# *Chapter* 19

# Royalty Accounts

*Introduction – Rent and royalty – Minimum Rent – short-working – Recoupment of Short-working – Surplus – Abnormal fall in Output – Accounting Entries in Lessee's Books – Accounting Entries in Lesser's book – Sub-lease – Questions – Objective Type Questions – Theoretical Questions – Practical Problems.*

Royalty is a periodical payment for the use of a certain property or a right like mine, patent, copyright, to its owner. And the payment of royalty is calculated on the basis of quantity of output or sale. *Royalty is an amount which is paid as a consideration for the use of rights to the owner.* In other words, Royalty is the compensation made to the owner of an asset in exchange for the right to use the asset. The person who surrenders the right is known as Lessor. The person, who makes the payment or who uses the asset, is known as Lessee. The Royalty paid by the Lessee is received by the Lessor. When the Landlord, Patentee or an author permits another person to use the land, patent or book, the latter is called Lessee, Licensee or a publisher. The Landlord, Patentee or author are known as Lessor or Landlord.

## RENT AND ROYALTY

Note that the payment for the purchase of land, patent, or copyright is a capital expenditure and recorded as fixed assets. When the payment is made for the use thereof, it is a Royalty. Accounting, relating to transactions involving the payment of royalties, is called Royalty Account. It is a Nominal Account. Royalty is an income to the owner and expense to the user.

Rent is mostly payable according to time, as per day, per week, per month or per year etc. But the payment of royalty depends on yield or production. Payment of royalty is a business expense. When the royalty payable to the Lessor is on the basis of production, it is a part of cost of production and, therefore, the Royalty Account is transferred to Trading or Manufacturing or Production Account. The Royalty payable on the basis of sales, which is a selling expenditure, is transferred to Profit and Loss Account.

## ROYALTY vs. RENT

| Royalty | Rent |
|---|---|
| 1. The parties are known as lessor, author, patent-holder and lessee, publisher, patentee, etc. | 1. The parties are known as tenant and landlord. |
| 2. There arise a clause in the agreement to pay minimum rent. | 2. No such clause is there. |
| 3. It is payable on the basis of production, sales etc. | 3. It is payable on the basis of time–weekly, monthly etc. |
| 4. The amount is variable on the basis of production, sales etc. | 4. Generally, the amount of rent is fixed with regard to time. |

## MINIMUM RENT

The Minimum Rent is also known as Dead Rent or Rock Rent or Flat Rent. In the agreement between the Lessor and the Lessee, there is usually a clause mentioning a minimum amount that must be paid by the Lessee to the Lessor in any particular year whether they derived any benefit or not, out of the right. Such a minimum amount is known as Minimum Rent. The Minimum is to avoid loss, if the amount of royalty is less than the normal one. In addition, a regular flow of income is expected by the Lessor. In certain cases, the production or the sales may be higher. But it may be remembered that the lessee is required to pay the amount of Royalty (calculated on output or sales) or the Minimum Rent (fixed in the lease agreement) whichever is higher. For instance, a mine is leased for a certain term of years at a yearly minimum rent of Rs 15,000 merging into a royalty or Rs 2 per ton. If during the first year the tonnage raised from the mine is 6,000 tons, the royalty at Rs 2 per ton would be Rs. 12,000. In this event, the Lessee would require to pay the Minimum Rent of Rs. 15,000 although the royalty rent on the output is only Rs 12,000. If, however, the tonnage in the first year reached 9,000 tons the royalty at Rs 2 per ton comes to Rs. 18,000 and the Lessee would require to pay Rs 18,000. In other words, when the Royalty is less than Minimum Rent, the Lessee pays the minimum rent, but, when the royalty on the output exceeds the minimum rent, Royalty is payable on output or sales.

## SHORTWORKING

The excess of Minimum Rent over the actual royalty is termed as Shortworking." In other words, when the royalty is less than the Minimum Rent, the excess that the Lessee pays over and above the royalty is known as Shortworking. Shortworking is usually recoverable by the Lessee in later years when the royalty is in excess of Minimum Rent and is therefore also known as Redeemable Dead Rent. For instance, *A*, the Landlord gives his land on lease to *B* on a Minimum Rent of Rs 10,000 a year. But the actual royalty comes to Rs 8,000. The Lessee has to pay Rs. 10, 000. The deficiency of Rs 2,000 is called Shortworking.

