr   Dr   1,998   Dr   Dr   Dr   Dr   Dr   Dr   Dr   D		· ·		,	1,852
Dec 31  Profit or Loss a/c		•			ŕ
To Interest a/c To Depreciation a/c [Being interest & depreciation transferred to P/l a/c]  Year III  Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  To Depreciation a/c To Asset a/c [Being depreciation for the year]	Dec 31			2.312	
To Depreciation a/c [Being interest & depreciation transferred to P/l a/c]  Year III  Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  To Depreciation a/c To Asset a/c					460
[Being interest & depreciation transferred to P/I a/c]  Year III  Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  Dr 1,998					
Year III  Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  To Asset a/c		·			, , ,
Year IIIDec 31Interest a/c331Dr331To Hire Vendor's a/c [Being interest on first instalment due]Dr7,000To Bank a/c [Being I instalment paid to hire vendor]To Asset a/c [Being depreciation for the year]Dr1,667Dec 31Profit or Loss a/cDr1,998		•			
Dec 31 Interest a/c Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  Salar  331  331  7,000  7,000  7,000  1,667  1,667	Year III	7.3			
Dr To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c Dr 7,000 To Bank a/c 7,000 [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c Dr 1,667 To Asset a/c 1,667 [Being depreciation for the year]  Dec 31 Profit or Loss a/c Dr 1,998		Interest a/c		331	
To Hire Vendor's a/c [Being interest on first instalment due]  Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  To Hire Vendor's a/c Dr 7,000 7,000 7,000 1,667 1,667		<u> </u>			331
[Being interest on first instalment due]  Dec 31 Hire Vendor's a/c Dr 7,000 To Bank a/c 7,000 [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c Dr 1,667 To Asset a/c 1,667 [Being depreciation for the year]  Dec 31 Profit or Loss a/c Dr 1,998					
Dec 31 Hire Vendor's a/c To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  Dr 7,000 7,000 7,000 1,667 1,667 1,667					
To Bank a/c [Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c To Asset a/c [Being depreciation for the year]  Dec 31 Profit or Loss a/c  To Bank a/c  Dr 1,667  1,667	Dec 31			7.000	
[Being I instalment paid to hire vendor]  Dec 31 Depreciation a/c Dr 1,667  To Asset a/c 1,667  [Being depreciation for the year]  Dec 31 Profit or Loss a/c Dr 1,998				,,,,,,	7.000
Dec 31 Depreciation a/c Dr 1,667 To Asset a/c 1,667 [Being depreciation for the year] Dec 31 Profit or Loss a/c Dr 1,998					,,,,,,
To Asset a/c 1,667 [Being depreciation for the year]  Dec 31 Profit or Loss a/c Dr 1,998	Dec 31	·		1 6 6 7	
[Being depreciation for the year]  Dec 31 Profit or Loss a/c Dr 1,998	2000.			1,007	1 6 6 7
Dec 31 Profit or Loss a/c Dr 1,998					1,557
	Dec 31			1 992	
	חפר או	To Interest a/c		1,770	331

To Depreciation a/c		1,667
[Being interest & depreciation transferred to P/l		
a/c]		

Pankaj purchased 4 machines costing Rs.14,00,000 each for Rs.60,00,000 on hire purchase system on 1st Jan, 2014. Hire purchase price was to be paid Rs.15,00,000 down and three instalments of Rs.15,00,000 each at the end of each year. Pankaj depreciates machines @10% p.a. on straight line method. Give journal entries in the books of Pankaj and in the books of Hire vendor.

#### Solution:

Here the Hire Purchase Price, the total Cash Price and the amount of annual instalment is given. But the hire purchase interest included in each instalment are not given individually.

Working Note: Calculation of Interest (3rd method from the calculation of interest)

Interest = hire purchase price - cash price

Interest = 60,00,000 - (14,00,000x 4) = 4.00.000

Hire purchase price outstanding at the beginning of each year

Total hire purchase price outstanding at the beginning of the I year	60,00,000
- Down payment made	15,00,000
Hire purchase price outstanding 1st Jan I year	45,00,000
- Amount of instalment paid on 31st Dec I year	15,00,000
Hire purchase price outstanding 1st Jan II year	30,00,000
-Amount of instalment paid on 31st Dec II year	15,00,000
Hire purchase price outstanding 1st Jan II year	15,00,000

Ratio of hire purchase amount outstanding for the I,II & III years

= 45,00,000:30,00,000:15,00,000 OR 45:30:15 OR 3:2:1

Interest of Rs.4,00,000 should be divided among the three instalments in the ratio of 3:2:1 as follows:

Interest for the year 2016 [I instalment]  $\frac{3}{6}$  x 4,00,000 = 2,00,000 Interest for the year 2017 [II instalment]  $\frac{2}{6}$  x 4,00,000 = 1,33,333 Interest for the year 2018 [III instalment]  $\frac{1}{6}$  x 4,00,000 = 66,667

Total interest= 4,00,000

Check: Total Interest = Hire purchase price - Cash price

= 60.00.000 - 56.00.000 = Rs.4.00.000

Working note II: calculation of depreciation

Depreciation is calculated on the cash price of the asset using straight line method @ 10% p.a

Rs.  $56,00,000 \times 10\% = Rs.5,60,000$ 

Note: In the absence of specific instruction regarding the method to be followed, cash price method should be followed.

