8. HIRE PURCHASE AND INSTALMENT SALE TRANSACTIONS

NO. OF PROBLEMS IN 41e OF CA INTER: CLASSROOM - 10, ASSIGNMENT – 05

NO. OF PROBLEMS IN 42e OF CA INTER: CLASSROOM - 10, ASSIGNMENT – 05

NO. OF PROBLEMS IN 42.5(2e) OF CA INTER: CLASSROOM - 10, ASSIGNMENT – 10

MODEL WISE ANALYSIS OF PAST EXAM PAPERS OF IPCC AND CA INTER

MODEL NO.	N-11	M-12	N-12	M-13	N-13	M-14	N-14	M-14	N-14	M-15	N-15	M-16	N-16	M-17	N-17	M-18 (O)	M-18 (N)	N-18 (O)	N-18(N)	M-19(N)
Model – 1	-	-	-	-	-	08	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Model – 2	-	-	05	-	-	-	-	-	-	08	-	-	-	-	-	-	-	-	-	-
Model – 3	-	-	-	06	-	-	-	-	-	-	-	8	8	-	-	8	-	-	-	-
Model – 4	-	-	-	-	-	-	-	-	05	-	-	-	-	4	4	-	-	-	-	10
Model – 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-

Model – 1 : Calculation of interest in each installment.

Model – 2 : Calculation of Cash Price.

Model – 3 : Accounting For Hire Purchase Transaction.

Model – 4 : Re-Possession of Goods.

Model – 5 : Theory.

SIGNIFICANCE OF EACH PROBLEM COVERED IN THIS MATERIAL

Problem No. in this material	Problem No. in new SM	Problem No. in old SM	Problem No. in old PM	RTP	MTP	Previous Exams	Remarks
CR 1	ILL - 4 & 5	ILL - 3 & 4	-	-	-	-	-
CR 2a	ILL – 1	ILL - 1	-	-	-	-	-
CR 2b	-	-	-	N14,N 17	-	-	-
CR 3	ILL – 3	-	-	-	-	-	-
CR 4	ILL - 6 & 7	ILL - 5 & 6	-	-	-	-	-
CR 5	ILL - 10	ILL - 9	-	-	-	-	-
CR 6	-	-	-	-	-	M 18(O)	-
CR 7	ILL – 8	ILL - 7	-	-	-	-	-
CR 8	-	-	-	N18(N&O)	-	-	-
CR 9	ILL – 9	ILL - 8	-	-	-	N 16-5M	-
CR 10	-	-	-	-	-	-	-
ASG 1	-	-	-	-	-	-	-
ASG 2	ILL - 2	-	2 & 3	-	-	-	-
ASG 3	-	-	-	-	-	-	-
ASG 4	-	-	-	-	-	-	-
ASG 5	-	-	-	-	-	-	-

ASG 6	PQ – 3	-	4	M 18	M 18	-	-
ASG 7	ILL - 11	ILL - 10	-	-	-	-	-
ASG 8	-	-	-	Similar (N 18)	-	-	-
ASG 9	-	-	-	-	-	N 16	-
ASG 10	-	-	-	-	-	-	

Introduction:

With an increasing demand for better life, the consumption of goods has been on the expanding scale. But, this has not been backed up by adequate purchasing power. This has created the market for what is called hire purchase.

When a person wants to acquire an asset, but is not sure how to make payment within a stipulated period of time he may pay in instalments if the vendor agrees. This enables the purchaser to use the asset while paying for it in instalments over an agreed period of time. This type of a business deal is known as hire purchase transaction.

Meaning: Hire purchase is type of

- Credit sale
- Where the seller hands over the possession of the goods to the buyer, usually for a part of the amount (down payment) and
- Collects the remaining amount by the way of installment over a period of time.
- Such installment includes the interest charges for the outstanding amount.
- In case of default buyer, the seller takes the goods back (re-possession) and the amount so for paid by the buyer is treated as hire charges for the usage of the goods.

Special Features of Hire Purchase Agreement:

1. **Possession:** The hire vendor transfers only possession of the goods to the hire purchaser immediately after the contract for hire purchase is made.
2. **Installments:** The goods are delivered by the hire vendor on the condition that the hire purchaser should pay the amount in periodical Installments.
3. **Down Payment:** The hire purchaser generally makes a down payment i.e. an amount on signing the agreement.
4. **Constituents of Hire purchase Installments:** Each Installment consists partly of a finance charge (interest) and partly of a capital payment.
5. **Ownership:** The property in goods is to pass to the hire purchaser on the payment of the last Installment and exercising the option conferred upon him under the agreement.
6. **Repossession:** In case of default in respect of payment of even the last Installment, the hire vendor has the right to take the goods back without making any compensation.

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 an 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 an hire purchase agreement.
3. **Cash Price:** It is the amount for which an article can be purchased immediately by making cash payment, without there being any facility of Installments.
4. **Hire-Purchase Price:** It is the total amount which the hirer is required to pay to the hire vendor under the hire-purchase contract. As this amount also includes interest (also called finance charges), it is always more than cash price of the goods. Thus, Hire-purchase Price = Cash Price + Interest Charged.

5. Down Payment: Under the hire-purchase system as well as Installment system, normally the hire-purchaser or buyer is required to pay an amount (which is a part of hire purchase price or total amount payable under the contract) at the time of signing of the contract. This is called Down Payment.

6. **Hire Purchase Installment:** Hire purchase Installment is the amount which the hire purchaser has to pay at regular interval upto certain period as specified in the agreement to obtain the ownership of the asset purchased under a hire purchase agreement. It comprises of principal amount and the interest on the unpaid amount.

Example: Mr. X is in need of a bike. A Hero dealer offers him the said bike at Rs.48,000 for ready cash else on H.P, and the terms and conditions that initial payment shall be Rs.10,000 and the remaining Rs.48,000 shall be payable by 8 equal installments over a period of 24 months.

In the above example

Hirer	Mr. X
Hire Vendor	Hero Dealer
Cash Price (fair value	Rs.48,000
Down payment / signing amount	Rs.10,000
Instalments	Rs.6,000 (48,000 / 8)
HP Price	Rs.58,000 (10,000 + 48,000)
HP Interest	Rs.10,000 (58,000 – 48,000)

Installment 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 system are similar to those passed under the hire purchase system.

Difference between HP and Instalment Sale:

	Basis of Distinction	Hire Purchase	Instalment System
1.	Governing Act	It is governed by Hire Purchase Act, 1972.	It is governed by the Sale of Goods Act, 1930.
2.	Nature of Contract	It is an agreement of hiring.	It is an agreement of sale.
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 instalments.	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.

Ascertainment of interest, Cash Price:

We know that the hire purchase price consists mainly of two elements: (i) cash price; and (ii) interest.

