## COST SHEET

You are running a factory which manufactures electronic toys. You incur expenses on raw material, labour and other expenses which can be directly attibuted to cost and which cannot be directly attributed but are incurred upto their sales. You need to know the composition of cost at different stages. This will help you in the analysis of cost of a product so that same can be used for its proper management. In this lesson you will learn about cost sheet and its various components.

## OBJECTIVES

After studying this lesson, you will be able to:

- state the meaning and type of Cost Sheet;
- state the importance of Cost Sheet;
- explain the components of total cost;
- prepare the cost sheet as per format.


### 29.1 COST SHEET : MEANING AND ITS IMPORTANCE

Cost sheet is a statement, which shows various components of total cost of a product. It classifies and analyses the components of cost of a product. Previous periods data is given in the cost sheet for comparative study. It is a statement which shows per unit cost in addition to Total Cost. Selling price is ascertained with the help of cost sheet. The details of total cost presented in the form of a statement is termed as Cost sheet. Cost sheet is prepared on the basis of :

1. Historical Cost 2. Estimated Cost

Elementary Cost Accounting


## Historical Cost

Historical Cost sheet is prepared on the basis of actual cost incurred. A statement of cost prepared after incurring the actual cost is called Historical Cost Sheet.

## Estimated Cost

Estimated cost sheet is prepared on the basis of estimated cost. The statement prepared before the commencement of production is called estimated cost sheet. Such cost sheet is useful in quoting the tender price of a job or a contract.

## Importance of Cost Sheet

The importance of cost sheet is as follows:

## - Cost ascertainment

The main objective of the cost sheet is to ascertain the cost of a product. Cost sheet helps in ascertainment of cost for the purpose of determining cost after they are incurred. It also helps to ascertain the actual cost or estimated cost of a Job.

## - Fixation of selling price

To fix the selling price of a product or service, it is essential to prepare the cost sheet. It helps in fixing selling price of a product or service by providing detailed information of the cost.

## - Help in cost control

For controlling the cost of a product it is necessary for every manufacturing unit to prepare a cost sheet. Estimated cost sheet helps in the control of material cost, labour cost and overheads cost at every point of production.

## - Facilitates managerial decisions

It helps in taking important decisions by the management such as: whether to produce or buy a component, what prices of goods are to be quoted in the tender, whether to retain or replace an existing machine etc.
I. State the meaning of cost sheet.
$\qquad$
$\qquad$
II. Fill in the blanks with suitable words:
(i) Cost sheet classifies and analyses the $\qquad$ of cost of a product.
(ii) $\qquad$ is ascertained with the help of cost sheet.
(iii) ............... Cost sheet is prepared on the basis of actual cost incurred.
(iv) Cost sheet also helps to ascertain the actual cost or $\qquad$ cost of a job.
(v) Cost sheet helps in fixing $\qquad$ of products or services by providing detailed cost information.
(vi) $\qquad$ cost sheet helps in the control of material cost of a product/service.

### 29.2 COMPONENTS OF TOTAL COST

The Components of cost are shown in the classified and analytical form in the cost sheet. Components of total cost are as follows:

## - Prime Cost

It consists of direct material, direct wages and direct expenses. In other words "Prime cost represents the aggregate of cost of material consumed, productive wages, and direct expenses". It is also known as basic, first, flat or direct cost of a product.

$$
\text { Prime Cost }=\text { Direct material }+ \text { Direct Wages }+ \text { Direct expenses }
$$

Direct material means cost of raw material used or consumed in production. It is not necessary that all the material purchased in a particular period is used in production. There is some stock of raw material in balance at opening and closing of the period. Hence, it is necessary that the cost of opening and closing stock of material is adjusted in the material purchased. Opening stock of material is added and closing stock of raw material is deducted in the material purchased and we get material consumed or used in production of a product. It is calculated as :

Material Consumed $=$ Material purchased + Opening stock of material - Closing stock of material.


Elementary Cost Accounting


## Illustration 1

Calculate prime cost from the following particulars for a production unit:

|  | Rs. |
| :--- | ---: |
| Cost of material purchased | 30,000 |
| Opening stock of material | 6,000 |
| Closing stock of material | 4,000 |
| Wages paid | 3,000 |
| Rent of hire of a special machine for production | 5,000 |

## Solution:

Statement showing Prime Cost

| Details | Amount <br> (Rs.) |  |
| :--- | ---: | ---: |
| Direct Material: Material Consumed |  |  |
| $\quad$ Opening stock of material | 6,000 |  |
| $\quad$ Add : Material Purchased | $\underline{30,000}$ |  |
| Material available for consumption | 36,000 | 4,000 |
| $\quad$Less : Closing stock of material  <br> Material consumed  <br> Direct Labour : Wages 32,000 <br> Direct Expenses: Rent of hire a special machine 3,000 <br> Prime cost 5,000\begin{tabular}{rl}
\hline
\end{tabular} | 40,000 |  |

