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INTRODUCTION TO COST AND MANAGEMENT ACCOUNTING

I. MEANING OF COST

- The monetary value of all sacrifices made to achieve an objective. (i.e. to produce goods and services).
- Cost refers to the expenditure incurred in producing a product or in rendering a service.
- It is expressed from the producer or manufacturer's viewpoint. (not from consumer's viewpoint).

II. DEFINITIONS

'Costing' is defined as - "The techniques and processes of ascertaining costs".

Cost Accounting is the classifying, recording and appropriate allocation of expenditure for the determination of the costs of the product or services".

'Cost Accountancy' is defined as "The application of costing and cost accounting principles, methods and techniques to the science, art and practice of cost control, and the ascertainment of profitability. It includes the presentation of information derived there from for the purpose of managerial decision-making".

'Management Accounting' is defined by CIMA as "Management Accounting is the application of the principles of accounting and financial management to create, protect, preserve and increase value of the stakeholders of for-profit and not-for-profit enterprises in the public and private sectors."

'Cost Management' - It is an application of management accounting concepts, methods of collections, analysis and presentation of data to provide the information needed to plan, monitor and control costs.

Inception - It started as a branch of financial accounting but developed soon as a specialised field distinct from financial accounting. The limitations of Financial Accounting gave birth to the Cost Accounting Methods and Techniques.

For example - Financial records revealed that the total profit made during the financial year is Rs. 50,000/- which is 20% of sales i.e. Rs. 2,50,000/-. It is a good performance. But the cost records revealed the following facts.

Products	A Rs.	B Rs.	C Rs.	Total Rs.
Sales	1,25,000	75,000	50,000	2,50,000
Costs	1,30,000	50,000	20,000	2,00,000
Profit / (Loss)	(5,000)	25,000	30,000	50,000
% of profit / (Loss) to sales	(4%)	33.33%	60%	20%

The above example clearly explains the importance and need of cost accounting as a separate branch from financial accounting.

III. OBJECTIVES OF COST ACCOUNTING

Following are the basic objectives of Costing :

1. **Cost Ascertainment** – This involves collection of cost information, by recording them under suitable heads of account and reporting such information on a periodical basis. It simply means calculation of cost. Cost calculation also helps in ascertainment of profit.
2. **Cost Estimation** : In many business situations, we need to quote a price to the customer before accepting his order. In such case you need to first estimate the cost and then add profit to provide the price quotation to the customer.
3. **Cost Control** : Cost has an inherent tendency to go up, hence cost control becomes a very important feature of Cost Accounting. Cost accounting provides data for comparison between standard cost and actual cost to note down the variances. This variance analysis helps us in doing cost control. We will study this in the chapter of 'Standard Costing'.
4. **Assisting management in decision-making** : Business decisions are taken after conducting Cost-Benefit Analysis. Hence cost and benefits of each option are analysed and the Manager chooses the least cost option. Thus cost accounting and reporting system assist managers in their decision making process. We will study this in the chapter of 'Marginal Costing'.
5. **Determination of Selling Price and Profitability** : the cost accounting system helps in determination of selling price and thus profitability of a cost object. Though in a competitive business environment, selling prices are determined by external factors but cost accounting system provides a basis for price fixation and rate negotiation.
6. **Cost Reduction** : It is defined as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered, without affecting its utility and quality. By conducting continuous research and study, we can find better ways to do the things at a lower cost, which helps in cost reduction.

IV. Elements of Cost:

Basically there are three elements of costs -

1. **Material Cost** : It is the cost of tangible items, which gets consumed in the process of manufacture.
2. **Labour Cost** : It is the cost of human efforts i.e. manpower cost. E.g. salary & wages paid to employees.
3. **Expenses** : It is the cost, which is neither material nor labour. E.g. rent, electricity, depreciation etc.

These cost elements can be further divided into as :

Direct Material		Indirect Material	
+ Direct Labour		+ Indirect Labour	
+ Direct Expenses		+ Indirect Expenses	
<u>Prime Cost</u>	+	<u>Overheads</u>	=Total Cost

In practice, however, the elements of costs are better known as –

1. Material Cost
2. Labour Cost and
3. Overheads Cost

V. DIFFERENT METHODS OF COSTING :

Job Costing - In this case each job is treated as distinct from other and the cost of each job is calculated separately. e.g. Scooter Servicing, fabrication workshop, furniture manufacturing, etc.

Batch Costing - It is a variation of job costing. A batch is considered as a job and the cost of each batch is calculated separately. e.g., Pharmaceutical Companies, toothpastes, spare parts etc.

Contract Costing - It is another variation of job costing, but the job is of a big size relating to civil construction or mechanical erection etc. and involves a longer period (more than 1 year) to complete. For example: Construction of Bridges, Dams, Housing Complexes, Road Building, etc.

