UNIT NO: 04
Accounting for Leases

Accounting for leases (Meaning)

A lease is an agreement between lessor and lessee for the right to use an asset by lease in consideration of payment which determined in agreement. Leases can be classified in two categories i.e. Finance Lease and Operating Lease. In order to differentiate between these two, it can be determined on the nature of agreement between lessee and lessor. Accounting for leases is the process of recording transaction occurs between property owner and tenant for determining financial impact for the year.

Types of Lease (Finance Lease & Operating Lease)

1. **Financial Leases: (Hire Purchase & Installment System) Theory Only**

   Financial lease is a long-term lease in which lessee pays more than the value of property or equipment as lease charges to lessor. This lease continued for longer period of time. In this agreement major part of assets and its economic life covered and also lessee has a purchase option to buy such property.

Hire Purchase and Instalment System:

I) Hire Purchase System

Meaning: Hire Purchase is an agreement between hire purchaser and hire vendor in which goods are let on hire and hire purchaser has option to buy such goods in accordance with terms and condition of the agreement.

Features of Hire Purchase System: The features of hire purchase system are as follows.

1. **Possession of Goods:** Possession of goods is transferred by the hire vendor on the term that such person pays agreed amount in periodical instalment.
2. **Ownership:** The transfer of ownership of goods is passes only on payment of last instalment until hire vendor holds the ownership of goods.
3. **Payment of Price:** The purchase price of goods is converted in parts i.e. instalments. Price is paid by hire purchaser in terms of these instalments with interest.
4. **Usage of goods:** After buying goods hire purchaser has full rights to use or optimize such goods.
5. **Contingencies**: In contingent situation if hire purchaser failed to pay any instalment, hire vendor can seize the goods and adjust the paid money against the hire charges for use of goods.

Accounting procedure in the books of Hire Purchaser:

Journal Entries passed in the books of Hire Purchaser on accrual basis. Following are the journal entries are passed in the books of Hire Purchaser.

Basic journal entries passed in the books of Hire Purchaser (For 1st Year)			
Sr. No.	**Transaction**	**Nature for Hire Purchaser**	**Journal Entries in the books of Hire Purchase**
1	For the purchase of Assets/ Goods	I brought Goods or Assets	Assets a/c Dr. To Hire Vendor A/c Cr. (Being the assets purchased)
2	For down payment.	I have paid down payment	Hire Vendor A/c Dr. To Cash/Bank Cr. (Being down payment paid.)
3	For interest due	I have to pay interest	Interest A/c Dr. To Hire Vendor A/c Cr. (Being the interest is due)
4	For Payment of instalment	I have paid instalment	Hire Vendor A/c Dr. To Cash/Bank Cr. (Being the instalment is paid.)
5	For charging depreciation	I have to charge depreciation on assets.	Depreciation A/c Dr. To Assets A/c Cr. (Being the depreciation is charged.)
6	For transfer of Interest and Depreciation to profit and loss account.	Interest is expenses and Depreciation is loss for me.	Profit and Loss A/c Dr. To Interest A/c Cr. To Depreciation A/c Cr. (Being interest and depreciation transferred to profit and loss account)
For first year above Six entries passed in books thereafter entries No. 3,4,5 and 6 are passed in subsequent year.			

Journal entries in the books of Hire Vendor

Basic journal entries passed in the books of Hire Vendor (For 1st Year)			
Sr. No.	**Transaction**	**Nature for Hire Purchaser**	**Journal Entries in the books Hire Vendor**
1	For the purchase of Assets/ Goods	I sold Goods or Assets	Hire Purchaser A/c Dr. To Sales A/c Cr. (Being the assets purchased)
2	For down payment.	I have received down payment	Cash/ Bank Dr. To Hire Purchaser A/c Cr. (Being down payment received)
3	For interest due	I will receive interest	Hire Purchaser A/c Dr. To Interest A/c Cr. (Being the interest is due)
4	For receipt of instalment	I have received instalment	Cash/ Bank Dr. To Hire Purchaser A/c Cr. (Being the instalment is received)

5	For transfer of Interest to profit and loss account.	Interest is income for me.	Interest A/c Dr. To Profit and Loss Cr. (Being interest transferred to profit and loss account)
For first year above Five entries passed in books thereafter entries No. 3,4, and 5 are passed in subsequent year.			

In case of re-possession of goods or assets (Journal Entries)

Sr. No.	**Transaction**	**Nature for Hire Purchaser**	**Journal Entries in the books of leasee (Tenant)**
1	For transfer of balance of Goods / Assets	Lesser repossessed goods or assets	Hire Vendor A/c Dr. To Assets A/c Cr. (Being the asset transferred)
2	For transfer the balance of assets to profit and loss account	Balance transferred to profit and loss account	Profit & Loss A/c Dr. To Assets A/c Cr. (Being down payment received)
In the books of Hire Vendor in case of goods of repossession			
1	Transfer the balance to goods repossession	Asset repossessed from hire purchaser	Goods Repossession A/c Dr. To Hire Purchaser A/c Cr. (Being the balance transferred)
2	For payment of expenses on repossession	Expenses spent on repairs etc. at the time of repossession	Goods Repossession A/c Dr. To Cash/Bank A/c Cr. (Being expenses spent on repairs of assets)
3	Sale of Repossessed Assets	Repossessed assets sold	Cash/Bank A/c Dr. To Goods Repossession A/c Cr. (Being assets are sold)
4	Remaining balance on repossessed assets account to profit and loss account	Balance of Repossessed account transferred to p& l account	Goods Repossession A/c Dr. To Profit & Loss A/c Cr. (Being the balance transferred)

II) Instalment System

It is a system where goods are sold on the terms to pay purchase price in specific number of agreed instalments. In instalment purchase system possession and legal ownership of goods transferred to the buyer immediately.

