Tender and quotation:

Introduction:

In big manufacturing concerns it is always advantageous to take up planned production. For this purpose an estimate of all types of production is to be prepared before commencing the production. In estimating and fixing up the targets of production expenses a number of factors have to be taken into consideration.

The manufacturer has to ascertain and find out the possible changes in price of materials and rates of wages. Then he has to ascertain the amount of variable, semi-variable and fixed indirect expenses. He will also have to take into consideration the effect of laws of increasing and decreasing cost which might be applicable to the commodity which he has determined to produce.

Last of all he will have to take into consideration the market conditions and the general economic and political factors which might likely affect the production. After having taken into consideration the above detailed factors a statement of estimates is prepared which usefully guides the manufacturer.

Sometimes the nature of some businesses requires the manufacturers to quote prices and submit tenders and receipt of orders depends upon the acceptance of the quotations or tenders supplied by the manufacturers. In such cases a manufacturer has to prepare a tender statement.

A tender statement is a cost sheet prepared not exclusively for the use of the manufacturers but it is to be looked into and examined by the customers who would place orders with the manufacturers. Hence, tender statement is a cost sheet which also shows, besides total cost, the tender price, i.e., total estimated cost of production plus a reasonable amount of profit.

Items to be Included in Tender Price:

1. Direct Expenses:

Direct expenses refer to direct materials consumed direct labour and other direct expenses. In calculating tender price, direct materials consumed, direct labour and other direct expenses per unit will the same which were in previous cost sheet. Only expected changes are adjusted in them.

2. Factory Overheads:

Since tender price is determined before production is held and hence overheads are completely estimated. The percentage of factory overhead with direct wages will be the same which was in the previous cost sheet.

3. Office Overheads:

For tender price, office overhead is certain percentage of factory cost or factory on cost.

4. Selling and Distribution Overheads:

For tender price, selling and distribution overheads are certain percentages of either cost of goods sold or selling price.

5. Profit:

In tender price, a certain percentage of profit is added. This profit is calculated either at cost price or at selling price.

Calculation of Profit:

(i) Calculation of Profit at Cost Price:

For this, the following formula is adopted –

$$\text{Profit} = \frac{\text{Total Cost} \times \ \% \text{ of Profit}}{100}$$

(ii) Calculation of Profit at Selling Price:

For this the following formula is adopted –

$$\text{Profit} = \frac{\text{Total Cost} \times \% \text{ of Profit}}{100 - \% \text{ of Profit}}$$

This can be explained clearly with the help of following example:

Total Cost Rs. 18,000

Percentage of Profit 10%

Solution:

1. Profit at Cost Price:

$$\text{Profit} = \frac{18{,}000 \times 10}{100} = Rs. 1{,}800$$

2. Profit at Selling Price when Cost Price is Given:

$$\text{Profit} = \frac{18{,}000 \ \times 10}{100 - 10}$$

$$= \frac{18{,}000 \ \times 10}{90} = Rs. 2{,}000$$

Requirements for the Preparation of Tender or Quotation:

For the preparation of a tender or quotation, a manufacturer must have detailed information regarding the cost of raw materials, wages and the different overheads and the profit of the preceding period. It is only on the basis of the cost and profit data of the identical product produced in the immediate past period, a producer can make an estimate of the cost of the product after making adjustments for the likely changes in the price levels of various components of production and submit the tender or quotation for the goods.

Steps to be Taken for the Preparation of Tender or Quotation:

The preparation of tender or quotation can be considered under two heads i.e.:

(1) If the quantity of the identical product produced in the past and the quantity of the product for which tender is prepared are stated in the problem, and

(2) If the quantity of the identical product produced in the past period and the quantity of the product for which the tender is prepared are not stated in the problem.

I. Calculation of Tender Price on the Basis of Previous Cost per Unit (When Quantity is Given):

In this case, for the preparation of the tender the following steps will have to be taken:

First Step – Preparation of the Cost Sheet for the Past Period:

As the tender has to be prepared on the basis of the cost of identical product produced in the past period, and as the output of the past period is given, first, we will have to prepare a cost sheet with total cost column and cost per unit column for the past period with the help of the costing data relating to the past period.

Second Step – Calculation of Percentages of Overheads, and the Percentage of Profit on Sales of the Past Period:

After the preparation of the cost sheet for the past period, we have to calculate the percentage of factory overheads on direct wages, and the percentage of office and selling overheads on works cost of the past period, if we are specifically instructed that the factory overheads and office and selling overheads for the tender are to be taken at the same percentages as in the past period.

However, if such a specific instruction is not given, we need not calculate the percentage of factory overheads on direct wages, and the percentages of office and selling overheads on works cost of the past period, as the overheads of tender can be calculated on the basis of the overheads per unit of the past period.

Calculation of Percentages:

The above percentages can be calculated as follows:

(a) Percentages of Factory Overheads on Direct Wages:

$$\text{Percentage} = \frac{\text{Factory Overheads of the past period}}{\text{Direct Wages of the past period}} \times 100$$

(b) Percentage of Office and Selling Overheads on Works Cost:

$$\text{Percentage} = \frac{\text{Office \& Selling Overheads of the past period}}{\text{Works Cost of the past period}} \times 100$$

(c) Percentage of Profit on Sales of the Past Period:

Beside the overhead percentages, we have to calculate the percentage of profit on sales of the past period, if the problem does not state the percentage of profit to be taken into account for the preparation of the tender or if the problem specifically states that the tender is to be made at the same percentage of profit on sales in the past period.

