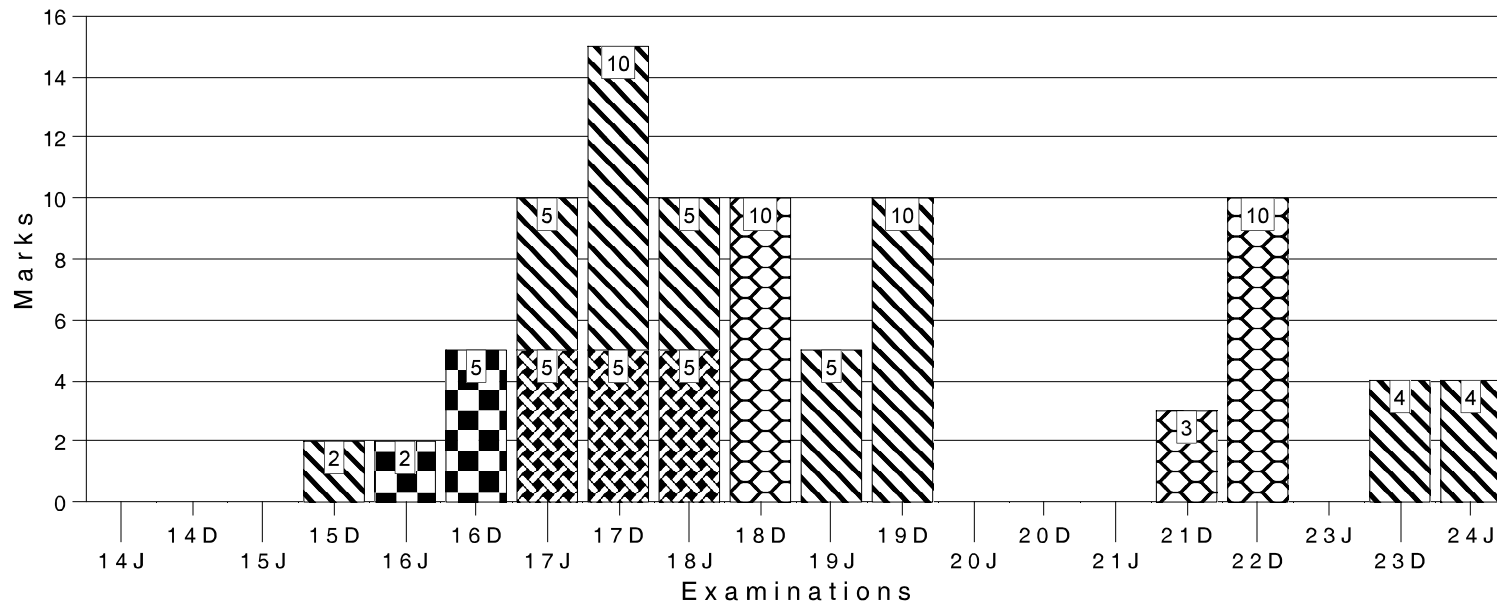


Marks of Objective, Short Notes, Distinguish Between, Descriptive & Practical Questions

Legend



1A

INTRODUCTION TO COST ACCOUNTING

THIS CHAPTER INCLUDES

- | | |
|------------------------------------|---------------------------|
| 1. Introduction | 3. Elements of Cost |
| 2. Important Cost Accounting Terms | 4. Classification of Cost |

CHAPTER AT A GLANCE

1. Meaning

1. **Cost:** 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 that of consumer/ end user.) Cost ascertainment is based on uniform principles and techniques.
2. **Costing:** The technique and process of ascertaining cost.
3. **Cost Accounting:** The process of accounting for cost which begins with recording of income and expenditure or the bases on which they are calculated and ends with the preparation of periodical statements and reports for ascertaining and controlling costs.
4. **Cost Accountancy:** 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 for the purpose of managerial decision- making.

2. Objectives of Cost Accounting
Ascertainment of Cost: <ol style="list-style-type: none">1. Determination of selling price2. Cost Control and Cost Reduction3. Ascertaining the profit of each activity4. Assisting management in decision-making
3. Advantages of a Cost Accounting System
<ol style="list-style-type: none">1. Profit Measurement and Analysis2. Cost Reduction3. Cost Comparison and Cost Control4. Identification of losses and inefficiencies5. Financial Decision Making6. Price Determination
4. Features of a Good Cost Accounting System
<ol style="list-style-type: none">1. Accuracy of data2. Relevance of data3. Simple and easy to operate4. Participative Roll of executives5. Cost - Effective6. Management's Role7. Smooth implementation
5. Factors for Installing a Cost Accounting System
<ol style="list-style-type: none">1. Scope of Coverage2. Objective3. Technical aspects4. Organisational Set-up5. Impact of expansion on cost6. Psycho-social aspects7. Impact on Accounting System8. Information requirements

<p>6. Classification of Cost</p> <p>1. On the basis of Time Period</p> <ul style="list-style-type: none">(a) Historical Cost(b) Current Cost(c) Pre-determined Cost <p>2. On the basis of Behaviour/Nature/ Variability</p> <ul style="list-style-type: none">(a) Variable Cost(b) Fixed Cost(c) Semi – variable Cost <p>3. On the basis of Elements</p> <ul style="list-style-type: none">(a) Materials(b) Labour(c) Expenses <p>4. On the basis of Relationship</p> <ul style="list-style-type: none">(a) Direct Cost(b) Indirect Cost <p>5. On the basis of Controllability</p> <ul style="list-style-type: none">(a) Controllable Costs<ul style="list-style-type: none">(i) Time(ii) Location(iii) Product/Output(b) Non-Controllable Cost <p>6. On the basis of Normality</p> <ul style="list-style-type: none">(a) Normal cost(b) Abnormal Cost <p>7. On the basis of Functions</p> <ul style="list-style-type: none">(a) Production Costs(b) Administration Costs(c) Selling Cost(d) Distribution Cost(e) Research Cost(f) Development Costs(g) Pre-Production Cost(h) Conversion Cost
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8. On the basis of Attributability to the Product