Features of Instalment System

The following are the features of instalment purchase system.

1. **Possession:** The buyer gets possession of goods and ownership immediately after down payment.

2. **Mode of Payment:** The purchase price of goods is divided into instalments. These instalments can be covered from buyer after specific time intervals.

3. **Contingencies:** If buyer fails to pay any instalment, the seller can bring a suit against the buyer for recovery of outstanding amount.

Journal entries in the books of Buyer & Seller

Basic journal entries passed in the books of Buyer (For 1st Year)			
Sr.No.	**Transaction**	**Nature for Buyer**	**Journal Entries in the books of Buyer**
1	For the purchase of Assets/ Goods	I brought Goods or Assets	Assets a/c Dr. Interest Suspense A/c Dr. To Vendor A/c Cr. (Being the assets purchased)
2	For down payment.	I have paid down payment	Vendor A/c Dr. To Cash/Bank Cr. (Being down payment paid.)
3	For interest due	I have to pay interest	Interest A/c Dr. To Interest Suspense A/c Cr. (Being the interest is due)
4	For Payment of instalment	I have paid instalment	Vendor A/c Dr. To Cash/Bank Cr. (Being the instalment is paid.)
5	For charging depreciation	I have to charge depreciation on assets.	Depreciation A/c Dr. To Assets A/c Cr. (Being the depreciation is charged.)
6	For transfer of Interest and Depreciation to profit and loss account.	Interest is expenses and Depreciation is loss for me.	Profit and Loss A/c Dr. To Interest A/c Cr. To Depreciation A/c Cr. (Being interest and depreciation transferred to profit and loss account)
For first year above Six entries passed in books thereafter entries No. 3,4,5 and 6 are passed in subsequent year.			
Basic journal entries passed in the books of Seller (For 1st Year)			
Sr.	**Transaction**	**Nature for Seller**	**Journal Entries in the books of Seller**
1	For the purchase of Assets/ Goods	I sold Goods or Assets	Purchaser A/c Dr. To Sales A/c Cr. To Interest Suspense A/c Cr. (Being the assets purchased)
2	For down payment.	I have received down payment	Cash/ Bank Dr. To Purchaser A/c Cr. (Being down payment received)
3	For interest due	I will receive interest	Interest Suspense A/c Dr. To Interest A/c Cr. (Being the interest is due)
4	For receipt of instalment	I have received instalment	Cash/ Bank Dr. To Hire Purchaser A/c Cr. (Being the instalment is received)
5	For transfer of Interest to profit and loss account.	Interest is income for me.	Interest A/c Dr. To Profit and Loss Cr. (Being interest transferred to profit and loss account)
For first year above Five entries passed in books thereafter entries No. 3,4, and 5 are passed in subsequent year.			

Difference between hire purchase and Instalment System

Points	Hire Purchase	Instalment System
1. Meaning	It is a system of hiring goods on agreement basis.	It is an agreement of Sale
2. Ownership	Ownership of goods or assets is transferred only after the payment of last instalment.	Ownership of goods or assets is transferred immediately at the time of buying.
3. Right	The hire purchaser does not have rights to resell such goods or assets.	The purchaser has rights to resell or transfer such goods or assets.
4. Risk	In this system hire vendor is risk taker	In this system buyer is risk taker
5. Termination	The hire purchaser has a right to return goods before making final payment.	In instalment system the purchaser has no right to return goods before making final payment.

2. Operating Lease:

In an operating lease lessee can use property for specific period but does not cover option of buying an asset. For operating leases, lease charges considered as an expense in the profit and loss account in the books of lessee. The term period of operating lease is less compared to finance lease. In this type of agreement lessor provides specialised services to lessee but could not able to realise full cost of the assets.

Royalty Accounts:

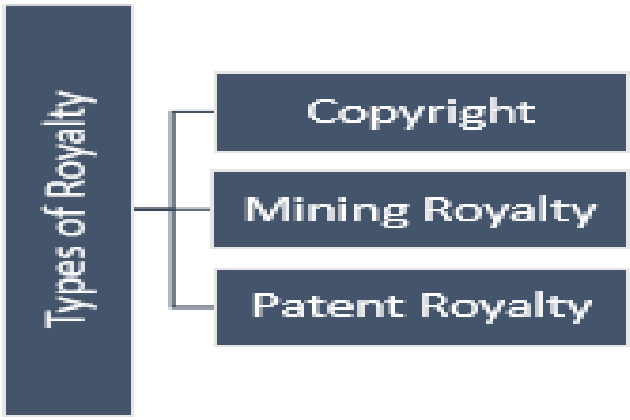
Meaning

Introduction: Royalty is the consideration or an amount payable by one person called lease (Tenant) to another person called Lessor (Landlord/ Owner). It is type of rent which is paid by a person who uses such property for business purpose. Royalty is a type of Nominal account. Royalty is income for Lessor and expenses for Lessee. Hence, it is a payment made by publisher to the author for using the copyright, or the consideration made by patentor to the patentee for using patent right is called royalty.