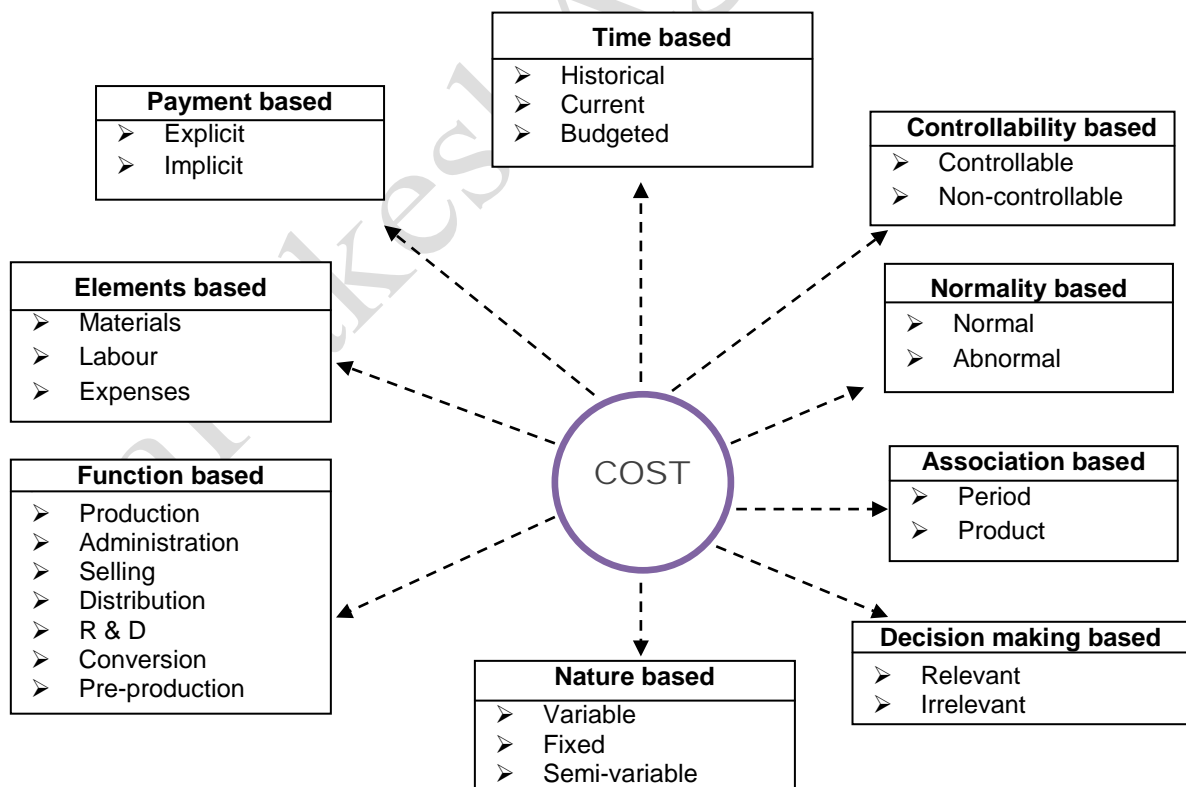
Process Costing/Operation Costing - This method is applied where different processes are involved in a sequence to manufacture a particular product. Cost for each such process is required to be calculated separately. e.g., Sugar factories, paper industries, cement industry etc. It gets connected to **Joint Product & By-Product Costing** for multiple products.

Unit/Single/Output Costing - This method is applied where a continuous production of **identical** items is done. e.g., News paper Printing, Electricity generation, coal mining etc. This is the simplest form of costing method.

Operating Costing - It is applied to service industries like transportation of goods & passengers, hospitals, hotels, health clubs and other service centers.

Multiple Costing - A combination of above different methods of costing may be used as per the need and suitability of the organisation. It is called as " Multiple Costing". It is not a separate method of costing but use of a combination of different methods of costing.

VI. DIFFERENT CLASSIFICATION OF COSTS



1. **Historical costs** : Costs relating to the past time period; cost which has already been incurred.
2. **Current costs** : Cost relating to the present period.
3. **Budgeted Costs** : Costs relating to the future period; Cost which is computed in advance, on the basis of specification of all factors affecting it.
4. **Controllable Costs** : Cost which can be influenced and controlled by managerial action. These are also known as avoidable cost or discretionary cost etc.
5. **Non-Controllable costs** : These are costs that cannot be influenced and controlled by managerial decisions. These are also known as unavoidable costs or non discretionary costs etc.
6. **Normal Cost** : Costs which can be reasonably expected to be incurred under normal, routine and regular operating conditions.
7. **Abnormal Cost** : Costs over and above normal cost; which is not incurred under normal operating conditions e.g. fines and penalties, goods lost due to fire, repairs cost due to major machine breakdown etc.
8. **Period Cost** : These are costs which are not assigned to the products but are charged as expenses against the revenue of the period in which they are incurred. These costs vary according to period of time and not according to the number of units produced. Thus, they are fixed costs e.g. factory rent, fixed salary of office staff, insurance charges etc.
9. **Product Cost** : These are costs which will change according to number of units produced. These costs are associated with the product we manufacture and not the period. These are also known as variable costs e.g. direct material, direct labour etc. It can be called as the cost associated with the acquisition and conversion of material into finished product. It is also known as Engineered Cost.
10. **Engineered Cost** : These are the costs that result specifically from a clear cause and effect relationship between inputs and outputs. The relationship is usually personally observable. Examples of inputs are direct material cost, direct labour cost etc. (In my opinion, it is similar to Product Cost).
11. **Relevant Costs** : Costs which are relevant for decision making i.e. avoidable cost or discretionary cost.
12. **Irrelevant Costs** : Costs which are irrelevant for decision making i.e. unavoidable cost or non-discretionary cost.
13. **Variable Costs** : These are costs which tend to vary or change in relation to volume of production. They increase in total as production increases and vice-versa e.g. cost of raw materials, direct wages etc. However, variable costs per unit are generally constant for every unit of the additional output.
14. **Fixed Costs** : These are costs which remain constant at various levels of production. They are not affected by volume of production e.g. Factory Rent, Insurance etc. Fixed Costs per unit vary inversely with volume of production, i.e. if production increases, fixed cost per unit decreases and vice-versa. Sometimes, these are also known as **Capacity costs or Period Costs**.
15. **Semi-variable Costs** : These are costs which are partly fixed and partly variable. These are fixed upto a particular volume of production and become variable thereafter for the next level of production. Some examples are Repairs and Maintenance cost, Electricity bills, Telephone bills etc.
16. **Production Cost** : It is the costs related to manufacturing activities. Thus it is equal to the total of Direct Materials, Direct Labour, Direct Expenses and Production Overheads.