## - Factory Cost

In addition to prime cost it includes works or factory overheads. Factory overheads consist of cost of indirect material, indirect wages, and indirect expenses incurred in the factory. Factory cost is also known as works cost, production or manufacturing cost.

$$
\text { Factory Cost }=\text { Prime cost }+ \text { Factory overheads }
$$

## Cost Sheet

## Illustration 2

Calculate factory cost from the following particulars:

|  | Rs. |
| :--- | ---: |
| Material consumed | 60,000 |
| Productive wages | 20,000 |
| Direct Expenses | 5,000 |
| Consumable stores | 2,000 |
| Oil grease/Lubricating | 500 |
| Salary of a factory manager | 6,000 |
| Unproductive wages | 1,000 |
| Factory rent | 2,000 |
| Repair and Depreciation on Machine | 600 |

Rs.
Material consumed 60,000
Productive wages 20,000
Direct Expenses 5,000
Consumable stores 2,000
Oil grease/Lubricating 500
Salary of a factory manager 6,000
Unproductive wages $\quad 1,000$
2,000
Repair and Depreciation on Machine 600

## Solution:

Statement showing Factory cost

| Details | Amount <br> (Rs.) |  |
| :--- | :--- | ---: |
| Direct Material: Material Consumed |  | 60,000 |
| Direct Labour: Productive wages |  | 50,000 |
| Direct Expenses |  | 5,000 |
| Prime cost | $\mathbf{8 5 , 0 0 0}$ |  |
| Add : Factory overheads | 2,000 |  |
| Indirect Material: | 500 | 2,500 |
| $\quad$ Consumable stores |  |  |
| $\quad$ Oil grease/lubricants | 1,000 | 7,000 |
| Indirect Labour: | 6,000 |  |
| $\quad$ Unproductive wages |  |  |
| $\quad$ Salary of a factory Manager | 2,000 | 2,600 |
| Indirect Expenses: |  |  |
| $\quad$ Factory rent |  |  |
| Repair and Depreciation on Machine |  |  |

Elementary Cost Accounting


## Adjustment for stock of work-in-progress

In the process of production, some units remain to be completed at the end of a period. These incomplete units are known as work-in-progress. Normally, the cost of incomplete units include direct material, direct Labour, direct expenses, and average factory overheads. Hence, at the time of computing factory cost, it is necessary to make adjustment of opening and closing stock of work in progress to arrive at the net Factory cost/works cost.

## Illustration 3

From the following information calculate the works cost.

|  | Rs. |
| :--- | ---: |
| Direct material | 80,000 |
| Direct Labour | 22,000 |
| Direct Expenses | 5,000 |
| Factory overheads | 12,000 |
| Work-in-progress: Opening stock | 13,000 |
| Closing stock | 7,000 |

## Solution:

Statement showing Factory cost

| Details | Amount <br> (Rs.) |
| :--- | ---: |
| Direct Material: Material Consumed | 80,000 |
| Direct Labour: Productive wages | 22,000 |
| Direct Expenses | 5,000 |
| Prime cost | $1,07,000$ |
| Factory overheads | 12,000 |
| $\quad$ Factory Cost (Gross) | $1,19,000$ |
| Add: Opening stock of work-in-progress | 13,000 |
| Less: Closing stock of work-in-progress | $7,32,000$ |
| Works or Factory cost (Net) | $1,25,000$ |

Fill in the blanks with suitable words:
(i) The Component of cost shown in the $\qquad$ and $\qquad$ form is the cost sheet.
(ii) Prime cost is also known as $\qquad$ first, flat or $\qquad$ cost of a job.
(iii) Material Consumed $=$ Material purchased + $\qquad$ - Closing stock of material.
(iv) Factory cost is also known as works cost, $\qquad$ or manufacturing cost.
(v) Some units are not completed in process, they are known as $\qquad$

### 29.3 TOTAL COST AND COST SHEET

If office and administrative overheads are added to factory or works cost, total cost of production is arrived at. Hence the total cost of production is calculated as:

Total Cost of production $=$ Factory Cost + office and administration overheads

## Illustration 4

From the following information calculate the total cost of production
Rs.