Types of Royalty:

There are following types of Royalties −

1. **Copyright** − Copyright provides a legal right to the author (of his book/s), the photographer (on his photographs), or any such kind of intellectual works. Copyright royalty is payable by the publisher (lessee) of a book to the author (lessor) of that book or to the photographer, based on the sale made by the publisher.
2. **Mining Royalty** − Lessee of a mine or quarry pays royalty to lessor of the mine or quarry, which is generally based on the output basis.



3. **Patent Royalty** − Patent royalty is paid by the lessee to lessor on the basis of output or production of the respective goods.

Concepts in Royalty: Before understanding royalty accounts the following concepts should be learn:

1) **Landlord/ Lessor/Owner:** The person who creates or owns the asset and provides the right of using such an asset to the third party is known as the lessor or the landlord. Furthermore, lessor receives consideration from the third party for using the rights to use his asset. Examples of lessors include owner of the mine or quarry, author of a book, artist in case of a music composition etc.
2) **Lessee/ Tenant/ User:** Lessee is the person who uses the asset of the creator or the owner in lieu of a consideration for using such an asset. Examples of Lessees include publishers, miners etc.
3) **Minimum Rent:** It is a guaranteed minimum amount which the lease is required to pay to the Lessor irrespective of the production/ output or Sales on which royalty is based. It is also called as Rock Rent or Fixed Rent or Dead Rent. Minimum Rent provides a guarantee to landlord regarding receipt of Minimum amount in case of low production. In case of unforeseen contingencies like strike, accident and lockout lease has a right to reduce minimum rent. It can be reduced proportionately for the period of strike or in terms of percentage which is determined in agreement.
4) **Surplus:** It is the excess of actual royalty over minimum Rent. e. g. If actual Royalty is 5,000 and minimum rent is determined 3,500 then surplus will be 1,500 (5000-3500).
5) **Short workings:** When amount of actual royalty is lower than minimum rent then Short workings is occurred. It is the excess of minimum rent over actual royalty. e. g. if the minimum rent fixed at 8,000 p.a. and actual royalty was Rs. 5000 resulted for the year then Short workings occurred Rs. 3,000

6) **Recoupment of Short workings:** As per terms of agreement lease has a right to recover his previous Short workings from such surplus. Typically, the agreement entered by the lessor and the lessee under Royalty Accounting provides for a provision. This provision allows carry forward of short workings in order to adjust the same in future. Therefore, in the following years Short Workings is adjusted against the excess royalty amount. Such a process of adjusting Short Working capital is known as recoupment of Short Workings.
7) **Lapse of Short workings:** The Short workings which cannot be recovered shall be treated as a deficit or loss and hence it shall be transferred to profit and loss account. It cannot be recoverable in future.
8) **Strike and Lockout:** There can be cases where a strike or a lockout takes place during the period of the Royalty Contract. Thus, the Royalty Agreement can provide for a provision that the minimum rent would be reduced proportionately in case a strike or a lockout takes place.

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	
		Output (x) Rate of Royalty					Act Roy or MR whichever is higher and then Less Recovered amt.

Royalty = Output X Rate of Royalty

Short working Suffered: Minimum Rent - Actual Royalty

Short working Recovered = Actual Royalty – Minimum Rent

Royalty Payable = Actual Royalty or Minimum Rent whichever is higher and then Less Short working Recovered

A) Journal Entries in the books Lessee/ User/ Tenant:

1) <u>Royalty Payable/Due:-</u>

I) If Actual Royalty is *Less than* Minimum Rent:

Option. 1: (If Minimum Rent A/c is <u>not Opened</u>)

Royalty Payable A/c---------- Dr
Short working (Suffered) A/c --------- Dr
To Landlord A/c
(Being royalty Payable)

OR

Option. 2: (If Minimum Rent A/c is <u>Opened</u>)

a) Royalty Payable A/c ---------- Dr
SW (Suffered) A/c ---------- Dr
To Minimum Rent A/c
(Being Minimum Rent Payable)

&

b) Minimum Rent A/c ---------- Dr
To Landlord A/c
(Being royalty Payable)

II) If Actual Royalty is *More than* Minimum Rent:

Royalty Payable A/c Dr
To Short working (Recovered) A/c
To Landlord A/c
(Being royalty Payable)

2) <u>Payment of Royalty:</u>

Landlord A/c---------- Dr
To Bank/Cash A/c
(Being Royalty Paid)

3) <u>Actual Royalty transfer to P&L A/c</u>

Profit & Loss A/c---------- Dr
To SW (Lapse if any)
To Royalty
(Being Royalty transfer to P&L A/c)

B) Journal Entries in the books Landlord/ Owner/ Lessor:

1) Royalty Receivable/Due:

Lessee A/c---------- Dr.
Short workings (Suspense) A/c---------- Dr.
To Royalty Receivable A/c
(Being Royalty Receivable)

2) Royalty Received:

Bank/Cash A/c ----------Dr
Lessees A/c
(Being Royalty received)

3) Received royalty transfer to P&L A/c:

Royalty Receivable---------- Dr.
To Short working (Suspense) A/c
To Profit and Loss A/c
(Being Royalty transfer to P&L A/c)

Practical problems on Royalty accounts

Problem No. 1:

The Vijay Mine Co. obtained a mine on lease 1st January 2011 on the following terms from Mr. Jameenwala.

i. Royalty was payable at Rs. 0.75 per tonne.
ii. Minimum Rent was fixed at Rs. 36,000 per annum.
iii. Each year excess of Minimum Rent over the actual royalties can be recovered during the subsequent two years.
iv. Due to strike or accident, minimum rent is to be reduced 25 % for that year.
v. Production was as follows.

