

Problem: On Jan 1st 2013, M/s Astrix purchased computers worth Rs.3,00,000 on hire purchase system from M/s Maple Ltd. The terms of the agreement stated that Rs.45,000 is payable immediately and the balance in three equal annual instalments with 5% interest p.a. The computers are to be depreciated in the books of M/s Astrix at 10% p.a., on reducing balance method. The present value of annuity of Re.1 for three years at 5% is Rs. 2.72325. Show the Computer a/c and M/s Maple Ltd.a/c in the books of M/s Astrix .

Solution: Hire Purchase price – Rs.3,00,000; Down payment- Rs.45,000; rate of interest- 5%p.a; rate of depreciation- 10%p.a.

Element not given in the sum: Cash price; annual instalments

Working Note 1: Calculation of Annual instalments

Annual instalment = Hire Purchase Price-Down payment / no of instalments

$$\text{Rs.3,00,000} - \text{Rs.45,000} / 3 = \text{Rs.85,000}$$

Working Note 2: Calculation of Cash price

As annuity table value for Re.1 is given, we have to calculate cash price of the computers using Annuity Table value of Re.1 for 3 years.

Cash Price: (Present value of a rupee x amount of annual instalment) + down payment

$$(2.72325 \times 85,000) + 45,000 = \text{Rs.2,76,476}$$

Working Note 3: Calculation of Interest included in each instalment

Statement showing calculation of interest		Rs.
Cash price of the computer as on 1 st Jan 2013		2,76,476
- Down payment		45,000
Outstanding balance of cash price at the beginning of the year 2013		2,31,476
+ interest for the year 2013 [2,31,476x5%]		11,574
Total amount outstanding at the end of the year 2013		2,43,050
- Instalment paid on 31 st Dec 2013		85,000
Outstanding balance of cash price at the beginning of the year 2014		1,58,050
+ interest for the year 2014 [1,58,050x5%]		7,903
Total amount outstanding at the end of the year 2014		1,65,953
- Instalment paid on 31 st Dec 2014		85,000
Outstanding balance of cash price at the beginning of the year 2015		80,953
+ interest for the year 2015 [85,000-80,953]		4,047
Total amount outstanding at the end of the year 2015		85,000
- Instalment paid on 31 st Dec 2015		85,000

Working Note 4: Calculation of Depreciation: depreciation is to be calculated at 10% p.a on the diminishing balance method.

Year	Value of asset	Depreciation @ 10% WDV method	Value of asset after charging depreciation
2013	2,76,476	2,76,476 x 10% = 27,648	2,76,476-27,648= 2,48,828
2014	2,48,828	2,48,828 x 10% = 24,883	2,48,828-24,883= 2,23,945
2015	2,23,945	2,23,945x 10% = 22,395	2,23,945-22,395= 2,01,550

Note: In the absence of any instruction, cash price method is followed.

Ledger accounts in the books of M/s Astrix
Computer a/c

Dr.
Cr.

Year	Particulars	Rs.	Year	Particulars	Rs.
1/01/13	To M/s Maple ltd a/c (CP)	2,76,476	31/12/13 31/12/13	By Depreciation a/c By Balance c/d	27,648 2,48,828
		2,76,476			2,76,476
1/01/14	To Balance b/d	2,48,828	31/12/14 31/12/14	By Depreciation a/c By Balance c/d	24,883 2,23,945
		2,48,828			2,48,828
1/01/15	To Balance b/d	2,23,945	31/12/15	By Depreciation a/c By Balance c/d	22,395 2,01,550
		2,23,945			2,23,945
1/01/16	To Balance b/d	2,01,550			

Dr.
Cr.

Maple Ltd a/c

Year	Particulars	Rs.	Year	Particulars	Rs.
1/01/13	To Bank a/c (DP)	45,000	1/01/13	By Computer a/c	2,76,476
31/12/13	To Bank a/c (Instalment)	85,000	31/12/13	By Interest a/c	11,574
31/12/13	To Balance c/d	1,58,050			
		1,56,556			1,56,556
31/12/14	To Bank a/c (Instalment)	85,000	1/01/14	By Balance b/d	1,58,050
31/12/14	To Balance c/d	80,953	31/12/14	By Interest a/c	7,903
		1,65,953			1,65,953
31/12/15	To Bank a/c (Instalment)	85,000	1/01/15 31/12/15	By Balance b/d By Interest a/c	80,953 4,047
		85,000			85,000