## 13

## Insurance Claims for Loss of Stock and Loss of Profit

## Learning Objectives

After studying this chapter, you will be able to compute:

- Claim for loss of stock.
- Claim for loss of profit.


## 1. Introduction

Business enterprises gets insured against the loss of stock on the happening of certain events such as fire, flood, theft, earthquake etc. Insurance being a contract of indemnity, the claim for loss is restricted to the actual loss of assets .Sometimes an enterprise also gets itself insured against consequential loss of profit due to decreased turnover, increased expenses etc.

If loss consequential to the loss of stock is also insured, the policy is known as loss of profit or consequential loss policy.
Insurance claim can be studied under two parts as under:-
> Claim for loss of stock
> Claim for loss of profit

## 2. Meaning of Fire

For purposes of insurance, fire means:

1. Fire (whether resulting from explosion or otherwise) not occasioned or happening through:
(a) Its own spontaneous fomentation or heating or its undergoing any process involving the application of heat;
(b) Earthquake, subterraneous fire, riot, civil commotion, war, invasion act of foreign enemy, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection, military or usurped power.
2. Lightning.
3. Explosion, not occasioned or happening through any of the perils specified in 1 (a) above.
(i) of boilers used for domestic purposes only;
(ii) of any other boilers or economisers on the premises;
(iii) in a building not being any part of any gas works or gas for domestic purposes or used for lighting or heating the building.

The policy of insurance can be made to cover any of the excepted perils by agreement and payment of extra premium, if any. Damage may also be covered if caused by storm or tempest, flood, escape of water, impact and breakdown of machinery, etc., again by agreement with the insurer.

Usually, fire policies covering stock or other assets do not cover explosion of boilers used for domestic purposes or other boilers or economisers in the premises but policies in respect of profit cover such explosions.

## 3. Claim for Loss of Stock

Fire insurance being a contract of indemnity, a claim can be lodged only for the actual amount of the loss, not exceeding the insured value. In dealing with problems requiring determination of the claim the following point must be noted:
a. Total Loss: If the goods are totally destroyed, the amount of claim is equal to the actual loss, provided the goods are fully insured. However, in case of under insurance(i.e. insurable value of stock insured is more than the sum insured),the amount of claim is restricted to the policy amount.
b. Partial Loss: If the goods are partially destroyed, the amount of claim is equal to the actual loss provided the goods are fully insured. However in case of under insurance,the amount of claim will depend upon the nature of insurance policy as follows:
I) Without Average clause:- Claim is equal to the lower of actual loss or the sum insured.
II) With Average Clause:- Amount of claim for loss of stock is proportionately reduced, considering the ratio of policy amount (i.e. insured amount) to the value of stock as on the date of fire (i.e insurable amount) as shown below:



One should note that the average clause applies only where the insured value is less than the total cost and not vice-versa.

### 3.1 Relevant points

(i) Where stock records are maintained and such records are not destroyed by fire, the value of the stock as at the date of the fire can be easily arrived at.
(ii) Where either stock records are not available or where they are destroyed by the fire the value of stock at the date of the fire has to be estimated. The usual method of arriving at this value is to build up a Trading Account as from the date of last accounting year. After allowing for the usual gross profit, the figure of closing stock on the date of the fire can be ascertained as the balancing item.
(iii) Where books of account are destroyed, the task of building up the Trading Account becomes difficult. In that case information is obtained from the customers and suppliers have to be circularised to ascertain the amount of sales and purchases.
(iv) After the insurance company makes payment for total loss, it has the same rights which the insured had over the damaged stock. These are subrogated to the insurance company. In practice, in determining the amount of the claim, credit is given for damaged and salvaged stock.
(v) Frequently salvaged stock can be made saleable after it is reconditioned. In that case, the cost of such stock must be credited to the Trading Account and debited to a salvaged
stock account. The expenses on reconditioning must be debited and the sales credited to this account, the final balance being transferred to the Profit \& Loss Account.

## Loss of Stock

Amount of loss of stock is calculated as under:

| Value of stock on the date of fire | XXXX |
| :--- | :--- |
| Less:- Value of Salvaged stock | XXXX |
| Amount of loss of stock | XXXX |

## Illustration 1

On 12th June, 2012 fire occurred in the premises of N.R. Patel, a paper merchant. Most of the stocks were destroyed, cost of stock salvaged being ₹ 11,200 . In addition, some stock was salvaged in a damaged condition and its value in that condition was agreed at ₹ 10,500 . From the books of account, the following particulars were available.

1. His stock at the close of account on December 31, 2011 was valued at $₹ 83,500$.
2. His purchases from 1-1-2012 to 12-6-2012 amounted to $₹ 1,12,000$ and his sales during that period amounted to ₹ $1,54,000$.
On the basis of his accounts for the past three years it appears that he earns on an average a gross profit of $30 \%$ of sales.

Patel has insured his stock for ₹ 60,000. Compute the amount of the claim.