- 17. Administration Cost :** The cost of formulating the policy, directing the organisation and controlling the operations of the undertaking, which is not directly related to production, selling distribution, research or development activity or function. Some examples are Office Rent, Accounts Department Expenses, Audit and Legal Expenses, Directors Remuneration, Printing & Stationery, Telephone & Postage etc.
- 18. Selling Cost :** It is the cost of generating demand. These are sometimes called marketing costs. Some examples are Advertisement, Salesmen remuneration, Show-room Expenses, Cost of samples etc.
- 19. Distribution Cost :** It is the cost of satisfying the demand. Some examples are : secondary packing of goods for the convenience of material handling and transportation, carriage outwards, maintenance of delivery vans, expenditure incurred in transporting articles to central or local storage, expenditure incurred in moving articles to and from prospective customers (as in Sale or Return) etc.
- 20. Research Cost :** The cost of researching for new or improved products, new applications of materials or improved methods.
- 21. Development Cost :** The cost of the process which begins with the implementation of the decision to produce a new or improved product, or to employ a new or improved method and ends with commencement of formal production of that product or by that method.
- 22. Conversion Cost :** It is the cost required to convert raw material into finished goods. Conversion cost = Direct labour + Factory overheads.
- 23. Pre-production Cost :** It is the cost incurred before starting actual commercial production. For example, cost incurred in making a trial production run, cost of moulds & designs, cost of training the workers etc.
- 24. Materials :** Cost of tangible, physical input used in relation to output / production, e.g., cost of raw materials, consumable stores, maintenance items etc.
- 25. Labour :** Cost incurred in relation to human resources of the enterprise; e.g. wages to workers, Salary to Office Staff, Training Expenses etc.
- 26. Expenses :** Cost of operating and running the enterprise, other than materials and labour; they are the residual category of costs. E.g. Factory Rent, Office Maintenance, Depreciation, Electricity etc.
- 27. Direct Costs :** Costs which are directly related to / identified with / attributable to a cost object or a Cost unit. E.g. Cost of basic raw material used in the finished product, wages paid to site labour in a contract etc. In simple words, it is a specific cost. It is also known as Prime cost.
- 28. Indirect Costs :** Costs which are not directly identified with a cost object or a cost unit. Such costs are apportioned over different cost centers using appropriate basis. E.g., Factory Rent incurred over various departments; Salary of supervisor engaged in overseeing various construction contracts etc. In other words, it is a common cost. It is also known as Overheads cost.

DISTINGUISH BETWEEN EXPLICIT AND IMPLICIT COST :

Particulars	Explicit Costs	Implicit Costs
Meaning	Costs which involve cash payment.	Cost which do not involve cash payment.
Otherwise known as	Out of pocket cost / Actual cost	Opportunity costs / Notional costs / Imputed cost / Hidden Cost
Measurement	These are actually incurred and hence can be easily and objectively measured.	They are not actually incurred. They cannot be easily measured and involves a subjective estimation.
Recording in books of accounts	These are recorded in the books of accounts.	These are not recorded in the books of accounts.
Purpose	Accounting, Reporting, Cost Control & Decision Making	Used only in Decision Making.
Examples	Actual rent paid, Salaries of staff, Advertisement etc.	Interest on own capital, rent of own premises, salary of proprietor etc.

VII. TECHNIQUES OF COSTING :

- Marginal Costing** : This technique is popularly used for managerial decision making. This technique recognises the division of cost as variable cost and fixed cost only. It is used to ascertain the effect of changes in volume on cost and profit.
- Standard Costing** : It is a technique whereby, standard costs and revenues are pre-determined and later on compared with actual costs and revenues. The difference between standard cost and actual cost is known as 'Variance' i.e. difference. These variances are analysed for its possible causes to take corrective actions for future. Standard costing is extremely helpful for cost control and is generally used along with budgetary control.
- Budgets & Budgetary Control** : This technique involves preparation of budgets and use of budgets in proper planning and overall managerial control of the organisation.
- Uniform Costing** : When a number of firms in an industry agree among themselves to follow the **same system of costing** in detail, adopting common terminology for various items and processes, then they are said to follow a system of uniform costing. It helps in better comparison of cost between different firms belonging to the same industry. The average data of the entire industry is also useful to the Government for various purposes.
- Historical Costing** : It is the ascertainment of cost, after they have been incurred. Simply speaking, it is the accounting of past cost i.e. historical cost.
- Absorption Costing** : It is the practice of charging all costs i.e. variable and fixed cost to the cost object i.e. goods and services. It is different from Marginal Costing, where only variable cost is charged to the cost object. (Note : We will study it in detail, in the chapter of Marginal Costing ahead).