Direct material
90,000
Direct Labour
32,000
Direct Expenses
9,000
Factory overheads
25,000
Office and administration overheads
18,000

Elementary Cost Accounting


Solution:
Statement showing total cost of production

| Details | Amount <br> (Rs.) |
| :--- | ---: |
| Direct Material: Material Consumed | 90,000 |
| Direct Labour: Productive wages | 32,000 |
| Direct Expenses | 9,000 |
| PRIME COST | $1,31,000$ |
| Factory overheads | 25,000 |
| FACTORY COST | $1,56,000$ |
| Office and administration overheads | 18,000 |
| TOTAL COST OF PRODUCTION | $1,74,000$ |

## Cost of goods sold

It is not necessary, that all the goods produced in a period are sold in the same period. There is stock of finished goods in the opening and at the end of the period. The cost of opening stock of finished goods is added in the total cost of production in the current period and cost of closing stock of finished goods is deducted. The cost of goods sold is calculated as:

Cost of goods sold $=$ Total cost of production + Opening stock of Finished goods - Closing stock of finished goods

## Illustration 5

From the following information calculate the cost of goods sold.
Rs.
Total Cost of Production 1,22,000
Opening stock of finished goods
Closing stock of finished goods 16,000

## Solution:

Cost of goods sold $=$ Cost of Production + Opening stock of Finished goods - closing stock of Finished goods

Cost of goods sold $=$ Rs.1,22,000 $+12,000-16,000=$ Rs.1,18,000

## Cost Sheet

## Total Cost i.e, Cost of Sales

If selling and distribution overheads are added to the total cost of production, total cost is arrived at. This cost is also termed as cost of Sales. Hence the total cost is calculated as:

Total Cost $=$ Cost of Goods sold + Selling and distribution overheads


## Illustration 6

From the following information calculate the total cost.

|  | Rs. |
| :--- | ---: |
| Direct material | $1,60,000$ |
| Direct Labour | 52,000 |
| Direct Expenses | 19,000 |
| Factory overheads | 45,000 |
| Office and administration overheads | 28,000 |
| Selling and distribution overheads | 33,000 |

## Solution:

Statement showing total cost

| Details | Amount <br> (Rs.) |
| :--- | ---: |
| Direct Material: | $1,60,000$ |
| Direct Labour: | 52,000 |
| Direct Expenses | 19,000 |
| PRIME COST | $2,31,000$ |
| Factory overheads | 45,000 |
| FACTORY COST | $2,76,000$ |
| Office and administration overheads | 28,000 |
| TOTAL COST OF PRODUCTION | $3,04,000$ |
| Selling and distribution overheads | 33,000 |
| Total cost = cost of sales | $3,27,000$ |

## Sales

If the profit margin is added to the total cost, sales are arrived at. Excess of sales over total cost is termed as profit. When total cost exceeds sales, it is termed as Loss.

$$
\text { Sales }=\text { Total Cost }+ \text { Profit }
$$

Elementary Cost Accounting


Sometimes profit is calculated on the basis of given information in percentage of cost or sales. In such a situation, the amount is assumed 100 in which the percentage is calculated. Then the Profit is calculated in the following ways:

## Case 1

If Cost is Rs. 10,000 and profit on cost $10 \%$. Assume the cost is Rs. 100 and profit on cost is Rs.10. Hence Profit on cost of Rs.10,000 is

$$
10,000 \times 10 / 100=\text { Rs. } 1,000
$$

Thus the sales value is Rs $11000(10,000+1000)$

## Case 2

If Cost is Rs.10,800 and profit on sales price is $10 \%$. Assume sales price is Rs.100. cost price is Rs. 90 [i.e. Rs. 100 - Rs.10]. When profit on cost of Rs. 90 is Rs.10. Hence profit on cost of Rs.10,800 is

$$
\begin{aligned}
& 10,800 \times 10 / 90=\text { Rs. } 1,200 \\
& 10,800+1200=12,000 \text { sales value }
\end{aligned}
$$

## Case 3

If sales price is Rs. 12,100 and profit on cost is $10 \%$. Assume Cost price is Rs.100. Sales price is Rs. 110 [i.e. $100+10$ ]. If sales price is Rs. 110 , profit is Rs.10. Profit on sales price of Rs. 12,100 is

$$
12,100 \times 10 / 110=\text { Rs. } 1,100 \text { profit }
$$

## Illustration 7

From the following information, calculate the value of goods sold.