- (a) Period cost
- (b) Product Cost
 - (i) Preparation of Financial Statements
 - (ii) Product pricing
 - (iii) Cost-plus-Contract with Government Agencies

9. On the basis of Relevance to decision making

- (a) Relevant Cost
 - (i) Marginal Cost
 - (ii) Differential Cost
 - (iii) Opportunity Cost
 - (iv) Out-of-pocket Cost
 - (v) Replacement Cost
 - (vi) Imputed Cost
 - (vii) Discretionary Cost
- (b) Irrelevant Costs
 - (i) Sunk Cost
 - (ii) Committed Cost
 - (iii) Absorbed Fixed Cost

7. Other Costs

1. **Explicit Cost:** This is also known as out of pocket cost. It refer to cost involving immediate payment of cash. Salaries, wages, postage and telegram.
2. **Implicit Cost:** This cost do not involve any immediate cash payment. It is not recorded in the books of account. It is also known as economic cost or imputed cost.
3. **Estimated Cost:** Estimated cost are prospective cost since they refer to prediction of cost.
4. **Shut down Cost:** In other words, all fixed cost which cannot be avoided during the temporary closure of a plant will be known as shut down cost.
5. **Absolute Cost:** It refers to the cost of any product, process or unit in its totality. Here the cost depicted in absolute amount may be called absolute cost and are base cost on which further analysis and decisions are based.

8. Cost Sheet
<p>Meaning: A Cost Sheet is a statement which shows the break-up and build-up of costs. It is a document which provides for the assembly of the detailed cost of a cost Center of a cost unit.</p> <p>Uses: The following are the uses of the Cost Sheet.</p> <ol style="list-style-type: none"> 1. Presentation of Cost information. 2. Determination of Selling Price. 3. Ascertainment of Selling Price. 4. Product-wise and Location-wise Cost Analysis. 5. Inter-firm and Intra-firm Cost Comparison. 6. Preparation of Cost Estimates for submitting tenders / quotations.
9. Cost Period
<p>The period to which the Cost relates is called Cost period. It is also called the control period since cost ascertainment is for the purpose of control. Generally, the cost period is shorter than the financial period used for reporting purposes.</p>

Cost Unit

It is a unit of production, service or time or combination of these, in relation to which costs may be ascertained or expressed. Cost units differ from one business to the other. They are usually units of physical measurement like number, weight, area, volume, time, length and value. Illustrations are as under:

Industry or Product	Cost Unit	Industry or Product	Cost Unit
Paints	Litres	Automobiles	Number
Cement	Tonne	Gas	Cubic meter
Power	Kilo-watt hour	Brickworks	Thousands
Transport	Tonne - kilometer or Passenger- kilometer	Interior Decoration	Each Contract

Responsibility Center

It is an activity Center of a business organisation entrusted with a special task.

It is a unit of function of a business organisation headed by an executive responsible for its performance.

TYPES OF RESPONSIBILITY CENTRES

Particulars	Cost Centres	Revenue Centres	Profit Centres	Investment Centres
Meaning	A Center for which a standard amount of cost is predetermined and used for control.	A center devoted to raising revenue (no responsibility for production)	A Center whose performance is measured in terms of income earned and cost incurred (profit earning)	A Center responsible for earning profits and also for asset utilisation.
Primary responsibility	Cost reduction and cost control	Generation of sale revenue.	Profit earning	Earning return of investments
Performance evaluation	Standard cost less actual cost	Budgeted revenue less actual revenue	Budgeted profits less actual profits	Budgeted ROI less actual ROI.

METHODS OF COSTING

1. Job Costing	The cost of each job is ascertained separately. It implies that the direct cost of each job is traceable and identifiable. It is suitable in all cases where work is undertaken on receiving a customer's order/ assignment. Some examples are printing press, motor workshop, etc.
2. Batch Costing	It is used where the output under a particular work order consists of similar units. It may not be economically feasible to ascertain cost per unit. Hence a collection or a lot of units called a batch is taken for cost ascertainment purposes.

		Each batch is treated as a unit of cost and thus separately costed. Here cost per unit is determined by dividing the cost of the batch by the number of units produced in the batch.
3.	Contract Costing	A larger job is called a contract. Generally, execution of work is distributed over two or more financial years. Hence, the cost of each contract is ascertained separately. It is suitable for firms engaged in the construction of bridges, roads, buildings etc.
4.	Single or Output Costing	Cost is ascertained for a product, the product being the only one produced like bricks, coals, etc.
5.	Process Costing and Operation Costing	The cost completing each stage of work is ascertained, like cost of making pulp and cost of making paper from pulp. In mechanical operations, the cost of each operation may be ascertained separately, the name given is operation costing.
6.	Operating or Services Costing	Ascertainment of cost of rendering or operating a service is called Service Costing or Operating Costing. It is used in the case of concerns rendering services like transport, cinema, hotels, etc. where there is no identifiable tangible cost unit.
7.	Multiple Costing	It represents a combination of two or more methods of costing outlined above. For example, if a firm manufactures bicycles including its components; the parts will be costed by batch costing system but the cost of assembling the bicycle will be computed by the Single or output costing method. The whole system of costing is known as multiple costing.