Year	**2011**	**2012**	**2013**	**2014 (Strike year)**
Outputv (tonnes)	**42,000**	**44,000**	**70,000**	**60,000**

Pass necessary journal entries in the books of Vijay Mine Co**.**

(SPPU, April 2018)

Solution:

(Recoupment subsequent 2 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	
2011	**42000**	**31500**	**36000**	**4500**	**--**	**--**	**36000**
2012	**44000**	**33000**	**36000**	**3000**	**--**	**--**	**36000**
2013	**70000**	**52500**	**36000**	**--**	**7500**	**--**	**45000**
2014	**60000**	**45000**	**36000-25% =25000**	**--**	**--**	**--**	**45000**

Minimum Rent = 36000 X 25% = 9000

Journal Entries in the books of Vijay Mine Co. Ltd. (Lessee)

Date	Particulars	L.F.	Dr. Rs.	Cr. Rs.
31/12/2011	Royalty Payable A/c Dr. Short workings (S) A/c Dr. To Jameenwala A/c (Being the royalty is due)		31,500 4,500	 36,000
31/12/2011	Jameenwala A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		36,000	 36,000
31/12/2011	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		31500	 31500
31/12/2012	Royalty Payable A/c Dr. Short workings (S) A/c Dr. To Jameenwala A/c (Being the royalty is due)		33,000 3,000	 36,000
31/12/2012	Jameenwala A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		36,000	 36,000
31/12/2012	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		33000	 33000
31/12/2013	Royalty Payable A/c Dr. To Short workings (R) A/c To Jameenwala A/c (Being the royalty is due)		52,500	 7,500 45,000
31/12/2013	Jameenwala A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		45,000	 45,000
31/12/2013	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		52,500	 52,500
31/12/2014	Royalty Payable a/c Dr. To Jameenwala A/c (Being the amount of royalty is due)		45,000	 45,000

31/12/2014	Jameenwala A/c Dr. To Cash/Bank (Being amount of royalty paid.)		45,000	 45,000
31/12/2014	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		45,000	 45,000

Problem No. 2:

Gopal Mining Co. Ltd. took a mine on lease at a Royalty of Rs. 1 per ton. The minimum rent was fixed at Rs. 4,000 for first year, Rs.6,000 for second year, Rs.8,000 per year thereafter. Short workings of any year could be recouped out of royalties of next two year only. The production during the first four year was as follows.

Year	Output in tons
1	**2,000**
2	**4,500**
3	**6,000**
4	**9,000**

Pass necessary journal entries in the books of Gopal Mining Co Ltd.

(SPPU Oct 2017)

Solution:

(Recoupment next 2 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	
1	2000	2000	4000	2000	--	--	4000
2	4500	4500	6000	1500	--	--	6000
3	6000	6000	8000	2000	--	2000	8000
4	9000	9000	8000	--	1000	500	8000

Journal Entries in the books of Gopal Mining Co Ltd

Date	Particulars	L.F.	Dr.Rs.	Cr.Rs.
1	Royalty Payable A/c Dr. Short workings (S) A/c Dr. To Landlord A/c (Being the royalty is due)		2000 2000	 4000
1	Lessor A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		4000	 4000
1	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		2000	 2000
2	Royalty Payable A/c Dr. Short workings (S) A/c Dr. To Lessor A/c (Being the royalty is due)		4500 1500	 6000
2	Lessor A/c Dr.		6000	

	To Cash / Bank A/c (Being the royalty is paid)			6000
2	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		4500	 4500
3	Royalty Payable A/c Dr. Short workings (S) A/c Dr. To Lessor A/c (Being the royalty is due)		6000 2000	 8000
3	Landlord A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		8000	 8000
3	Profit and Loss A/c Dr. To Short workings A/c (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		8000	 2000 6000
4	Royalty Payable a/c Dr. To Short workings (R) A/c To Landlord A/c (Being the amount of royalty is due)		9000	 1000 8000
4	Lessor A/c Dr. To Cash/Bank (Being amount of royalty paid.)		8000	 8000
4	Profit and Loss A/c Dr. To Short workings A/c (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		9500	 500 9000

Problem No. 3:

'X' Ltd took from 'Y' Ltd. a lease of coal field for a period of 10 years from 1st January 2011. The said lease provided for the payment of Royalties of Y Ltd. at Rs. 2 per ton with a minimum rent of Rs. 20,000 p.a.

Each year excess of minimum rent over actual royalties was recoverable during the subsequent two years. The lease however stipulated that if any year the normal rent was not attained due to accident, the minimum rent was to be reduced proportionately according to length of stoppage.

The output was as follows.

Year	2011	2012	2013	2014
Output (tons)	7,000	14,000	20,000	12,000

During the year 2014 there was a stoppage of work due to accident lasting for three months.
Pass the necessary journal entries in the books of X Ltd. for four years.

(SPPU Oct 2016, Apr. 2015)

Solution:

(Recoupment subsequent 2 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	
2011	7000	14000	20000	6000	--	--	20000
2012	14000	28000	20000	--	6000	--	22000
2013	20000	40000	20000	--	--	--	40000
2014	12000	24000	15000*	--	--	--	24000

MR for three months: 20000/12x3=5000

(20000-5000=15000)

Journal Entries in the books of X Ltd.