## Rs.

Total Cost of Production
1,45,000
Opening stock of finished goods
22,000
Closing stock of finished goods 6,000
Selling and distribution overheads 25,000
Profit
22,000

Solution
Statement showiniz Sales

| Details | Amount <br> (Rs.) |
| :--- | ---: |
| Total cost of production | $1,45,000$ |
| Add : Opening stock of finished goods | 22,000 |
| Less Closing stock of finished goods | $1,67,000$ |
| Cost of Goods sold | 6,000 |
| Selling and distribution overheads | $1,61,000$ |
| Total Cost | 25,000 |
| Profit | $1,86,000$ |
| Sales | 22,000 |
|  |  |

There is no prescribed format of a Cost sheet. It may change from industry to industry. A specimen format of a Cost Sheet is given as under:
Particulars Total (Rs.)
A. Materials Consumed :

Purchases
Add: Opening Stock of Raw material
$\qquad$

Expenses on Purchases
Less : Closing Stock of Raw Material
Direct Material consumed
B. Direct Labour (Wages) $\qquad$
C. Direct Expenses
D. Prime Cost $(\mathrm{A}+\mathrm{B}+\mathrm{C})$
E. Factory/Works Overheads

Add : Opening Stock of Work-in-Progress
$\qquad$
$\qquad$
$\qquad$

Less: Closing Stock of Work-in-Progress
F. Works/Factory Cost ( $\mathrm{D}+\mathrm{E}$ )
G. Office and administration overheads $\qquad$


Elementary Cost Accounting

H. Total Cost of Production $(\mathrm{F}+\mathrm{G})$

Add : Opening Stock of finished Goods
Cost of Goods available for sale
Less : Closing Stock of finished Goods
I. Cost of production of goods Sold or cost of good sold
J. Selling and Distribution Overheads
K. Total Cost $(\mathrm{I}+\mathrm{J})=$ Cost of Sales
L. Profit
M. Sales $(\mathrm{K}+\mathrm{L})$

## Preparation of cost sheet

The various components of cost explained above are presented in the form of a statement. Such a statement of cost consists of prime cost, works cost, cost of production of goods, cost of goods sold, total cost and sales and is termed as cost sheet. The Preparation of a cost sheet can be understood with the help of following illustration:

## Illustration 8

From the following information, prepare a cost sheet for period ended on 31st March 2006.

Opening stock of raw material
Purchases of raw material $1,36,000$
Closing stock of raw material $\quad 8,500$
Direct wages 54,000
Direct expenses 12,000
Factory overheads $100 \%$ of direct wages
Office and administrative overheads $20 \%$ of works cost
Selling and distribution overheads 26,000
Cost of opening stock of finished goods 12,000
Cost of Closing stock of finished goods
15,000
Profit on cost $20 \%$

## Cost Sheet

Solution:

## Cost sheet

| Details |  | Amount (Rs.) |
| :---: | :---: | :---: |
| Direct Material : Material consumed | 12500 |  |
| Opening 'stock of raw material | 136000 |  |
| Add: Purchases | 148500 |  |
| Less: Closing stock of raw material | 8500 | 1,40,000 |
| Direct wages |  | 54,000 |
| Direct expenses |  | 12,000 |
| Prime cost |  | 2,06,000 |
| Factory overheads: $100 \%$ of direct wages |  | 54,000 |
| $\text { (i.e. }\left(100 \times \frac{54000}{100}\right)$ |  |  |
| Works cost |  | 2,60,000 |
| Office and administrative overheads |  |  |
| $20 \%$ of works cost, $(2,60,000 \times 20 / 100$ |  | 52,000 |
| Total cost of production |  | 3,12 000 |
| Add : opening stock of finished goods |  | 12,000 |
| Cost of Goods available for sale |  | 3,24,000 |
| Less: Closing stock of finished goods |  | 15,000 |
| Cost of goods sold |  | 3,09,000 |
| Selling and distribution overheads |  | 26,000 |
| Total Cost $=$ cost of sales |  | 3,35,000 |
| Profit ( $20 \%$ On Cost i.e. 3,35,00 $\times 20 / 100$ ) |  | 67,000 |
| Sales |  | 4,02,000 |

## Illustration 9

The following information is given to you from which you are required to prepare Cost Sheet for the period ended on 31St march 2006:

Elementary Cost Accounting


Consumable material:
Rs.
Opening stock 20,000
Purchases 1,22,000
Closing stock $\quad 10,000$
Direct wages 36,000
Direct Expenses 24,000
Factory overheads
Office and administration overheads
Selling and distribution expenses Rs. 3 per unit sold
Units of finished goods
In hand at the beginning of the period (Value Rs. 12500) 500
Units produced during the period 12,000
In hand at the end of the period $\quad 1,500$
Find out the selling price per unit if $20 \%$ profit on selling price. There is no work-in-progress either at the beginning or at the end of the period.