VIII. VARIOUS COST CONCEPTS :

1. **Responsibility Centres** : As an organisation grows, its functions, organisational structure and other related functions also grow in terms of volume and complexity. To have a better control over the organisation, management delegates its responsibility and authority to various departments or persons. These departments or persons are known as responsibility centres. They are held responsible for performance in terms of expenditure (cost centre), revenue (revenue centre), profitability (profit centre) and return on investment (investment centre). Performance of these responsibility centres are measured against some set standards or goals of the organisation. There are following four types of responsibility centres :
 - a. **Cost Centre** : A centre for which a standard / budgeted amount of cost is pre-determined and used for cost control. Cost centres are of two types : **(i) Standard Cost Centre** : It is a cost centre where input-output relationship is clear and measurable. Hence, these cost centres are used for variance analysis purpose and the manager is held responsible for adverse cost variances. **(ii) Discretionary Cost Centre** : It is a cost centre where input-output relationship is not clear and the output is not measurable. Hence, the actual cost is compared with the budgeted cost for an activity. For example, R&D department, Advertisement department, Accounts department etc.
 - b. **Revenue Centre** : This centre is mainly responsible for generation of revenue for the company. The performance of this centre is evaluated by comparing actual revenue with budgeted revenue. For example, Sales department.
 - c. **Profit Centre** : These are the responsibility centres which have the responsibility of both i.e. generation of revenue and cost incurred. Since, the managers of profit centre are responsible for cost as well as revenue both, their performance is measured on the basis of profitability. For example, decentralised branches of an organisation.
 - d. **Investment Centre** : These are the responsibility centres which are not only responsible for profitability but also have the authority to make capital investment decisions. The performance of these responsibility centres are measured on the basis of Return on Investment (ROI). For example, Maharatna, Navratna and Miniratna companies of Central Government.
2. **Cost Unit** : Cost unit is a unit of measurement in which cost may be ascertained. Following are some of the examples –

Product / Service	Cost Unit	Product / Service	Cost Unit
Soaps	Number / Carton	Brickworks	Per 1000 brick
Wire / Cable	Meter / Kilometer	Building	Square foot
Dairy (Milk)	Litre / Bag	Cement	Tonne
Goods transport	Tonne kilometer	Power	Kilowatt hour (KWH)
Passenger transport	Passenger kilometer	Paper	Ream (500 sheets)
Wood / Gas	Cubic Feet (cft)	Textiles	Meters
Food grains	Kg. / Quintal / Tonne	Road contractors	Per mile / kilometer
Sugar	Per Tonne	Bicycle	Number
Hospital	Per patient day	Pharmaceuticals	1000 tablets
Automobile	Per vehicle	Steel	Tonne

3. **Cost Object** : Cost object is anything for which a separate measurement of cost is required. Cost object may be a product, a service, a project, a customer, an activity, a department etc.
4. **Replacement Cost** : It is the current market cost of replacing an asset or material.

5. **Sunk Cost** : The costs which have already been incurred in the past (i.e. historical costs) and will not require current cash expenditure are called as sunk costs.
6. **Shut down cost** : It is the cost which is incurred even when the plant is temporarily shut down. In short, it is an unavoidable fixed cost.
7. **Conversion Cost** : It refers to direct wages, direct expenses and factory overhead costs for converting raw materials to the finished stage or for converting a material from one stage of production to the other.
8. **Marginal Cost** : Marginal cost is the total variable cost i.e. prime cost plus variable overheads. It is assumed that variable cost varies directly with production whereas fixed cost remains fixed irrespective of volume of production. Marginal cost is a relevant cost for decision making as this cost will be incurred in future for additional units of production.
9. **Direct Expenses** : These are expenses which can be allocated directly to jobs, products, processes, cost centres or cost units. According to CIMA, London, Direct Expenses are 'cost other than material and wages which are incurred for a specific product or saleable services'. These are also known as **Chargeable Expenses** and are charged directly to the cost object.

Nature of Direct Expenses :

- These are expenses other than Direct Materials and Direct Labour.
- These are either allocated or charged completely to the cost object.
- These are included in the Prime cost of a product.

Examples :

- a. Hire charges of special machinery or plant for a particular production order or job.
- b. Payment of royalties for production or provision of service.
- c. Cost of special moulds, designs, drawings and patterns.
- d. Experimental cost before undertaking the concerned job.
- e. Cost of product / service specific software.
- f. Sub-contracting expenses or outside work costs, where jobs are sent out for special processing, job work charges etc.

IX. COMPARATIVE ANALYSIS BETWEEN COST, PRICE AND VALUE :

Particulars	Cost	Price	Value
Meaning	Expenditure incurred in producing a product or in rendering a service.	It is the sales price charged by the seller of goods or services to the buyer.	Relative Worth of a commodity to an individual at a particular point of time.
Ascertained from	Producer's viewpoint	Seller's viewpoint	User's viewpoint
Differentiation / Subjectivity	Ascertained on the basis of uniform principles. Hence it is objectively determined.	It is policy decision of the management to fix the sales price of the product or services. They may also change the price from time to time.	Different persons attach different values to a product at different points of time.
Inference	Fact	Policy	Opinion

X. IMPORTANCE AND ADVANTAGES OF COST ACCOUNTING

1. A cost system identifies unprofitable activities, losses or inefficiencies such as wastage of manpower in the form of idle time, wastage of material in the form of spoilage, scrap or wastage of resources in the form of inadequate utilization of plant & machinery, production or service facilities, etc.
2. Cost accounting locates the causes for decrease or increase in the profit or loss by identifying unprofitable products or product lines.
3. Cost accounts furnish suitable data and information to the management for decision making such as make or buy, continue or shut down, product mix, to sell below cost or not, accept or reject etc.
4. It helps management to fix the selling price and to furnish quotations / tenders.
5. Application of Standard Costing & Budgetary Control techniques help management to achieve optimum level of efficiency and control cost.
6. Variance analysis locates the areas of inefficiencies which require managerial attention. Thus, saving time and energy through management by exception.
7. Determination of Cost Centers helps management to define and fix responsibilities upon individuals.
8. Cost of closing stock of raw materials, work-in-progress and finished goods can be easily obtained from cost records and used in the financial accounting to determine the quantum of profit or loss of the business.

