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SEMESTER - 5

SUBJECT :

COST AND FINANCIAL ACCOUNTING

TOPIC:

PROCESS COSTING

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MEANING OF PROCESS COSTING

Process costing is a method of costing under which all costs are accumulated for each stage of production or process, and the cost per unit is ascertained at each stage of production by dividing the cost of each process by the normal output of that process.

DEFINITION OF PROCESS COSTING

According to **CIMA** London defines process costing as, “that form of operation costing which applies where standardize goods are produced.”

PROCEDURE OF ASCERTAINING PROCESS COST

- The total production is divided into separate processes or operation under which the cost can be conveniently collected.
- A separate account is opened for each process and each process account is charged with the material, labour and other expenses incurred directly for the process concerned as well as with its share of overhead charges.
- The total cost of each process is ascertained and it is divided by the total number of units produced during the specified period and the cost per unit of each process is thus ascertained.
- The finished product of the first process is transferred to the second process, from second process to third process and so on. The finished product of the last process is transferred to finished stock account.
- The finished product of one process is transferred to the next process at cost so that last process account gives the actual cost of finished products. At times, the finished product of one process is transferred to the next process at cost plus a certain percentage of profit. In such case, the closing stock contains loading for profit charged by previous processes. Therefore, reserve for unrealised profit has to be created at the end of financial year and the stock is reduced to its cost price. The calculation of reserve for unrealised profit involves a few difficult arithmetical calculations.

GENERAL PRINCIPLES OF PROCESS COSTING

- The majority of items of cost can ordinarily be identified with specific processes and collected and accumulated separately for each period.
- Production records of each process are so designed as would show the quantum of production for each period.
- The cost of any normal spoilage or wastage is included in the cost of the total units produced. Thereby the average cost per unit is increased.
- The total cost of each process is divided by the total production by the process for arriving at the unit cost of the article processed.
- As the product travels from one process to another, the cumulative cost thereof in respect of the processes it has already undergone is transferred to the account of the process it has yet to undergo.

FEATURES OF PROCESS COSTING

- The production is in continuous flow and is uniform. All units coming out as finished products are uniform with each other in all respects.
- The product is manufactured in a continuous flow and hence individual units lose their identity.
- The unit cost is obtained by dividing the total cost for a particular period by the total output. This is the average cost of the product units.
- Cost per process is ascertained and cost of each process is transferred to the subsequent process until the finished product emerges.
- Sometimes each process may be treated as profit center and so while transferring the cost from one process to another, a percentage of profit is added in the cost of that process. This is known as inter process profit and needs to be accounted for in the process cost accounts.
- Though the cost per unit is computed by dividing the total cost by the number of units, there can be a problem on incomplete units at the end of a particular accounting period. In such cases equivalent units have to be worked out for computing the cost per unit.

ADVANTAGES OF PROCESS COSTING

- Costs are being computed periodically at the end of a particular period.
- It is simple and involves less clerical work than job costing.
- It is easy to allocate the expenses to processes in order to have accurate costs.
- Use of standard costing systems is very effective in process costing situations.
- Process costing helps in preparation of tender, quotations.
- Since cost data is available for each process, operation and department, good managerial control is possible.

LIMITATION OF PROCESS COSTING

- Cost obtained at each process is only historical cost and are not very useful for effective control.
- Process costing is based on average cost method, which is not that suitable for performance analysis, evaluation and managerial control.
- Work-in-progress is generally done on estimated basis which leads to inaccuracy in total cost calculations.
- The computation of average cost is more difficult in those cases where more than one type of products is manufactured and a division of the cost element is necessary.
- Where different products arise in the same process and common costs are prorated to various costs units. Such individual products cost may be taken as only approximation and hence not reliable.

PREPARING PROCESS ACCOUNT

various elements of cost shown in the process accounts

MATERIALS

Raw materials required for each process is drawn from stores against material requisitions. Proper procedure like preparing and authorizing the requisition, pricing of the issues, return of materials to the stores, transfer of material from one process to another should be followed while issuing the materials. Cost of materials consumed should be computed as per the method employed for pricing of the issues and the cost should be debited to the process account.