## RECOUPMENT OF SHORTWORKING

It is generally seen that in the first few years of the royalty agreement, the production or sales do not get the required momentum because of the time consumed in the preparation to start the production; thus Shortworkings arise. In order to protect the interest of the Lessee, a clause may be included in the contract that the deficiency or Shortworkings may be recouped, when there is a surplus in subsequent years. Such a provision is known as the right to recoup the Shortworkings and this right can be of two types: (1) Fixed, and (2) Floating.

An agreement may be entered into between Lessor and Leesee that the Shortworkings may be recouped in the first few years, commencing from the date of Royalty Agreement and the right is said to be *fixed* (restricted). It is presumed that only at the beginning, there may be shortworking, which should be recovered within the specified period. For instance, the Shortworkings of 2001 and 02 may be recouped till 2003, that too out of surplus and the shortworkings arising after 2003 cannot be recouped. But when the Lessor promises to compensate the shortworkings within two or three subsequent or following years, then the right is said to be floating (unrestricted). Thus, if the power to recoup shortworkings is for subsequent three years, then the shortworking of 2001 can be recouped till 2004; Shortworkings to 2002 can be recouped till 2005 and so on. When the right to recoup expires in respect of any portion of the Shortworkings, it should be written off to Profit and Loss Account.

# Chapter 19

# Royalty Accounts

*Introduction – Rent and royalty – Minimum Rent – short-working – Recoupment of Short-working – Surplus – Abnormal fall in Output – Accounting Entries in Lessee's Books – Accounting Entries in Lesser's book – Sub-lease – Questions – Objective Type Questions – Theoretical Questions – Practical Problems*

Royalty is a periodical payment for the use of a certain property or a right like mine, patent, copyright, to its owner. And the payment of royalty is calculated on the basis of quantity of output or sale. *Royalty is an amount which is paid as a consideration for the use of rights to the owner.* In other words, Royalty is the compensation made to the owner of an asset in exchange for the right to use the asset. The person who surrenders the right is known as Lessor. The person, who makes the payment or who uses the asset, is known as Lessee. The Royalty paid by the Lessee is received by the Lessor. When the Landlord, Patentee or an author permits another person to use the land, patent or book, the latter is called Lessee, Licensee or a publisher. The Landlord, Patentee or author are known as Lessor or Landlord.

## RENT AND ROYALTY

Note that the payment for the purchase of land, patent, or copyright is a capital expenditure and recorded as fixed assets. When the payment is made for the use thereof, it is a Royalty. Accounting relating to transactions involving the payment of royalties, is called Royalty Account. It is a Nominal Account. Royalty is an income to the owner and expense to the user.

Rent is mostly payable according to time, as per day, per week, per month or per year etc. But the payment of royalty depends on yield or production. Payment of royalty is a business expense. When the royalty payable to the Lessor is on the basis of production, it is a part of cost of production and, therefore, the Royalty Account is transferred to Trading or Manufacturing or Production Account. The Royalty payable on the basis of sales, which is a selling expenditure, is transferred to Profit and Loss Account.

### ROYALTY vs. RENT

| Royalty | Rent |
|---|---|
| 1. The parties are known as lessor, author, patent-holder and lessee, publisher, patentee, etc. | 1. The parties are known as tenant and landlord. |
| 2. There arise a clause in the agreement to pay minimum rent. | 2. No such clause is there. |
| 3. It is payable on the basis of production, sales etc. | 3. It is payable on the basis of time–weekly, monthly etc. |
| 4. The amount is variable on the basis of production, sales etc. | 4. Generally, the amount of rent is fixed with regard to time. |

