

## **Cost Sheet: Meaning, Advantages and Preparation:**

### ***Meaning of Cost Sheet:***

Cost sheet is a document which provides for the assembly of the estimated detailed cost in respect of a cost centre or a cost unit. It is a detailed statement of the elements of cost arranged in a logical order under different heads. It is prepared to show the detailed cost of the total output for a certain period.

It is only a memorandum statement and does not form part of the double entry system. Additional columns can be provided to indicate cost per unit at different stages of production or to enable comparison to be made of the current costs with that of historical costs.

### ***Advantages of Cost Sheet:***

#### **The main advantages of a cost sheet are:**

- (i) It indicates the break-up of the total cost by elements, i.e. material, labour, overheads, etc.
- (ii) It discloses the total cost and cost per unit of the units produced.
- (iii) It facilitates comparison.
- (iv) It helps the management in fixing selling prices.
  
- (v) It acts as a guide to the management and helps in formulating production policy.
  
- (vi) It enables to keep control over cost of production.
  
- (vii) It helps the management in submitting quotations or preparing estimates for tenders.
  
- (viii) It is a simple and useful medium of communication of costs to various levels of management.

### ***Items Required for Preparation of the Cost Sheet:***

#### **i. Stock of Raw Materials:**

While preparing a cost sheet, it is necessary to determine the cost of raw material consumed.

If the opening stock of raw materials, purchase of raw materials during the period and closing stock of raw material at the end of the period are given, then the cost of raw materials consumed is calculated as follows:

Calculation of Raw Materials Consumed	
	₹
Opening stock of raw materials	xxx
<i>Add</i> : Purchases of raw materials	xxx
	xxx
<i>Less</i> : Closing stock of raw materials	xxx
Cost of raw materials consumed	xxx

#### ii. Stock of Work-in-Progress:

Work-in-progress refers to the semi-finished goods on which some work has been done but which are not yet complete at the end of the period. As such these goods are not yet available for sale. The stock of work-in-progress may be valued at prime cost or factory/work cost basis, but generally, it is valued on the basis of work cost.

The adjustment for the stock of work-in-progress valued at works cost should be made as follows:

Adjustment of the Stock of Work-in-Progress	
	₹
Prime cost	xxx
<i>Add</i> : Factory overhead	xxx
<i>Add</i> : Opening stock of work-in-progress	xxx
	xxx
<i>Less</i> : Closing stock of work-in-progress	xxx
Factory or works cost	xxx

#### iii. Stock of Finished Goods:

Stock of finished goods refers to the stock of products on which all factory work has been completed. Thus, it is valued at the cost of completed production.

If opening and closing stocks of finished goods are given, then the following adjustment should be made while calculating cost of goods sold:

Adjustment of the Stock of Finished Goods	
	₹
Cost of production	xxx
<i>Add</i> : Opening stock of finished goods	xxx
	xxx
<i>Less</i> : Closing stock of finished goods	xxx
Cost of goods sold	xxx

#### iv. Carriage Inward or Carriage on Raw Materials Purchased:

Carriage inward which is incurred on bringing the raw material purchased should be added while calculating the cost of raw materials consumed as below:

	₹
Opening stock of raw materials	xxx
Add : Purchases of raw materials	xxx
Add : Carriage inward	xxx
Less : Closing stock of raw materials	xxx
Cost of raw materials consumed	xxx

#### **v. Scrap of Materials:**

Scrap is discarded material having some value which is usually either disposed off without further treatment or is introduced into the production process in the place of raw materials. If the value of scrap is negligible, then it is credited to profit and loss account as an income.

The cost of production bears the cost of scrap because total cost is not reduced by the amount of scrap. However, in case the value of scrap is significant, then it is deducted from the cost of material consumed or factory overhead/cost depending upon the stage of scrap.

If the scrap materials occur in raw condition stage, then the net amount realised from the sale of scrap should be deducted from the cost of materials used. But, if the scrap is obtained in the course of manufacturing process, then the net amount realised from the sale of scrap should be deducted from the factory overhead or factory cost.