Cash price is an expenditure incurred for the acquisition of an asset towards payment of capital (principal) amount and interest is a expense in the nature of revenue for delay in making the full payment.

a) Ascertainment of interest:

- ✓ Interest is charged on the amount outstanding. Therefore, if the hire purchaser makes a down payment on signing the contract, it will not include any amount of interest.
- ✓ It should be noted that though the instalments of a hire purchase agreement may be equal, the interest element in each instalment is not the same.

  At the time of calculating interest, students may face the following two situations:

  i) When the cash price, rate of interest and the amount of instalments are given; and

  ii) When the cash price and the amount of instalments are given, but the rate of interest is not given.

i) When the cash price, rate of interest and the amount of instalments are given:

In this situation, the total amount of interest is to be ascertained first. It is the difference between the hire purchase price (down payment + total instalments) and the cash price. To calculate the amount of interest involved in each instalment the following steps are followed:

Step 1: Deduct down payment from the cash price. Calculate the interest at the given rate on the remaining balance. This represents the amount of interest included in the first instalment.

Step 2: Deduct the interest of Step 1 from the amount of first instalment. The resultant figure is the cash price included in the first instalment.

Step 3: Deduct the cash price of the 1st instalment (Step 2) from the balance due after down payment. It represents the amount outstanding after the 1st instalment is paid.

Step 4: Calculate the interest at the given rate on the balance outstanding after the 1st instalment. Deduct this interest from the amount of the 2nd instalment to get the cash price included in the 2nd instalment.

Step 5: Deduct the cash price of the 2nd instalment (Step 4) from the balance due after the 1st instalment. It represents the amount outstanding after the 2nd instalment is paid.

Repeat the above steps till the last instalment is paid.

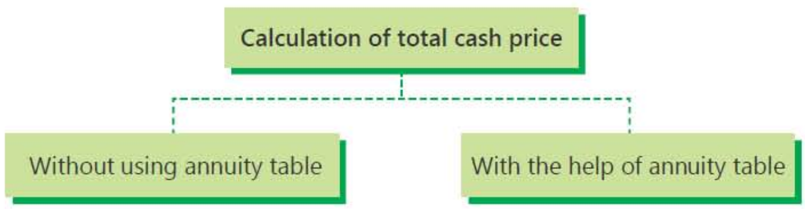
ii) When the cash price and the amount of instalments are given, but the rate of interest is not given:

- ✓ We have to find interest rate implicit in the transaction by bifurcating the installments between reduction in liability and finance charges (interest).
- ✓ Internal rate of return (IRR) is the discount rate that equates

  The present value of the expected net cash outflows (amount of down-payment and installments) = cash price.

  When the net cash flows are not uniform over the life of the investment, the determination of the discount rate can involve trial and error and interpolation between interest rates.
- ✓ IRR method does not use the desired rate of return but estimates the discount rate that makes the present value of subsequent net cash outflows equal to the cash price.

b) Ascertainment of Cash Price: For the purpose of ascertaining the total cash price, we can use any of the following methods according to the need.



i) Calculation of Total Cash Price without using Annuity Table

✓ In this method, the interest included in the last instalment is to be calculated first with the help of the appropriate formula (explained below).

For example in a hire purchase transaction, apart from down payment, four other instalments are payable. The interest will be calculated first on the 4th instalment, then on the 3rd instalment, then on the 2nd instalment and lastly on the 1st instalment.

Interest on down payment will be Nil.

For the purpose of calculating the interest, the following steps should be followed:

Step 1: Calculate the ratio between interest and the amount due with the help of the following formula:

Ratio of interest and amount due = $\frac{\text{Rate of interest}}{100 + \text{Rate of interest}}$

Step 2: Calculate the interest included in the last instalment by applying the following formula:

Interest = Total amount due at the time of instalment x Ratio of interest and amount due (as calculated in step 1)

Step 3: Subtract the interest (as calculated in step 2) from this instalment to get the amount of outstanding cash price at the time of last instalment.

Step 4: Add the cash price calculated in Step 3 to the amount of instalment due at the end of the third year.

Step 5: Calculate the interest on the entire sum (cash price included in the 4^{th} instalment + amount of 3rd instalment). Deduct this interest from the total amount due at the end of 3rd year to get the outstanding cash price at the time of 3rd instalment.

Step 6: Add the cash price calculated in step 5 to the amount of instalment due at the end of 2nd year.

Step 7: Calculate the interest on the entire sum so obtained in Step 6. Deduct this interest from the total amount due at the end of 2nd year to get the outstanding cash price at the time of 2nd instalment.

Step 8: Add the cash price calculated in Step 7 to the amount of instalment due at the end of 1st year.

Step 9: Calculate the interest on the entire sum so obtained in Step 8. Deduct this interest from the total amount due at the end of 1st year to get the outstanding cash price at the time of 1st instalment.

Step 10: Add the cash price calculated in Step 9 to the amount of down payment, if any. The sum so obtained will be the total cash price.

ii) Calculation of Total Cash Price with the help of Annuity Table

Cash price = Down payment + Present value of instalments

Present value of instalments is calculated as follows:

a) If present value of an annuity of Rs.1 for a given period, at given rate of interest, is given Present value of instalments = Annual instalments x Present value of an annuity of Rs.1 for a given period at given rate of interest

$$= \text{Annual instalment x} \frac{(1+r)^n - 1}{r(1+r)^n}$$

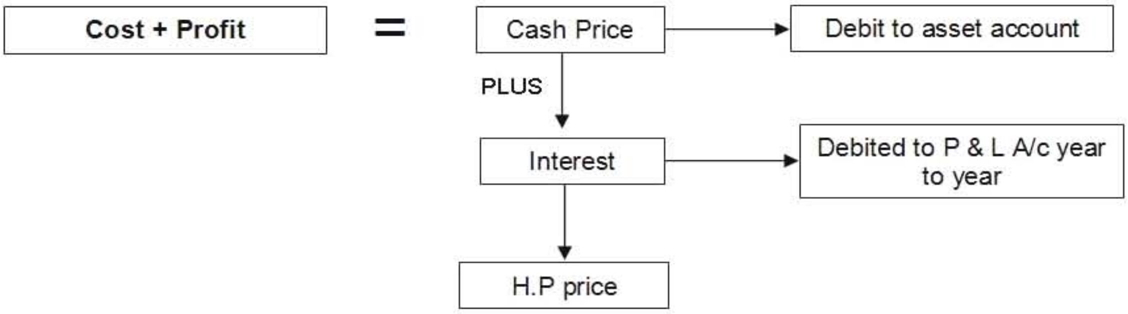
If annuity to recover Rs.1 during a given period at given rate of interest is given

$$= \text{Annual instalment x} \frac{(1+r)^n - 1}{r(1+r)^n - 1}$$

Accounting For Hire Purchase Transactions:

In the books of Hire Purchaser: To have proper accounting record, some information is required in regard to the hire purchase transactions. They are (1) date of purchase of the asset; (2) cash price of the asset; (3) hire purchase price of the asset; (4) the amount of down payment (5) number and amount of each Installment; (6) rate of interest ; (7) method and rate of depreciation; and (8) date of closing the books of accounts.

