## TDPIC - 10

## (CHAPTER 11 OF ICAI)  <br> HIANSACHION

| Sr. <br> No. | Topic Name | Page <br> No. |
| :---: | :--- | :--- |
| 1 | Introduction | 10.2 |
| 2 | Terms used in hire purchase agreements | 10.2 |
| 3 | How to Calculate Interest/Cash Price/Interest \% | 10.3 |
| 4 | Accounting for Hire Purchase Transactions | 10.6 |
| 5 | Repossession | 10.9 |
| 6 | Installment Payment System | 10.11 |
| 7 | Questions from ICAI Module | 10.13 |

## INTRODUCTION

- Under the Hire Purchase System, the Hire Purchaser gets possession of the goods at the outset and can use it, while paying for it in installments over a specified period of time as per the agreement.
- However, the ownership of the goods remains with the Hire Vendor until the hire purchaser has paid all the installments.
- Each installment paid by the hire purchaser is treated as hire charges for using the asset.
- In case he fails to pay any of the installments (even the last one) the hire vendor has the right to take back his goods without compensating the buyer, i.e., the hire vendor is not going to pay back a part or whole of the amount received through installments till the date of default from the buyer.


## TERMS USED IN HIRE PURCHASE AGREEMENTS

## 1. Hire Vendor:

Hire vendor is a person who delivers the goods along with its possession to the hire purchaser under a hire purchase agreement.
2. Hire Purchaser:

Hire purchaser is a person who obtains the goods and rights to use the same from hire vendor under a hire purchase agreement.
3. Cash Price:

Cash price is the amount to be paid by the buyer on outright purchase in cash.
4. Down Payment:

Down payment is the initial payment made to the hire vendor by the hire purchaser at the time of entering into a hire purchase agreement.
5. Hire Purchase Installment:

Hire purchase installment is the amount which the hire purchaser has to pay after a regular interval up to certain period as specified in the agreement to obtain the ownership of the asset purchased (on payment of the last installment) under a hire purchase agreement. It comprises of principal amount and the interest on the unpaid amount.
6. Hire purchase price:

It means the total sum payable by the hire purchaser to obtain the ownership of the asset purchased under hire purchase agreement. It comprises of cash price and interest on outstanding balances.

# HOW TO CALCULATE INTEREST AMOUNT or CASH PRICE or <br> INTEREST RATE 

## Situation 1:

Cash price is known, interest rate is known \& Installments are known:
> Calculate interest amount directly on opening outstanding amount.
$>1^{\text {st }}$ opening outstanding amount will be - (Cash price - Down Payment)

## Example 1

Cash Price is Rs. 94,000
Interest Rate is $10 \%$ p.a.
Installments -
$1^{\text {st }}$ year end - 40,000
$2^{\text {nd }}$ year end $-38,000$
$3^{\text {rd }}$ year end $-35,000$
Hire Purchase Price - 1,13,000

## Example 2

Cash Price is Rs. 1,78,500
Down Payment Rs. 20,000
Interest Rate is $10 \%$ p.a.
Installments are Rs. 50,000 p.a.
Term - 4 years

## Situation 2:

Interest rate is known, Installments are known \& Cash price is missing:
> Without annuity
Reverse working
Calculate interest from last installment first.
> With annuity
Calculate present value factors for e.g. - $0.909,0.826,0.751$.
Multiply these factors with installments to get the cash price.

## Example 3

All facts are same as additional question 2 except following:
Cash price is not given in question.

## Example 4

Cash Price is Rs. (?)
Interest Rate is $10 \%$ p.a.
Installments -
$1^{s t}$ year end $-40,000$
$2^{n d}$ year end $-38,000$
$3^{\text {rd }}$ year end $-35,000$
Hire Purchase Price - 1,13,000

## Situation 3:

Cash price is known, Installments are known, and Interest rate is missing:
Apply trial and error method:
Assume two rates and calculate the interest by interpolation technique.

## Example 5

Interest rate is missing. Cash price is Rs. 94,000,
Installments -
$1^{s t}$ year end $-40,000$
$2^{n d}$ year end $-38,000$
$3^{\text {rd }}$ year end $-35,000$
Hire Purchase Price - 1,13,000
Calculate Interest rate and interest amount.

## Example 6

Interest rate is missing. Cash price is Rs. 5,00,000,
Installments -
$1^{\text {st }}$ year end - 1,80,000
$2^{\text {nd }}$ year end $-1,50,000$
$3^{\text {rd }}$ year end $-1,40,000$
$4^{\text {th }}$ year end $-1,30,000$
Hire Purchase Price - 6,00,000
Calculate Interest rate and interest amount.