XI. LIMITATIONS OF COST ACCOUNTING

Like any other branches of accounting, cost accounting also has certain limitations. These limitations are as follows :

1. **Expensive** : It is expensive because analysis, allocation and absorption of overheads requires considerable amount of additional work and hence additional money.
2. **Requirement of reconciliation** : The results shown by cost accounts differ from those shown by financial accounts. Thus preparation of reconciliation statements is necessary to verify their accuracy.
3. **Duplication of work** : It involves duplication of work as organization has to maintain two sets of accounts i.e. Financial Accounts and Cost Accounts.

XII. INSTALLATION OF A COST SYSTEM :

There is no one readymade cost system, which is suitable for all types of businesses. Therefore a cost system has to be specially designed for an undertaking to meet its specific needs. Before installing a cost system proper care should be taken to study all aspects involved and the needs of the business, otherwise the system will be a misfit and full advantage may not be derived from it.

The following points should be considered before installing a cost system:

- i. The nature, method and stages of production, the number of varieties, quantity of each product and such other technical aspects as necessary to design a costing system.
- ii. The size, layout and organisation of the factory or service unit.
- iii. The existing methods and procedures of purchase, receipts, storage and issue of materials.
- iv. Method of maintenance of records i.e. whether the cost records will be integrated with

financial records or not.

- v. The needs and requirements of management with the view to control costs.
- vi. Statutory compliances and audit to be accommodated in the system.
- vii. The system should get synchronized with other existing accounting and reporting systems. So that the data and information needs of other departments are also fulfilled by the cost system.
- viii. Willingness and co-operation of the staff and workers, etc.

Essentials of a Good Costing System:

1. It must be informative and simple.
2. It should be accurate and authentic.
3. It should involve minimum clerical work and expenditure.
4. It should fulfill the requirements and needs of management for cost control and decision making.
5. It should be flexible and adaptive to take care of any changes, expansion or modernization without much difficulty and cost.
6. The cost accounting system should be integrated with other systems like financial accounting, taxation, legal compliance etc.
7. Uniformity and consistency - There should be a uniformity and consistency in classification, treatment and reporting of cost data and related information. This is required for comparability of results within the organisation and outside the organisation.
8. Trust on the system - Management should have trust on the system and its output. For this, an active role of management is required for the development of such a system that reflects a strong conviction in using information for decision making.

XIII. DIFFERENCE BETWEEN COST ACCOUNTING & FINANCIAL ACCOUNTING:

SN	Particulars	Cost Accounting	Financial Accounting
1.	Definition	It is the application of costing and cost accounting principles, methods & techniques to the science, art and practice of cost control and the ascertainment of profitability. It includes the presentation of information derived therefrom for the purpose of managerial decision making.	It is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part atleast of a financial character and interpreting the results thereof.
2.	Details Provided	It provides financial analysis of the business affairs product wise, service wise, element wise, or activity wise.	It gives financial picture and the state of affairs of a business in totality.
3.	Users of Information	It renders information for the guidance of management, proper planning, operation control and decision making.	It safeguards the interests of the business, its properties and other concerned like creditors, shareholders, tax authorities.
4.	Main Objective	The main object is to ascertain the correct cost of production / Services.	The main object is to ascertain correct profit / loss position and to give a true and fair view of the state of affair of business.

SN	Particulars	Cost Accounting	Financial Accounting
5.	Time Period	It is future oriented activity.	It is a post – mortem activity.
6.	Usefulness	It forms the basis for managerial decision making like make or buy, continue or shutdown, product mix, etc.	It forms the basis for fulfilling the legal requirements like Income-tax Act, Companies Act, Excise & Customs Act, etc.
7.	Final Output	The final output is in the form of a Cost-Sheet.	The final output is in the form of Profit and Loss A/c and Balance Sheet.
8.	Objective	Profit Maximization is the objective.	Profit / Loss Ascertainment is the objective.
9.	Stock Valuation	Stocks are valued generally at cost.	Stocks are valued at Cost or Net Realisable Value whichever is less.
10.	Nature of costs	It considers both historical costs and pre-determined costs and extends to plans and policies to improve future performance. It also considers explicit and implicit cost.	Generally historical costs are used for recording purposes. Only explicit i.e. actual cost is used in financial reporting.

XIV. DIFFERENCE BETWEEN COST ACCOUNTING & MANAGEMENT ACCOUNTING:

SN	Particulars	Cost Accounting	Management Accounting
1.	Nature	It records quantitative aspects only.	It records both qualitative and quantitative aspects.
2.	Objective	It records the cost of producing a product and providing a service.	It provides information to management for planning, controlling and co-ordination.
3.	Area	It only deals with cost ascertainment.	It is wider in scope as it includes financial accounting, budgeting, taxation, planning etc.
4.	Recording of data	It uses both past and present figures.	It is focused with the projection of figures for future.
5.	Development	Its development is related to industrial revolution.	It develops in accordance to the need of modern business world.
6.	Rules and Regulations	It follows certain principles and procedures for recording costs of different products.	It does not follow any specific rules and regulations.

