3D) COST SHEET, BUDGETING & VARIANCE ANALYSIS

A cost sheet is a report on which all costs associated with a product or production job are accumulated. A cost sheet is used to compile the margin earned on a product or job, and can form the basis for the setting of prices on similar products in the future.

According to CIMA (Chartered Institute of Management Accountants) London Cost Sheet is 'A statement which provides for the assembly of the detailed cost of a centre or a cost unit'. It is also a periodical statement.

'The expenditure which has been incurred upon product for a period is extracted from the financial books and the store records and set out in a memorandum statement. If this statement is confined to the disclosure of the costs of units produced dividing the period, it is termed as Cost- Sheet, but where the statement records both total cost, profit and sales, it is usually known as Statement of Cost or Production Account'.

If information derived from the books is set out usually in the form of a statement, it is cost sheet but where it is set out in the form of an account recording the cost incurred, there being separate accounts to show also sales and profit, it would be known as Production or Manufacturing Account.

It is desirable that besides total expenditure incurred, cost per unit of output in case of each elements of cost should be calculated and also the percentage contribution of each item to the cost of production should be indicated. Further, the cost sheet should give 'cost-per unit' in the previous period also, if available, for the purpose of comparison.

Opening and closing block of finished goods may be put in a subsidiary statement, which together with the total cost of production and sales will reveal profit.

The opening stock, purchases and the closing stock of raw material should not be shown separately but suitably adjusted to give one figure of raw materials consumed or used. Financial items like interest, discount etc. should be ignored.

Elements of Cost **:**

(1) Direct Materials **:** Since there will be only one product and process of manufacture is also simple, the raw material if any is directly charged to the production of the period in total.

(2) Direct Labour **:** The labour costs are collected periodically through pay rolls which are prepared separately for each section of work. The cost of abnormal idle time should be deducted.

(3) Other Direct or Chargeable Expenses **:** Expenses other than direct material and direct labour are chargeable expenses e.g. excise duty, royalty, expenses on designs, patterns and models etc.

(4) Prime Cost **:** The total of Direct Materials Consumed, Direct Labour and Other Direct or Chargeable Expenses is known as Prime Cost.

(5) Works Expenses or Overheads **:** In unit costing, these expenses related to the product are added to Prime Cost.
These are **:**
(i) Indirect materials like oil, dusters, lubricants etc.,
(ii) Indirect labour like wages to foremen, storekeeper, watchman, factory clerks etc.,
(iii) Steam, fuel or electric power,
(iv) Lighting heating and water in the factory
(v) Rent, insurance and rates of factory,
(vi) Repairs and depreciation of machines plant, factory building and loose tools,
(vii) Factory stationery,
(viii) Factory research expenses,
(ix) Expenses related to factory establishment,
(x) Drawing office salary,
(xi) Welfare expenses and workman's compensation, Insurance, etc.

(6) Scrap or Wastage **:** In the production of anything some wastage or scrap materials is obtained. Sometimes some of the units produced may be defective and such units or scrap or wastage is sold. The amount thus obtained should be deducted from factory expenses or from works cost. If, however, the materials (when about to be used) are found to be defective and then sold, the value of materials used should be reduced by the cost of such materials. The loss on sale of such defective materials should be debited to the Costing Profit and Loss Account.

(7) Work in Progress **:** In any factory or workshop there are always some units which are not yet complete, but on which some work has been done. Such work is known as work-in-progress or work-in-process. The valuation of such work-in-progress is made on the basis of the value of material already used, the amount of wages paid for the work concerned and a proper share of factory expenses. Since various units will be at different stages of production the value of work- in-progress will have to be estimated for each stage separately.

The work-in-progress in the beginning is to be added to the current costs of production and that at the end of the period has to be deducted from the manufacturing cost. This may be done when factory expenses have been added to the prime cost.

(8) Office and Administrative Expenses **:** Works cost or Manufacturing cost is increased by office and administrative expenses.
These are, for example **:**
(i) Staff and Management salaries,
(ii) Directors Fees,
(iii) Stationery, Printing, Postage, Telephone, Fax and miscellaneous office expenses,
(iv) Office rent, tax, insurance, light and water etc.,
(v) Counting house or computer and accounting expenses,
(vi) Repairs, depreciation and insurance of office building, furniture and equipments.

(9) Cost of Production or Office Cost **:** When office and administration overheads are added to works cost, the total shows cost of production.

(10) Cost of Goods Sold **:** If all goods produced are not sold, the cost of goods sold should be ascertained.

(11) Selling and Distribution Expenses **:** These are added to Cost of Goods sold. The total is known as 'Cost of Sales'.

(12) Profit **:** Profit is difference between sales and cost of sales.

(13) Treatment of Defective or Rejected Production **:** The production that is not as perfect as the saleable product but is capable of being rectified and brought to required degree of perfection provided some additional expenditure overheads. The cost of rectification is treated to be additional works overheads. On the other hand, the production that has been totally rejected and cannot be rectified, the amount so realised by sale of these goods is used to reduce the cost of factory cost.

Format of cost sheet
COST SHEET OR STATEMENT OF COST
Total Units……

Opening Stock of Raw material	... ...	... ...
Add: Purchases	... ...	... ...
	... ...	... ...
Less: Closing Stock	... ...	... ...
Cost of material Consumed →	... ...	... ...
Add: Direct Labour/Wages	... ...	... ...
Prime Cost →	... ...	... ...
Add: Works overheads	... ...	... ...
Works Cost →	... ...	... ...
Add: Administration overheads	... ...	... ...
Cost of Production →	... ...	... ...
Add: Selling and distribution overheads	... ...	... ...
Total Cost or Cost of Sale →	... ...	... ...