## MINIMUM RENT

The Minimum Rent is also known as Dead Rent or Rock Rent or Flat Rent. In the agreement between the Lessor and the Lessee, there is usually a clause mentioning a minimum amount that must be paid by the Lessee to the Lessor, in any particular year, whether they derived any benefit or not, out of the right. Such a minimum amount is known as Minimum Rent. The Minimum is to avoid loss, if the amount of royalty is less than the normal one. In addition, a regular flow of income is expected by the Lessor. In certain cases, the production or the sales may be higher. But it may be remembered that the lessee is required to pay the amount of Royalty (calculated on output or sales) or the Minimum Rent (fixed in the lease agreement) whichever is higher. For instance, a mine is leased for a certain term of years at a yearly minimum rent of Rs 15,000 merging into a royalty or Rs 2 per ton. If during the first year the tonnage raised from the mine is 6,000 tons, the royalty at Rs 2 per ton would be Rs, 12,000. In this event, the Lessee would require to pay the Minimum Rent of Rs, 15,000 although the royalty rent on the output is only Rs 12,000. If, however, the tonnage in the first year reached 9,000 tons the royalty at Rs 2 per ton comes to Rs, 18,000 and the Lessee would require to pay Rs. 18,000. In other words, when the Royalty is less than Minimum Rent, the Lessee pays the minimum rent, but, when the royalty on the output exceeds the minimum rent, Royalty is payable on output or sales.

## SHORTWORKING

" The excess of Minimum Rent over the actual royalty is termed as Shortworking." In other words, when the royalty is less than the Minimum Rent, the excess that the Lessee pays over and above the royalty is known as Shortworking. Shortworking is usually recoverable by the Lessee in later years when the royalty is in excess of Minimum Rent and is therefore also known as Redeemable Dead Rent. For instance, *A*, the Landlord gives his land on lease to *B* on a Minimum Rent of Rs 10,000 a year. But the actual royalty comes to Rs 8,000. The Lessee has to pay Rs, 10, 000. The deficiency of Rs 2,000 is called Shortworking.

## RECOUPMENT OF SHORTWORKING

It is generally seen that in the first few years of the royalty agreement, the production or sales do not get the required momentum because of the time consumed in the preparation to start the production; thus Shortworkings arise. In order to protect the interest of the Lessee, a clause may be included in the contract that the deficiency or Shortworkings may be recouped, when there is a surplus in subsequent years. Such a provision is known as the right to recoup the Shortworkings and this right can be of two types: (1) Fixed, and (2) Floating.

An agreement may be entered into between Lessor and Leesee that the Shortworkings may be recouped in the first few years, commencing from the date of Royalty Agreement and the right is said to be *fixed* (restricted). It is presumed that only at the beginning, there may be shortworking, which should be recovered within the specified period. For instance, the Shortworkings of 2001 and 02 may be recouped till 2003, that too out of surplus and the shortworkings arising after 2003 cannot be recouped. But when the Lessor promises to compensate the shortworkings within two or three subsequent or following years, then the right is said to be floating (unrestricted). Thus, if the power to recoup shortworkings is for subsequent three years, then the shortworking of 2001 can be recouped till 2004; Shortworkings to 2002 can be recouped till 2005 and so on. When the right to recoup expires in respect of any portion of the Shortworkings, it should be written off to Profit and Loss Account.

## SURPLUS

In the initial stage, the Royalty produced may be little and there may be shortworkings. But in later years, when the production increases the amount of royalty payable to Landlord will also be more than the Minimum Rent. Thus, the excess of royalty over the Minimum Rent is called *Surplus*. For instance, when the Minimum Rent is Rs 10,000 and the actual royalty earned by the Lessee is Rs 15,000, the surplus is Rs 5,000 (Royalty – Minimum Rent or Rs 15,000 – 10,000). That is, the excess of the Dead Rent is known as Surplus.

## ABNORMAL FALL IN OUTPUT

In case of mines, quarries etc. an abnormal fall in the production or sales may be caused, in any year, due to strikes, accidents, lock-outs, unforeseen circumstances etc. In such a situation, Lessee finds difficult to pay the Minimum Rent. Whenever there is a stoppage due to abnormal reasons, and if the Minimum Rent is not raised, the amount of Minimum Rent is required to be adjusted as provided for in the agreement. Such agreement may have the following arrangements:

(1) A certain percentage of Minimum Rent would be reduced, say, by 25%, or

(2) The Minimum Rent shall be reduced proportionately having regard to the length of the stoppage.

(3) The actual royalties would discharge all the rental obligations of that year.

**Example:**

Suppose, a coalmine is leased on a Minimum Rent of Rs 24,000 a year and in a particular year, the production is affected by a strike for 2 months and the royalty produced is Rs. 17,000.

Then, the royalty payable, on applying the above clause, is as follows :

(1) If the clause (1) is applied, the Minimum Rent for the year would be 75% of Rs 24,000, that is, Rs. 18,000; or

(2) If clause (2) is applied the Minimum Rent for that year would be Rs 20,000, that is,

$\text{Rs. } 24{,}000 \times \frac{10}{12}$ ; (or)

(3) If clause (3) is applied, Lessee pays only Rs 17,000.