## Solution

Computation of claim for loss of stock

|  | $₹$ | ₹ |
| :---: | :---: | :---: |
| Opening Stock on 1-1-2012 |  | 83,500 |
| Add : Purchases during the period |  | 1,12,000 |
|  |  | 1,95,500 |
| Less: Sales during the period | 1,54,000 |  |
| Gross Profit thereon | 46,200 | (1,07,800) |
|  |  | 87,700 |
| Less: Stock Salvaged | 11,200 |  |
| Agreed value of damage Stock | 10,500 | $(21,700)$ |
|  |  | 66,000 |
| Amount of Claim $=\frac{60,000}{87,700} \times 66,000=₹ 45,154$ |  |  |

## Illustration 2

On 1st April, 2013 the stock of Shri Ramesh was destroyed by fire but sufficient records were saved from which following particulars were ascertained:

|  | $₹$ |
| :--- | ---: |
| Stock at cost-1st January, 2012 | 73,500 |
| Stock at cost-31st December, 2012 | 79,600 |
| Purchases-year ended 31st December, 2012 | $3,98,000$ |
| Sales-year ended 31st December, 2012 | $4,87,000$ |
| Purchases-1-1-2013 to 31-3-2013 | $1,62,000$ |
| Sales-1-1-2013 to 31-3-2013 | $2,31,200$ |

In valuing the stock for the Balance Sheet at 31st December, 2012 ₹ 2,300 had been written off on certain stock which was a poor selling line having the cost ₹ 6,900 . A portion of these goods were sold in March, 2013 at loss of $₹ 250$ on original cost of $₹ 3450$. The remainder of this stock was now estimated to be worth its original cost. Subject to the above exception, gross profit had remained at a uniform rate throughout the year.
The value of stock salvaged was ₹ 5,800 . The policy was for ₹ 50,000 and was subject to the average clause. Work out the amount of the claim of loss by fire.

## Solution

Shri Ramesh
Trading Account for 2012
(to determine the rate of gross profit)

|  |  | ₹ |  | $₹$ | $₹$ |
| :--- | :--- | ---: | :--- | :--- | ---: | ---: |
| To | Opening Stock | 73,500 | By | Sales A/c |  |
| To | Purchases | $3,98,000$ | By | Closing Stock: <br> As valued | $4,87,000$ |
| To | Gross Profit | 97,400 | Add : Amount written off to <br> restore stock to full cost | $\underline{2,300}$ | $\underline{\underline{81,900}}$ |

The (normal) rate of gross profit to sales is $=\frac{97,400}{4,87,000} \times 100=20 \%$
Memorandum Trading Account upto March 31, 2013

|  | Normal items | Abnormal items | Total |  | Normal | Abnormal items | Total items |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ₹ | ₹ | $₹$ |  | ₹ | F |  |
| To Opening | 75,000 | 6,900* | 81,900 | By Sales | 2,28,000 | 3,200 | 2,31,200 |
| Stock |  |  |  | By Loss | - | 250 | 250 |
| To Purchases | 1,62,000 | - | 1,62,000 | By Closing |  |  |  |
| To Gross Profit |  |  |  | Stock (bal. | 54,600 | 3,450 | 58,050 |
| (20\% on |  |  |  |  |  |  |  |
| ₹ $2,28,000$ ) | 45,600 | - | 45,600 |  |  |  |  |
|  | $\underline{2,82,600}$ | 6,900 | $\underline{\underline{2,89,500}}$ |  | 2,82,600 | 6,900 | $\underline{2,89,500}$ |

[^0]
## Calculation of Insurance Claim

|  | $₹$ |
| :--- | ---: |
| Value of Stock on March 31, 2013 | 58,050 |
| Less : Salvage | $\underline{(5,800)}$ |
| Loss of stock | $\underline{52,250}$ |

Claim subject to average clause:

$$
\begin{aligned}
& =\frac{\text { Amount of Policy }}{\text { Value of Stock }} \times \text { Actual Loss of Stock } \\
& =₹ \frac{50,000}{58,050} \times 52,250=₹ 45,004
\end{aligned}
$$

## 4. Claim for Loss of Profit

When a fire occurs, apart from the direct loss on account of stock or other assets destroyed, there is also a consequential loss because, for sometime, the business is disorganised or has to be discontinued, and during that period, the standing expenses of the business like rent, salaries etc. continue. Moreover, there is loss of profits which the business would have earned during the period. This loss can be insured against by a "Loss of Profit" or "Consequential Loss" policy; there must be a separate policy in respect of the consequential loss but claim will be admitted in respect of the policy unless the claim on account of fire is also admitted under other policies.
The Loss of Profit Policy normally covers the following items:
(1) Loss of net profit
(2) Standing charges.
(3) Any increased cost of working e.g., renting of temporary premises.

In every business, there is some standard by which its activity or progress can be accurately judged: it may be sales affected or the quantity of goods (or services) produced. To measure the loss suffered by a firm due to fire, it is necessary to set up some standard expressed in such units to represents the volume of work. There should be a direct relation between the amount of standard and the amount of profit raised. A comparison between the amount of the standard before and after the fire will give a reliable indication of the loss of profit sustained. The most satisfactory unit of measuring the prosperity (and therefore profits) is usually turnover:

A claim for loss of profits can be established only if :
(i) the insured's premises, or the property therein, are destroyed or damaged by the peril defined in the policy; and
(ii) the insured's business carried on the premises is interrupted or interfered with as a result of such damage.
A claim for loss of profits cannot arise if the claim for loss of property as a result of the fire is
not also admitted. This is very convenient as it avoids independent investigation into loss of property for purposes of loss of profits policy. It is possible that the business of the insured may suffer because of fire in the neighbourhood, not causing damage to the property of the insured, say by closing the street for some time. Such eventualities may be covered by agreement with the insurer on payment of extra premium. If fire does not affect the volume of business, there can be no claim for loss of profits.

Also, it does not follow that if there is a large property claim, there will be necessarily a large claim for loss of profit or vice versa.