FOR ASCERTAINING COST, FOLLOWING TYPES OF COSTING ARE USUALLY USED

- | | |
|----|--------------------|
| 1. | Uniform Costing |
| 2. | Marginal Costing |
| 3. | Absorption Costing |
| 4. | Direct Costing |
| 5. | Standard Costing |
| 6. | Historical Costing |

SHORT NOTES

2018 - Dec [8] Answer the following questions:

- (a) State the advantages of cost control (*any five*) **(5 marks)**
 (b) Describe briefly the main scope of cost accountancy. **(5 marks)**

Answer:

(a) Advantages of Cost Control:

The advantages of cost control are mainly as follows:

- (i) Achieving the expected return on capital employed by maximising or optimizing profit.
- (ii) Increase in productivity of the available resources.
- (iii) Reasonable price of the customers.
- (iv) Continued employment and job opportunity for the workers.
- (v) Economic use of limited resources of production.
- (vi) Increased credit worthiness.
- (vii) Prosperity and economic stability of the industry.

(b) Scope of Cost Accountancy:

The scope of cost accountancy is very wide and includes the following:

- (a) **Cost Ascertainment:** The main objective of cost accounting is to find out the cost of product/service rendered with reasonable degree of accuracy.
- (b) **Cost Accounting:** It is the process of accounting for cost which begins with recording of expenditure and ends with preparation of statistical data.

- (c) **Cost Control:** It is the process of regulating the action so as to keep the element of cost within the set parameters.
- (d) **Cost Reports:** This is the ultimate function of Cost Accounting. These reports are primarily prepared for use by the management at different levels. Cost Reports help in planning and control, performance appraisal and managerial decision making.
- (e) **Cost Audit:** Cost Audit is the verification of correctness of Cost Accounts and check on the adherence to the Cost Accounting Plan, its purpose is not only to ensure the arithmetic accuracy of cost records but also to see the principles and rules have been applied correctly.

2021 - Dec [1] Write Short Notes on Differentiate between Operation Cost and Operating Cost - **(3 marks) [Sec. C - LAQ Six]**

Answer:

Please refer 2017 - Dec [8] (b) on page no. 20

2022 - Dec [8] Write short notes on the following questions:

- (a) Enumerate what are the objectives of cost accounting.
- (d) Enumerate what are the advantages of cost control. **(5 marks each)**

Answer:

(a) Objective of Cost Accounting:

The following are the main objectives of Cost Accounting:

- (i) To ascertain the Costs under different situations using different techniques and systems of costing
- (ii) To determine the selling prices under different circumstances
- (iii) To determine and control efficiency by setting standards for Materials, Labour, and Overheads
- (iv) To determine the value of closing inventory for preparing financial statements of the concern
- (v) To provide a basis for operating policies which may be the determination of Cost Volume relationship, whether to close or operate at a loss, whether to manufacture or buy from the market, whether to continue the existing method of production or to replace it by a more improved method of production etc.

Answer:

(d) Advantages of Cost Control:

The advantages of cost control are mainly as follows:

- (i) Achieving the expected return on capital employed by maximising or optimizing profit.
- (ii) Increase in productivity of the available resources.
- (iii) Reasonable price of the customers.
- (iv) Continued employment and job opportunity for the workers.
- (v) Economic use of limited resources of production.
- (vi) Increased credit worthiness.
- (vii) Prosperity and economic stability of the industry.

DISTINGUISH BETWEEN

2017 - June [8] Answer the following question:

- (c) Differentiate between Financial Accounting and Management Accounting. **(5 marks)**

Answer:

The main differences between Financial Accounting and Management Accounting are as follows:

	Financial Accounting	Management Accounting
(a)	Provides general business information like P&L account, Balance Sheet	Specific information relating to specific problems and decision making.
(b)	Information for owners and outside parties	Information is for management for optimizing decisions.
(c)	Importance is on recording rather than control	Emphasis is on control like using details of materials, labour, etc for standard costing, budgetary control.
(d)	All commercial transactions between the business and external parties are recorded.	Concerned with Internal transaction not involving payment or receipt

(e)	Only those transactions that can be measured in monetary terms are recorded.	Other parameters like cost units, apportioning bases are also recorded.
(f)	Efficiency of resource utilization - men/materials or machine is not available	Available for corrective action.
(g)	Stocks are valued at cost or market value, whichever is lower.	Always valued at cost.
(h)	Records are maintained as per Companies Act and as per Income Tax Act.	Records are maintained as per Companies Act only in certain cases, that too as per Cost Accounting requirements, but mainly to suit the management for efficiency and control.

2017 - Dec [8] (b) Differentiate between Operation Cost and Operating Cost.
(5 marks)

Answer:

Operation Cost: Operation cost is the cost of a specific operation involved in a production process or business activity. The cost unit in this method is the operation, instead of process. When the manufacturing method of a concern consists of a number of distinct operations, operating costing is suitable.

Operating Cost: Operating cost is the cost incurred in conducting a business activity. It refers to the cost of concerns which do not manufacture any product but which provide services. Industries and establishments like power house, transport and travel agencies, hospitals, schools etc. Which undertake services rather than the manufacture of products, ascertain operating costs. The cost units used are Kilo Watt Hour (KWH), Passenger Kilometer and Bed in the Hospital etc.

Operation costing method constitutes a distinct type of costing but it may also be classed as a variant of process cost since costs in this method are usually compiled for a specified period.