XV. DISTINGUISH BETWEEN PERIOD COST AND PRODUCT COST

Particulars	Product Cost	Period Cost
Meaning	Costs which becomes part of production costs.	Costs which are not associated with production but with time period.
Inclusion in inventory valuation	These are included in inventory valuation. They are treated as assets till the goods to which they are assigned are actually sold.	These are not included in inventory valuation. They are written off as expense in the period in which they are incurred.
Examples	Cost of Raw Materials, Direct Wages, Depreciation of Plant & equipments etc.	General Administration Costs, Salesmen Salary, Rent of building etc.
Nature of Cost	These are variable in nature and changes according to number of units produced.	These are fixed in nature and changes according to period of time.

XVI. DISTINGUISH BETWEEN COST CONTROL AND COST REDUCTION

Cost Control	Cost Reduction
Cost control aims at maintaining the costs in accordance with the established standards.	Cost reduction is concerned with reducing costs. It challenges all standards and endeavours to improvise them continuously.
Cost control seeks to attain lowest possible cost under existing conditions.	Cost reduction recognises no condition as permanent, since a continuous change will result in lower cost.
In case of cost control, emphasis is on past and present.	In case of cost reduction, emphasis is on present and future.
Cost control is a preventive function.	Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
Cost control ends when targets are achieved.	Cost reduction has no visible end and it is a continuous process.
You will study cost control technique in the chapter of Standard Costing.	You will study various cost reduction techniques in the CA Final syllabus.
Example - For petrol car, we can control the cost with good maintenance, care & proper driving habits.	Example - By doing research, we can reduce the cost with alternative technology like solar car, electric car, hydrogen fuel car etc.

XVII. COST SHEET :

It is a statement in which we present the cost information. Just like, we present the financial information in the format of Profit & Loss Account and Balance Sheet.

We will discuss it in detail in a separate chapter no. 6. However, just to know some concepts, a simple cost sheet format is present below.

Particulars	Amount (Rs.)
DIRECT MATERIAL	
Add : Direct Labour	
Add : Direct Expenses	
∴ PRIME COST	
Add : Factory OH/Production OH/Manufacturing OH/Works OH	
∴ FACTORY / WORKS COST	
Add : Administrative Overheads (Production Related)	
∴ COST OF PRODUCTION	
Add : Selling & Distribution Overheads	
∴ COST OF SALES	
Add : Profit	
∴ SALES	

XVIII. COST ACCOUNTING WITH THE USE OF INFORMATION TECHNOLOGY (IT) :

With the expansion of e-commerce and increasing competitive business environment, information technology is becoming an integral part of each activity in an organisation including Cost & Management Accounting. Information technology has changed the cost and management accounting functions dramatically with the introduction of Enterprise Resource Planning (ERP) system. The new industrial revolution in the form of digital innovation has laid more emphasis on digitization and automation of business process. It helps to have a better control over the cost and to maintain market competitiveness. Cost accounting system has seen lot of savings in terms of time, money and efforts. The impact of IT in cost accounting may include the following :

1. After the introduction of ERP, different functional activities get integrated and as a consequence, a single entry into the accounting system provides custom made reports for every purpose and saves an organisation from preparing different sets of documents.
2. A move towards paperless environment can be seen where documents like Bill of Material, Material Requisition Note, Goods Received Note, Labour utilisation report etc. are not longer required to be prepared in multiple copies. The related department can get e-copy from the system.
3. Information technology with the help of internet and intranet are helping in resource procurement and mobilization. For example, production department can get materials from the stores without issuing material requisition note physically. Similarly, purchase order can be initiated to the suppliers with the help of internet. This enables an entity to shift towards Just-in-Time (JIT) approach of inventory management.
4. Cost information for a cost centre or cost object is ascertained with accuracy in a timely manner. Each cost centre and cost object is codified and all related costs are assigned to the cost objects or cost centres using assigned codes. This automates the cost accumulation and ascertainment process. The cost information can be customized as per the requirement. For example, a manager is able to receive information job-wise, batch-wise, process-wise, cost centre wise etc.
5. Uniformity in preparation of report, budgets and standards can be achieved with the help of IT. ERP software plays an important role in bringing uniformity irrespective of location, currency, language and regulations.
6. Cost and revenue variance reports are generated on real time basis, which enables the management to take control measures immediately.
7. IT enables an entity to monitor and analyse each process of manufacturing or service activity closely to eliminate non value added activities.

The above are examples of few areas where IT helps in cost accounting.

XIX. DIGITAL COSTING SYSTEM :

Like the conventional cost accounting system, Digital costing system too collects data, classify the data, account the data to get and process information to make decisions, but the difference is in the *method* of collection, *medium* of storage, *forms* of analysis and reporting. Digital costing system *links* different business functions such as production, procurement, inventory management with the digital costing system of its suppliers, customers and the market through data sharing and network interaction.

Digital Costing System provides data to get the following information :

- (i) Cost incurred on a cost object.
- (ii) Data on time spent.
- (iii) Data on resource consumption.
- (iv) Data on current market price of final product and raw materials.
- (v) Data on lead time and availability of materials.
- (vi) Data on product demand and trend.