### 4.1 Terms Defined

The following terms should be noted:
Gross Profit is the sum produced by adding to the Net Profit the amount of the Insured Standing Charges, or, if there be no Net profit, the amount of the Insured Standing Charges less such a proportion of any net trading loss as the amount of the Insured Standing Charges bears to all the standing charges of the business.

Net Profit is the net trading profit (exclusive of all capital) receipts and accretion and all outlay properly (chargeable to capital) resulting from the business of the Insured at the premises after due provision has been made for all standing and other charges including depreciation.
Insured Standing Charges: Interest on Debentures, Mortgage Loans and Bank Overdrafts, Rent, Rates and Taxes (other than taxes which form part of net profit) Salaries of Permanent Staff and Wages to Skilled Employees, Boarding and Lodging of resident Directors and/or Manager, Directors' Fees, Unspecified Standing Charges [not exceeding 5\% (five per cent) of the amount recoverable in respect of Specified Standing Charges].

### 4.2 Conditions included in a Loss of Profit Insurance Policy

Insurance policies covering loss of profit contain the following conditions usually:
Rate of Gross Profit: The rate of Gross Profit earned on turnover during the financial year immediately before the date of damage.

Annual Turnover: The turnover during the twelve months immediately before the damage.
Standard Turnover: The turnover during that period in the twelve months immediately before the date of damage which corresponds with the Indemnity Period.
To which such adjustment shall be made as may be necessary to provide for the trend of the business and for variations in or special circumstances affecting the business either before or after the damage or which would have affected the business had the damage not occurred, so that the figures thus adjusted shall represent, as nearly as may be reasonably practicable the results which but for the damage would have been obtained during the relative period after damage.

Indemnity Period: The period beginning with the occurrence of the damage and ending not later than twelve months thereafter during which the results of the business shall be affected in consequence of the damage.

Memo 1: If during the indemnity period goods shall be sold or services shall be rendered elsewhere than at the premises for the benefit of the business either by the insured or by others on the Insured's behalf, the money paid or payable in respect of such sales or service shall be brought into account in arriving at the turnover during the indemnity period.
Memo 2: If any standing charges of the business be not insured by this policy then in computing the amount recoverable hereunder as increase in cost of workings that proportion only of the additional expenditure shall be brought into account which the sum of the Net Profit and the insured Standing Charges bear to the sum of the Net Profit and all standing charges.
Memo 3: This insurance does not cover loss occasioned by or happening through or in consequence of destruction of or damage to a dynamo motor, transformer, rectifier or any part of an electrical installation resulting from electric currents however arising.

## The student should note the following:

(i) The word 'turnover' used above may be replaced by any other term denoting the basis for arriving at the loss of profit e.g., output.
(ii) Insured standing charges may include additional items, by agreement with the insurer.
(iii) Net profit means profit before income tax based on profit.
(iv) Depending upon the nature of business, the indemnity period may extend beyond 12 months (it may be as long as 6 years). Indemnity period shall not be confused with the period of insurance which cannot be more than one year.

The insurance for Loss of Profit is limited to loss of gross profit due to :
(i) reduction in turnover, and
(ii) increase in the cost of working.

The amount payable as indemnity is the sum of $(a)$ and $(b)$ below :
(a) In respect of reduction in turnover: The sum produced by applying the rate of gross profit to the amount by which the turnover during the indemnity period shall, in consequence of the damage, falls short of the standard turnover.
(b) In respect of increase in cost of working: The additional expenditure [subject to the provisions of Memo (2) given above] necessarily and reasonably incurred for the sole purpose of avoiding or diminishing the reduction in turnover which, but for that expenditure, would have taken place during the indemnity period in consequence of the damage : the amount allowable under this provision cannot exceed the sum produced by applying the rate of gross profit to the amount of reduction avoided by the additional expenditure.

The amount payable arrived at as above is reduced by any sum saved during the indemnity period in respect of such of the insured standard charges as may cease or be reduced in consequence of the damage.

Insurance policies provide that if the sum insured in respect of loss of profit is less than the sum produced by applying the rate of gross profit to the annual turnover (as adjusted by the trend of the business or variation in special circumstances affecting the business either before or after the damage or which would have affected the business had the damage not occurred), the amount payable by the insurer shall be proportionately reduced. This is nothing but application of the average clause.

The turnover of a business rarely remains constant and where there has been an upward or downward trend since the date of the last accounts and upto the date of the fire, the "standard turnover" should be appropriately adjusted, as per definition given above.
Similarly, where the earning capacity of the business has changed, the rate of gross profit may not represent a correct indication of the lots and mutually agreed rate may be used for the computation.

Students should carefully go through the working of the following illustration to understand the process of the computation of the claim made on a "Loss of Profit" policy. Suppose the following information is given:
(i) Indemnity period 13 months
(ii) Sum insured ₹ $2,00,000$
(iii) Turnover, last financial year ended Dec. 31, 2011 ₹ $12,00,000$.
(iv) Gross Profit, i.e., Net profit plus insured standing charges, ₹ 2,00,000 giving a gross profit rate of $20 \%$.
(v) Net profit plus all standing charges, ₹ $2,50,000$ i.e., 50,000 of the standing charges are not insured.
(vi) Fire occurs on 31st March, 2012, and affects business for 6 months.
(vii) Turnover for 12 months ended 31st March, 2012, ₹ $11,70,000$.
(viii) Turnover: 1-4-2011 to 30-9-2011 5,00,000

1-4-2012 to 30-9-2012 $\underline{3,00,000}$
Reduction in turnover $\quad \underline{2,00,000}$
(ix) Increase in cost of working, ₹ 30,000 otherwise of which turnover during 1-4-2012 to 30-9-2012 would reduce hereinafter by ₹ $1,60,000$.
(x) Saving in insured charges in the indemnity period ₹ 10,000 .