LABOUR

Wages paid to workers and supervisory staff should be charged to the particular process if they can be identified with it. If workers work on two or more processes, proper allocation should be made according to some basis like time spent on each process.

DIRECT EXPENSES

If expenses are identifiable with a particular process, they should be charged to that process. For example, cost of electricity, depreciation may be charged directly to a process if they are identifiable with it.

OVERHEADS

By nature, overheads are indirect expenses and hence cannot be identified with a particular process. These expenses can be apportioned on some suitable basis and charged to the process.

IMPORTANT ASPECTS OF PROCESS ACCOUNTS

- **NORMAL LOSS**
- **ABNORMAL LOSS/ABNORMAL GAIN**
- **SCRAP VALUE OF NORMAL LOSS**

NORMAL LOSS

Normal loss is a loss, which is inevitable in any process. Thus if the input is 100, the output may be 95 if the normal loss is anticipated as 5%. Accounting treatment of normal loss is explained and illustrated in the subsequent paragraphs. The fundamental principle of costing is that the good units should bear the amount of normal loss. Normal loss is anticipated and in a process it is inevitable. The cost of normal loss is therefore not worked out. The number of units of normal loss is credited to the Process Account and if they have some scrap value or realizable value the amount is also credited to the process account. If there is no scrap value or realizable value, only the units are credited to the process account.

- As normal wastage is inevitable, its loss must be spread over good units proceeds. for this, the number of units of normal wastage must be credited to the process account.
- If any price is realised by selling the normal wastage, it should be credited to the process account.
- The total cost of the process less the price realised from normal wastage is treated as the Normal cost and it must be divided by the number of good units produced to get per unit cost of production.

ABNORMAL LOSS/ABNORMAL GAIN

- If the actual output is less than the normal output [Normal output = Input – Normal Loss], the difference between the two is the abnormal loss. On the other hand if the actual output is more than the normal output, the difference between the two is abnormal gain. Thus in the example given above, the normal output is 95 which is 100 – 5% of 100 as the normal loss. If the actual output is 93 units, 2 units will be abnormal loss and if the actual output is 97 units, 2 units will be abnormal gain.
- Abnormal loss/gain is to be treated differently and is illustrated subsequently. If the units lost in the production process are more than the normal loss, the difference between the two is the abnormal loss.
- The relevant process of account is credited and abnormal loss account is debited with the abnormal loss valued at full cost of finished output. The amount realized from sale of scrap of abnormal loss units is credited to the abnormal loss account and the balance in the abnormal loss account is transferred to the Costing Profit and Loss Account. If the actual production units are more than the anticipated units after deducting the normal loss, the difference between the two is known as abnormal gain. The valuation of abnormal gain is done in the same manner like that of the abnormal loss. The units and the amount is debited to the relevant Process Account and credited to the Abnormal Gain Account.

SCRAP VALUE OF NORMAL LOSS

The accounting treatment of scrap value of loss is as follows:

- Revenue from scrap is not treated as an addition to sales revenue, but as a reduction in the cost of that process.
- The scrap value of normal loss is therefore used to reduce the materials costs of the process. It is credited to that process account. If we make a journal entry, scrap account is debited and process account is credited.
- The scrap value of abnormal loss is used to reduce the cost of abnormal loss. Thus the loss of abnormal wastage debited to profit and loss account is reduced to that extent. The entry is to debit scrap account and credit abnormal loss account.
- In case of abnormal gain, there is no sale proceeds of scrap, because they are sold as good units. Thus, the sale proceeds of scrap is reduced to that extent. The accounting entry is to debit abnormal gain account with the sale price of abnormal gain and credit scrap account. This will reduce the profit of abnormal gain account.
- Finally, the cash received from the scrap is debited to cash account and credited to scrap account with value of the actual number of units scrapped.