Before passing journal entries the student should consider the make-up of the hire purchase price:



There are two principal methods of recording hire purchase transactions in the books of the hire purchaser.

1) Cash price method

2) Interest suspense method

Method 1: Asset taken on hire purchase basis should be considered like ordinary purchase by the Hire Purchaser. These transactions can be recorded in ***Cash Price Method.***

However, it is necessary to disclose this fact by classifying it as "Assets on Hire Purchase." Accordingly, amount due to the hire vendor should also be shown in his books as a liability –"hire purchase creditors".

Cash Price Method: (Known as Credit Purchase with Interest Method) in this method asset acquired is brought into account at the Cash Price.

Accounting treatment (In the books of Hire Purchaser)

1.	**On entering into the agreement:** Asset Account Dr. To Hire Vendor Account	 XXX	 XXX
2.	**When down payment is made:** Hire Vendor Account Dr. To Cash/Bank Account	 XXX	 XXX
3.	**When an Installment becomes due:** Interest Account Dr. To Hire Vendor Account	 XXX	 XXX
4.	**When an Installment is paid:** Hire Vendor Account Dr. To Bank Account	 XXX	 XXX
5.	**When depreciation is charged on the asset:** Depreciation Account Dr. To Asset Account	 XXX	 XXX
6.	**For closing interest and depreciation account:** Profit and Loss Account Dr. To Interest Account To Depreciation	 XXX	 XXX XXX

Note:

1. However, a firm may maintain Provision for Depreciation A/c instead of charging depreciation to Hire Purchase Asset A/c. In such case the journal entry is:

   Profit and Loss A/c Dr.

   To Provision for Depreciation for Asset on Hire Purchase A/c

   And naturally, Asset on Hire Purchase is shown at its historical cost.

Disclosure in the balance sheet:

Assets:

Fixed Assets:

Asset (at cash price)	XXX
Less: Depreciation	(XXX)
	XXX

Creditors:

Hire Purchase Creditors:	
Balance in hire vendor's A/c	XXX
Interest accrued not yet due	XXX
	XXX

In any subsequent year: Repeat entries 3, 4, 5, 6 with respective figures for the year concerned.

Method 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.

1.	**When the asset is acquired on hire purchase:** Asset Account Dr. To Hire Vendor Account	XXX	 XXX
2.	**For total interest:** H.P. Interest Suspense Account Dr. To Hire Vendor Account	XXX	 XXX
3.	**When down payment is made:** Hire Vendor Account Dr. To Bank Account	XXX	 XXX
4.	**For Interest of the relevant period:** Interest Account Dr. To H.P. Interest Suspense Account	XXX	 XXX
5.	**When an Installment is paid:** Hire Vendor Account Dr. To Bank Account	XXX	 XXX
6.	**When depreciation is charged on the asset:** Depreciation Account Dr. To Asset Account	XXX	 XXX
7.	**For closing interest and depreciation account:** Profit and Loss Account Dr. To Interest Account To Depreciation Account	XXX	 XXX XXX

The disclosure in balance sheet will be:

Balance Sheet of Hire Purchaser

Assets

Fixed assets:

Asset on Hire purchase	XXX
Less: Depreciation	(XXX)
	XXX

Liabilities:

Hire purchase creditors:

Balance in Hire vendor's A/c	XXX
Less: Balance in interest suspense A/c	(XXX)
	XXX

In any subsequent year: Repeat entries 4, 5, 6 and 7 with respective figures for the year concerned.

__**Accounting treatment in the books of Hire Vendor:**__ There are two methods of recording hire purchase transactions in the books of the hire vendor. The two methods are discussed below:

METHOD OF ACCOUNTING

If the sales value of goods is of

Cash Price /Sales value Method

Interest Suspense Method

__**Sales Value Method:**__ A business that sells relatively large items on hire purchase may adopt this method. Under this method, hire purchase sale is treated as a credit sale. The only exception is that the vendor agrees to accept payments in Installments and for that he charges interest. Generally, a special Sales Day Book is maintained for recording all sales under hire purchase agreement. The amount due from the hire purchaser at the end of the year is shown in the Balance sheet on the **assets side as Hire Purchase Debtors.**

Journal Entries

1.	**When goods are sold and delivered under hire purchase:** Hire Purchaser's Account Dr. To Hire Purchase Sales Account	XXX	XXX
2.	**When the down payment is received:** Bank Account Dr. To Hire Purchaser's Account	XXX	XXX
3.	**When an Installment becomes due:** Hire Purchaser's Account Dr. To Interest Account	XXX	XXX
4.	**When the amount of Installment is received:** Bank Account Dr. To Hire Purchaser's Account	XXX	XXX
5.	**For closing interest Account:** Interest Account Dr. To Profit and Loss Account	XXX	XXX

6.	**For closing Hire Purchase Sales Account:** Hire Purchase Sales Account Dr. To Trading Account	XXX	 XXX

Note:

1. Interest pertaining to each accounting period is credited to the Profit and Loss Account of that year.
2. **In any subsequent year:** Repeat entries 3, 4, 5 with respective figures for the year concerned.

Interest Suspense Method:

This method is almost similar to the sales method, except the accounting for interest.

1.	**When goods are sold and delivered under hire purchase:** Hire Purchaser Account Dr. To H.P. Sales Account To Interest Suspense Account	 XXX	 XXX XXX
2.	**When down payment received:** Bank Account Dr. To Hire Purchaser Account	 XXX	 XXX
3.	**When Installment is received:** Bank Account Dr. To Hire Purchaser Account	 XXX	 XXX
4.	**For interest of the relevant accounting period:** Interest Suspense Account Dr. To Interest Account	 XXX	 XXX
5.	**For closing interest Account:** Interest Account Dr. To Profit and Loss Account	 XXX	 XXX
6.	**For closing Hire Purchase Sales Account:** H.P. Sales Account Dr. To Trading Account	 XXX	 XXX

The disclosure in balance sheet will be as follows:

Balance Sheet of Vendor

Assets

Current assets:

Hire purchase debtors	XXX
Less: Balance in Interest suspense A/c	(XXX)
	XXX

Liabilities

In any subsequent year: Repeat entries 3, 4, 5 with respective figures for the year concerned.

Repossession of Goods (or) Return of goods:

Meaning: If the hire purchaser fails to pay any Installment, the hire vendor has the right to take back the goods from the hire purchaser. Often the seller gives some scope to the buyer leaving a portion of goods sold, so that the latter can somehow continue his business. Therefore re-possession can be of two types.