Benefits of Digital Costing System :

With the help of Artificial Intelligence (AI) and Machine learnings (ML) which helps in analysis of the Big data and apprehend the consumption and demand pattern, the following benefits can be achieved :

- (i) Ascertainment of cost with certainty on a cost object. This helps to analyse the activities for cost allocation and apportionment.
- (ii) Analysis of data on time spent on each activity to study and formulate incentive plans.
- (iii) Helps in material requirement planning and scheduling the material procurement. Data on resource consumption can be analysed for resource optimization and finding the possibilities for zero wastage and Just-in-Time (JIT).
- (iv) Helps to identify and eliminate the non value added activities.
- (v) Data on resource consumption is helpful in setting the standards and measurement of variances on real time basis.
- (vi) Data on current market prices of material and consumables helps to estimate cost and setting standards on Marked to Market (M2M) basis.
- (vii) Extrapolation of data on customer behavior towards the products to predict the market demand. It is helpful in preparation of budgets and planning of production.
- (viii) A better analysis of cost behavior improves the cost benefit analysis and equipping the management in informed decision making.

Quote

Let the life be beautiful because of this world and
let the life be beautiful inspite of this world.

Multiple Choice Questions

- Q. 1 :** What are the purposes of cost accounting system –
- (a) to help in the fixation of selling price
 - (b) help in inventory valuation
 - (c) provide information to management for decision making
 - (d) all the above
- Q. 2 :** One of the most important tools in cost planning is –
- (a) direct cost
 - (b) budget
 - (c) cost sheet
 - (d) marginal costing
- Q. 3 :** Total variable cost increases due to –
- (a) increase in fixed cost
 - (b) increase in number of units produced
 - (c) decrease in sales quantity
 - (d) none of the above
- Q. 4 :** An example of fixed cost is –
- (a) direct material cost
 - (b) rent of factory building
 - (c) salesman's commission
 - (d) electricity expenses
- Q. 5 :** ----- is anything for which a separate measurement of cost is required.
- (a) Cost unit
 - (b) Cost object
 - (c) Cost driver
 - (d) Cost centre

Q. 6 : Which of the following is true about Cost Control –

- (a) It is a corrective function
- (b) It challenges the set standards
- (c) It ends when targets are achieved
- (d) It is concerned with future

Q. 7 : Costs which are ascertained after they have been incurred are known as –

- (a) current costs
- (b) estimated costs
- (c) historical costs
- (d) opportunity costs

Q. 8 : Cost unit used in power sector is –

- (a) Kilo meter (KM)
- (b) Kilowatt hour (kWh)
- (c) Number of electric points
- (d) Number of hours

Q. 9 : Indirect costs are known as –

- (a) variable costs
- (b) fixed costs
- (c) overheads
- (d) none of the above

Q. 10 : Process Costing method is suitable for -

- (a) Transport sector
- (b) Chemical industries
- (c) Dam construction
- (d) Furniture making

Q. 11 : Sales Price of a product is –

- (a) an opinion
- (b) a policy decision
- (c) a fact
- (d) none of the above

Q. 12 : Which of the following is not a method of costing –

- (a) standard costing
- (b) process costing
- (c) contract costing
- (d) operating costing

Q. 13 : Which of the following is not an explicit cost –

- (a) repairs & maintenance of building
- (b) salary paid to manager
- (c) depreciation of plant and machinery
- (d) notional rent of own premises

Q. 14 : Which of the following are also known as imputed costs –

- (a) opportunity cost
- (b) implicit cost
- (c) notional cost
- (d) all of the above

Q. 15 : Which of the following are essentials of a good costing system –

- (a) it should be flexible and adaptive
- (b) it should be accurate and authentic
- (c) it should be informative and simple
- (d) all of the above

Q. 16 : Distinction between direct cost and indirect cost is an example of _____ classification

- (a) By elements
- (b) By function
- (c) By controllability
- (d) By variability

Q. 17 : The advantage of using IT in Cost Accounting does not include :

- (a) Integration of various functions
- (b) Stock needs to be reconciled with Goods Received Note
- (c) Reduction in multiple documents
- (d) Customised reports can be prepared

- Q. 18 :** Which of the following is not a technique of costing –
- (a) Marginal costing
 - (b) Standard costing
 - (c) Operating costing
 - (d) Budgetary control
- Q. 19 :** Which of the following is not an item of factory overheads –
- (a) depreciation of plant and machinery
 - (b) salary of works manager
 - (c) printing & stationery
 - (d) repairs & maintenance of machinery
- Q. 20 :** A taxi provider charges minimum ₹ 80 and thereafter ₹ 12 per kilometer of distance travelled. The behaviour of this travelling cost is -
- (a) Fixed cost
 - (b) Semi - variable cost
 - (c) Variable cost
 - (d) Administration cost
- Q. 21 :** A Ltd. has three production departments and each department has two machines. Which of the following cannot be treated as Cost Centre -
- (a) Machines
 - (b) Production departments
 - (c) Both Machines and Production departments
 - (d) A Ltd.
- Q. 22 :** Which of the following is an example of functional classification of cost –
- (a) Direct material cost
 - (b) Fixed cost
 - (c) Administration overheads
 - (d) Indirect labour cost
- Q. 23 :** Ticket counter at a Railway station is an example of –
- (a) Cost centre
 - (b) Revenue centre
 - (c) Profit centre
 - (d) Investment centre

Q. 24 : Below is given a list of industries and also the methods of costing and cost unit. Please write the correct number of method of costing and cost unit against each industry.

