Process Costing

Meaning

- CIMA has defined process costing as follows: “The costing method applicable where goods or services result from a sequence of continuous or repetitive operations or processes. Costs are average of the units produced during the period.

- Process costing is applicable in those industries where a product passes through distinct stages of production.

Process costing is applicable in:

- Textile mills
- Oil refining
- Steel mills
- Soap making
- Sugar works
- Plastic manufacture
- Food processing, etc

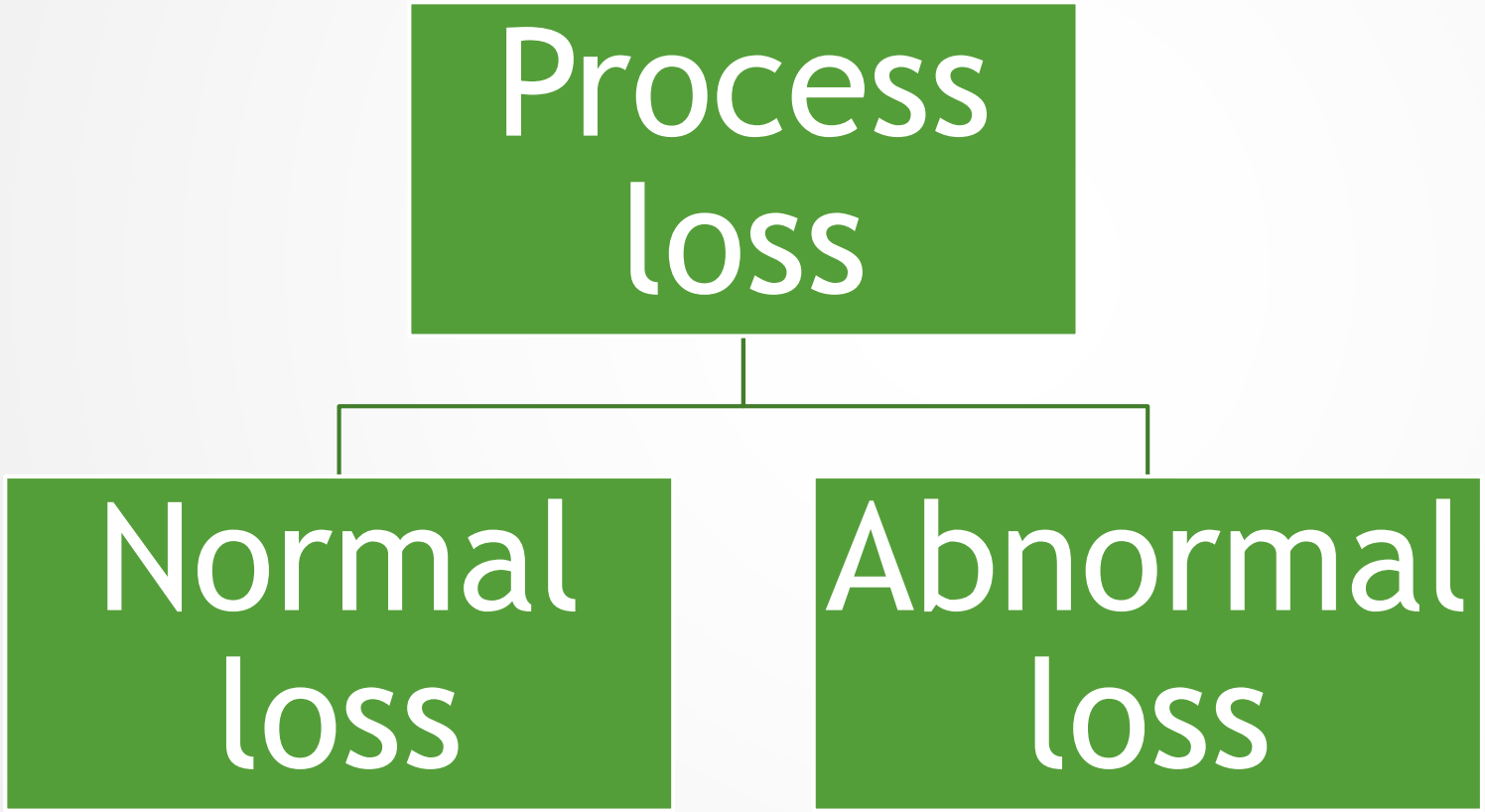
Characteristics of process costing

- Production is continuous and the final product is the sequence of processes.
- Cost per unit produced is the average cost.
- The finished product of one process become the raw material of another process.
- The sequence of operations or processes is specific and pre-determined.
- Some loss of materials in the processes is unavoidable.
- Processing of raw material give rise to Joint products and By-products.

Process costing procedure

- A separate account is prepared for each process.
- Process account is debited with material cost, labour cost, direct expenses and overheads allocated or apportioned to the process.
- Finished output of one process becomes input of next process.
- Finished output of the last process is transferred to the Finished Goods account.

Process losses (wastage)



Normal process loss

- That amount of loss which cannot be avoided because of the nature of material or process is normal process loss.
- It is caused due to the factors like chemical change, evaporation, etc.

Accounting Treatment of Normal Loss

- The cost of normal losses should be borne by good production.
- It is determined as a percentage of input.
- Sometimes such a loss is due to loss of weight. It does not have any value.
- If normal loss is in the form of scrap, it may be sold at same price. It is credited to the process account.

Abnormal process loss

- This type of loss consists of loss due to carelessness, machine breakdown, accident, use of defective materials, etc.

- It represents the loss which is above the normal loss

Accounting Treatment of Abnormal Loss

- (a) Allow for normal loss
- (b) Calculate cost per unit by using following formula

$$\text{Cost per unit} = \frac{Total\ cost - Value\ of\ normal\ loss}{Units\ introduced - Normal\ loss\ units}$$

- (c) Multiply cost per unit with no. of units of abnormal loss which will give value of abnormal loss.