Complete Re- possession

Partial Re-possession

Complete Re-Possession:

Journal entries in the books of Hire Purchaser

Note:

1. Entries for re-possession in the books of Hire Purchaser will depend on the method of accounting adopted by Hire purchaser at the time of purchase.

If Cost Price method is followed - Entries for re-possession:

1.	**For Interest due up to the date of default:** Interest A/c Dr. To Hire Vendor A/c	XXX	 XXX
2.	**On return of goods:** Hire Vendor A/c Dr. To Asset A/c	XXX	 XXX
3.	**For Depreciation - on such asset up to the date of default:** Depreciation A/c Dr. To Asset a/c	XXX	 XXX
4.	**For transfer of bal. in Asset A/c to P&L A/c:** P&L A/c Dr. To Asset A/c	XXX	 XXX

If interest suspense method is followed: 1st entry will be

1.	**For Interest due up to the date of default:** Interest A/c Dr. To Interest Suspense A/c	XXX	 XXX

2nd, 3rd, and 4th entries will be the same

In the Books of Hire Vendor

1.	**For Interest due up to the date of default:** Hire Purchaser A/c Dr. To Interest A/c	XXX	 XXX
2.	**On re-possession of goods at agreed value:** Good repossessed A/c Dr. To Hire Purchaser A/c	XXX	 XXX
3.	**For transfer of balance in HPA/c to P&L A/c:** P & L A/c Dr. To Hire Purchaser A/c	XXX	 XXX
4.	**For exp. incurred on re-possessed goods:** Goods repossessed A/c Dr. To Cash A/c	XXX	 XXX
5.	**On sale of the re-possessed goods:** Cash A/c Dr. To Goods repossessed A/c	XXX	 XXX
6.	**On transfer of balance in Re-possessed goods to P & L A/c:** Goods repossessed A/c Dr. To P & L A/c	XXX	 XXX

Note:

- If estimated value is not given, amount due from Hire Purchaser should be treated as agreed value.

Partial Re-Possession:

- 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'.
- For the remaining portion of the asset lying with the hire purchaser, the (Hire Purchaser) applies the usual rate of depreciation and shows the Asset Account at its usual written down value.

PROBLEMS FOR CLASSROOM DISCUSSION

MODEL 1: CALCULATION OF INTEREST IN EACH INSTALMENT

PROBLEM 1: (PRINTED SOLUTION AVAILABLE) Computation of interest in each installment

a) **when cash price and rate of interest are given:** Om Ltd. purchased a machine on hire purchase basis from Kumar machinery Co. Ltd on the following terms:

i) Cash price Rs.80,000

ii) Down payment at the time of signing the agreement on 1.1.2014 Rs.21,622.

iii) 5 Annual installments of Rs.15,400, the first to commence at the end of twelve months from the date of down payment.

iv) Rate of interest is 10% P.a.

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

(ANS.: TOTAL INTEREST-18622, INTEREST IN 1^{ST} INSTALMENT-5838, 2^{ND} INSTALMENT-4882, 3^{RD} INSTALMENT-3830, 4^{TH} INSTALMENT-2672, 5^{TH} INSTALMENT-1400)

Concept question:

What is the impact on the question if, 10 semi annual installments of 7,700. (1^{st} to commence on 30^{th} june 2014)

b) **When cash price is given and rate of interest not given: (IRR METHOD):** Happy Valley Florists Ltd. acquired a delivery van on hire purchase on 01.04.2010 from Ganesh Enterprises. The terms were as follows:

Particulars	**Amount (Rs.)**
Hire Purchase Price	1,80,000
Down Payment	30,000
1st installment payable after 1 year	50,000
2nd installment after 2 years	50,000
3rd installment after 3 years	30,000
4th installment after 4 years	20,000

Cash price of van Rs.1,50,000 You are required to calculate Total Interest and Interest included in each instalment. ***(A) (NEW SM)***

(ANS.: TOTAL INETERST-30182, INTEREST IN 1^{ST} INSTALMENT-13668, 2^{ND} INSTALMENT-9530, 3^{RD} INSTALMENT-4920, 4^{TH} INSTALMENT-2064)

(SOLVE PROBLEM NO.1 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

MODEL 2: CALCULATION OF CASH PRICE

PROBLEM 2: (PRINTED SOLUTION AVAILABLE) Computation of Cash Price (Backward Approach)

a) Asha purchased a truck on hire purchase system. As per terms she 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. ***(A) (NEW SM) (ANS: TOTAL CASH PRICE 2,00,000)***

Concept question:

What is the impact on the question if rate of interest is 12%?

b) On 1.1.2011 Beeta Ltd. purchased a machine from Yama Ltd. on hire purchase basis. The terms of agreement provided for 40% as cash down payment and the balance in three Installment of Rs. 1,30,000 on 31.12.2011, Rs. 1,42,000 on 31.12.2013 and Rs. 1,10,000 on 31.12.2014. The rate of interest charged by the vendor is 10% p.a. compounded annually. You are required to calculate the cash price. ***(A) (RTP N14), (ANS: CASH PRICE RS.5,00,000)***

(SOLVE PROBLEM NO.2 OF ASSIGNMENT PROBLEMS AS REWORK)

Concept question:

What is the impact in the question, if the rate of interest is 8%?

Note:____

____

PROBLEM 3: Computation of Cash Price using Annuity tables: On 1st April, 2014 a manufacturing company buys on Hire - purchase system a machinery for Rs.90,000, payable by three equal annual instalments 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 annuity of one rupee for three years at 5% interest is Rs.2.723 ***(NEW SM) (ANS: CASH PRICE OF THE MACHINE 81,690)***

(SOLVE PROBLEM NO.3 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

____

MODEL 3: ACCOUNTING FOR HIRE PURCHASE TRANSACTION

PROBLEM 4: (PRINTED SOLUTION AVAILABLE) On January 1, 2010 HP and Co. acquired a pick-up Van on hire purchase from FM & Co. Ltd. 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:

1. Give Journal Entries and show the relevant accounts in the books of HP and Co. from January 1, 2010 to December 31, 2012; and
2. Show the relevant items in the Balance Sheet of the purchaser as on December 31, 2010 to 2012.
3. And 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 FM & Co. Ltd. Accounts and Balance Sheets in the books of hire purchaser.

(C) (NEW SM) (SOLVE PROBLEM NO 4 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

____

MODEL 4: RE-POSSESSION OF GOODS

PROBLEM 5: Accounting for complete re-possession of goods in cash price method - (In the books of Hire purchaser): 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. All workings should form part of your answers. ***(A)***

(NEW SM)(SOLVE PROBLEM NO.5(i) OF ASSIGNMENT PROBLEMS AS REWORK)

Note:

PROBLEM 6: (PRINTED SOLUTION AVAILABLE) Accounting for complete re-possession of goods in cash price method and sale of repossessed goods - (In the books of Hire vendor) : On 1-1-2013, Ashok acquired furniture on the Hire Purchase system from TA Ltd agreeing to pay four semi-annual Installments of Rs.800 each, commencing on 30-6-2013. The cash price of the items was Rs.3,010 and an interest of 5% p.a. was chargeable.