## Solution:

Cost Sheet for the period ended on 31st March 2006 (output 12000units)

| Particulars | Total cost | Cost per <br> unit |  |
| :--- | ---: | :---: | :---: |
| Material Consumed: | 20000 |  |  |
| Opening Stock | 122000 |  |  |
| Add: Purchases | 142000 |  |  |
|  | 10000 |  | 11.00 |
| Less: Closing Stock | 132,000 | 132000 | 3.00 |
| Cost of raw material consumed |  | 36000 | 2.00 |
| Direct wages |  | 24000 | 16.00 |
| Direct Expenses |  | 192000 |  |
| Prime Cost |  | 18000 | 1.50 |
| Factory Overheads |  | 210000 | 17.50 |
| 50\% of Direct Wages (i.e. $12000 \times 1.50)$ |  |  |  |
| Works/Factory overheads |  | 42000 | 3.50 |
| Office overheads |  | 252000 | 21.00 |
| $20 \%$ of works cost |  |  |  |


| Add: Opening stock of finished goods (500 units @ 25) <br> Cost of goods available for sale $(12000+500)$ <br> Less : Closing stock of Finished goods @ 21per | $\begin{array}{r} 12500 \\ 264500 \\ 31500 \end{array}$ |  |
| :---: | :---: | :---: |
| Cost of goods sold (12500-1500 = 11000 units) | 233000 | 21.18 |
| Add: Selling \& Distribution overheads @ per unit | 330001 | 3.00 |
| Cost of Sales | 266000 | 24.18 |
| Add: Profit 20\% On Selling Price i.e. 25\% of cost of sales | 66500 | 6.04 |
| Sales $\left(266000 \times \frac{25}{100}\right)$ | 332500 | 30.22 |

## C.

Fill in the blanks with suitable words:
(i) $\qquad$ is also termed as administrative cost or total cost of production.
(ii) Cost of production of goods sold $=$ $\qquad$ + opening stock
of Finished goods - closing stock of finished goods
(iii) Total cost is also termed as $\qquad$
(iv) If profit is added to the total cost $\qquad$ are arrived at.
(v) Sales $=$ $\qquad$ + Profit.

## WHAT YOU HAVE LEARNT

Cost Sheet: Meaning :
Cost sheet is a statement, which shows various components of total cost of a particular product. Cost sheet is prepared on the basis of :

- Historical Cost
- Estimated Cost
- The importance of cost sheet is follows:
- Cost ascertainment
- Fixation of selling price

- Help in cost control
- Facilitates managerial decisions
- Components of Total Cost

Prime Cost $=$ Direct material + Direct Wages + Direct expenses works/ factory cost;

Factory Cost $=$ Prime cost + Factory overheads
Cost of production/office cost $=$ Factory Cost + office and administration overheads

Cost of production of goods sold $=$ Cost of Production + Opening stock of Finished' goods - closing stock of finished goods

Total Cost $=$ Cost of Production of goods sold + Selling and distribution overheads

Sales $=$ Total Cost + Profit

- The various components of cost explained above are presented in the form of a statement.


## TERMINAL QUESTIONS

1. What is meant by cost sheet? Explain the importance of Cost Sheet.
2. Define various components of total cost.
3. Compute the cost of material consumed from the following data:

Opening stock of raw material Rs.9,000
Purchases of raw material Rs.1,27,000
Closing stock of raw material Rs.12,000
4. Compute Prime cost from the data given below:

Rs.
Direct Material 1,80,000
Expenses on purchases
20,000
Rent of special machine taken on hire for production
Productive wages

## Cost Sheet

5. From the following information., prepare cost sheet.

|  | Rs. |
| :--- | ---: |
| Direct material | $1,60,000$ |
| Direct Labour | 45,000 |
| Direct Expenses | 15,000 |
| Factory overheads | 35,000 |

Office and administration overheads $20 \%$ of works cost
Selling and distribution overheads
Opening stock of finished goods 25,000
Closing stock of finished goods 10,000
Profit on Sales 10\%

## ANSWERS TO INTEXT QUESTIONS

## Intext Questions 29.1

II. (i) Components
(ii) Selling price
(iii) Historical
(iv) estimated
(v) selling price (vi) Estimated

## Intext Questions 29.2

I. Direct material + Direct wages + Direct expenses
II. (i) Classified, analysis (ii) basic, direct
(iii) Opening stock of material (iv) production
(v) work-in-progress.

## Intext Questions 29.3

(i) Office cost
(ii) cost of production
(iii) cost of Sales
(iv) sales
(v) Total Cost or cost of sales.

## Answers to Terminal Questions

3. Materials consumed Rs. $1,24,000$
4. Prime cost Rs. 305,000
5. Sales Rs 4,07,000