#### **vi. Items Excluded from Costs:**

The items of expenses, losses or incomes which are related to capital assets, appropriation of profits, amortization of fictitious or intangible assets, abnormal gains and losses or items of purely financial nature do not form part of the costs and these are excluded from cost accounts.

The examples of such items include— loss on sale of building or machinery, interest on capital, discount on issue or redemption of shares or debentures, expenses relating to previous period, cash discounts, bad debts, damages payable, penalties and fines, interest or dividend received on investments, transfer fees received, profit on sale of fixed assets, appropriation of profits such as income-tax, dividend paid, transfer of profits to reserves or funds, donations and charities, excess provision for depreciation on fixed assets, amortization of fictitious or intangible assets such as goodwill written off, preliminary expenses written off, patents, trademarks and copyrights written off, capital issue expenses, underwriting commission, loss on issue of shares and

debentures written off, etc. Thus, it should be noted that such items-are not taken into consideration (excluded) while preparing a cost sheet.

**Illustration 1.** From the following particulars of a manufacturing firm, prepare a statement of cost :

Stock of materials on January 1, 2011	20,000
Purchases of raw materials in January, 2011	5,50,000
Stock of finished goods on January, 1, 2011	25,000
Productive wages	2,50,000
Finished goods sold	12,00,000
Works overhead charges	75,000
Office and general expenses	50,000
Stock of materials on 31st January, 2011	70,000
Stock of finished goods on 31st January, 2011	30,000
Selling and distribution expenses	3,00,000
Sales	12,00,000

**Solution:**

<b>Statement of Cost</b>		
<i>(For the period ending on 31st January, 2011)</i>		
Opening stock of raw materials	20,000	
Add: Purchases of raw materials	<u>5,50,000</u>	
	5,70,000	
Less: Closing Stock of raw materials	<u>70,000</u>	
Cost of raw materials used		5,00,000
Add: Productive wages		<u>2,50,000</u>
(a) Prime cost		7,50,000
Add: Works overhead charges		<u>75,000</u>
(b) Works Cost or Factory Cost		8,25,000
Add: Office and general expenses		<u>50,000</u>
(c) Cost of Production		8,75,000
Add: Opening stock of finished goods		<u>25,000</u>
		9,00,000
Less: Closing stock of finished goods		<u>30,000</u>
(d) Cost of goods sold		8,70,000
Add: Selling and Distribution expenses		<u>3,00,000</u>
(e) Cost of Sales		11,70,000
Profit		<u>30,000</u>
Sales		<u>12,00,000</u>

**Illustration 2:**

The following extract of costing information related to commodity X for the half year ended 30<sup>th</sup> June, 2011:

Stock on 1st January, 2011 :	₹
Raw materials	22,000
Finished products (1,600 tonnes)	17,600
Stock on 30th June, 2011 :	
Raw materials	24,464
Finished products (3,200 tonnes)	35,200
Purchase of raw materials	1,32,000
Direct wages	1,10,000
Rent, rates, insurance and works on cost	44,000
Carriage inward	1,584
Work-in-progress as on 1st January, 2011	5,280
Work-in-progress as on 30th June, 2011	17,600
Cost of factory supervision	8,800
Sales—Finished products	3,30,000

Advertising, discount allowed and selling cost 75 paise per ton sold. 25,600 tonnes of commodity was produced during the period.

**You are required to ascertain:**

- (a) The value of raw materials used
- (b) Cost of output for the period
- (c) Cost of turnover for the period
- (d) Net profit for the period
- (e) Net profit per tonne of the commodity sold.