On 30-9-2013, Ashok expresses his inability to continue and TA seized the property. It was agreed that Ashok would pay the due proportion of the Installment up to the date of seizure and also a further sum of Rs.200 towards depreciation. At the time of repossession, TA Ltd valued the furniture at Rs.1,500.

The company after incurring Rs.200 towards repairs of the furniture sold the items for Rs.1,800 on 15-10-2013. Show the ledger accounts as they would appear in the books of TA Ltd working out the profit or loss on the transactions, assuming that the company passes Hire Purchase transactions through its books as sales. ***(B) (SOLVE PROBLEM NO 5(ii) OF ASSIGNMENT PROBLEMS AS REWORK)***

Note:

PROBLEM 7: Accounting for partial repossession: 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.

(A) (NEW SM, SIMILAR: M18(O)) (SOLVE PROBLEM NO 6 & 7 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:

PROBLEM 8: (PRINTED SOLUTION AVAILABLE): The following particulars relate to hire purchase transactions:

a) X purchased three cars from Y on hire purchase basis, the cash price of each car being Rs.2,00,000.

b) The hire purchaser charged depreciation @ 20% on diminishing balance method.

c) Two cars were seized by the hire vendor when second installment was not paid at the end of the second year. The hire vendor valued the two cars at cash price less 30% depreciation charged under it diminishing balance method.

d) The hire vendor spent Rs. 10,000 on repairs of the cars and then sold them for a total amount of Rs.1,70,000.

You are required to compute:

i) Agreed value of two cars taken back by the hire vendor.

ii) Book value of car left with the hire purchaser.

iii) Profit or loss to hire purchaser on two cars taken back by the hire vendor.

iv) Profit or loss of cars repossessed, when sold by the hire vendor *(A) (RTP N18(N&O))*

(I. AGREED VALUE - 1,96,000; II. BOOK VALUE - 1,28,000; III.LOSS – 60,000; IV. LOSS ON RESALE – 36,000)

(SOLVE PROBLEM NO.8 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

PROBLEM 9: Accounting for destruction of tractor B: A firm acquired two tractors under hire purchase agreements, details of which were as follows:

Particulars	Tractor A 1.4.2012	Tractor B 1.10.2012
Cash price	14,000	19,000
Deposit	2,000	2,680
Interest	2,400	2,880
(Deemed to accrue evenly over the period of agreement)		
Monthly Installment amount	600	800

Both agreements provided for payment to be made in twenty-four monthly Installments, commencing on the last day of the month following purchase, all Installments being paid on due dates.

On 30th June, 2013 Tractor B was completely destroyed by fire. In full settlement, on 10th July, 2013 the insurance company paid Rs.15,000 under a comprehensive policy out of which Rs.10,000 was paid to the hire purchase company in termination of the agreement. 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 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 31st December, 2012 and 31st December, 2013:

a. Tractors on hire purchase

b. Provision for depreciation of tractors.

c. Disposal of tractors

d. Hire purchase Company.

(C) (NEW SM, N16) (ANS.: TOTAL OF TRACTORS ON HIRE PURCHASE A/C AS ON 01.01.2013 IS RS.33,000)

(SOLVE PROBLEM NO.9 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

PROBLEM 10: Accounting for sale and lease back under interest suspense method:

On 1-1-2010, A sells a truck to B, on the Installment payment system on the following conditions:

The purchase price of the truck is Rs.1,00,000. This amount is payable to A in four equal annual Installments along with 12% interest p.a. on the outstanding balance, the first Installment being payable on the date of sale.

B, in turn, hires out the truck to A for a monthly hire of Rs.3,000 p.m. from 1-1-2010. The hire charges are to be adjusted at the end of each year against the amount due to A on account of principal and interest, any difference being settled in cash.

B charges 20% depreciation (on the WDV methods) on the truck. All payments are made as per the agreement. On 1-1-2013, the truck is sold by B to A for Rs.15,000 in cash. Show in B's books, the truck A/c, the interest suspense account, the hire charges A/c, the interest account and A's A/c.

(B) (ANS.: TOTAL OF TRUCKS A/C AS ON 01.01.2013 IS RS.51,200)

(SOLVE PROBLEM NO.10 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:____

PRINTED SOLUTIONS TO SOME SELECTIVE PROBLEMS

PROBLEM NUMBERS TO WHICH SOLUTIONS ARE PROVIDED: 1, 2, 4, 6, 8

PROBLEM NO:1

a) Calculation of interest:

particulars	Total	Interest in each instalment (1)	Cash price in each instalment (2)
Cash Price	80,000		
Less: Down Payment	(21,622)	Nil	21,622
Balance due after down payment	**58,378**		
Interest/Cash Price of 1st instalment	-	58,378 x 10/100 = Rs.5,838	15,400 – Rs. 5,838= Rs. 9,562
Less: Cash price of 1st instalment	(9,562)		
Balance due after 1st instalment	**48,816**		
Interest/cash price of 2nd instalment	-	48,816 x 10 / 100 = Rs.4,882	15,400 – Rs.4,882 = Rs.10,518
Less: Cash price of 2nd instalment	(10,518)		
Balance due after 2nd instalment	**38,298**		
Interest/Cash price of 3rd instalment	-	38,298x10/100= Rs.3,830	Rs.15,400 – Rs.3,830 = Rs.11,570
Less: Cash price of 3rd instalment	(11,570)		
Balance due after 3rd instalment	**26,728**		
Interest/Cash price of 4th instalment	-	26,728 x10/100= Rs.2,672	15,400 – Rs.2,672= Rs.12,728
Less: Cash price of 4th instalment	(12,728)		
Balance due after 4th instalment	**14,000**		
Interest/Cash price of 5th instalment	-	14,000 x10/100= Rs.1,400	15400 – Rs.1,400= 14,000
Less: Cash price of 5th instalment	(14,000)		
Total	**Nil**	**18,622**	**80,000**

Total interest can also be calculated as follow:

(Down payment + installments) – Cash Price = Rs.[21,622+(15400 x 5)] – Rs.80,000

= Rs.18,622

b) Calculation of total Interest and Interest included in each installment

Hire Purchase Price (HPP) = Down Payment + installments

= 30,000 + 50,000 + 50,000 + 30,000 + 20,000 = 1,80,000

Total Interest = 1,80,000 – 1,50,000 = 30,000

Computation of IRR (considering two guessed rates of 6% and 12%)