- (d) Process Account is credited with the quantity and value of abnormal loss.
- (e) The balance figure in the process account is the cost of good units produced in the process.

- (f) Open ‘Abnormal loss’ account and debit it with the quantity and value of abnormal loss. Sale proceeds from abnormal loss are credited to Abnormal loss account. Balance left is net loss is transferred to Costing Profit & Loss Account.

Abnormal gain

- The normal loss represent the loss which would be expected under ideal conditions. The actual loss may be greater or less than the normal loss.
- Actual loss > Normal Loss, it is abnormal loss
- Actual loss < Normal loss, it is abnormal gain

Accounting treatment of Abnormal Gain

- Revenue from scrap is treated as a cost reduction.
- The value of abnormal gain is obtained in a manner similar to abnormal loss.
- It is shown on the debit side of process account and credit side of abnormal gain account.
- There is no sale proceeds of scrap as they are sold as good units. It will reduce the sale proceeds to that extent which will reduce the profit of abnormal gain. It is recorded on the debit side of abnormal gain account.
- Balance left is net profit which is transferred to Costing Profit & Loss account

Accounting of Joint products:

- CIMA has defined Joint product as, “Two or more products separated in processing each having a sufficiently high sale value to merit recognition as a main product.”

- Example: In Oil refining industry Petrol, diesel, kerosene, grease, etc. are the joint products.

Methods of apportionment of joint cost

- Physical measurement method
- Sales value method
- Weighted Average units method
- Reverse cost method
- On the basis of selling price per unit

By- products

- CIMA has defined by product as , “Output of some value produced incidentally in manufacturing something else (main product).

- In other words any saleable or usable value incidentally produced in addition to the main product.

Examples of by-product

Industry	By-product
Sugar	Bagasse, Molasses
Edible Oil	Oil cake
Cotton textile	Cotton seed
Rice Mills	Husk

Accounting treatment of By-product

- Market value method
- Standard cost method
- Cost of Alternative material
- On the basis of technical estimate
- Reverse cost method
- Where by-products are of small total value it may be treated as “miscellaneous income” and credited to the Costing Profit & loss account.