2018 - June [8] Answer the following:

(a) Differentiate between cost control and cost reduction. **(5 marks)**

Answer:

Cost Control vs. Cost Reduction: Both Cost Control and Cost Reduction are efficient tools for management but their concepts and procedure are widely different. The main differences are as follows:

	Cost Control	Cost Reduction
(i)	Cost Control represents efforts made towards achieving target or goal.	Cost Reduction represents the achievement in reduction of cost.
(ii)	The Process of Cost Control is to setup a target, ascertain the actual performance and compare it with the target, investigate the variances, and take remedial measures.	Cost Reduction is not concerned with maintenance of performance according to standards.
(iii)	Cost Control assumes the existence of standards or norms which are not challenged.	Cost Reduction assumes the existence of concealed potential savings in standards or norms which are therefore subjected to a constant challenge with a view to improvement by bringing out savings.
(iv)	Cost Control is a preventive function. Costs are optimized before they are incurred.	Cost Reduction is a corrective function. It operates even when an efficient cost control system exists. There is room for reduction in the achieved costs under controlled conditions.
(v)	Cost Control lacks dynamic approach.	Cost Reduction is a continuous process of analysis by various methods of all the factors affecting costs, efforts and functions in an

		organization. The main stress is upon the why of a thing and the aim is to have continual economy in costs.
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DESCRIPTIVE QUESTIONS

2015 - Dec [1] Answer the question:

(c) Narrate any two practical difficulties in installing a costing system.

(2 marks) [CMAIG - II]

Answer:

Practical difficulties in installing a costing system:	
(a) Lack of support from top management	In most cases, cost accounting system is introduced without the support of the top management in all the functional areas. Even the Managing Director or chairman often introduces the costing system without consulting the departmental heads. The departmental managers treat this as interference in their work. Thus, it creates a fear in the minds of the departmental managers.
(b) Resistance from the existing staff	Whenever a new system is introduced, resistance is natural as the existing staff may feel that they would lose their importance and may feel insecure of their position in the organization.

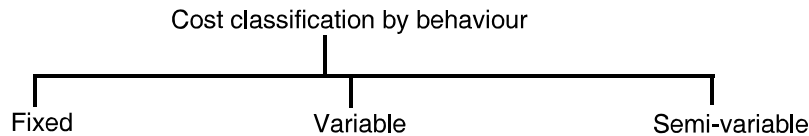
2017 - June [8] Answer the following question:

(d) How would you classify costs based on behaviour? Give an example to explain each class. **(5 marks)**

Answer:

Classification based on Behaviour– Fixed, Semi-variable or Variable:

Costs are classified based on behaviour as fixed cost, variable cost and semi-variable cost depending upon response to the changes in the activity levels.



Fixed Cost: Fixed cost is the cost which does not vary with the change in the volume of activity in the short run. These costs are not affected by temporary fluctuation in activity of an enterprise. These are also known as period costs.

Example: Rent, Depreciation etc.

Variable Cost: Variable cost is the cost of elements which tends to directly vary with the volume of activity. Variable cost has two parts (i) Variable direct cost (ii) Variable indirect costs. Variable indirect costs are termed as variable overheads.

Example: Direct labour, Outward Freight. etc.

Semi-Variable Costs: Semi variable costs contain both fixed and variable elements. They are partly affected by fluctuation in the level of activity. These are partly fixed and partly variable costs and *vice versa*.

Example: Factory supervision, Maintenance etc.

2017 - Dec [8] Answer the following questions:

- (a) "Cost Accounting and Management Accounting are inter-dependent." Do you agree, discuss,
- (d) What is Responsibility Accounting? Also state the Principles of Responsibility Accounting. **(5 marks each)**

Answer:

(a) Cost Accounting: In cost accounting, primary emphasis is on cost and it deals with its collection, analysis, relevance, interpretation and presentation for various problems of management.

Management Accounting: It utilizes the principles and practices of financial accounting and cost accounting in addition to other management techniques for efficient operations of a concern. It widely uses different techniques from various branches of knowledge like Statistics, Mathematics, Economics, Law and Psychology to assist the management in its task of maximizing profits or minimizing losses. The main thrust in management accounting is towards determining policy and formulating plans to achieve desired objectives of management.

From the above discussion it may be concluded that cost accounting and management accounting are inter-dependent, greatly related and inseparable.

(d) Responsibility Accounting:

- It is a system of accounting that recognizes various responsibility centres throughout the organisation and reflects the plans and actions of each of these centres by assigning particular revenues and costs of the one having the pertinent responsibility.
- It is a system in which the person holding the supervisory posts as president, function head, foreman, etc. are given a report showing the performance of the company or department or section as the case may be. The report will show the data relating to operational results of the area and the items of which he is responsible for control.
- Responsibility accounting follows the basic principles of any system of cost control and standard costing. It differs only in the sense that it lays emphasis on human beings and fixes responsibilities for individuals. It is based on the belief that control can be exercised by human beings, so responsibilities should be fixed for individuals.

Principles of Responsibility Accounting:

- (i) A target is fixed for each department or responsibility Center.
- (ii) Actual performance is compared with the target.
- (iii) The variances from plan are analysed so as to fix the responsibility.
- (iv) Corrective action is taken by higher management and is communicated.

2018 - June [8] Answer the following:

- (b) Cost accounting has emerged as a specialized discipline due to various factors. List out these factors. (*Any five*) **(5 marks)**

Answer:

The main factors attributable for emerging cost accounting as a specialized discipline are as under: (Any Five Factors)

- (i) Limitations placed on financial accounting.
- (ii) Improved cost consciousness.

- (iii) Rapid industrial development after industrial revolution and World wars.
- (iv) Growing competition among the manufacturers.
- (v) To control galloping price rise, the cost of computing the precise cost of product / service.
- (vi) To Control Cost, several legislations passed throughout the World and in India too, such as Essential Commodities Act, Industrial Development and Regulation Act (IDRA), etc.

2019 - June [8] Answer the following question:

- (b) State the main objectives of Cost Accounting.

(5 marks)

Answer:

Main Objectives of Cost Accounting:

The main objectives of cost accounting are as under:

- (i) To ascertain the costs under different situations using different techniques and systems of costing.
- (ii) To determine the selling prices under different circumstances.
- (iii) To determine and control efficiency by setting standards for Materials, Labour and Overheads.
- (iv) To determine the value of closing inventory for preparing financial statements of the concern.
- (v) To provide a basis for operating policies of the concern

2019 - Dec [8] Answer the following question:

- (a) Explain the concept of Opportunity Cost and Imputed Cost with suitable examples.