## Extra Examples for Practice:

## Example 7

Mr. Jai has purchased a car on hire purchase basis. Cash price of car is Rs. 20,00,000, out of which Rs. 2,00,000 will be immediately paid (Down payment), the remaining amount will be paid in 3 equal installments plus interest @ $10 \%$ at the end of each year. Calculate interest payment of each year.

## Example 8

Assume same Additional question 7 \& show journal entries in the books of Mr. Jai (Hire purchaser). Under cash price method:- Depreciation @ 20\% Straight line method on original cost.

## ACCOUNTING FOR HIRE PURCHASE TRANSACTION



## In the Books of Hire Purchaser

There are following two methods of recording the hire purchase transactions in the books of the hire-purchaser:

1. Cash price method
2. Interest suspense method

## 1. CASH PRICE METHOD

- Under this method, the full cash price of the asset is debited to the Asset Account and credited to the Hire Vendor Account; therefore, it is also called Full Cash Price Method.
- At the time of payment of installment, Interest Account is debited and Hire Vendor Account is credited (with the interest on outstanding balance).
- When instilment is paid, the Hire Vendor Account is debited and Bank Account is credited.
- At the time of preparation of Final Accounts, interest is transferred to Profit and Loss Account and asset is shown in the Balance Sheet at cost less depreciation.
- The balance due to hire vendor is shown in the Balance Sheet as a liability


## Journal Entries

1. At the time of entering into the agreement

Asset Account
To Hire Vendor Account
2. When down payment is made

Hire Vendor Account
To Cash/Bank Account
3. When an installment becomes due Interest Account

To Hire Vendor Account
4. When an installment is paid

Hire Vendor Account
To Bank Account
5. When depreciation is charged on the asset Depreciation Account

To Asset Account
6. For closing interest and depreciation account

Profit and Loss Account
To Interest Account
To Depreciation Account

Dr. [Full cash price]

Dr. [Down payment]

Dr. [Interest on outstanding balance]

Dr. [Amount of instalment]

Dr. [Calculated on cash price]

Dr.

## Disclosure in the Balance Sheet

Assets
Fixed Assets:
XXXXX
Asset (at cash price)
XXXXX
Less: Depreciation
XXXXX

## Liabilities

Hire Purchase Creditors:
Balance in hire vendor's $\mathrm{A} / \mathrm{c}$
XXXXX
Interest accrued not yet due XXXXX

## 2. INTEREST SUSPENSE METHOD

Under this method, at the time of transfer of possession of asset, the total interest unaccrued is transferred to interest suspense account. At later years, as and when interest becomes due, interest account is debited and interest suspense account is credited.

## Journal Entries

| 1 | When the asset is acquired on hire purchase <br> Asset Account <br> To Hire Vendor Account | Dr. [Full cash price] |
| :---: | :--- | :--- |
| 2 | For total interest payment <br> H.P. Interest Suspense Account <br> To Hire Vendor Account | Dr. [Total interest] |
| $\mathbf{3}$ | When down payment is made <br> Hire Vendor Account <br> To Bank Account | Dr. |
| $\mathbf{4}$ | For Interest of the relevant period <br> Interest Account <br> To H.P. Interest Suspense Account <br> 5 relevant period] |  |
| $\mathbf{6}$ | When an installment is paid <br> Hire Vendor Account <br> To Bank Account | Dr. <br> When depreciation is charged on the asset <br> Depreciation Account <br> To Asset Account |
| $\mathbf{7}$ | For closing interest and depreciation account <br> Profit and Loss Account <br> To Interest Account <br> To Depreciation Account | Dr. [Calculated on cash <br> price] |

## REPOSSESSION

- In a hire purchase agreement, the hire purchaser has to pay up to the last installment to obtain the ownership of goods.
- If the hire purchaser fails to pay any of the installments, the hire vendor takes the asset back in its actual form without any refund of the earlier payments to the hire purchaser.
- The amounts received from the hire purchaser through down payment and installments are treated as the hire charges by the hire vendor.
- This act of recovery of possession of the asset is termed as repossession.
- Repossessed assets are resold to any other customer after repairing or reconditioning (if necessary).
- Accounting figures relating to repossessed assets are segregated from the normal hire purchase entries.
- Repossessions are then accounted for in a separate "Goods Repossessed Account".
- So far as the repossession of assets are concerned, the hire vendor can take back the whole of the asset or a part thereof depending on the agreement between the parties.
- The former is called "Complete Repossession" and the latter is called "Partial Repossession".