## ACCOUNTING ENTRIES IN THE BOOKS OF LESSEE

**(1) When the Royalty is less than Minimum Rent and the Minimum Rent Account is not Maintained:**

| | | |
|---|---|---|
| (*a*) | Royalties Account<br>(With actual amount of royalty)<br>Shortworkings Account<br>(With actual shortage)<br>To Landlord Account (with Minimum rent payable)<br>(Being the minimum rent payable to Landlord) | Dr.<br><br>Dr. |
| (*b*) | Landlord Account<br>To Bank Account<br>(Being the minimum rent paid to Landlord) | Dr. |
| (*c*) | Trading/Profit & Loss Account<br>To Royalties Account<br>(Royalties account transferred to Trading/Profit & Loss Account) | Dr. |

**(2) When the Royalty is less than Minimum Rent and the Minimum Rent Account is Maintained:**

| | | |
|---|---|---|
| (a) | Minimum Rent Account<br>To Landlord Account<br>(Being minimum rent payable to Landlord) | Dr |
| (b) | Royalties Account<br>Shortworkings Account<br>To Minimum Rent Account<br>(Being the amount or royalties earned and excess amount debited to Shortworkings Account to make up the minimum rent) | Dr<br>Dr |
| (c) | Landlord Account<br>To Bank Account<br>(Being payment made to Landlord) | Dr |
| (d) | Trading/Profit & Loss Account<br>To Royalties Account<br>(Being Royalties account transferred to Trading/Profit & Loss Account) | Dr |

**(3) When Royalties are more than Minimum Rent**

| | | |
|---|---|---|
| (a) | Royalties Account<br>To Landlord<br>(Being Royalties earned and payable to Landlord) | Dr. |
| (b) | Landlord Account<br>To Shortworkings Account<br>(Recoupment of shortworkings of earlier years) | Dr. |
| (c) | Landlord Account<br>To Bank Account<br>(Being payment made to Landlord) | Dr. |
| | In the place of (*b*) and (*c*) above, the following one entry may be passed: | |
| | Landlord Account<br>To Shortworkings Account<br>To Bank Account<br>(Being recoupment of shortworking to the extent balance paid) | Dr. |
| (d) | Trading/Profit & Loss Account<br>To Royalties Account<br>(Being transfer of Royalties A/c) | Dr. |

**(4) When Shortworking cannot be Recouped in Future**

| | |
|---|---|
| Profit & Loss Account<br>To Shortworkings Account<br>(Being transfer to irrecoverable Shortworking to Profit & Loss A/C) | Dr. |

**ILLUSTRATION 19.1**

A company leased a colliery on Ist January 2002 at a Minimum Rent of Rs 20,000 per year, merging into a royalty of Rs. 1.50 per ton, with a power to recoup shortworkings over the first 3 years of the lease. The output of the colliery for the first four years is:

# Chapter 20

# Royalty Accounts

**Royalty – Meaning:**

Royalty is an amount payable by one person to another for the use of an asset or right or monopoly. It is a periodical payment in the nature of rent made to a person for the right to use certain property such as mine, patent, copy-right. When a person (lessor) having an exclusive right of some kind, surrenders it to another person (lessee) in exchange for a certain amount calculated with reference to output or units produced or sold, such an amount is known as royalty.

Royalty is payable by the following persons:

(i) by the lessee in mining business to the lessor (owner) of the mine for having been allowed to use the mine to extract minerals;

(ii) by publishers in publishing business to authors of books for having been allowed to publish the books; and

(iii) by manufacturer licensees to the owners of patents having been allowed to manufacture articles.

It is the actual rent calculated at an agreed rate based on output from a mine or number of units produced or sold. The payment of royalty is governed by the terms of 'Royalty agreement'.

**Treatment in Final Accounts**

Royalty is a revenue expenditure just like any 'Nominal Account'. It is like payment of rent. Since, it is a nominal account, it is debited in the books of the party paying it and credited in the books of the party receiving it. Like any other nominal account, royalty account is transferred either to profit and loss account, if the royalty is based on units sold or sale value or to 'production' account if the royalty is based on output.