The claim in respect of profit will be calculated as follows:
(a) Short Sales:

Reduction in Turnover 1-4-2011 to 30-9-2011 5,00,000
Less : Turnover 1-4-2012 to 30-9-2012 (3,00,000)
2,00,000

## Down-trend:

Quarterly sales in $2011\left[\frac{₹ 12,00,000}{12} \times 3\right]$

$$
3,00,000
$$

Sales of first quarter in $2012:$ ₹ $11,70,000-\left[\frac{₹ 12,00,000}{12} \times 9\right] \quad \underline{2,70,000}$ 30,000
Adjusted Annual Turnover :
₹
Sales for the period 1-4-2011 to 31-12-2011(11,70,000-2,70,000) 9,00,000
Add: Sales from 1-1-2012 to 31-3-2012
2,70,000
11,70,000
(b) Gross Claim: Gross Profit @ 20\% on (a)

40,000
Add: Claim for increase in cost of working $\quad \underline{24,718}$
Less: Saving in insured standing charges $\frac{(10,000)}{54,718}$
Claim for increased cost of working is subject to two tests
(i)

$$
\text { Increased cost of working } \times \frac{\text { G.P. on Annual Turnover }}{\text { G.P. as above }+ \text { Uninsured Standing Charges }}
$$

$$
=₹ 30,000 \times \frac{₹ 11,70,000 \times \frac{20}{100}}{₹ 11,70,000 \times \frac{20}{100}+₹ 50,000}=₹ 24,718 .
$$

(ii) Gross Profit on sales generated by increased cost of workings

$$
\begin{aligned}
& \text { ₹ } 1,60,000 \times \frac{20}{100}=₹ 32,000 \\
& \text { Lower of the two, i.e., ₹ } 24,718 \text { is allowable }
\end{aligned}
$$

(c) Application of average clause :

Gross Profit of annual turnover, 20\% on ₹ $11,70,000 \quad 2,34,000$
Sum insured 2,00,000
Hence claim limited to $54,718 \times \frac{₹ 2,00,000}{₹ 2,34,000}$ 46,768

## Illustration 3

A fire occurred on 1st February, 2012, in the premises of Pioneer Ltd., a retail store and business was partially disorganised upto 30th June, 2012. The company was insured under a
loss of profits for ₹ $1,25,000$ with a six months period indemnity. From the following information, compute the amount of claim under the loss of profit policy.

|  | ₹ |
| :--- | ---: |
| Actual turnover from 1st February to 30th June, 2012 | 80,000 |
| Turnover from 1st February to 30th June, 2011 | $2,00,000$ |
| Turnover from 1st February, 2011 to 31st January, 2012 | $4,50,000$ |
| Net Profit for last financial year | 70,000 |
| Insured standing charges for last financial year | 56,000 |
| Total standing charges for last financial year | 64,000 |
| Turnover for the last financial year | $4,20,000$ |

The company incurred additional expenses amounting to $₹ 6,700$ which reduced the loss in turnover. There was also a saving during the indemnity period of $₹ 2,450$ in the insured standing charges as a result of the fire.

There had been a considerable increase in trade since the date of the last annual accounts and it has been agreed that an adjustment of $15 \%$ be made in respect of the upward trend in turnover.

## Solution

## Computation of the amount of claim for the loss of profit

Reduction in turnover
Turnover from 1st Feb. 2011 to 30th June, 2011
Add: 15\% expected increase

Less: Actual Turnover from 1st Feb., 2012 to 30th June, 2012

## Short Sales

Gross Profit on reduction in turnover @ 30\% on ₹ 1,50,000 (see working note 1) 45,000
Add: Additional Expenses
Lower of
(i) Actual = ₹ 6,700
(ii) Additional Exp. $\times \frac{\text { G.P. on Annual Turnover }}{\text { G.P. on Annual Turnover + Uninsured Standing Charges }}$

$$
6,700 \times \frac{1,55,250}{1,63,250}=6,372
$$

(iii) G.P. on sales generated by additional expenses - not available Therefore, lower of above is

6,372
51,372
$(2,450)$
Less: Saving in Insured Standing Charges 48,922
Application of Average Clause:
$\frac{\text { Amount of Policy }}{\text { G.P. on Annual Turnover }} \times$ Amount of Claim

$$
=\frac{1,25,000}{1,55,250} \times 48,922
$$

Amount of claim under the policy $=₹ 39,390$

## Working Notes:

(i) Rate of Gross Profit for last Financial Year:

Gross Profit:
Net Profit 70,000
Add: Insured Standing Charges $\quad \underline{56,000}$
Turnover for the last financial year 1,26,000

Rate of Gross Profit $=\frac{1,26,000}{4,20,000} \times 100=30 \%$
(ii) Annual Turnover:

Turnover from 1st Feb., 2011 to 31st January, $20124,50,000$
Add: $15 \%$ expected increase $\underline{67,500}$
5,17,500
Gross Profit on ₹ $5,17,500$ @ 30\% 1,55,250
Standing charges not Insured $\quad 8,000$
Gross Profit plus non-insured standing charges 1,63,250