- (b) State the limitations of Cost Accounting System.

(5 marks each)

Answer:

(a) Opportunity Cost :

Opportunity cost is the value of alternatives foregone by adopting a particular strategy or employing resources in specific manner. It is the cost of next best alternative. It is the return expected from an investment other than the present one. These refer to costs which result from the use or application of material, labour or other facilities in a particular manner which has been foregone due to not using the facilities in the

manner originally planned. Resources (or input) like men, materials, plant and machinery, finance etc., when utilized in one particular way, yield a particular return (or output). If the same input is utilized in another way, yielding the same or a different return, the original return on the forsaken alternative that is no longer obtainable is the opportunity cost. For example, if fixed deposits in the bank are proposed to be withdrawn for financing project, the opportunity cost would be the loss of interest on the deposits. Similarly, when a building leased out on rent to a party is got vacated for own purpose or a vacant space is not leased out but used internally, say, for expansion of the production programme, the rent so foregone is the opportunity cost.

Imputed Cost:

Imputed cost is hypothetical or notional cost, not involving cash outlay and computed only for the purpose of decision-making. In this respect, imputed cost is similar to opportunity cost. Interest on funds generated internally, payment for which is not actually made is an example of imputed cost. When alternative capital investment projects are being considered out of which one or more are to be financed from internal funds, it is necessary to take into account the imputed interest on own funds before a decision is arrived at.

(b) Limitations of Cost Accounting System are as follows:

- (i) Like any other system of accounting, Cost Accountancy is not an exact science but an art which has been developed through theories and accounting practices based on reasoning and commonsense. Many of the theories can neither be proved nor can be disproved. They have grown up in course of time to become conventions and accepted principles of Cost Accounting.
- (ii) These principles are by no means static, they are changing from day to day and what is correct today may not be correct in the circumstances tomorrow.
- (iii) In cost accounting, no cost can be said to be exact as they incorporate a large number of conventions, estimations and flexible factors such as:-

- (a) Classification of costs into its elements.
- (b) Materials issue pricing based on average or standard costs.
- (c) Apportionment of overhead expenses and their allocation to cost units/centres.
- (d) Arbitrary allocation of joint costs.
- (e) Division of overheads into fixed and variable.
- (iv) Cost Accounting lacks the uniform procedures and formats in preparing the cost information of a product/ service.
- (v) Keeping in view above limitations, all Cost Accounting results can be taken as mere estimates.

2023 - Dec [8] (a) What is a Responsibility Centre? What are different types of Responsibility Centres? **(4 marks)**

Answer:

Responsibility Centre:

Responsibility centre refers to a particular segment or unit of an organisation for which a particular manager, employee or department is held responsible and accountable for its business goals and objectives,. It refers to the part of the company where a manager has authority and responsibility. A responsibility center is a functional entity within business that tends to have its own goals and objectives, policies and procedures, thereby giving managers specific responsibility for revenues, expenses incurred, funds invested, etc.

CMA official terminology defines responsibility centre as departmental or organisational function whose performance is the direct responsibility of a specific manager.

There are usually four types of responsibility center which are identified as under:

- (a) **Cost Centre:** Under the cost center, the manager is held responsible only for the costs, including a production department, maintenance department, human resource department, etc. this is discussed in previous section.

- (b) **Profit Centre:** Under the profit center the manager is responsible for all costs and revenues. Here, the manager would have all of the responsibility to make decisions that would affect both the price and the revenue.

CMA official terminology defines profit centre as part of a business accountable for both costs and revenues.

- (c) **Revenue Centre:** This segment is primarily responsible for attaining sales revenue. The performance would be evaluated by comparing the actual revenue attained with the budgeted revenue.

CMA official terminology defines revenue centre as centre devoted to raising revenue with no responsibility for costs, **for example** a sales centre. Often used in not-for-profit organisations.

- (d) **Investment Centre:** Apart from looking into the profits, this center looks into returns on the funds invested in the group's operations during its time.

CMA official terminology defines investment centres as a profit centre with additional responsibilities for capital investment and possibly for financing, and whose performance is measured by its return on investment.

2024 - June [8] (a) State the essentials of a Cost Accounting System.

(4 marks)

PRACTICAL QUESTIONS

2016 - June [1] (g) A company has 1,000 units of obsolete items which are carried in inventory at the original purchase price of ₹ 36,000 although their market value as scrap is only ₹ 4,000. If the items are re-worked for ₹ 12,000, they can be sold for ₹ 22,000. Find the relevant cost for selling the items.

(2 marks) [CMAIG - II]

Answer:

Relevant cost for selling the items

Particulars	Amount (₹)
Re-work cost	12,000
Add: Opportunity cost (scrap value)	4,000
	16,000

Note: If the obsolete items were sold as scrap in the market they would have realised ₹ 4,000 but now the items are re-worked and not sold as scrap. So, ₹ 4,000 has to be considered as opportunity cost.