## (a) Complete Repossession

The hire vendor closes Hire Purchaser's Account by transferring balance of Hire Purchaser Account to Goods Repossessed Account.
The hire purchaser closes the Hire Vendor's Account by transferring the balance of Hire Vendor Account to Hire Purchase Asset and then finding the profit and loss on repossession in Asset Account.

After repossession, the vendor may incur expenses on repossessed stock and may sell

| Particulars | Books of hire purchaser | Books of hire vendor |
| :---: | :---: | :---: |
| Purchase/Sales | Asset A/c $\ldots \mathrm{Dr}$ <br> To Hire Vendor A/c | Hire Purchaser A/c ...Dr. To Sales A/c |
| Installment | Hire Vendor A/c <br> To Cash A/c | Cash A/c ...Dr. <br> To Hire Purchaser A/c |
| Interest | Interest A/c $\qquad$ To Hire Vendor | Hire Purchaser A/c <br> To Interest A/c |
| Repossession | Hire Vendor A/c ...Dr. <br> To Asset A/c | Goods Repossessed A/c ...Dr. To Hire Purchaser |

## (b) Partial Repossession

- In case of a partial repossession, only a part of the asset is taken back by the hire vendor and other part is left with the hire purchaser.
- The Journal Entries are as usual up to the date of default (excepting entry for payment) in the books of both the parties.
- As a portion of the asset is still left with the hire purchaser, neither party closes the account of the other in their respective books.
- Assets are repossessed at a mutually agreed value (based on agreed rate of depreciation which is an enhanced rate).
- The hire vendor debits the Goods Repossessed Account and credit the Hire Purchaser Account with the value as agreed upon on the repossession.
- Similarly, the hire purchaser debits the Hire Vendor Account and credits the Assets Account with the same amount.
- If the repossessed value is less than the book value of the asset which is repossessed, the difference is charged to the Profit and Loss Account of the hire purchaser as 'loss on surrender'.


## INSTALMENT PAYMENT SYSTEM

In installment payment system, the ownership of the goods is passed immediately to the buyer on the signing the agreement. The accounting entries under installment payment system are similar to those passed under the hire-purchase system. The scheme of entries is as under:

## Books of buyer:

- Buyer debits asset account with full cash price, credits vendor's account with full installment price and debits interest suspense account with the difference between full cash price and full installment price.
- Interest is debited to interest suspense account (not interest account) because it includes interest in respect of a number of years. Every year interest account is debited and interest suspense account is credited with the interest of current year. Interest account, at the end of the year, is closed by transferring to profit and loss account.
- The balance of vendor account should be shown in the balance sheet after deducting amount in interest suspense account. Vendor is paid the installment due to him and entry for the depreciation is passed in the usual way.


## Books of Seller:

- The seller debits the purchaser with the full amount (installment price) payable by him and credits sales account by the full cash price and credits interest suspense account by the difference between the total installment price and total cash price.
- Seller, like the buyer, also transfers the amount of interest due from the interest suspense account interest account every year. Interest account is closed by transferring to profit and loss account and the purchaser account should be shown in the balance sheet after deducting amount in interest suspense account.
- On receiving the installment, the vendor debits cash/bank account and credits purchaser's account.

Statement showing differences between Hire Purchase and Instalment System

|  | Basis of Distinction | Hire Purchase | Instalment System |
| :---: | :---: | :---: | :---: |
| 1 2 | Governing Act Nature of Contract | It is governed by Hire Purchase Act, 1972. <br> It is an agreement of hiring. | It is governed by the Sale of Goods Act, 1930. |
| 3 | Passing of Title (ownership) | The title to goods passes on last payment | The title to goods passes immediately as in the case of usual sale. |
| 4 | Right to Return goods | The hirer may return goods without further payment except for accrued installments | Unless seller defaults, goods are not returnable. |
| 5 | Seller's right to repossess | The seller may take possession of the goods if hirer is in default. | The seller can sue for price if the buyer is in default. He cannot take possession of the goods. |
| 6 | Right of Disposal | Hirer cannot hire out sell, pledge or assign entitling transferee to retain possession as against the hire vendor. | The buyer may dispose off the goods and give good title to the bona fide purchaser. |
| 7 | Responsibility for Risk of Loss. | The hirer is not responsible for risk of loss of goods if he has taken reasonable precaution because the ownership has not yet transferred. | The buyer is responsible for risk of loss of goods because of the ownership has transferred. |
| 8 | Name of Parties involved | The parties involved are called Hirer and Hire vendor. | The parties involved are called buyer and seller. |
| 9 | Component other than cash price. | Component other than Cash Price included in installment is called Hire charges | Component other than Cash Price included in Installment is called Interest. |

## QUESTIONS FROM ICAI MODULE

## Question 1

Asha purchased a truck on hire purchase system. As per terms he is required to pay Rs. 70,000 down, Rs. 53,000 at the end of first year, Rs. 49,000 at the end of second year and Rs. 55,000 at the end of third year. Interest is charged @ 10\% p.a.