Royalty is a 'revenue' income to the lessor in the nature of 'Nominal account'. It is credited to 'Royalty Receivable' account and transferred to Profit and Loss account at the time of closing the accounts.

**Explanation of Technical Terms**

**1. Minimum Rent or Dead Rent or Fixed Rent:** This is a guaranteed minimum amount payable by the lessees (tenant) to the landlord (lessor) irrespective of the actual output or sales of the lessee. It is the minimum amount which the lessee has to pay each period even when the mine is not worked at all or when the output for the period is below a certain quantity provided for in the agreement. Landlord will not accept anything less than this guaranteed minimum. In any year if the actual royalty is less, landlord will claim this minimum amount fixed. However, if the actual royalty is more than the dead rent, landlord will claim the actual royalty. Thus, it is always provided that minimum rent will merge into royalty and landlord will claim either royalty or dead rent whichever is higher. This clause is always inserted in the agreement with the intention of maintaining the regular flow of income to the landlord.

**Minimum Rent in case of strike:** When there is a general strike, the minimum rent already fixed should be reduced proportionate to the period of strike and then merged into royalty, unless otherwise provided in the agreement.

**2. Shortworkings [Redeemable Dead Rent]:** Excess of minimum rent over actual royalty paid to the landlord is known as shortworkings. It does not arise if actual royalty is more than minimum rent. Normally, it is allowed to be recovered by lessee and as such it is called redeemable dead rent.

**3. Recoupment of shortworkings:** The landlord permits the tenant to recoup the shortworkings in a specific period in future only out of the surplus royalties. The right to recover short working as per agreed terms is known as 'Recoupment of shortworkings'.

Recoupment of shortworkings allowed to lessee is mainly to compensate the lessee for the excess amount paid by him whenever production or sales is low.

**Methods of Recoupment**

The right of recoupment can be fixed or flexible.

**(a) Fixed Recoupment:** In this type of recoupment, the lessee may be allowed the privilege within a fixed number of years initially. For example, recoupment in the first 4 years. This means shortworkings of the first year can be recovered in the second or third or fourth years. Similarly, any shortworkings of the 2nd or 3rd years also must be recovered in the 3rd or 4th years. Otherwise, unrecovered shortworkings will be a definite loss to the tenant.

**(b) Flexible Recoupment:** In this method of recoupment, any particular year's short workings may be allowed to be recovered in the subsequent two or three years. This method gives the tenant or lessee a permanent privilege. For example, if shortworkings are agreed to be recouped in subsequent two years, they can be recovered fully or partly in the next year or subsequent year. At the end of the second year any unrecovered shortworkings will be a loss to the lessee.

**4. Shortworkings lapsed or written off:** This is the amount of shortworkings unrecovered by the lessee within the agreed period of recoupment. It is a loss to the lessee and gain to the lessor. For example, out of Rs.50,000 shortworkings, the lessee is able to recover Rs.35,000 within the agreed period, the balance of Rs.15,000 will be shortworkings lapsed.

| | | | |
|---|---|---|---|
| Shortworkings A/c Dr. | | To Royalty Receivable A/c | |
| To Landlord A/c | | To Shortworkings A/c | |
| **For payment of cash** | | **2. For receiving cash** | |
| ***Without recoupment*** | | ***(a) Without recoupment*** | |
| Landlord's A/c | Dr. | Cash A/c | Dr. |
| To Cash A/c | | To Sub-lessee's A/c | |
| ***With recoupment*** | | ***(b) With recoupment*** | |
| Landlord's A/c | Dr. | Cash A/c | Dr. |
| To Cash A/c | | Shortworkings suspense A/c | Dr. |
| To Shortworkings A/c | | To sub-lessee's A/c | |
| **For transferring Royalty payable** | | **3. For closing Royalty Receivable A/c** | |
| Production A/c | Dr. | Royalty Receivable A/c | Dr. |
| To Royalty payable A/c | | To Royalty payable A/c (at the rate payable to landlord) | |
| | | To Profit & Loss A/c (balance) | |
| **For Shortworkings lapsed** | | **4. For Shortworkings lapsed** | |
| Profit & Loss A/c | Dr. | Shortworkings suspense A/c | Dr. |
| To Shortworkings A/c | | To Profit & Loss A/c | |