**Solution:**

<b>Statement of Cost</b>		
(Period : Six months ended 30th June, 2011)	(Output : 25,600 tons)	
	₹	₹
Cost of raw materials consumed :		
Opening stock of raw materials	22,000	
Add : Purchase of raw materials	1,32,000	
Add : Carriage inward	<u>1,584</u>	
	1,55,584	
Less : Closing stock of raw-materials	<u>24,464</u>	
<b>(a) Value of raw materials used</b>		1,31,120
Direct Wages		<u>1,10,000</u>
<b>Prime Cost</b>		2,41,120
Factory overheads :		
Rent, rates, insurance and works on cost	44,000	
Cost of factory supervision	<u>8,800</u>	
		<u>52,800</u>
		2,93,920
Add : Work-in-progress as on 1st January, 2011		<u>5,280</u>
		2,99,200
Less : Work-in-progress as on 30th June, 2011		<u>17,600</u>
<b>(b) Work Cost (Cost of Output)</b>		2,81,600
Cost of output per tonne = $\frac{2,81,600}{25,600}$ = ₹ 11 per tonne.		
<b>Statement of Profit</b>		
	<i>Quantity (Tonnes)</i>	<i>Amount (₹)</i>
Works Cost (Cost of output)	25,600	2,81,600
Add : Opening stock of finished products	1,600	17,600
	27,200	2,99,200
Less : Closing stock of finished products	3,200	35,200
Cost of Goods Sold	24,000	2,64,000
Selling and distribution overheads :		
Advertising, discount allowed and selling cost @ 75 paise per tonne of output sold for 24,000 tonnes.		18,000
		<u>2,82,000</u>
<b>(c) Cost of Sales (Turnover)</b>		
Sales		3,30,000
<b>(d) Net Profit for the period</b>		48,000
<b>(e) Net Profit per tonne of the commodity sold</b>		
		$= \frac{48,000}{24,000} = \text{Rs. } 2 \text{ per tonne}$

### Illustration 3:

The directors of a manufacturing business require a statement showing the production results of the business for the month of March, 2011.

The cost accounts reveal the following information:

	₹
Stock on hand 1st March, 2011	
Raw material	25,000
Finished goods	17,360
Stock on hand, 31st March, 2011	
Raw materials	26,250
Finished goods	15,750

Purchase of raw materials	21,900
Work-in-progress, 1st March 2011	8,220
Work-in-progress, 31st March 2011	9,100
Sale of finished goods	72,310
Direct wages	17,150
Non-productive wages	830
Works expenses	8,340
Office and administrative expenses	3,160
Selling and distributive expenses	4,210

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**You are required to construct the statement so as to show:**

- (a) The value of materials consumed;
- (b) The total cost of production;
- (c) The cost of goods sold;
- (d) The gross profit on goods sold and
- (e) The net profit for the month.

**Solution:**

<b>Statement of Cost</b> (for the month of March, 2011)		
	₹	₹
Value of materials consumed :		
Stock of raw materials in hand on 1st March, 2011	25,000	
Add : Purchase of raw materials	<u>21,900</u>	
	46,900	
Less : Stock of raw materials in hand on 31st March, 2011	<u>26,250</u>	
<b>(a) Value of Materials Consumed</b>		20,650
Direct wages		<u>17,150</u>
<b>Prime Cost</b>		37,800
Factory overheads :		
Non-productive wages	830	
Works expenses	<u>8,340</u>	<u>9,170</u>
		46,970
Add : Opening work-in-progress (1st March, 2011)		<u>8,220</u>
		55,190
Less : Closing work-in-progress (31st March, 2011)		<u>9,100</u>
<b>Works Cost</b>		46,090
Office and administrative expenses		<u>3,160</u>
<b>(b) Total Cost of Production</b>		49,250
Add : Opening stock of finished goods		<u>17,360</u>
		66,610
Less : Closing stock of finished goods		<u>15,750</u>
<b>(c) Cost of Goods Sold</b>		50,860
Sales		<u>72,310</u>
<b>(d) Gross Profit on Goods Sold</b>		21,450
<b>(e) Net Profit on Goods Sold :</b>		
Cost of goods sold	50,860	
Add : Selling and distribution expenses	<u>4,210</u>	
<b>Cost of Sales</b>	55,070	
Sales	<u>72,310</u>	
<b>Net Profit (for the month)</b>	17,240	

#### Illustration 4:

The following are the costing records for the year 2011 of a manufacturer:

	₹
Production 1,000 Units,	
Cost of Raw Materials	20,000
Labour Cost	12,000
Factory Overheads	8,000
Office Overheads	4,000
Selling Expenses	1,000
Rate of Profit : 25% on selling price.	