Date	Particulars		L.F.	Dr. Rs.	Cr. Rs.
31/12/2011	Royalty Payable A/c	Dr.		14,000	
	Short working (S) A/c	Dr.		6,000	
	To Y Ltd. A/c				20,000
	(Being the royalty is due)				
31/12/2011	Y Ltd A/c	Dr.		20,000	
	To Cash / Bank A/c				20,000
	(Being the royalty is paid)				
31/12/2011	Profit and Loss A/c	Dr.		14,000	
	To Royalty Payable				14,000
	(Being royalty transferred to profit and loss account)				
31/12/2012	Royalty Payable A/c	Dr.		28,000	
	To Short workings (R) A/c				6000
	To Y Ltd. A/c				22,000
	(Being the royalty is due)				
31/12/2012	Y Ltd. A/c	Dr.		22000	
	To Cash / Bank A/c				22000
	(Being the royalty is paid)				
31/12/2012	Profit and Loss A/c	Dr.		28,000	
	To Royalty Payable				28,000
	(Being royalty transferred to profit and loss account)				
31/12/2013	Royalty Payable A/c	Dr.		40,000	
	To X Ltd. A/c				40,000
	(Being the royalty is due)				
31/12/2013	X Ltd. A/c	Dr.		40,000	
	To Cash / Bank A/c				40,000
	(Being the royalty is paid)				
31/12/2013	Profit and Loss A/c	Dr.		40,000	
	To Royalty Payable				40,000
	(Being royalty transferred to profit and loss account.)				
31/12/2014	Royalty Payable A/c	Dr.		24,000	
	To X Ltd. A/c				24,000
	(Being the royalty is due)				
31/12/2014	X Ltd. A/c	Dr.		24,000	
	To Cash / Bank A/c				24,000
	(Being the royalty is paid)				
31/12/2014	Profit and Loss A/c	Dr.		24,000	
	To Royalty Payable				24,000
	(Being royalty transferred to profit and loss account.)				

Problem No.4:

On 1st January 2012 Mr. Ram a patentee of a new type of gas burner, issued a license to Gasline Co. for the manufacture and sale of burners for 10 years on the following terms.

i. Gasline Co. to pay a royalty of Rs.100 for every burner sold subject to minimum rent of Rs.1,50,000 per annum.
ii. Short workings could be recouped only within two years following year in which Short workings occur.
iii. Payment made to be on 31st December every year
iv. The number of Burners was sold as follows.
    Year ended 31st Dec 2012 (900 nos.)
    Year ended 31st Dec 2013 (1,300 nos.)
    Year ended 31st Dec 2014 (2,000 nos.)
    Year ended 31st Dec 2015 (1,600 nos.)
    Pass necessary journal entries in the books of Gasline Co. for the above four years

(**SPPU, APRIL 2016**)

Solution:

(Recoupment following 2 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	

Royalty Table

Year	Output (Burners) in Nos.	Royalty @ Rs. 100 each burner	Min. Rent	Amount Payable to landlord	Short Working		
					Occurred	Recovered	Unrecovered
2012	900	90,000	1,50,000	1,50,000	60,000	-	-
2013	1,300	1,30,000	1,50,000	1,50,000	20,000	-	-
2014	2,000	2,00,000	1,50,000	1,50,000	-	50,000	10,000
2015	1600	1,60,000	1,50,000	1,50,000	-	10,000	10,000

Journal entries in the books of Gasline Co. (Lessee)

Date	Particulars		L.F.	Dr. Rs.	Cr. Rs.
31/12/2012	Royalty Payable A/c	Dr.		90,000	
	Short working (S) A/c	Dr.		60,000	
	To Mr. Ram A/c				1,50,000
	(Being the royalty is due)				
31/12/2012	Mr. Ram A/c	Dr.		1,50,000	

	To Cash / Bank A/c (Being the royalty is paid)			1,50,000
31/12/2012	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		90,000	 90,000
31/12/2013	Royalty Payable A/c Dr. Short working (S) A/c Dr. To Mr. Ram A/c (Being the royalty is due)		1,30,000 20,000	 1,50,000
31/12/2013	Mr. Ram A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		1,50,000	 1,50,000
31/12/2013	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		1,30,000	 1,30,000
31/12/2014	Royalty Payable A/c Dr. To Short workings (R) A/c To Mr. Ram A/c (Being the royalty is due)		2,00,000	 50,000 1,50,000
31/12/2014	Mr. Ram A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		1,50,000	 1,50,000
31/12/2014	Profit and Loss A/c Dr. To Short workings A/c (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		2,10,000	 10,000 2,00,000
31/12/2015	Royalty Payable A/c Dr. To Short workings (R) A/c To Mr. Ram A/c (Being the royalty is due)		1,60,000	 10,000 1,50,000
31/12/2015	Mr. Ram A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		1,50,000	 1,50,000
31/12/2015	Profit and Loss A/c Dr. To Short workings A/c (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		1,70,000	 10,000 1,60,000

Problem No. 5:

A Colliery Co. worked for coal under a lease which is provided for the payment of Royalties at Rs. 0.50 per ton with a minimum rent of Rs. 12,000 p.a. The power to recoup short working is given during the subsequent two years.

In the event of strike or accident the minimum rent was to be recouped proportionately. The output was as follows:

Year	2010	2011	2012	2013	2014
Output in tons	NIL	20,000	44,000	50,000	20,000

During the year 2014 there was a strike lasting for three months.

Pass the necessary journal entries in the books of Colliery Co.