## ILLUSTRATIONS

### Fixed Recoupment of Short Workings

**Illustration 1**

A company leased a colliery on 1-1-92 at a minimum rent of Rs.20,000 merging into a royalty of Rs. 1.50 per tonne with power to recoup shortworkings over the first four years of the lease. The output of the colliery for the first four years was 9,000 tonnes, 12,000 tonnes, 16,000 tonnes and 20,000 tonnes respectively. Give journal entries and ledger accounts for four years in the books of lessee and lessor. *[Madras, B.Com.(PZ2A) Nov. 2008; Ap. 2007; BCS(SY1A) Nov. 2006 (Modified); B.Com.(PZA) Nov. 2006 (Modified) B.Com., Nov. 2004]*

**Lessee's A/c**

| | | Rs. | | | Rs. |
|---|---|---|---|---|---|
| 31-12-92 | To Royalty Receivable A/c | 13,500 | 31-12-92 | By Bank A/c | 20,000 |
| | To Shortworkings A/c | 6,500 | | | |
| | | 20,000 | | | 20,000 |
| 31-12-93 | To Royalty Receivable A/c | 18,000 | 31-12-93 | By Bank A/c | 20,000 |
| | To Shortworkings A/c | 2,000 | | | |
| | | 20,000 | | | 20,000 |
| 31-12-94 | To Royalty Receivable A/c | 24,000 | 31-12-94 | By Bank A/c | 20,000 |
| | | | | By Shortworkings A/c | 4,000 |
| | | 24,000 | | | 24,000 |
| 31-12-95 | To Royalty Receivable A/c | 30,000 | 31-12-95 | By Bank A/c | 25,500 |
| | | | | By Shortworkings A/c | 4,500 |
| | | 30,000 | | | 30,000 |

**Royalty Receivable A/c**

| | | Rs. | | | Rs. |
|---|---|---|---|---|---|
| 31-12-92 | To P & L A/c | 13,500 | 31-12-92 | By Lessee A/c | 13,500 |
| | | 13,500 | | | 13,500 |
| 31-12-93 | To P & L A/c | 18,000 | 31-12-93 | By Lessee A/c | 18,000 |
| | | 18,000 | | | 18,000 |
| 31-12-94 | To P & L A/c | 24,000 | 31-12-94 | By Lessee A/c | 24,000 |
| | | 24,000 | | | 24,000 |
| 31-12-92 | To P & L A/c | 30,000 | 31-12-92 | By Lessee A/c | 30,000 |
| | | 30,000 | | | 30,000 |

**Flexible Recoupment of shortworkings**

**Illustration 2**

Ravi took a colliery on lease. The dead rent was Rs.750 a year, merging into a royalty of 35 paise per tonne of coal raised, with the right to recover shortworkings out of royalties of two subsequent years from the period in which the shortworkings arose. The output raised were:

| | | | |
|---|---|---|---|
| I year | – 1,000 tonnes | IV th year | – 1,500 tonnes |
| II year | – 1,500 tonnes | V th year | – 1,000 tonnes |
| III year | – 2,500 tonnes | | |

Give necessary ledger A/cs for each of the five years in the books of Ravi.

*[Periyar, B.Com., April 2002] [Madras, B. Com., Nov. 2007; B.Com., March 1993]*

**Royalty A/c**

| | | Rs. | | | Rs. |
|---|---|---|---|---|---|
| Dec. 1982 | To Landlord A/c | 400 | Dec. 1982 | By P & L A/c | 400 |
| | | 400 | | | 400 |
| Dec. 1983 | To Landlord A/c | 4,000 | Dec. 1983 | By P & L A/c | 4,000 |
| | | 4,000 | | | 4,000 |
| Dec. 1984 | To Landlord A/c | 7,200 | Dec. 1984 | By P & L A/c | 7,200 |
| | | 7,200 | | | 7,200 |
| Dec. 1985 | To Landlord A/c | 8,000 | Dec. 1985 | By P & L A/c | 8,000 |
| | | 8,000 | | | 8,000 |

**Adjustment of Minimum rent due to stoppage of work (Strike)**

**Illustration 4**

A company acquired lease of a mine at a minimum rent of Rs. 10,000 p.a. The royalty was fixed at Re. 0.50 per tonne. Shortworkings could be recouped within three years following the year in which the shortworkings occur. If there is stoppage of production due to strike in any year, the minimum rent world be proportionately reduced in regard to the length of the stoppage.