Year	Cash Flow	DF @6%	PV	DF @12%	PV
0	30,000	1.00	30,000	1.00	30,000
1	50,000	0.94	47,000	0.89	44,500
2	50,000	0.89	44,500	0.80	40,000
3	30,000	0.84	25,200	0.71	21,300
4	20,000	0.79	15,800	0.64	12,800
		NPV	**1,62,500**	**NPV**	**1,48,600**

Interest rate implicit on lease is computed below by interpolation:

Interest rate implicit on lease = $6\% + \frac{1,62,500 - 1,50,000}{1,62,500 - 1,48,600} X\,(12 - 6) = 11.39\%$

$= 6\% + \frac{12,500}{13,900} x\, 6 = 11.39\%$

Thus repayment schedule and interest would be as under:

Installment no.	Principal at beginning	Interest included in each installment	Gross amount	Installment	Principle at End
Cash down	1,50,000		1,50,000	30,000	1,20,000
1	1,20,000	13,668	1,33,668	50,000	83,668
2	83,668	9,530	93,198	93,198	43,198
3	43,198	4,920	48,118	30,000	18,118
4	18,118	2,064	20,182	20,000	182*
		30,182*			

PROBLEM NO.2

a) **Computation of cash price of Machinery and interest:**

No of installments	Amount due at the time of installment	Interest	Cash price
Third installment	55,000	1/11 of Rs.55,000=Rs.5,000	50,000
2nd installment	(50,000 + 49,000) = 99,000	1/11 of 99,000 = Rs.9,000	90000
1st installment	(90,000 + 53,000) = 1,43,000	1/11 of Rs.1,43,000 = Rs.13,000	1,30,000

Interest paid= 5000 + 9000 + 13000 = 27000

Told cash price = Rs.1,30,000 + 70,000 = Rs.2,00,000

b) **Statement Showing the Computation of Cash Price and Periodic Interest**

A Installment	B = D - C Balance Due at the Beginning	C Interest Dx10/110	D = E + F Total Amount Due at the end before the payment of Installment	E Installment Amount	F Balance due at the end after the payment of installment
I	3,00,000	30,000	3,30,000	1,30,000	2,00,000
	2,00,000	20,000	2,20,000	Nil	2,20,000
II	2,20,000	22,000	2,42,000	1,42,000	1,00,000
III	1,00,000	10,000	1,10,000	1,10,000	Nil

Let Cash Price be X; X = Rs.3,00,000 + 40% of X

0.6 X = Rs.3,00,000; X = Rs.3,00,000/0.6 = Rs.5,00,000, cash price = Rs.5,00,000

PROBLEM NO: 4

(i)

Journal Entries in Books of H.P & Co

Date	Particulars		Dr. (Rs.)	Cr. (Rs.)
2010 Jan 1	Pick - up van A/c To FM & Co A/c (Being purchase of a pickup van on hire purchase from FM & Co)	Dr.	1,00,000	 1,00,000
Jan 1	FM & Co A/c To Bank A/c (Being down payment made on signing the HP contract)	Dr.	40,000	 40,000
Dec 31	Interest A/c To FM & Co A/c (Being interest payable @ 6% on 60,000)	Dr.	3,600	 3,600
Dec 31	FM & Co A/c (20000+3600) To Bank A/c (Being 1st Installment paid along with interest)	Dr.	23,600	 23,600
Dec 31	Depreciation A/c To pickup van A/c (Being depreciation charged @ 10% p.a on 1,00,000)	Dr.	10,000	 10,000
Dec 31	Profit & Loss A/c To Interest A/c To Depreciation A/c (Being depreciation & interest transferred to Profit & Loss A/c)	Dr.	1,36,000	 3,600 10,000
2011 Dec 31	Interest A/c To FM & Co A/c (Being interest payable @ 6% on 40,000)	Dr.	2400	 2400
Dec 31	FM & Co A/c To Bank A/c (Being 2nd Installment paid along with interest)	Dr.	22,400	 22,400
Dec 31	Depreciation A/c To pickup van A/c (Being depreciation charged @ 10% p.a)	Dr.	10,000	 10,000
Dec 31	Profit & Loss A/c To Depreciation A/c (Being depreciation transferred to Profit & Loss A/c)	Dr.	10,000	 10,000
Dec 31	Profit & Loss A/c To interest A/c (Being interest paid transferred to P&L A/c)	Dr.	2,400	 2,400
2012 Dec 31	Interest A/c To FM & Co A/c (Being interest payable @ 6% on 20,000)	Dr.	1,200	 1,200
Dec 31	FM & Co A/c To Bank A/c (Being last installment paid along with interest)	Dr.	21,200	 21,200
Dec 31	Depreciation A/c To Pick up van A/c (Being depreciation charged @ 10% p.a on 1,00,000)	Dr.	10,000	 10,000
Dec 31	Profit & Loss A/c To Depreciation A/c To Interest A/c (Being depreciation & interest transferred to Profit & Loss A/c)	Dr.	11,200	 10,000 1200

(ii) Ledgers in Books of H.P & Co

Dr. Pick up van A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
01.01.10	To FM & Co A/c	1,00,000	31.12.10	By depreciation A/c	10,000
			31.12.10	By balance c/d	90,000
		1,00,000			1,00,000
01.01.11	To balance b/d	90,000	31.12.11	By depreciation A/c	10,000
				By balance c/d	80,000
		90,000			90,000
01.01.12	To balance b/d	80,000	31.12.12	By depreciation	10,000
				By balance c/d	70,000
		80,000			80,000

Dr. F.M & Co A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
01.01.10	To Bank A/c	40,000	1.1.10	By Pickup van A/c	1,00,000
31.12.10	To Bank A/c	23,600	31.12.10	By Interest A/c	3,600
	To Balance c/d	40,000			
		1,03,600			1,03,600
31.12.11	To Bank A/c	22,400	1.1.11	By Balance b/d	40,000
	To Balance c/d	20,000	31.12.11	By Interest A/c	2400
		42,400			42,400
31.12.12	To Bank A/c	21,200	1.1.12	By Balance b/d	20,000
			31.12.12	By Interest A/c	1,200
		21,200			**21,200**

Dr. Depreciation A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
31.12.10	To Pick up van A/c	10,000	31.12.10	By Profit & Loss A/c	10,000
		10,000			10,000
31.12.11	To Pick up van A/c	10,000	31.12.11	By Profit & Loss A/c	10,000
		10,000			10,000
31.12.12	To Pick up van A/c	10,000	31.12.12	By Profit & Loss A/c	10,000
		10,000			**10,000**