2016 - Dec [3] (b) Classify the following costs according to function and under the appropriate element of cost in the context of a jute bag manufacturing unit:

- (i) Nuts and Bolts
- (ii) Commission on sales
- (iii) Printing and Stationery
- (iv) Product Catalogue
- (v) Secondary packing material used in the delivery van. **(5 marks)**

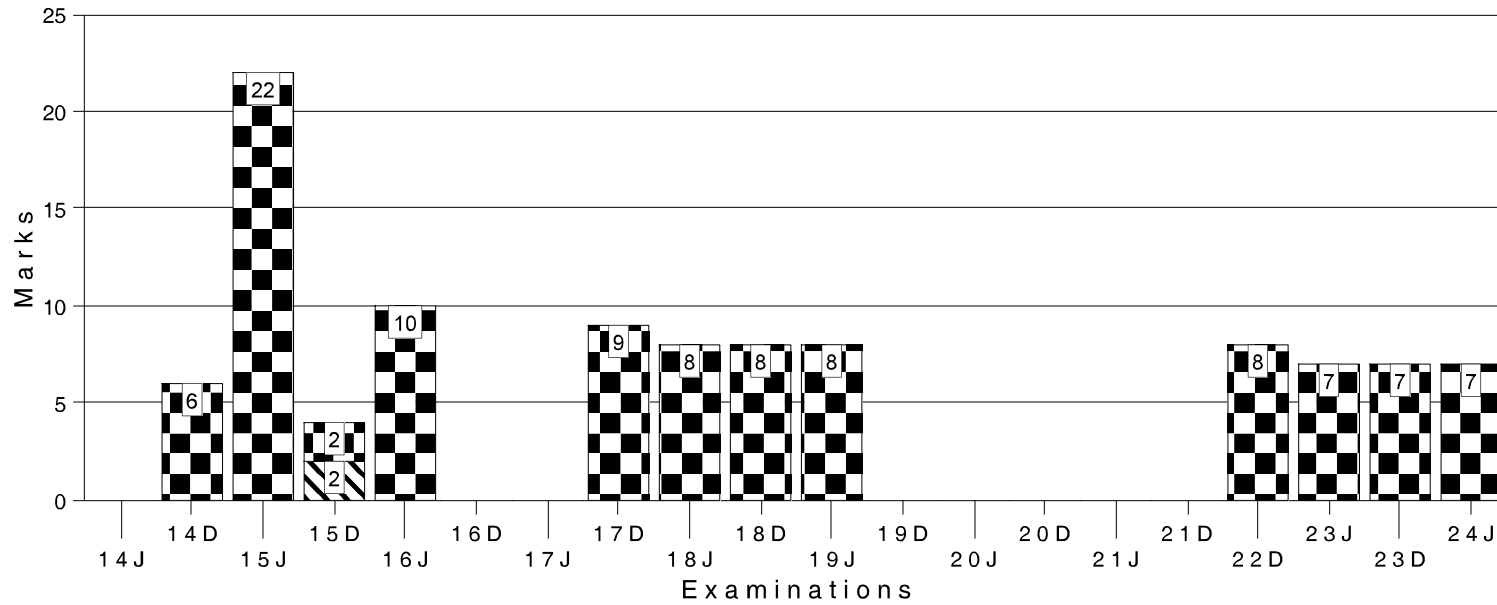
Answer:

Element Function	Material	Labour	Expense
Production Overheads	Nuts and Bolts (i)		
Administration Overheads	Printing & Stationery (iii)		
Selling Overheads	Product Catalogue (iv)	Commission on Sales (ii)	
Distribution Overheads	Secondary Packing material item in delivery van (v)		

Repeatedly Asked Questions		
No.	Question	Frequency
1.	Write Short Notes on Differentiate between Operation Cost and Operating Cost - 17 - Dec [8] (b), 21 - Dec [1]	2 Times
2.	Enumerate what are the objectives of cost accounting. 19 - June [8] (b), 22 Dec [8] (a)	2 Times
3.	Enumerate what are the advantages of cost control. 18 - Dec [8] (a), 22 - Dec [8] (d)	2 Times

Marks of Objective, Short Notes, Distinguish Between, Descriptive & Practical Questions

Legend



1B PREPARATION OF COST SHEET AND ASCERTAINMENT OF PROFIT

THIS CHAPTER INCLUDES

- | | |
|------------------------------|-----------------------------|
| 1. Preparation of Cost Sheet | 3. Importance of Cost Sheet |
| 2. Ascertainment of Profit | |

CHAPTER AT A GLANCE

Specimen Cost Sheet

Period from To	Cost Units	
Cost Items	Amount (₹)	Amount (₹)
Direct Material		
Opening Stock	xxxxx	
Add: Purchases	xxxxx	
Add: Incidental charges	xxxxx	
Less: Closing Stock	xxxxx	xxxxx
Direct Labour		xxxxx
Direct Expenses		xxxxx
PRIME COST		xxxxx
Add: Production overheads	xxxxx	
Add: Opening work in process	xxxxx	
Less: Closing work in process	xxxxx	xxxxx
FACTORY COST OR WORKS COST		xxxxx
Add: Administrative Overheads		xxxxx

COST OF GOODS MANUFACTURED		xxxxx
<i>Add:</i> Opening Finished goods stock	xxxxx	
<i>Less:</i> Closing Finished goods stock	xxxxx	
COST OF FINISHED GOODS SOLD		xxxxx
<i>Add:</i> Selling and Distribution overheads		xxxxx
COST OF GOODS SOLD		xxxxx

Depending on number of processes, the working will be shown up to factory cost. Subsequently, the administration, selling and distribution overheads are added like that shown in the first format. Some process companies may prepare a different cost sheet for each process. When it is available process wise, control of process costs and process losses could be better controlled by the concerned process managers.

Important Components of Cost Sheet

- (a) Cost sheet has reference to the job or contract or a batch or production or a service undertaken to be rendered. If the completion of the job at hand relates to more than one accounting period, it is better that separate columns are provided to mention figures for those period. The job or batch reference should also be mentioned on the header.
- (b) If there is an estimate made for the costs, a separate column must be provided for estimated costs against which the actual costs should be plotted to get ready comparison. This will make cost sheets more user-friendly and meaningful.
- (c) In certain cases, material may not form any significant portion of the total cost and as such may be treated as an overhead item. In such cases, the Prime Cost will mainly constitute as labour and other expenses.
- (d) Treatment of raw material stocks should be carefully understood. As the costs are to be linked to the units produced, the material consumption, completion of earlier period's semifinished goods and the finished goods sold needs to be properly computed.