Solution:

(Recoupment Subsequent 2 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	

Royalty Table

Year	Output in Tons	Royalty @ Rs. 0.50 per ton	Min. Rent	Amount Payable to landlord	Short Working		
					Occurred	Recovered	Unrecovered
2010	NIL	Nil	12,000	12,000	12,000	-	-
2011	20,000	10,000	12,000	12,000	2,000	-	-
2012	44,000	22,000	12,000	12,000	-	10,000	2,000
2013	50,000	25,000	12,000	23,000	-	2,000	-
2014	20,000	10,000	9,000 (12000-3000)	10,000			

Journal Entries in the books of Colliery Co.

Date	Particulars	L.F.	Dr. Rs.	Cr. Rs.
31/12/2010	Royalty Payable A/c Dr. Short working (S) A/c Dr. To Lessor/ LL A/c (Being the royalty is due)		Nil 12,000	 12,000
31/12/2010	Lessor/ LL A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		12,000	 12,000
31/12/2011	Royalty Payable A/c Dr. Short working (S) A/c Dr. To Lessor/ LL A/c (Being the royalty is due)		10,000 2,000	 12,000
31/12/2011	Lessor/ LL A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		12,000	 12,000
31/12/2011	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		10,000	 10,000
31/12/2012	Royalty Payable A/c Dr. To Short working (R) A/c To Lessor A/c (Being the royalty is due)		22,000	 10,000 12,000
31/12/2012	Lessor/ LL A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		12,000	 12,000

31/12/2012	Profit and Loss A/c Dr. To Short workings A/c (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		24,000	 2,000 22,000
31/12/2013	Royalty Payable A/c Dr. To Short working (R) A/c To Lessor A/c (Being the royalty is due)		25,000	 2,000 23,000
31/12/2013	Lessor/ LL A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		23,000	 23,000
31/12/2013	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		25,000	 25,000
31/12/2014	Royalty Payable A/c Dr. To Lessor A/c (Being the royalty is due)		10,000	 10,000
31/12/2014	Lessor/ LL A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		10,000	 10,000
31/12/2014	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		10,000	 10,000

Problem No. 6:

Polyflex Mining Co. took a mine on lease from M/S Rakesh Brothers from 1st January 2016. Royalty was Rs.2 per ton of coal taken out. Minimum rent was Rs.20,000 per year. Short working was to be recovered within the first four years of contract.

The coal taken out during the first four were as follows:

Year	2016	2017	2018	2019
Tons	4000	7000	11000	17000

Pass journal entries in the books of Polyflex Mining Comapany.

Solution:

(Recoupment first 4 year)

Working Table

Year	Output	Actual Royalty	Minimum Rent	Short Workings			Royalty Payable
				Suffered	Recovered	Lapse	

Royalty Table

Year	Output in Tons	Royalty @ Rs.2	Min. Rent	Amount Payable to	Short Working		
					Occurred	Recovere	Unrecovere

		per ton		landlord		d	d
2016	4,000	8,000	20,000	20,000	12,000	-	-
2017	7,000	14,000	20,000	20,000	6000	-	-
2018	11,000	22,000	20,000	20,000	-	2,000	-
2019	17,000	34,000	20,000	20,000	-	14,000	2,000

Journal Entries in the books Polyflex Co. Ltd.

Date	Particulars	L.F.	Dr. Rs.	Cr. Rs.
31/12/2016	Royalty Payable A/c Dr. Short working (S) A/c Dr. To M/s Rakesh Bros.A/c (Being the royalty is due)		8,000 12,000	 20,000
31/12/2016	M/s Rakesh Bros. A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		20,000	 20,000
31/12/2016	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		8,000	 8,000
31/12/2017	Royalty Payable A/c Dr. Short working (S) A/c Dr. To M/s Rakesh Bros.A/c (Being the royalty is due)		14,000 6,000	 20,000
31/12/2017	M/s Rakesh Bros. A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		20,000	 20,000
31/12/2017	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		14,000	 14,000
31/12/2018	Royalty Payable A/c Dr. To Short working (R) A/c To M/s Rakesh Bros. A/c (Being the royalty is due)		22,000	 2,000 20,000
31/12/2018	M/s Rakesh Bros. A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		20,000	 20,000
31/12/2018	Profit and Loss A/c Dr. To Royalty Payable (Being royalty transferred to profit and loss account)		22,000	 22,000
31/12/2019	Royalty Payable A/c Dr. To Short working (R) A/c To M/s Rakesh Bros. A/c (Being the royalty is due)		34,000	 14,000 20,000
31/12/2019	M/s Rakesh Bros. A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		20,000	 20,000
31/12/2019	Profit and Loss A/c Dr. To Short working (Lapse) To Royalty Payable (Being royalty transferred to profit and loss account)		36,000	 2,000 34,000

Problem No.7: The Maharashtra Colliery Company Limited obtained from Mr. Aatish a lease of some coal bearing land on the following terms:

i) Royalty to be paid at fifty paise per ton
ii) Minimum Rent at Rs. 5,000 for the first year, Rs. 5,500 for the second year, and thereafter Rs. 6,000 p.a.
iii) Short workings were to be recouped during the following two years.
iv) In the event of strike/ lockout the minimum rent was to be reduced proportionately.
v) The results of the working:

Year	**Sales (tons)**	**Closing Stock (tons)**
2011	4000	NIL
2012	14,000	1000
2013	6000	2000 (Strike for 3 Months)
2014	17000	3000

Solution:

For calculation of royalty, number of output should be calculated first.