Dr. Interest A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
31.12.10	To FM & Co A/c	3,600	31.12.10	By Profit & Loss A/c	3,600
		3,600			3,600
31.12.11	To FM & Co A/c	2,400	31.12.11	By Profit & Loss A/c	2,400
		2,400			2,400
31.12.12	To FM & Co A/c	1,200	31.12.12	By Profit & Loss A/c	1,200
		1,200			**1,200**

Balance Sheet of HP & Co as on 31st Dec 2010

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c	40,000	Pick up van	90,000

Balance Sheet of HP & Co as on 31st Dec 2011

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c	20,000	Pick up van	80,000

Balance Sheet of HP & Co as on 31st Dec 2012

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c	--	Pick up van	70000

(iii) Dr. Hire Purchase interest suspense A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
01.01.10	To FM & Co A/c	7,200	31.12.10	By Interest A/c	3,600
				By balance c/d	3,600
		7,200			7,200
01.01.11	To balance b/d	3,600	31.12.11	By Interest	2,400
				By balance c/d	1,200
		3,600			3,600
01.01.12	To balance b/d	1,200	31.12.12	By Interest	1,200
		1,200			1,200

Dr. Interest A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
31.12.10	To HP interest suspense A/c	3,600	31.12.10	By Profit & Loss A/c	3,600
		3,600			3,600
31.12.11	To HP interest suspense A/c	2,400	31.12.11	By Profit & Loss A/c	2,400
		2,400			2,400
31.12.12	To HP interest suspense A/c	1,200	31.12.12	By Profit & Loss A/c	1,200
		1,200			1,200

Dr. FM & Co A/c Cr.

Date	Particulars	Amount Rs.	Date	Particulars	Amount Rs.
01.01.10	To Bank	40,000	01.01.10	By Pick up van A/c	1,00,000
31.12.10	To Bank	23,600		By HP interest suspense A/c	7,200
31.12.10	To Balance c/d	43,600			
		1,07,200			1,07,200
31.12.11	To Bank A/c	22,400	1.1.11	By Balance b/d	43,600
31.12.11	To Balance c/d	21,200			
		43,600			43,600
31.01.12	To Bank A/c	21,200	1.1.12	By Balance b/d	21,200
		21,200			21,200

Balance Sheet of HP & Co as on 31st Dec 2010

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c 43,600		Pick up van 1,00,000	
(-) Interest suspense (3,600)	40,000	(-) Depreciation (10,000)	90,000

Balance Sheet of HP & Co as on 31st Dec 2011

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c 21,200		Pick up van 90,000	
(-) Interest suspense (1,200)	2,00,000	(-) Depreciation (10,000)	80,000

Balance Sheet of HP & Co as on 31st Dec 2012

Liabilities	Amount Rs.	Assets	Amount Rs.
FM & Co A/c	-	Pick up van 80,000	
		(-) Depreciation (10,000)	70,000

Working note: Total interest = Rs.3,600 + Rs.2,400 + Rs.1,200 = Rs.7,200.

PROBLEM NO: 6

In the Books of TA Ltd

Dr. **Ashok A/c** **Cr.**

Date	Particulars	Amount	Amount	Particulars	Amount
01.01.13	To Sales	3010	30.06.13	By Cash (1st Installment)	800
30.06.13	To Interest		30.09.13	By Cash (WN – 1)	600
	(3010 x 5% x 6/12)	75		By Re-possessed goods	1500
30.09.13	To Interest (WN – 2)	29	"	By Profit & Loss A/c (b/f)	
				(Loss on Re-possession)	214
		3,114			3,114

Dr. **Re-possessed Goods A/c** **Cr.**

Date	Particulars	Amount	Amount	Particulars	Amount
30.09.13	To Ashok	1,500	15.10.13	By Cash (Sale proceeds)	1,800
15.10.13	To Cash (Repairs)	200			
	To Profit & Loss A/c	100			
	(Profit on sale)	1,800			1,800

Working Note: 1 Calculation of amount of due proportion to be paid:

Particulars	Amount
Amount of installment	800
Due proportion of the installment upon the date of seizure (800 x 3/6)	400
Add: Amount of depreciation (to be collected as per the agreement)	200
Amount to be collected at the time of Seizure	600

Working Note: 2 Calculation of interest from 01.07.2013 to 30.09.2013

Particulars	Amount
Cash price	3,010
Less: Cash price paid in I installment (800 – 75)	(725)
Outstanding balance of cash price	2,285
Interest for 3 months $\left(2{,}285 \times \frac{5}{100} \times \frac{3}{12}\right)$	29

PROBLEM NO: 8

(i)	Price of two cars = Rs 2,00,000 x 2	4,00,000
	Less: Depreciation for the first year @ 30%	1,20,000
		2,80,000
	Less: Depreciation for the second year = Rs 2,80,000 x30/100	84,000
	Agreed value of two cars taken back by the hire vendor	1,96,000
(ii)	Cash purchase price of one car	2,00,000
	Less: Depreciation on Rs 2,00,000 @20% for the first year	40,000
	Written down value at the end of first year	1,60,000
	Less: Depreciation on Rs 1,60,000 @ 20% for the second year	32,000
	Book value of car left with the hire purchaser	1,28,000
(iii)	Book value of one car as calculated in working note (ii) above	1,28,000
	Book value of Two cars = Rs 1,28,000 x 2	2,56,000
	Value at which the two cars were taken back, calculated in working note (i) above	1,96,000
	Hence, loss on cars taken back = Rs 2,56,000 – Rs 1,96,000:	Rs 60,000
	Sale proceeds of cars repossessed	1,70,000
	Less: Value at which plant were taken back Rs 1,96,000	
	Repairs Rs 10,000	2,06,000
	Loss on resale	36,000

ASSIGNMENT PROBLEMS

PROBLEM 1:

a) Happy valley florists ltd acquired a delivery van on hire purchase on 1.04.2014 from Ganesh enterprises. The terms are:

Hire purchase price	Rs	1,80,000
Down payment	Rs	30,000
1st installment payable after 1 year	Rs	50,000
2nd installment after 2 years	Rs	50,000
3rd installment After 3 years	Rs	30,000
4th installment after 4 years	Rs	20,000

Cash price of van is Rs 1,50,000 and depreciation is charged at 10% WDV.

Calculate total interest and interest included in each installment. ***(ANS: Interest: Rs 30,000) (M14)***

b) On 1.04.2018, a car company sold to Arya Bros. a motor car on hire purchase basis. The total hire purchase price was Rs 4,60,000 with down payment of Rs 1,60,000. Balance amount was to be paid in three installments of Rs 1,00,000 each. The first installment payable on 31.03.2019. the cash price of the car was Rs 4,00,000.

How will Arya Bros. account for interest over three accounting years assuming the books are closed on 31st march every year. ***(ANS: Interest: Rs 60,000 (M10)***

PROBLEM 2:

a) On 1st April, 2014 Fast track 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 instalments of Rs.2,20,000 each payable on 31st March 2015, 2016 and 2017. 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. ***(NEW SM) (ANS: CASH PRICE RS.7,87107)***

b) A acquired on 1st January, 2012 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 1st July, 2012.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.