## Illustration 4

The premises of XY Limited were partially destroyed by fire on 1st March, 2012 and as a result, the business was practically disorganised upto 31st August, 2012. The company is insured under a loss of profits policy for $₹ 1,65,000$ having an indemnity period of 6 months.
From the following information, prepare a claim under the policy:
(i) Actual turnover during the period of dislocation (1-3-2012 to 31-8-2012) 80,000
(ii) Turnover for the corresponding period (dislocation)
in the 12 months immediately before the fire
(1-3-2011 to 31-8-2011) 2,40,000
(iii) Turnover for the 12 months immediately preceding
the fire (1-3-2011 to 28-2-2012)
6,00,000
(iv) Net profit for the last financial year 90,000
(v) Insured standing charges for the last financial year 60,000
(vi) Uninsured standing charges 5,000
(vii) Turnover for the last financial year 5,00,000

Due to substantial increase in trade, before and up to the time of the fire, it was agreed that an adjustment of $10 \%$ should be made in respect of the upward trend in turnover. The company incurred additional expenses amounting to ₹ 9,300 immediately after the fire and but for this expenditure, the turnover during the period of dislocation would have been only ₹ 55,000 . There was also a saving during the indemnity period of ₹ 2,700 in insured standing charges as a result of the fire.

## Solution

## Computation of loss of profit Insurance claim

|  |  | ₹ |
| :---: | :---: | :---: |
| (1) | Rate of gross profit: |  |
|  | Net profit for the last financial year | 90,000 |
|  | Add: Insured standing charges | 60,000 |
|  |  | 1,50,000 |
|  | Turnover for the last financial year | 5,00,000 |
|  | $\text { Rate of gross profit }=\left[\frac{₹ 1,50,000}{₹ 5,00,000} \times 100\right]=30 \%$ |  |
| (2) | Short sales: |  |
|  | Standard Turnover | 2,40,000 |
|  | Add: 10\% increasing trend | 24,000 |
|  |  | 2,64,000 |
|  | Less: Turnover during the dislocation period (which is at par with the indemnity period of 6 months) | $(80,000)$ |
|  |  | 1,84,000 |
| (3) | Annual (Adjusted) Turnover: |  |
|  | Annual Turnover (1-3-2011 to 23-2-2012) | 6,00,000 |
|  | Add: $10 \%$ increasing trend | 60,000 |
|  |  | 6,60,000 |

Note: Assumed that trend adjustment is required on total amount of annual turnover. However, part of the annual turnover represents trend adjusted figure. Alternatively, the students may ignore trend and take simply annual turnover. The claim would be ₹ 55,000 which is more than the claim computed in Para (5). So the Insurance Company would insist on trend adjusted on annual turnover.
(4) Additional Expenses: ₹
(i) Actual Expenses 9,300
(ii) Gross profit on sales generated by additional expenses

$$
30 / 100 \times(₹ 80,000-₹ 55,000) \quad 7,500
$$

(iii) $\frac{\text { Gross Profit on Annual (Adjusted) Turnover }}{\text { Gross Profit shown in the numerator }+ \text { Uninsured standing charges }} \times$ Additional Expenses

$$
\begin{align*}
& \frac{30 \% \text { on ₹ } 6,60,000}{30 \% \text { on ₹ } 6,60,000+₹ 5,000} \times ₹ 9,300 \\
& \frac{₹ ~}{₹} 1,98,000 \\
& ₹ 2,03,000
\end{align*}{ }^{2} 9,300=-1 .
$$

Least of the above three figures, i.e. ₹ 7,500 allowable.
(5) Claim:

|  | $₹$ |
| :--- | ---: |
| Loss of profit on short sales (30\% on ₹ 1,84,000) | 55,200 |
| Add : Allowable additional expenses | $\underline{7,500}$ |
| Less : Savings in insured standing charges | $\underline{(\underline{2,700})}$ |
| Application of average clause | $\underline{60,000}$ |
| $\left[₹ 60,000 \times \frac{₹ 1,65,000}{₹ 1,98,000}\right]$ | 50,000 |

## Illustration 5

S \& M Ltd. give the following Trading and Profit and Loss Account for year ended 31st December, 2011:

Trading and Profit and Loss Account for the year ended 31st December, 2011

|  | ₹ |  |  | $₹$ |  |
| :--- | :--- | ---: | :--- | ---: | ---: |
| To | Opening Stock | 50,000 | By Sales |  | $8,00,000$ |
| To | Purchases | $3,00,000$ | By Closing stock |  | 70,000 |
| To | Wages (₹20,000 for |  |  |  |  |
| Skilled labour) | $1,60,000$ |  |  |  |  |
| To | Manufacturing expenses | $1,20,000$ |  |  |  |


| To | Gross Profit | $\frac{2,40,000}{8,70,000}$ |  |  |
| :--- | :--- | ---: | ---: | :--- | :--- |
|  |  | By Gross profit |  | $\underline{8,70,000}$ |
| To | Office administrative | 60,000 |  |  |
|  | Expenses | 20,000 |  |  |
| To | Advertising | 40,000 |  |  |
| To | Selling expenses (Fixed) |  |  |  |
| To Commission on sales | 48,000 |  |  |  |
| To | Carriage outward | 16,000 |  |  |
| To | Net profit | $\underline{56,000}$ |  |  |
|  | $\underline{2,40,000}$ |  |  |  |

The company had taken out policies both against loss of stock and against loss of profit, the amounts being ₹ 80,000 and ₹ $1,72,000$. A fire occurred on 1st May, 2012 and as a result of which sales were seriously affected for a period of 4 months. You are given the following further information:
(a) Purchases, wages and other manufacturing expenses for the first 4 months of 2012 were $₹ 1,00,000$, $₹ 50,000$ and $₹ 36,000$ respectively.
(b) Sales for the same period were ₹ $2,40,000$.
(c) Other sales figures were as follows :

|  | $₹$ |
| :--- | ---: |
| From 1st January 2011 to 30th April, 2011 | $3,00,000$ |
| From 1st May 2011 to 31st August, 2011 | $3,60,000$ |
| From 1st May, 2012 to 31st August, 2012 | 60,000 |

(d) Due to rise in wages, gross profit during 2012 was expected to decline by $2 \%$ on sales.
(e) Additional expenses incurred during the period after fire amounted to ₹ $1,40,000$. The amount of the policy included ₹ $1,20,000$ for expenses leaving ₹ 20,000 uncovered. Ascertain the claim for stock and for loss of profit.