However, if the problem specifically states the specific percentage of profit to be taken into account for the preparation of the tender, we need not calculate the percentage of profit on sales of the past period, as the tender is to be made at the given percentage of profit and the percentage of profit on sales of the past period is of no relevance for the preparation of the tender.

If the percentage of profit on sales of the past period is required for the preparation of the tender, it can be calculated as follows:

$$\text{Percentage} = \frac{\text{Amount of Profit of the past period}}{\text{Sales of the past period}} \times 100$$

In this context, it may be noted that the percentage of profit on sales of the past period can be calculated only if the amount of profit of the past period is known. The amount of profit of the past period can be ascertained by preparing a statement of profit for the past period.

Another point to be noted in this context is that the percentage of profit on sales to be taken into account for the preparation of the tender cannot be taken as it is, as we know only the cost price, and not the selling price of the product for which the tender is to be made. So, what we actually require for direct application to the tender is the percentage of profit on cost.

The percentage of profit on cost to be applied to the tender directly can be calculated from the percentage of profit on sales required to be taken into account for the preparation of tender, it can be found out as follows:

$$\frac{\text{Rate of Profit on Sales}}{100 - \text{Rate of Profit on Sales}} \times 100$$

Third Step – Preparation of the Statement of Tender:

After the calculation of the overhead percentages and the percentage of profit on cost to be taken into account for the preparation of tender, we have to prepare the statement of tender with cost per unit column and total cost column.

While preparing the statement of tender, the various expenses required to be taken into account for the preparation of tender can be found out either on the basis of the specific cost figures given for the tender or on the basis of the unit cost of past period and the quantity of product for which tender is given subject to necessary adjustments for current changes in the rates of the various elements of cost, or on the basis of the overheads percentage of the past period.

After ascertaining the various expenses on relevant basis or bases, the various elements of cost have to be added. The resulting figure is the total cost. With the total cost, we have to add the amount of profit required to be taken into account for the tender on the basis of the percentage of profit given or on the basis of profit on sales of the past period, converted into the percentage of profit on cost. The resulting figure is the amount of tender or the quotation price.

II. Calculation of Tender Price on the Basis of the Percentage of Previous Expenses (When Quantity is not Given):

In this case, for the preparation of the tender, the following steps have to be taken:

First Step – Preparation of the Statement of Cost of the Past Period:

As the tender has to be prepared on the basis of the cost of identical product produced in the past period, and as the output of the past period is not given, first, we have to prepare only a statement of cost with just one amount column for the past period with the help of the costing data relating to the past period.

Second Step – Calculation of the Percentages of Overheads and the Percentage of Profit on Sales of the Past Period:

After the preparation of the statement of cost for the past period, we have to calculate the percentage of factory overheads on direct wages, and the percentage of office and selling overheads on works cost of the past period; as the overheads required to be taken into account for the tender have to be calculated on the basis of the relevant overhead percentages of the past period.

As explained in the previous case, the percentage of factory overheads on direct wages and the percentage of office and selling overheads on works cost can be calculated as follows:

(a) **Percentage of Factory Overheads on Direct Wages**:

$$\text{Percentage} = \frac{\text{Factory Overheads of the past period}}{\text{Direct Wages of the past period}} \times 100$$

(b) **Percentage of Office and Selling Overheads on Works Cost:**

$$\text{Percentage} = \frac{\text{Office \& Selling Overheads of the past period}}{\text{Works Cost of the past period}} \times 100$$

(c) **Percentage of Profit on Sale Price, if Sales Price is given:**

$$\text{Percentage} = \frac{\text{Profit of the past period}}{\text{Sales Price of the past period}} \times 100$$

(d) **Amount of Profit to be Calculated on Selling Price at a Certain Percentage, when Sales Price is Not Given:**

$$\text{Profit} = \frac{\text{Cost Price} \times \text{Percentage of Profit}}{100 - \text{\% of Profit}}$$

Third Step – Preparation of the Statement of Tender:

After the calculation of the overhead percentages and the percentage of profit on sales price or cost price required to be taken into account for the tender, we have to prepare a statement offender with the help of the costing data relating to tender given in the problem and with the help of the overhead percentages and the percentage of profit on cost.

(III) Estimation by Taking into Consideration the Fixed and Variable Expenses:

Elements of cost under the nature of cost, there are three kinds of costs on the basis of nature:

1. Fixed Cost:

Fixed cost is that which is unaffected due to increase or decrease in the volume of output. For example – Factory rent, Manager's salary, etc. Thus, in absence of proper direction, fixed cost remains same at each production level.

2. Variable Cost:

Variable cost is that which is directly related with the output. In other words, in case of increasing production it increases and it decreases when the production is decreased.

3. Semi-Variable Cost:

Those expenses the part of which is fixed and the next part of which is variable, are called semi-variable costs. They are not directly concerned with the production. They vary less or more than proportionately.

It should be kept in mind while solving tender price questions, directions given in this regard should not be avoided.