(NEW SM) (ANS: CASH PRICE OF THE MACHINE 25,977)

c) On 1.1.2011 Shaan Ltd. purchased a machine on hire purchase basis. The terms of agreement provided for 40% as cash down payment and the balance in three Installments of Rs. 1,63,000 on 31.12.2012, Rs. 1,20,000 on 31.12.2013 and Rs. 1,10,000 on 31.12.2014. The rate of interest charged by the vendor is 10% p.a. compound annually. You are required to calculate the cash Price and periodic interest charged by hire vendor. ***(A) (RTP N14) (ANS: CASH PRICE RS.5,00,000)***

PROBLEM 3: Computation of Cash Price using Annuity tables: On 1st April, 2019 a manufacturing company buys on Hire - purchase system a machinery for Rs.2,10,000, payable by three equal annual instalments combining principal and interest, the rate of interest was 10% per annum. Calculate the amount of cash price and interest. Assume that the present value of annuity of one rupee for three years at 10% interest is Rs.2.487.

(similar NEW SM) (ANS: CASH PRICE OF THE MACHINE Rs1,74,090 .)

PROBLEM 4: Basic level: On 1.1.2010, M/s. Tallboy & co. Ltd. took delivery from plain vans Ltd. of 5 motors vans on a hire-purchase system Rs. 2000 being paid on delivery and the balance in five Installments of Rs 3,000 each, payable annually on 31st December. The vendor company charges 5% interest P.a on yearly balances. The cash value of 5 motor vans was Rs. 15,000. Show journal entries and the vendors account, interest account and the motor vans account in the books of M/s. Tallboy & co ltd. for first 2 years under (i) cash price method (ii) interest suspense method. Provide depreciation @ 20% on the diminishing balances. (Calculation may be made to the nearest rupee, all working to be made for 5 years and adjust any difference in fifth year account.) ***(C)***

PROBLEM 5: MC purchased machinery from K & Co on Hire Purchase system on 1-1-2011. The cash price of the machine was Rs.1,00,000. Rs.20,000 to be paid at the time of taking delivery and balance by four annual Installments of Rs.20,000 plus interest at 5% on the yearly balances (5% p.a.) MC failed to pay the Installment due on 31-12-2012. K & Co. took possession of the machinery and valued the same in his books after charging depreciation @ 10% p.a. on reducing balance method. In 2013 K & Co. incurred Rs.1,000 for reconditioning and resold the machinery for Rs.90,000. Show the ledger accounts in the books of
i)MC & ii) K & Co. ***(B)***

PROBLEM 6: Lucky bought 2 tractors from Happy on 01-10-20X1 on the following terms:

	Rs.
Down payment	5,00,000
1st installment at the end of first year	2,65,000
2nd installment at the end of 2nd year	2,45,000
3rd installment at the end of 3rd 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 3rd 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.

(A) (NEW SM) (SIMILAR: RTP M 18(N) & (O) MTP M18) (ANS.: TOTAL CASH PRICE – 11,50,000; TOTAL INTEREST – 1,35,000; INTEREST IN 1ST INSTALMENT-65,000; 2ND INSTALMENT-45,000; 3RD INSTALLMENT – 25,000)

PROBLEM 7: X Transport Ltd. purchased from Delhi Motors 3 Tempos costing Rs. 50,000 each on the hire purchase system on 1-1-2010. Payment was to be made Rs. 30,000 down and the remainder in 3 equal annual Installments payable on 31-12-2010, 31-12-2011 and 31-12-2012 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. 31-12-2010 but could not pay the next on 31-12-2011. Delhi Motors agreed to leave one Tempo with the purchaser on 1-1-2012 adjusting the value of the other 2 Tempos against the amount due on 31-12-2011.

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 2010, 2011 and 2012.

(A) (NEW SM) (ANS: BALANCE C/D IN TEMPO ACCOUNT AS ON 31.12.2012 RS.25,600)(FINAL PAYMENT MADE TO DELHI MOTORS ON 31ST DEC.2012, IS RS.41,638)

PROBLEM 8:

From the following particulars calculate:

i) value of plant taken back by the vendor,

ii) Value of plant left with the purchaser,

iii) Profit or loss on plant taken back

iv) Profit or loss on plant repossessed when sold by vendor.

Particulars:

i) X purchased 3 plants from Y costing Rs 1,00,000 each.

ii) Purchaser charged depreciation @ 20% on diminishing balance method.

iii) 2 plants were seized by the vendor when second installment was not paid at the end of second year and vendor valued the plants at cost less 30% depreciation annually charged at diminishing balance method.

iv) The vendor spent Rs 40,000 on overhauling the plants and sold for Rs 1,60,000.

PROBLEM 9: Accounting for destruction of tractor B: A firm acquired two tractors under hire purchase agreements, details of which were as follows:

Particulars	Tractor A 1.4.2016	Tractor B 1.10.2016
Cash price	17,500	23,750
Deposit	2,500	3,350
Interest	3,000	3,600
(Deemed to accrue evenly over the period of agreement)		
Monthly Installment amount	750	1000

Both agreements provided for payment to be made in twenty-four monthly Installments, commencing on the last day of the month following purchase, all Installments being paid on due dates.

On 30th June, 2017 Tractor B was completely destroyed by fire. In full settlement, on 10th July, 2017 the insurance company paid Rs.18,750 under a comprehensive policy out of which Rs.12,500 was paid to the hire purchase company in termination of the agreement. 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 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 31st December, 2016 and 31st December, 2017:

a. Tractors on hire purchase

b. Provision for depreciation of tractors.

c. Disposal of tractors

d. Hire purchase Company.

(C) (N16) (ANS.: TOTAL OF TRACTORS ON HIRE PURCHASE A/C AS ON 01.01.2013 IS RS.41,250)

PROBLEM 10: Accounting for sale and lease back under interest suspense method:

On 1-1-2010, X sells a truck to Y, on the Installment payment system on the following conditions:

The purchase price of the truck is Rs.2,00,000. This amount is payable to X in four equal annual Installments along with 12% interest p.a. on the outstanding balance, the first Installment being payable on the date of sale.

Y, in turn, hires out the truck to X for a monthly hire of Rs.6,000 p.m. from 1-1-2010. The hire charges are to be adjusted at the end of each year against the amount due to X on account of principal and interest, any difference being settled in cash.

Y charges 20% depreciation (on the WDV methods) on the truck. All payments are made as per the agreement. On 1-1-2013, the truck is sold by Y to X for Rs.30,000 in cash. Show in Y's books, the truck A/c, the interest suspense account, the hire charges A/c, the interest account and X's A/c.

THE END