All workings should form part of your answers.

## Solution

Claim for loss of stock
Memorandum Trading Account for the period 1st January to 1st May, 2012

|  | $₹$ |  | $₹$ |
| :--- | ---: | :--- | ---: |
| To Opening stock | 70,000 | By Sales | $2,40,000$ |
| To Purchases | $1,00,000$ | By Closing stock |  |
| To Wages | 50,000 | (Balancing figure) | 83,200 |


| To Manufacturing expenses | 36,000 |
| :--- | ---: |
| To Gross Profit @ 28\% on sales | $\underline{67,200}$ |
| $\underline{3,23,200}$ |  |

Claim for loss of Stock will be limited to ₹ 80,000 which is the amount of Insurance policy.
Working Notes:
(1) Rate of Gross Profit in 2011

$$
\begin{aligned}
& \frac{\text { Gross Profit }}{\text { Sales }} \times 100 \\
& \frac{2,40,000}{8,00,000} \times 100=30 \%
\end{aligned}
$$

In 2012, Gross Profit had declined by $2 \%$ as a result of rise in wages, hence the rate of Gross Profit for loss of stock is taken at $28 \%$.
Loss of Profit
(a) Short Sales:

Sales from 1st May, 2011 to 31st August, $20113,60,000$
Less: 20\% decline observed in 2012 over 2011
(Jan - April ₹ $2,40,000$ instead of ₹ $3,00,000$ ) $\underline{72,000}$ 2,88,000
Less: Sales from 1st May, 2012 to 31st August, 2012
60,000
Short-Sales $\underline{\underline{2,28,000}}$
(b) Gross profit ratio
$\frac{\text { Net Profit }+ \text { Insured standing charges (2011) }}{\text { Sales (2011) }} \times 100$
$\frac{56,000+1,20,000}{8,00,000} \times 100=$ $22 \%$

Less: Expected decrease due to increase in wages
2\% 20\%
(c) Loss of Gross Profit:
$20 \%$ on short sales ₹ $2,28,000=\quad ₹ 45,600$
(d) Annual turnover: (12 months to 1st May, 2012) :

Sales for Jan-Dec., $2011 \quad 8,00,000$
Less: From 1-1-2011 to 30-4-2011 (3,00,000)
Less: 20\% downward trend
$(1,00,000)$

```
                                    4,00,000
```

Add: From 1-1-2012 to 30-4-2012

Gross Profit on annual turnover @ 20\%
(e) Amount allowable in respect of additional expenses

4,00,000
$\underline{2,40,000}$
6,40,000
1,28,000 Least of the following:

```
(ii) Gross Profit on sales during indemnity period \(20 \%\) of ₹ \(60,000 \quad 12,000\)
(iii) \(\frac{\text { Gross profit on annual (adjusted) turnover }}{\text { Gross profit as above + Uninsured charges }} \times\) Additional Expenses
(iii)
\[
\frac{1,28,000}{1,48,000} \times 1,40,000=
\]
1,21,081
Least i.e. ₹ 12,000 is admissible.
```

Note.: On the amount of final claim, the average clause will not apply since the amount of the policy ₹ $1,72,000$ is higher than Gross Profit on annual turnover ₹ $1,28,000$.

## Illustration 6

Sony Ltd.'s. Trading and profit and loss account for the year ended 31st December, 2011 were as follows:

Trading and Profit and Loss Account for the year ended 31.12.2011


The company had taken out a fire policy for ₹ $3,00,000$ and a loss of profits policy for $₹ 1,00,000$ having an indemnity period of 6 months. A fire occurred on 1.4.2012 at the
premises and the entire stock were gutted with nil salvage value. The net quarter sales i.e. 1.4.2012 to 30.6 .2012 was severely affected. The following are the other information:

| Sales during the period | 1.1 .12 to 31.3 .12 | $2,50,000$ |
| :--- | ---: | ---: |
| Purchases during the period | 1.1 .12 to 31.3 .12 | $3,00,000$ |
| Manufacturing expenses | 1.1 .12 to 31.3 .12 | 70,000 |
| Sales during the period | 1.4 .12 to 30.6 .12 | 87,500 |
| Standing charges insured |  | 50,000 |
| Actual expense incurred after fire |  | 60,000 |

The general trend of the industry shows an increase of sales by $15 \%$ and decrease in GP by $5 \%$ due to increased cost.
Ascertain the claim for stock and loss of profit.

## Solution

Calculation of loss of stock:
Sony Ltd.
Trading A/c
for the period 1.1.2012 to 31.3.2012

|  | $₹$ |  | $₹$ |
| :--- | ---: | :--- | ---: |
| To Opening stock | 90,000 | By Sales | $2,50,000$ |
| To Purchases | $3,00,000$ | By Closing stock | $2,60,000$ |
| To Manufacturing expenses | 70,000 | (balancing figure) |  |
| To Gross profit (20\% ${ }^{*}$ of $\left.₹ 2,50,000\right)$ | $\underline{50,000}$ |  | $\overline{5,10,000}$ |
|  | $\underline{5,10,000}$ |  | $₹$ |
|  |  |  | $2,60,000$ |
| Stock destroyed by fire | $3,00,000$ |  |  |

As the value of stock destroyed by fire is less than the policy value, the entire claim will be admitted.