You are required to calculate the total cash price of the truck and the interest paid with each installment.

## Question 2

A acquired on $1^{\text {st }}$ January, 20X1 a machine under a Hire-Purchase agreement which provides for 5 half-yearly installments of Rs. 6,000 each, the first installment being due on $1^{\text {st }}$ July, 20X1. Assuming that the applicable rate of interest is 10 per cent per annum, calculate the cash value of the machine. All working should form part of the answer.

## Question 3

On 1st April, 20X1 a manufacturing company buys on Hire-purchase system a machinery for Rs. 90,000, payable by three equal annual installments combining principal and interest, the rate of interest was 5\% per annum. Calculate the amount of cash price and interest. Assume that the present value of an annuity of one rupee for three years at 5\% interest is Rs.2.723.

## Question 4

Om Ltd. purchased a machine on hire purchase basis from Kumar Machinery Co. Ltd. on the following terms:
(a) Cash price Rs.80,000
(b) Down payment at the time of signing the agreement on 1.1.20X1 Rs. 21,622.
(c) 5 annual installments of Rs. 15,400 , the first to commence at the end of twelve months from the date of down payment.
(d) Rate of interest is $10 \%$ p.a.

You are required to calculate the total interest and interest included in cash installment.

## Question 5

Happy Valley Florists Ltd. acquired a delivery van on hire purchase on 01.04.20X1 from Ganesh Enterprises. The terms were as follows:

| Particulars | Amount (Rs.) |
| :--- | :---: |
| Hire Purchase Price | 180,000 |
| Down Payment | 30,000 |
| $1^{\text {st }}$ installment payable after 1 year | 50,000 |
| $2^{\text {nd }}$ installment after 2 years | 50,000 |
| $3^{\text {rd }}$ installment after 3 years | 30,000 |
| $4^{\text {th }}$ installment after 4 years | 20,000 |

Cash price of van Rs. 150,000 You are required to calculate Total Interest and Interest included in each installment.

## Question 6

On January 1, $20 X 1$ HP M/s acquired a Pick-up Van on hire purchase from FM M/s. The terms of the contract were as follows:
(a) The cash price of the van was Rs.1,00,000.
(b) Rs. 40,000 were to be paid on signing of the contract.
(c) The balance was to be paid in annual installments of Rs. 20,000 plus interest.
(d) Interest chargeable on the outstanding balance was 6\%p.a.
(e) Depreciation at $10 \%$ p.a. is to be written-off using the straight-line method. You are required to:
(a) Give Journal Entries and show the relevant accounts in the books of HP M/s from January 1, $20 X 1$ to December 31, 20X3; and
(b) Show the relevant items in the Balance Sheet of the purchaser as on December 31, 20X1 to20X3.

## Question 7

In illustration 6 assume that the hire purchaser adopted the interest suspense method for recording his hire purchase transactions. On this basis, prepare H.P. Interest Suspense Account, Interest Account and FMM/s Accounts and Balance Sheets in the books of hire purchaser.

## Question 8

X Ltd. purchased 3 milk vans from Super Motors costing Rs. 75,000 each on hire purchase system. Payment was to be made: Rs. 45,000 down and the remainder in 3 equal installments together with interest @ 9\%. X Ltd. writes off depreciation @ 20\% on the diminishing balance. It paid the installment at the end of the 1st year but could not pay the next. Super Motor agreed to leave one milk van with the purchaser, adjusting the value of the other two milk vans against the amount due. The milk vans were valued on the basis of
$30 \%$ depreciation annually on written down value basis. $X$ Ltd. settled the seller's dues after three months.

You are required to give necessary journal entries and the relevant accounts in the books of $X$ Ltd.

## Question 9

A firm acquired two tractors under hire purchase agreements, details of which were as follows:

| Date of Purchase | Tractor A 1st <br> April, 20X1(Rs.) | Tractor B 1st Oct., <br> 20X1(Rs.) |
| :---: | :---: | :---: |
| Cash price | 14,000 | 19,000 |

Both agreements provided for payment to be made in twenty-four monthly installments (of Rs. 600 each for Tractor $A$ and Rs. 800 each for Tractor B), commencing on the last day of the month following purchase, all installments being paid on due dates.
On $30^{\text {th }}$ June, 20X2, Tractor $B$ was completely destroyed by fire. In full settlement, on $10^{\text {th }}$ July, 20X2 an insurance company paid Rs. 15,000 under a comprehensive policy. Any balance on the hire purchase company's account in respect of these transactions was to be written off. The firm prepared accounts annually to 31st December and provided depreciation on tractors on a straight-line basis at a rate of 20 per cent per annum rounded off to nearest ten rupees, apportioned as from the date of purchase and up to the date of disposal.