Industry	Method of Costing	Cost unit
Nursing Home		
Goods Transport		
Steel		
Coal		
Bicycle		
Bride construction		
Interior decoration		
Advertising		
Readymade Furniture		
Sugar factory		

Methods of Costing

- (a) Process
- (b) Job
- (c) Multiple
- (d) Single
- (e) Operating
- (f) Contract

Unit of Cost

- 1. Each job
- 2. Per bed per day
- 3. Per ton
- 4. Each contract
- 5. Each unit
- 6. Per ton per kilometer

Q. 25 : Aditya Ltd. is an engineering manufacturing company producing job order on the basis of specification given by the customers. During the last month, it has completed three jobs namely A, B and C. The following are the items of expenditures which are incurred apart from direct materials and direct employee cost :

- (i) Office and administration cost - ₹ 3,00,000
- (ii) Product blueprint cost for Job A - ₹ 1,40,000
- (iii) Hire charges paid for machinery used for Job B - ₹ 40,000
- (iv) Salary to office attendants - ₹ 50,000
- (v) One time license fee paid for software used to make computerized graphics for Job C - ₹ 50,000
- (vi) Salary paid to marketing manager - ₹ 1,20,000

Required : Calculate direct expenses attributable to each job.

Q. 26 : The following expenditures were incurred in Bharat Ltd. for the month of March 2023 :

- (i) Paid for power & fuel - ₹ 4,80,200
- (ii) Wages paid to factory workers - ₹ 8,44,000
- (iii) Bill paid to job workers - ₹ 9,66,000
- (iv) Royalty paid for production - ₹ 8,400
- (v) Fees paid to technician hired for the job - ₹ 96,000
- (vi) Administrative overheads - ₹ 76,000
- (vii) Commission paid to sales staff - ₹ 1,26,000

Required : Calculate direct expenses for the month.

PAST EXAMINATION QUESTIONS & ANSWERS (for Home Work)

Question 27 : [May 2012 – 4 Marks]

State the types of cost in the following cases:

- (i) Interest paid on own capital not involving any cash outflow.
- (ii) Historical cost incurred in the past having no use in decision making
- (iii) Rent paid for the factory building which is temporarily closed.
- (iv) Cost that results specifically from a clear cause and effect relationship between inputs and outputs

Solution 27 :

- (i) Opportunity cost
- (ii) Sunk cost
- (iii) Shut down cost
- (iv) Engineered cost or Product cost

Question 28 : [Nov. 2012 – 4 Marks]

Briefly explain the essential features of a good cost accounting system.

Solution 28 :

Please refer theory of this chapter.

Question 29 : [May 2013 – 4 Marks]

Cost of a product or service is required to be expressed in suitable cost unit. State the cost units for the following industries :

- (i) Steel
- (ii) Automobile
- (iii) Transport
- (iv) Power

Solution 29 :

- (i) Steel – Per Ton
- (ii) Automobile – Per Vehicle
- (iii) Transport – Per Ton Km. or Per Passenger KM
- (iv) Power – Kilo Watt Hour (KWH)

Question 30 : [May 2014 – 4 Marks]

Explain the following :

- (i) Explicit Costs
- (ii) Engineered Costs

Solution 30 :

Please refer the theory of this chapter.

Question 31 : [May 2014 – 4 Marks]

State the unit of cost for the followings:

- (i) Transport
- (ii) Power
- (iii) Hotel
- (iv) Hospital

Solution 31 :

- (i) Transport – Per Ton Km. or Per Passenger KM
- (ii) Power – Kilo Watt Hour (KWH)
- (iii) Hotel – Per room per day
- (iv) Hospital – Per patient per day or Per bed per day

Question 32 : [Nov. 2014 – 4 Marks]

Identify the methods of costing for the following:

- (i) Where all costs are directly charged to a specific job.
- (ii) Where all costs are directly charged to a group of products.
- (iii) Where cost is ascertainable for a single product.
- (iv) Where the nature of the product is complex and method cannot be ascertained.

Solution 32 :

- (i) Job Costing
- (ii) Batch Costing
- (iii) Single Output Costing
- (iv) Multiple Costing

Question 33 : [May 2015 & Nov. 2016 – 2 Marks each]

- (a) Explain 'Sunk Cost'
 (b) Explain 'Opportunity Cost'.

Solution 33 :

- (i) Sunk Cost – It is the past cost and is not refundable. It is treated as irrelevant for decision making.
 (ii) Opportunity Cost – It is the opportunity lost by choosing another alternative. It is also known as implicit cost or notional cost.

Question 34 : [Nov. 2015 – 4 Marks]

State the Method of Costing and also the Unit of Cost for the following industries:

- (i) Hotel
 (ii) Toy–Making
 (iii) Steel
 (iv) Ship Building

Solution 34 :

Industry	Method of Costing	Cost Unit
(i) Hotel	Operating Costing	Per Room Day
(ii) Toy Making	Batch Costing	Per Batch or Per Unit
(iii) Steel	Process Costing	Per Ton
(iv) Ship Building	Contract Costing	Per Ship or Per Contract

Question 35 : [May 2016 – 4 Marks each]

- (a) Narrate the objectives of cost accounting.
 (b) What do you mean by Profit Centre.

Solution 35 :

Please refer the theory of this chapter.

Question 36 : [Nov. 2014 – 4 Marks]

Give the method of costing and the unit of cost against the under noted industries :

- (i) Road transport
 (ii) Steel
 (iii) Bicycles and
 (iv) Bridge construction

Solution 36 :

Industry	Method of Costing	Unit of Cost
(i) Road transport	Operating Costing	Passenger kilometer Tonne kilometer
(ii) Steel	Process Costing	Per Ton
(iii) Bicycles	Multiple Costing	Per Unit
(iv) Bridge Construction	Contract Costing	Per Contract

Quote

All challenges are opportunities for growth.
You face them and you grow !

* * * * *