DESCRIPTIVE QUESTIONS

2015 - Dec [I] (f) In the specimen cost sheet of a production Center, how would you arrive at the cost of sale from the prime cost? **(2 marks)**

Answer:

	₹	₹
Prime Cost		xxxxx
<i>Add:</i> Production Overheads	xxxxx	
<i>Add:</i> Opening Work in Process	xxxxx	
<i>Less:</i> Closing Work in Process	xxxxx	xxxxx
Factory Cost or Work Cost A		xxxxx
<i>Add:</i> Administrative Overheads		xxxxx
Cost of Goods Manufactured B		xxxxx
<i>Add:</i> Opening Stock of Finished Goods	xxxxx	
<i>Less:</i> Closing Stock of Finished Goods	xxxxx	xxxxx
Cost of Finished Goods Sold C		xxxxx
<i>Add:</i> Selling and Distribution Overheads		xxxxx
Cost of Goods Sold D		xxxxx

PRACTICAL QUESTIONS

2012 - Nov [1] {C} (c) PQR Limited sells two versions: Deluxe and Premium of its only product GoGo Juicer. The GoGo Juicer uses patented technology to extract the last drop of juice from most fruits. The 'Premium' version can handle larger fruit and has more options relative to the 'Deluxe' version. The following table provides the financial results of the most recent year of operations:

Particulars	Deluxe 90,000 units	Premium 10,000 units	Total 1,00,000 units
Revenue (₹)	63,00,000	9,00,000	72,00,000
Material cost (₹)	10,80,000	2,50,000	13,30,000
Direct labour cost (₹)	14,40,000	1,60,000	16,00,000
Contribution margin (₹)	37,80,000	4,90,000	42,70,000
Allocated fixed manufacturing overheads (₹)	34,20,000	3,80,000	38,00,000
Allocated fixed selling and administrative overheads (₹)	2,51,563	35,937	2,87,500
Profit margin (₹)	1,08,437	74,063	1,82,500
Profit margin per unit (₹)	12,048	74,063	

Labour cost is ₹ 16 per hour and each product requires one hour of labour. The company currently allocates all fixed manufacturing overheads, using labour hours as the allocation basis. It allocates fixed selling and administrative overheads, using revenue is the allocation base.

Although the profit margin per unit of 'Deluxe' juicer is rather low, PQR Limited believes that it is important to keep this model in the product mix. However, PQR can tailor its promotion and sales strategies to improve the sales mix to 16:4 ratio from the current 9:1 ratio of 'Deluxe' to 'Premium' juicers, with total volume staying at 1,00,000 units.

PQR Limited finds that ₹ 1.1 million of the ₹ 3.8 million of fixed manufacturing overheads pertains to batch related activities such as scheduling production runs. Similarly, ₹ 1,15,000 is the amount of administrative overheads out of the ₹ 2,87,500 of selling and administrative overheads.

It is found that the 'premium' juicer is produced in smaller batches (250 units per batch) than that of 'Deluxe' juicer (500 units per batch). Similarly, it takes 10 sales visits to sell 1,000 units of the 'Deluxe' juicer, while it takes 25 visits to sell 1,000 units of 'Premium' juicer.

Required:

- (i) Prepare a profitability statement based on the proposed sales mix, using the most appropriate basis of allocating fixed overheads. (In absence of an appropriate basis, do not allocate overheads to products)
- (ii) Advise the company on whether it should go ahead with the propose change in sales mix. **(10 marks) [CAFG - II]**

Answer:**(i) Profitability Statement New Mix-Most Appropriate Basis**

Particulars	Deluxe 80,000 Units		Premium 20,000 Units		Total (₹)
	Per Unit (₹)	Amount (₹)	Per Unit (₹)	Amount (₹)	
Revenue	70.00	56,00,000.00	90.00	18,00,000.00	74,00,000.00
Material cost	12.00	9,60,000.00	25.00	5,00,000.00	14,60,000.00
Direct Labour Cost (One hour per unit) 80,000 hrs., 20,000 hrs.	16.00	12,80,000.00	16.00	3,20,000.00	16,00,000.00
Contribution Margin	42.00	33,60,000.00	49.00	9,80,000.00	43,40,000.00
Unit related Fixed Mfg. Overheads (Allocation on the basis of direct labour hours) 80,000:20,000 [W.N.1]		21,60,000.00		5,40,000.00	27,00,000.00
Batch-related Fixed Mfg. Overheads (Allocation on the basis no. of batches) 160:80 [W.N.1 & 4]		7,33,333.33		3,66,666.67	11,00,000.00
Fixed Selling Overheads (Allocated on the basis of sales visits) 800:500 [W. N. 2 & 3]		1,06,153.85		66,346.15	1,72,500.00
Profit Margin Ex. Admin Overheads Admin Overheads [W. N. 2]		3,60,512.82		6,987.18	3,67,500.00
					1,15,000.00
Profit Margin					2,52,500.00

Working Notes

1. ₹

Fixed Mfg. Overheads	38,00,000.00
Less: Related to batch related activities	11,00,000.00
Fixed Mfg. Overheads-unit related	27,00,000.00

2. ₹

Selling & Admn. Overheads	2,87,500.00
Less: Admn. Overheads	1,15,000.00
Selling Overheads	1,72,500.00

3.

No. of Visits	10 Sales Visit for 1,000 Units (Deluxe)	25 Sales Visit for 1,000 Units (Premium)	Total
For Proposed Mix-Sales Visit	800	500	1,300

4.