## Calculation of loss of profit:

Computation of short sales:

|  | ₹ |  |
| :--- | ---: | ---: |
| Average sales for the period 1.4.2011 to 30.6.2011 <br> (W.N.1) (₹ $7,82,610 / 3)$ | $2,60,870$ |  |


| *G.P. of 2011 | $\underline{25 \%}$ |
| :--- | :--- | :--- |
| Less: Decrease in trend | $\underline{5 \%} \quad \underline{20 \%}$ |


| Add: Increasing trend of sales (15\%) | $\underline{39,130}$ | (Approx.) |
| :--- | ---: | ---: |
| Less: Sales during the period 1.4.2012 to 30.6.2012 | $3,00,000$ |  |
| Short sales | $\underline{2,12,500}$ |  |

Computation of G.P. Ratio:
Gross profit ratio $=\frac{\text { Net profit }+ \text { Insured standing charges }}{\text { Sales }} \times 100$

$$
=-\frac{₹ 50,000+₹ 50,000}{₹ 10,00,000} \times 100=\quad 10 \%
$$

Less: Decreasing trend in G. P.
5\%
5\%
Loss of profit $=5 \%$ of $₹ 2,12,500=₹ 10,625$
Amount allowable in respect of additional expenses:
Least of the following:-
(i) Actual expenditure ₹ 60,000
(ii) G.P. on sales generated by additional expenses $5 \%$ of ₹ 87,500 ₹ 4,375
(assumed that entire sales during disturbed period is due to additional expenses)
(iii) Additional expenses $x$ G.P.on annual turnover G.P. on annual turnover + Uninsured standing charges
₹ $60,000 \times \frac{57,500}{57,500+1,30,000}=$
₹ 18,400 (approx.)
least i.e. ₹ 4,375 is admissible.

## G.P. on annual turnover:

Adjusted annual turnover:

|  | $₹$ |
| :--- | ---: |
| Average turnover for the period 1.4.2011 to 31.12.2011 (W.N.1) | $7,82,610$ |
| Turnover for the period 1.1.2012 to 31.3.2012 | $\frac{2,50,000}{}$ |
| Add: Increase in trend (15\% of ₹ 7,82,610) (W.N.2) | $\frac{10,32,610}{17,390}$ |
| Gross profit on annual turnover (5\% of ₹ 11,50,000) | $\frac{11,50,000}{57,500}$ |

As the gross profit on annual turnover ( $₹ 57,500$ ) is less than policy value ( $₹ 1,00,000$ ), average clause is not applicable.
Insurance claim to be submitted:

|  | $\mathfrak{F}$ |
| :--- | ---: |
| Loss of stock | $2,60,000$ |
| Loss of profit | 10,625 |
| Additional expenses | $\frac{4,375}{2,75,000}$ |

Note: According to the given information standing charges include administrative expenses ( $₹ 80,000$ ) and finance charges ( $₹ 1,00,000$ ). Insured standing charges being $₹ 50,000$, uninsured standing charges would be ₹ $1,30,000$.

## Working Note:

|  |  | $₹$ |
| :---: | :---: | :---: |
| 1. | Break up of sales for the year 2011: <br> Sales of the first quarter of 2011 (₹ 2,50,000 x 100/115) <br> Sales for the remaining three quarters of 2011 $\text { ₹ }(10,00,000-2,17,390)$ | $\begin{array}{r} 2,17,390^{*} \text { (approx.) } \\ 7,82,610 \end{array}$ |

* Sales for the first quarter of 2011 is computed on the basis of sales of the first quarter of 2012.

2. The increase in trend of sales has been applied to the sales of 2011 only, as the sales figure of the first quarter of 2012 was already trend adjusted.

| Illustration 7 |  |
| :---: | :---: |
| From the following particulars, you are required to calculate the amount of claim for Buildwell Ltd., whose business premises was partly destroyed by fire: |  |
| Sum insured (from 31 ${ }^{\text {st }}$ December 2011) | ₹ 4,00,000 |
| Period of indemnity | 12 months |
| Date of damage | $1^{\text {st }}$ January, 2012 |
| Date on which disruption of business ceased | 31st October, 2012 |
| The subject matter of the policy was gross charges are included. | insured standing |
| The books of account revealed: |  |

(a) The gross profit for the financial year 2011 was $₹ 3,60,000$.
(b) The actual turnover for financial year 2011 was $₹ 12,00,000$ which was also the turnover i this case.
(c) The turnover for the period 1st January to 31st October, in the year preceding the loss, was ₹ $10,00,000$.
During dislocation of the position, it was learnt that in November-December 2011, there has been an upward trend in business done (compared with the figure of the previous years) and it was stated that had the loss not occurred, the trading results for 2012 would have been better than those of the previous years.

The Insurance company official appointed to assess the loss accepted this view and adjustments were made to the pre-damaged figures to bring them up to the estimated amounts which would have resulted in 2012.