The manufacturer decided to produce 1,500 units during the year 2008. It is estimated that the cost of raw material will increase by 20%, the labour cost will increase by 10%, 50% of the overhead charges are fixed and the other 50% are variable. The selling expenses per unit will be reduced by 20%. The rate of profit will remain the same.

Prepare a cost statement for the year 2012 showing the profit and selling price per unit.

#### Solution:

<b>Cost Statement</b> <i>for the year 2011</i>		
	<i>Production : 1,000 Units</i>	
	<i>Cost per unit</i> ₹	<i>Total</i> ₹
Cost of Raw Materials	20.00	20,000
Labour cost	<u>12.00</u>	<u>12,000</u>
<b>Prime Cost</b>	32.00	32,000
Factory Overheads :		
50% Fixed	₹ 4,000	
50% Variable	₹ 4,000	
<b>Works Cost</b>	<u>8.00</u>	<u>8,000</u>
Office Overheads	40.00	40,000
50% Fixed	₹ 2,000	
50% Variable	₹ 2,000	
<b>Cost of Production</b>	<u>4.00</u>	<u>4,000</u>
Selling Expenses	44.00	44,000
<b>Total Cost</b>	<u>1.00</u>	<u>1,000</u>
Profit (25% on selling price)	45.00	45,000
Sales	<u>15.00</u>	<u>15,000</u>
	60.00	60,000
<b>Cost Estimate</b> <i>for 1,500 Units (for the year 2012)</i>		
	<i>Cost per unit</i> ₹	<i>Total</i> ₹
Cost of Raw Materials	24.00	36,000
Labour cost	<u>13.20</u>	<u>19,800</u>
<b>Prime Cost</b>	37.20	55,800
Factory Overheads :		
Fixed	₹ 4,000	
Variable	₹ 6,000	
<b>Works Cost</b>	<u>6.70</u>	<u>10,000</u>
Office Overheads :	43.90	65,800
Fixed	₹ 2,000	
Variable	₹ 3,000	
<b>Cost of Production</b>	<u>3.33</u>	<u>5,000</u>
Selling Expenses	47.23	70,800
<b>Total Cost</b>	<u>0.80</u>	<u>1,200</u>
Profit (25% on selling price)	48.03	72,000
Selling Price	<u>16.00</u>	<u>24,000</u>
	64.03	96,000

### Illustration 5:

In a factory two types of articles viz., 'O' and 'P' are manufactured. From the following particulars, prepare a statement of cost showing the total cost of each variety and ascertain the total profit.

### There is no opening or closing stock:

	<i>Article 'O'</i> ₹	<i>Article 'P'</i> ₹
Materials	30,000	50,000
Labour	60,000	70,000

Works on cost is charged at 40% of works cost and office on cost is taken at 20% on total cost. 'O' articles sold during the period are 360 at Rs. 600 each and 'P' articles sold are 400 at Rs. 750 each.

**Solution:**

<b>STATEMENT OF COST</b>		
	<i>Article 'O'</i> ₹	<i>Article 'P'</i> ₹
Materials	30,000	50,000
Labour	60,000	70,000
<b>Prime Cost</b>	90,000	1,20,000
Works on Cost (Overhead)	60,000	80,000
$\left[ 40\% \text{ of Works Cost or, } \frac{40}{60} \text{ of Prime Cost} \right]$		
<b>Works Cost</b>	1,50,000	2,00,000
Office on Cost	37,500	50,000
$\left[ 20\% \text{ of Total Cost or, } \frac{20}{80} \text{ of Works Cost} \right]$		
Total Cost	1,87,500	2,50,000
Profit	28,500	50,000
Sales [360 × 600 and 400 × 750]	2,16,000	3,00,000