You are required to record these transactions in the following accounts, carrying down the balances on $31^{\text {st }}$ December, 20X1 and $31^{\text {st }}$ December, 20X2:
(a) Tractors on hire purchase.
(b) Provision for depreciation of tractors.
(c) Disposal of tractors.

## Question 10

A machinery is sold on hire purchase. The terms of payment is four annual installments of Rs. 6,000 at the end of each year commencing from the date of agreement. Interest is charged @ 20\% and is included in the annual payment of Rs. 6,000.

Show Machinery Account and Hire Vendor Account in the books of the purchaser who defaulted in the payment of the third yearly payment whereupon the vendor re-possessed the machinery. The purchaser provides depreciation on the machinery @10\%per annum on WVV basis. All workings should form part of your answers.

## Question 11

$X$ Transport Ltd. purchased from Delhi Motors 3 Tempos costing Rs. 50,000 each on the hire purchase system on 1-1-20X1. Payment was to be made Rs. 30,000 down and the remainder in 3 equal annual installments payable on 31-12-20X1, 31-12-20X2 and 31-1220X3 together with interest @ 9\%. X Transport Ltd. write off depreciation at the rate of $20 \%$ on the diminishing balance. It paid the installment due at the end of the first year i.e., 31-12-20X1 but could not pay the next on 31-12-20X2. Delhi Motors agreed to leave one Tempo with the purchaser on 1-1-20X3 adjusting the value of the other 2 Tempos against the amount due on 31-12-20X2. The Tempos were valued on the basis of $30 \%$ depreciation annually. Show the necessary accounts in the books of $X$ Transport Ltd. for the years 20X1, 20X2 and20X3.

## Question 12

On 1st April, 20X1, Fastrack Motors Co. sells a truck on hire purchase basis to Teja Transport Co. for a total hire purchase price of Rs. 9,00,000 payable as to Rs. 2,40,000 as down payment and the balance in three equal annual installments of Rs. 2,20,000 each payable on 31st March 20X2, 20X3 and 20X4.

The hire vendor charges interest@10\% per annum.
You are required to ascertain the cash price of the truck for Teja Transport Co. Calculations may be made to the nearest rupee.

## Question 13

## Lucky bought 2 tractors from Happy on 1-10-20X1 on the following terms:

| Down payment | $5,00,000$ |
| :--- | :---: |
| $1^{\text {st }}$ installment at the end of $1^{\text {st }}$ year | $2,65,000$ |
| $2^{\text {nd }}$ installment at the end of $2^{\text {nd }}$ year | $2,45,000$ |
| $3^{\text {rd }}$ installment at the end of $3^{\text {rd }}$ year | $2,75,000$ |

Interest is charged at 10\%p.a.
Lucky provides depreciation@20\% on the diminishing balances.
On 30-9-20X4 Lucky failed to pay the $3^{\text {rd }}$ installment upon which Happy repossessed 1 tractor. Happy agreed to leave one tractor with Lucky and adjusted the value of the tractor against the amount due. The tractor taken over was valued on the basis of $30 \%$ depreciation annually on written down basis. The balance amount remaining in the vendor's account after the above adjustment was paid by Lucky after 3 months with interest @18\% p.a. You are required to:
(1) Calculate the cash price of the tractors and the interest paid with each installment.
(2) Prepare tractor account and happy account in the books of lucky assuming that books are closed on September 30 every year. Figures may be rounded off to the nearest rupee

## Question 14

M/s. Kodam Enterprises purchased a generator on hire purchase from M/s. Sanctum Ltd. on 1st April, 20X1. The hire purchase price was Rs. 48,000. Down payment was Rs. 12,000 and the balance is payable in 3 annual instalments of $R s$. 12,000 each payable at the end of each financial year. Interest is payable @ 8\% p.a. and is included in the annual payment of Rs. 12,000.

Depreciation at $10 \%$ p.a. is to be written off using the straight-line method. You are required to: i) calculate the cash price of the generator and the interest paid on each instalment.
ii) pass relevant journal entries in the books of $M / s$. Kodam Enterprises from $1^{\text {st }}$ April, 20X1 to $31^{\text {st }}$ March, 20X2 following the interest suspense method.

Student Notes: -