Output/ Production = Sales + Closing Stock – Opening Stock

2011 = 4000 + Nil – Nil = 4,000
2012 = 14000 + 1000 – Nil = 15,000
2013 = 6000 + 2000 – 1000 = 7,000
2014 = 17000 + 3000 – 2000 = 18,000

(Recoupment following 2 year)

Working Table

Year	**Output**	**Actual Royalty**	**Minimum Rent**	**Short Workings**			**Royalty Payable**
				Suffered	**Recovered**	**Lapse**	

Royalty Table

Year	**Output in Tons**	**Royalty @ Rs.0.50 per ton**	**Min. Rent**	**Amount Payable to landlord**	**Short Working**		
					Occurred	**Recovered**	**Unrecovered**
2011	4,000	2,000	5,000	5,000	3,000	-	-
2012	15,000	7,500	5,500	5,500	-	2,000	-
2013	7,000	3,500	4,500 (6000-4500)	4,500	1,000 -	- -	1,000 -
2014	18,000	9,000	6,000	8000	-	1,000	-

Journal entries in the books of Maharashtra Colliery Company

Date	Particulars	L.F.	Dr. Rs.	Cr. Rs.
31/12/2011	Royalty Payable A/c Dr. Short working (S) A/c Dr. To Mr. Aatish A/c (Being the royalty is due)		2.000 3,000	 5,000
31/12/2011	Mr. Aatish A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		5,000	 5,000
31/12/2011	Profit and Loss A/c Dr. To Royalty Payable A/c (Being royalty transferred to profit and loss account)		2,000	 2,000
31/12/2012	Royalty Payable A/c Dr. To Short working (R) A/c To Mr. Aatish A/c (Being the royalty is due)		7,500	 2,000 5,500
31/12/2012	Mr. Mr. Aatish A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		5,500	 5,500
31/12/2012	Profit and Loss A/c Dr. To Royalty Payable A/c (Being royalty transferred to profit and loss account)		7,500	 7,500
31/12/2013	Royalty Payable A/c Dr. Short working (S) A/c Dr. To Mr. Aatish A/c (Being the royalty is due)		3,500 1,000	 4,500
31/12/2013	Mr. Aatish A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		4,500	 4,500
31/12/2013	Profit and Loss A/c Dr. To Short working (Lapse) A/c To Royalty Payable (Being royalty transferred to profit and loss account)		4,500	 1,000 3,500
31/12/2014	Royalty Payable A/c Dr. To Short working (R) A/c To Mr. Aatish A/c (Being the royalty is due)		9,000	 1,000 8,000
31/12/2014	Mr. Mr. Aatish A/c Dr. To Cash / Bank A/c (Being the royalty is paid)		8,000	 8,000
31/12/2014	Profit and Loss A/c Dr. To Royalty Payable A/c (Being royalty transferred to profit and loss account)		9,000	 9,000

Problem No. 6:

Bharat Colliery Company leased coal mine to Bengal Company Ltd. for the period of 10 years. The rate of Royalty was decided at Rs.2 per ton and minimum rent was fixed at Rs.15,000 every year. Short working if any can be recovered in first three years only.

The production for four years was as follows.

Year	**2016**	**2017**	**2018**	**2019**
Output	**3,000**	**6,000**	**10,000**	**13,000**

You are required to prepare necessary ledger account in the books of Bengal Co. and pass necessary journal entries in the books of Bharat Colliery Co. Ltd. for all four years**.**

(SPPU Oct.2012)

Solution:

(Recoupment first 3 year)

Working Table

Year	**Output**	**Actual Royalty**	**Minimum Rent**	**Short Workings**			**Royalty Payable**
				Suffered	**Recovered**	**Lapse**	

Royalty Table

Year	Output in Tons	Royalty @ Rs.2 per ton	Min. Rent	Amount Payable to landlord	Short Working		
					Occurred	Recovered	Unrecovered
2016	3,000	6,000	15,000	15,000	9,000	-	-
2017	6,000	12,000	15,000	15,000	3,000	-	-
2018	10,000	20,000	15,000	15,000	-	5,000	7,000
2019	13,000	26,000	15,000	26,000	-	-	-

Journal Entries in the books of Bharat Colliery Co. (Lessor)

Date	**Particulars**	**L.F.**	**Dr. Rs.**	**Cr. Rs.**
31/12/2016	Bengal Co. A/c Dr. To Short workings (Suspense) A/c To Royalty Receivable A/c (Being amount of royalty due from Lessee)		15,000	 9,000 6,000
31/12/2016	Cash/ Bank A/c Dr. To Bengal Co. A/c (Being amount of royalty received.)		15,000	 15,000
31/12/2016	Royalty Receivable Dr. To Profit and Loss A/c (Being royalty transferred to profit and loss account)		6,000	 6,000
31/12/2017	Bengal Co. A/c Dr. To Short workings (Suspense) A/c		15,000	 3,000

	To Royalty Receivable A/c (Being amount of royalty due from Lessee)			12,000
31/12/2017	Cash/ Bank A/c Dr. To Bengal Co. A/c (Being amount of royalty received.)		15,000	 15,000
31/12/2017	Royalty Receivable Dr. To Profit and Loss A/c (Being royalty transferred to profit and loss account)		12,000	 12,000
31/12/2018	Bengal Co. A/c Dr. Short workings A/c Dr. To Royalty Receivable (Being the amount of royalty is due)		15,000 5,000	 20,000
31/12/2018	Cash/ Bank A/c Dr. To Bengal Co. A/c (Being amount of royalty received.)		15,000	 15,000
31/12/2018	Royalty Receivable A/c Dr. Short workings A/c (Unrecovered) Dr. To Profit and Loss A/c (Being royalty and unrecovered Short workings transferred to profit and loss account)		20,000 7,000	 27,000
31/12/2019	Bengal Co. Ltd. A/c Dr. To Royalty Receivable A/c (Being the amount of royalty is due)		26,000	 26,000
31/12/2019	Cash / Bank A/c Dr. To Bengal Co. Ltd. A/c (Being amount of royalty received.)		26,000	 26,000
31/12/2019	Royalty Receivable Dr. To Profit and Loss A/c (Being royalty transferred to profit and loss account)		26,000	 26,000