## Journal entries in the books of Pankaj [Hire Purchaser]

Year	Particulars	L.F	Debit [Rs]	Credit [Rs.]
Year I				
Jan 1	Asset a/c (14,00,000x4) Dr		56,00,000	56,00,000
	To Hire Vendor's a/c [Being asset purchased on hire purchase basis]			
Jan 1	Hire Vendor's a/c		15,00,000	
Jani	Dr		13,00,000	15,00,000
	To Bank a/c			,,
	[Being down payment made to Hire vendor]			
Dec 31	Interest a/c		2,00,000	
	Dr			2,00,000
	To Hire Vendor's a/c			
Da - 21	[Being interest on first instalment due]		15 00 000	
Dec 31	Hire Vendor's a/c Dr		15,00,000	15,00,000
	To Bank a/c			13,00,000
	[Being I instalment paid to hire vendor]			
Dec 31	Depreciation a/c Dr		5,60,000	
	To Asset a/c		, ,	5,60,000
	[Being depreciation for the year]			
Dec 31	Profit or Loss a/c Dr		7,60,000	
	To Interest a/c			2,00,000
	To Depreciation a/c			5,60,000
	[Being interest & depreciation transferred to P/l a/c]			
Year II	المرادي			
Dec 31	Interest a/c		1,33,333	
	Dr		,,,,,,,,,,,	1,33,333
	To Hire Vendor's a/c			, ,
	[Being interest on second instalment due]			
Dec 31	Hire Vendor's a/c Dr		15,00,000	
	To Bank a/c			15,00,000
D	[Being II instalment paid to hire vendor]		F (0.000	
Dec 31	Depreciation a/c Dr To Asset a/c		5,60,000	5,60,000
	[Being depreciation for the year]			5,60,000
Dec 31	Profit or Loss a/c Dr		6,93,333	
DCC 01	To Interest a/c		0,70,000	1,33,333
	To Depreciation a/c			5,60,000
	[Being interest & depreciation transferred to P/l			, ,
	a/c]			
Year III				
Dec 31	Interest a/c		66,667	
	Dr T. III. V. I. I. /			66,667
	To Hire Vendor's a/c			
	[Being interest on first instalment due]			

Dec 31	Hire Vendor's a/c	Dr	15,00,000	
	To Bank a/c			15,00,000
	[Being I instalment paid to hire vend	lor]		
Dec 31	Depreciation a/c	Dr	5,60,000	
	To Asset a/c			5,60,000
	[Being depreciation for the year]			
Dec 31	Profit or Loss a/c	Dr	6,26,667	
	To Interest a/c			66,667
	To Depreciation a/c			5,60,000
	[Being interest & depreciation trans	ferred to P/l		
	a/c]			

## Journal entries in the books of Hire Vendor

Year	Particulars		L.F	Debit Rs.	Credit Rs.
Year I					
Jan 1	Hire Purchaser's a/c To Hire Sale a/c	Dr		56,00,000	56,00,000
	[Being sales under hire purchase system]				30,00,000
Jan 1	Bank a/c			15,00,000	
	Dr .				15,00,000
	To Hire Purchaser's a/c				
D 01	[Being down payment received]			0.00.000	
Dec 31	Hire Purchaser's a/c	Dr		2,00,000	2 00 000
	To Interest a/c				2,00,000
Dec 31	[Being interest charged] Bank a/c			15,00,000	
Dec 31	Dr			15,00,000	15,00,000
	To Hire Purchaser's a/c				13,00,000
	[Being the first instalment received]				
Dec 31	Interest a/c			2,00,000	
	Dr			, , , , , , , , ,	2,00,000
	To Profit or Loss a/c				, ,
	[Being the transfer of interest to P/L a/c]				
Year II					
Dec 31	Hire Purchaser's a/c	Dr		1,33,333	
	To Interest a/c				1,33,333
	[Being interest charged]				
Dec 31	Bank a/c			15,00,000	
	Dr T. III. D. I. I. /				15,00,000
	To Hire Purchaser's a/c				
Dec 31	[Being the second instalment received]			1 22 222	
Dec 31	Interest a/c Dr			1,33,333	1,33,333
	To Profit or Loss a/c				1,33,333
	[Being the transfer of interest to P/L a/c]				
Year III	[25mg the transfer of microst to 1/2 d/s]				
Dec 31	Hire Purchaser's a/c	Dr		66,667	
	To Interest a/c				66,667
	[Being interest charged]				ŕ
Dec 31	Bank a/c			15,00,000	
	Dr				15,00,000
	To Hire Purchaser's a/c				
	[Being the third instalment received]				
Dec 31	Interest a/c			66,667	
	Dr , ,				66,667
	To Profit or Loss a/c				
	[Being the transfer of interest to P/L a/c]				