The pre-damaged figures together with agreed adjustments were:

| Period | Pre-damaged <br> figures | Adjustment to <br> be added | Adjusted standard <br> turnover |
| :--- | ---: | ---: | ---: |
|  | $₹$ | $₹$ | $₹$ |
| January | Feb. to October | 90,000 | 10,000 |
| November to December | $9,10,000$ | 50,000 | $1,00,000$ |
|  | $2,00,000$ | 10,000 | $9,60,000$ |
|  | $12,00,000$ | 70,000 | $2,10,000$ |
|  | $3,60,000$ | 46,400 | $12,70,000$ |

Rate of Gross Profit 30\% (actual for 2011), 32\% (adjusted for 2012).
Increased cost of working amounted to ₹ $1,80,000$.
There was a clause in the policy relating to savings in insured standard charges during the indemnity period and this amounted to ₹28,000.
Standing Charges not covered by insurance amounted to $₹ 20,000$ p.a. The annual turnover for January was nil and for the period February to October 2012 ₹ $8,00,000$

## Solution

1. Short sales

| Period | Adjusted Standard Turnover | Actual Turnover | Shortage |
| :--- | ---: | ---: | ---: |
|  | $₹$ | $₹$ | $₹$ |
| January | $1,00,000$ | - | $1,00,000$ |
|  | $9,60,000$ | $8,00,000$ | $1,60,000$ |

2. Gross profit ratio for the purpose of insurance claim on loss of profit

Gross profit - Insured Standing Charges - Uninsured standing charges $=$ Net profit
Or
Gross profit - Uninsured standing charges $=$ Net profit + Insured Standing Charges

$$
\begin{aligned}
& =4,06,400-20,000=3,86,400 \\
& \text { ₹ } 3,86,400 \\
& ₹ 12,70,000
\end{aligned}
$$

3. Amount allowable in respect of additional expenses

Least of the following:
(i) Actual expenses $=1,80,000$
(ii) Gross profit on sales during 10 months period $=8,00,000 \times 30.425 \% \quad=2,43,400$
(iii)


$$
\begin{aligned}
& \frac{3,86,400}{3,86,400+20,000} \times 1,80,000=1,71,142 \text { (approx.) } \\
& \text { Least i.e. }=₹ 1,71,142 \text { is admissible. }
\end{aligned}
$$

4. Amount of Claim

|  |  |
| :--- | ---: |
| Gross profit on short sales $=₹ 2,60,000 \times \frac{30.425}{100}$ | 79,105 |
|  | $1,71,142$ |
| Less: $\quad$ Savings in Insured Standing Charges | $2,50,247$ |
|  | $(28,000)$ |

On the amount of final claim, the average clause will not apply since the amount of the policy ₹ $4,00,000$ is higher than gross profit on annual adjusted turnover ₹ $3,86,400$.
Therefore, insurance claim will be ₹ $2,22,247$.

## Summary

## 1. Claim for Loss of Stock

- Loss of Stock:

Amount of loss of stock is calculated as under:
Value of stock on the date of fire XXXX
Less :- Value of Salvaged stock XXXX
Amount of loss of stock XXXX

- Claim for loss of stock can be studied under two heads:
a. Total Loss:

Amount of claim = Actual loss (If goods are fully insured but the amount of claim is restricted to the policy amount).
b. Partial Loss:
I) Without Average clause:-

Claim =Lower of actual Loss or Sum Insured
II) With Average Clause:-
Claim = Loss of stock x sum insured / Insurable amount (Total Cost)

- Other Points:
i. Stock records are maintained and not destroyed by fire, the value of the stock as at the date of the fire can be easily arrived at.
ii. Stock records are not available or destroyed by the fire, the value of stock at the date of the fire has to be estimated.
iii. Where books of account are destroyed, the Trading Account to be prepared.
iv. Insurance company makes payment for total loss.
v. Salvaged stock can be made saleable after it is reconditioned. In that case, the cost of such stock must be credited to the Trading Account and debited to a salvaged stock account. The expenses on reconditioning must be debited and the sales credited to this account, the final balance being transferred to the Profit \& Loss Account.


## 2. Claim for Loss of Profit

- The Loss of Profit Policy normally covers the following items:
(1) Loss of net profit
(2) Standing charges.
(3) Any increased cost of working
- Gross Profit:

Net profit +Insured Standing charges $O R$
Insured Standing charges - Net Trading Loss (If any) X Insured Standing charges/All standing charges of business

- Net Profit:

The net trading profit (exclusive of all capital) receipts and accretion and all outlay properly (chargeable to capital) resulting from the business of the Insured at the premises after due provision has been made for all standing and other charges including depreciation.

- Insured Standing Charges:

Interest on Debentures, Mortgage Loans and Bank Overdrafts, Rent, Rates and Taxes (other than taxes which form part of net profit) Salaries of Permanent Staff and Wages to Skilled Employees, Boarding and Lodging of resident Directors and/or Manager, Directors' Fees, Unspecified Standing Charges [not exceeding 5\% (five per cent) of the amount recoverable in respect of Specified Standing Charges].

- Rate of Gross Profit

The rate of Gross Profit earned on turnover during the financial year immediately before the date of damage.

- Annual Turnover:

The turnover during the twelve months immediately before the damage

- Standard Turnover:

The turnover during that period in the twelve months immediately before the date of damage which corresponds with the Indemnity Period

- Indemnity Period:

The period beginning with the occurrence of the damage and ending not later than twelve months

- The insurance for Loss of Profit is limited to loss of gross profit due to
(i) reduction in turnover, and
(ii) increase in the cost of working.
- Amount of Indemnity Payable:

Gross Profit Lost + Claim for increased cost of working Capital - Saving in Insured standing Charges.


[^0]:    * at cost, book value is ₹ 4,600