In the books of Bengal Co Ltd. (Lessee)

Royalty Payable Account

Date	Particular	Amount	Date	Particular	Amount
31/12/2016	To Bharat Colliery Co.	6000	31/12/2016	By Profit & Loss A/c	6000
		6000			6000
31/12/2017	To Bharat Colliery Co.	12000	31/12/2017	By Profit & Loss A/c	12000
		12000			12000
31/12/2018	To Bharat Colliery Co.	15000	31/12/2018	By Profit & Loss A/c	20000
--//--	To Short working	5000			
		20000			20000
31/12/2019	To Bharat Colliery Co.	26000	31/12/2019	By Profit & Loss A/c	26000
		26000			26000

Bharat Colliery Co A/c (Lessor)

Date	Particular	Amount	Date	Particular	Amount
31/12/2016	To Cash/Bank .	15000	31/12/2016	By Royalty A/c	6000

			--//--	By Short working	9000
		15000			15000
31/12/2017	To Cash/Bank	15000	31/12/2017	By Royalty A/c	12000
			--//--	By Short working A/c	3000
		15000			15000
31/12/2018	To Cash/Bank	15000	31/12/2018	By Royalty A/c	15000
		15000			15000
31/12/2019	To Cash/Bank	26000	31/12/2019	By Royalty A/c	26000
		26000			26000

Short working A/c

Date	Particular	Amount	Date	Particular	Amount
31/12/2016	To Bharat Colliery Co.	9000	31/12/2016	By balance c/d	6000
		9000			9000
1/1/2017	To balance b/d	9000	31/12/2017	By Balance c/d	12000
31/12/2017	To Bharat Colliery Co.	3000			
		12000			12000
01/01/2018	To balance b/d	12000	31/12/2018	By Royalty	5000
			--//--	By Profit & Loss A/c	7000
		12000			12000

Exercise

Problem No. 1 : Meet Ltd. took a mine on lease from the landlord Abhi ltd. for period of 10 years beginning from 1st January 2016. The terms of the lease are as follows.

1. To pay a minimum rent of Rs.32,000 p.a.
2. Each year excess of minimum rent over actual royalty can be recovered during the next two years .
3. In any year due to accident or strike the actual royalty is less than minimum rent it is to be reduced by 25% for that year.
4. Royalty is to be calculated at Rs. 0.75 per ton
5. The coal raised in the first four year are as follows.

Year	2016	2017	2018	2019
Output(ton)	24,000	32,000	56,000	40,000 (Strike for three months)

Pass necessary journal entries and prepare necessary ledger accounts in the books of Meet Ltd**. (SPPU April 2012)**

Problem No. 2 : Kenstar Company leased coal mine to Argon Colliery Company Limited at a Royalty of Rs. 2 per ton subject to minimum rent of Rs. 20,000 per annum with a provision to reduce the minimum rent proportionately for the period of stoppage of work during strike.

The Short workings if any can be recovered in first three years only. The output for four years from 2016 was as follows.

Year	**2016**	**2017**	**2018**	**2019**
Output (tons)	**6,000**	**8,000**	**14,000**	**6,000**

During the year 2019 there was a strike for 6 months. Pass necessary journal entries in the books of Argon Colliery Co. Ltd.

Problem No. 3 A Ltd. owned the patent of a safety lock. It granted B Ltd. a licence to manufacture and sell the locks on the following terms.

a. B Ltd. to pay A Ltd. a royalty of Rs. 5 per each lock sold
b. Minimum rent was fixed at Rs. 25,000
c. B Ltd. to have the right to deduct the deficiency from the royalties during the first three years only .
d. The number of locks sold was as follows :

Year	**2016**	**2017**	**2018**	**2019**
Sales (units)	**4000**	**4400**	**5800**	**6400**

You are required to pass the journal entries and ledger accounts in the books A Ltd.

Problem No.4 Aarti Colliery Ltd. got the lease of a colliery on the basis of 50 paise per ton of coal raised subject to a minimum rent of Rs. 40000 p.a. The tenant has the right to recoup Short workings during the first four years of the lease. The output was as follows :

Year	**2016**	**2017**	**2018**	**2019**
Output (tons)	**40000**	**52000**	**100000**	**120000**

You are required to give the journal entries and ledger accounts in the books of Aarti ltd.

Problem No. 5 M/s Haresh Brothers took a mine on lease from M/s Rakesh at a royalty of Rs.5 per ton for a period of 10 years. The minimum rent was fixed at Rs. 20,000 for the first year Rs. 30,000 for second year Rs. 40000 per year thereafter. Short workingss of any year could be recouped out of the Royalties of next two year only . The production during first five years as as follows :

Year	**2015**	**2016**	**2017**	**2018**	**2019**
Output (tons)	**2000**	**4500**	**9000**	**10000**	**12,000**

Pass necessary journal entries in the books of M/s Haresh Brothers.