The output (in tonnes) of the mine was as follows:

| | | | |
|---|---|---|---|
| 1978 | 8,000 | 1981 | 26,000 |
| 1979 | 12,500 | 1982 | 17,000 (strike) |
| 1980 | 21,500 | 1983 | 30,000 |

During 1982, there was strike lasting for 3 months. Show the necessary ledger accounts for each of the years in the books of the company.

**[Madras, B. Com., May 1982, May 1996]**

**Solution:**

**Analysis of Royalty**

| Year | Output | Royalty | Minimum rent | Short workings | Short workings recouped | Shortworkings irrecovered transferred to P&L A/c (Rs.) | Payment to Landlord |
|---|---|---|---|---|---|---|---|
| | Rs. | Rs. | Rs. | Rs. | Rs. | | Rs. |
| 1978 | 8,000 | 4,000 | 10,000 | 6,000 | – | – | 10,000 |
| 1979 | 12,500 | 6,250 | 10,000 | 3,750 | – | – | 10,000 |
| 1980 | 21,500 | 10,750 | 10,000 | – | 750 | – | 10,000 |
| 1981 | 26,000 | 13,000 | 10,000 | – | 3,000 | 2,250 | 10,000 |
| 1982 | 17,000 | 8,500 | 7,500 | – | 1,000 | 2,750 | 7,500 |
| 1983 | 30,000 | 15,000 | 10,000 | – | – | – | 15,000 |

Note: Minimum Rent for 1982 $= 10,000 \times \frac{9}{12} =$ Rs. 7,500 (for 9 months)

## Fluctuating Minimum Rent

### Illustration 3

On 1.1.1982, Rama Collieries Ltd., leased a piece of land agreeing to pay a minimum rent of Rs. 2,000 in the first year, Rs. 4,000 in the second year and thereafter Rs. 6,000 per annum, merging into a royalty of 40 paise per tonne, with power to recoup shortworkings over the first three years only.

The figures of annual output for the four years to 31st December 1985 were 1,000, 10,000, 18,000 and 20,000 tonnes respectively. Record these transactions in the ledger of the Company. ***[Bharathidasan, B.Com., April 2002]***

**Analysis of Royalty**

| Year | Output Tonnes | Royalt at Re.0.4 tonne | Minimum Rent Rs. | Short working Rs. | Short working recouped Rs. | Shortworking irrecoverable transferred to P & L A/c Rs. | Payment to Land lord Rs. |
|---|---|---|---|---|---|---|---|
| 1982 | 1,000 | 400 | 2,000 | 1,600 | - | - | 2,000 |
| 1983 | 10,000 | 4,000 | 4,000 | - | - | - | 4,000 |
| 1984 | 18,000 | 7,200 | 6,000 | - | 1,200 | 400 | 6,000 |
| 1985 | 20,000 | 8,000 | 6,000 | - | - | - | 8,000 |

**Shortworkings A/c**

| | | Rs. | | | Rs. |
|---|---|---|---|---|---|
| Dec.1982 | To Landlord A/c | 1,600 | Dec.1982 | By Balance c/d | 1,600 |
| | | 1,600 | | | 1,600 |
| Dec. 1983 | To Balance b/d | 1,600 | Dec.1983 | By Balance c/d | 1,600 |
| | | 1,600 | | | 1,600 |
| Dec.1984 | To Balance b/d | 1,600 | Dec.1984 | By Landlord A/c | 1,200 |
| | | | | By P & L A/c | 400 |
| | | 1,600 | | | 1,600 |

**Landlord A/c**

| | | Rs. | | | Rs |
|---|---|---|---|---|---|
| Dec.1982 | To Bank A/c | 2,000 | Dec.1982 | By Royalty A/c | 40 |
| | | | | By Shortworkings A/c | 1,60 |
| | | 2,000 | | | 2,00 |
| Dec. 1983 | To Bank A/c | 4,000 | Dec. 1982 | By Royalty A/c | 4,00 |
| | | 4,000 | | | 4,00 |
| Dec. 1984 | To Bank A/c | 6,000 | Dec. 1984 | By Royalty A/c | 7,2 |
| | To Shortworkings A/c | 1,200 | | | |
| | | 7,200 | | | 7,2 |
| Dec. 1985 | To Bank A/c | 8,000 | Dec.1985 | By Royalty A/c | |