Budgeting : Budgeting involves defining financial objectives, assessing finances and using this information for financial planning. Once the financial manager has an understanding of how the business stands financially he can set budgets.

Almost all activities of a business can be budgeted. Budgets help businesses track and manage their resources. Businesses use a variety of budgets to measure their spending and develop effective strategies for maximizing their assets and revenues.

How are the Budgets decided? **:**
Managers will look at - Past results & costs, Planned Output, How money has been allocated in the past, Business Objectives for the coming period, Consultation with managers, Forecasts for markets and prices.

The following types of budgets are commonly used by businesses **:**
M*aster Budget* A master budget is an aggregate of a company's individual budgets designed to present a complete picture of its financial activity and health. The master budget combines factors like sales, operating expenses, assets, and income streams to allow companies to establish goals and evaluate their overall performance, as well as that of individual cost centers within the organization. Master budgets are often used in larger companies to keep all individual managers aligned.

O*perating Budget* An operating budget is a forecast and analysis of projected income and expenses over the course of a specified time period. To create an accurate picture, operating budgets must account for factors such as sales, production, labor costs, materials costs, overhead, manufacturing costs, and administrative expenses. Operating budgets are generally created on a weekly, monthly, or yearly basis. A manager might compare these reports month after month to see if a company is overspending on supplies.

C*ash Flow Budget* A cash flow budget is a means of projecting how and when cash comes in and flows out of a business within a specified time period. It can be useful in helping a company determine whether it's managing its cash wisely. Cash flow budgets consider factors such as accounts payable and accounts receivable to assess whether a company has ample cash on hand to continue operating, the extent to which it is using its cash productively, and its likelihood of generating cash in the near future. A construction company, for example, might use its cash flow budget to determine whether it can start a new building project before getting paid for the work it has in progress.

F*inancial Budget* A financial budget presents a company's strategy for managing its assets, cash flow, income, and expenses. A financial budget is used to establish a picture of a company's financial health and present a comprehensive overview of its spending relative to revenues from core operations. A software company, for instance, might use its financial budget to determine its value in the context of a public stock offering or merger.

S*tatic Budget* A static budget is a fixed budget that remains unaltered regardless of changes in factors such as sales volume or revenue. A plumbing supply company, for example, might have a static budget in place each year for warehousing and storage, regardless of how much inventory it moves in and out due to increased or decreased sales.

F*lexible budget* A flexible budget is a budget that adjusts or flexes for changes in the volume of activity. The flexible budget is more sophisticated and useful than a static budget, which remains at one amount regardless of the volume of activity.

Assume that a manufacturer determines that its cost of electricity and supplies for the factory are approximately $10 per machine hour (MH). It also knows that the factory supervision, depreciation, and other fixed costs are approximately $40,000 per month. Typically, the production equipment operates between 4,000 and 7,000 hours per month. Based on this information, the flexible budget for each month would be $40,000 + $10 per MH.

Now let's illustrate the flexible budget by using some data. If the production equipment is required to operate for 5,000 hours during January, the flexible budget for January will be $90,000 ($40,000 fixed + $10 x 5,000 MH). If the equipment is required

to operate in February for 6,300 hours, then the flexible budget for February will be $103,000 ($40,000 fixed + $10 x 6,300 MH). If March requires only 4,100 machine hours, the flexible budget for March will be $81,000 ($40,000 fixed + $10 x 4,100 MH).

If the plant manager is required to use more machine hours, it is logical to increase the plant manager's budget for the additional cost of electricity and supplies. The manager's budget should also decrease when the need to operate the equipment is reduced. In short, the flexible budget provides a better opportunity for planning and controlling than does a static budget.

Benefits of Budgeting **:**

- It helps to predict what will happen in the future.
- It sets targets.
- They help monitor performance.
- They help control performance.
- They help in business planning.
- They can be used as a source of motivation as they involve a consultation process.
- They are a form of communication

The process of budget setting **:**
- The business is broken down into a series of control centres.
- Each manager has responsibility for managing the budget for their control centre.
- Each manager is kept informed of their own performance and that of other budget holders.

Variance analysis is the quantitative investigation of the difference between actual and planned behaviour. This analysis is used to maintain control over a business. For example, if you budget for sales to be $10,000 and actual sales are $8,000, variance analysis yields a difference of $2,000.

A variance arises when there is a difference between actual and budget figures. Variances can be either - Positive / Favourable (better than expected) or Adverse / Unfavourable (worse than expected).

Profit Variance **:** The difference between budgeted profit and actual profit. This can be broken down to - revenue variances and cost variances. These variances can in turn be broken down further

Sales variance **:** The difference between actual sales revenue and budgeted sales revenue. This can be broken down into -
Sales volume variance (how sales differed from target), Price variance (how actual price differed from expected price)

Cost Variances **:** Material price variance ie. the difference between the budgeted cost of raw materials and the actual costs; Material usage variance ie. the difference between the budgeted quantities of raw materials & supplies against the actual quantities used; Labour rate variance ie. the budgeted wage bill compared to the actual wage bill; Labour efficiency variance ie. the budgeted number of man-hours to complete tasks compared to the actual man-hour consumed.