No. of Batches	1 Batch for 500 Units (Deluxe)	1 Batch for 250 Units (Premium)	Total
For Proposed Mix-Batches	160	80	240

(ii) Change in product mix, yields profit of ₹ 70,000/- (₹ 2,52,500 – ₹ 1,82,500). Accordingly company should go with proposed change mix.

Alternative Approach:

This Question can be solved by assuming that some portion of the fixed cost as fixed with respect to units of production, but variable with respect to certain activities. When the production size is altered, these activities are increased and therefore the activity cost varies for the proposed production level. More batches of production and more sales visits will set off the incremental contribution.

2013 - Dec [4] (b) An engineering company produces a standard metallic product. There are three processes-Foundry, Machining and Assembly. 130 tonnes of raw material at ₹ 500 per tonne were issued to Foundry. The yield at the Foundry is 90% (both standard and actual). The normal and actual yield at the Machining Process is 95%. There is no loss in the Assembly Process. You may consider the losses as occurring at the end of the respective processes. The other details are as follows:

Process	Direct Labour	Overheads
Foundry	200 hours at ₹ 100 per hour	₹ 150 per labour hour
Machining	100 hours at ₹ 50 per hour	₹ 200 per labour hour
Assembly	100 hours at ₹ 150 per hour	₹ 100 per labour hour

Prepare a Cost Sheet showing the element wise cost of output and cost per tonne of output. **(8 marks)**

Answer:

Raw material input	130	117	111.15
Loss	13	5.85	0
Output	117	111.15	111.15

Material Cost 500/tonne of input to foundry

Elements of Cost	Cost of total output	Cost/tonne of output
Raw Material 130 x 500	65,000	584.80
Labour Foundry: 200 hrs x 100 ₹/hr	20,000	179.94
M/cng: 100 hrs @ 50/hr	5,000	44.98
Assembly: 100 hrs @ 150/hr	15,000	134.95
Subtotal - Labour	40,000	359.87
Overheads: Foundry 200 hrs @ 150/hr	30,000	269.91
M/ cng: 100 hrs @ 200/hr	20,000	179.94
Assembly : 100 hrs @ 100/hr	10,000	89.97
Subtotal – Overheads	60,000	539.81
Total Cost	1,65,000	1,484.48

Alternative answer:

	Foundry		Machining		Assembly	
	Cost/tonne of input	Cost/Tonne of output	Cost/tonne of input	Cost/Tonne of output	Cost/tonne of input	Cost/Tonne of output
Material	500	555.56	555.56	584.80	584.80	584.80
Labour	153.85	170.94	170.94	179.94	179.94	179.94
Overhead	230.77	256.41	256.41	269.91	269.91	269.91
Labour			42.74	44.98	44.98	44.98
Overhead			170.94	179.94	179.94	179.94
Labour					134.95	134.95
Overhead					89.97	89.97
Total						1,484.48

Alternative answer:

Cost Element	Foundry		Machining		Assembly	
	Cost/tonne of input	Cost/Tonne of output	Cost/tonne of input	Cost/Tonne of output	Cost/tonne of input	Cost/Tonne of output
Material	500	555.56	555.56	584.80	584.80	584.80
Labour	153.85	170.94	213.68	224.92	359.87	259.87
Overheads			427.35	449.84	539.81	539.81
					1,484.48	1,484.48

2014 - Dec [1] Answer the question:

- (e) Prime Cost = ₹ 12,50,000; Works Cost = ₹ 20,00,000 and office overheads are 30% of factory overheads. What is the Cost of Production? **(2 marks)**

Answer:

Given;

Prime Cost = 12,50,000

Works Cost = 20,00,000

Office overheads are 30% of factory overheads.

Factory overheads = works cost – prime cost
 = 20,00,000 – 12,50,000 = 7,50,000

8.40

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Office overheads = 30% of 7,50,000 = 2,25,000
 Cost of production = works cost + office overheads
 = 20,00,000 + 2,25,000 = ₹ 22,25,000

2014 - Dec [2] Answer the question:

(d) (iii) A firm has purchased a plant to manufacture a new product. The cost data are given below:

Estimated annual sales	36,000 units
Material	₹ 4 per unit
Direct labour	₹ 0.6 per unit
Overheads-Manufacturing	₹ 24,000 p.a.
Administrative expenses	₹ 28,800 p.a.
Selling Expenses	15% of sales

Calculate the selling price if profit per unit is ₹ 1.50. Assume whatever is produced is sold.

(4 marks)

Answer:

Let the sales be x

Material cost	$36,000 \times 4$	₹ 1,44,000
Labour cost	$36,000 \times 0.60$	₹ 21,600
Manufacturing overheads		₹ 24,000
Administration overhead		₹ <u>28,800</u>
Cost of production		2,18,400
Add selling expenses		0.15 x
Cost of sales		$2,18,400 + 0.15x$
Profit	$36,000 \times 1.50$	<u>54,000</u>
Sales		$2,72,400 + 0.15x$

$$x = 2,72,400 + 0.15x$$

$$x = 3,20,470$$

$$\text{Selling Price} = 3,20,470/36,000 = ₹ 8.90$$

2015 - June [I] (b) Direct material and direct labour cost of job No. 111 are ₹ 760 and ₹ 550 respectively. Overheads are charged @ 60% of direct labour. If the profit is included @ 20% of the price charged to customer, then calculate the price of job No. 111. **(2 marks)**

Answer:

Material Cost	₹ 760
Labour Cost	₹ 550
Overheads (60% of 550)	<u>₹ 330</u>
Total Cost	1,640
Profit (1,640 × 25%)	<u>410</u>
Price of Job No. 111	<u>2,050</u>

Note: 20% profit on sales = 25% profit on cost.
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2015 - June [II] (c) (i) The cost structure of an article, the selling price of which is ₹ 60,000 is as follows:

Direct materials	50%
Direct labour	20%
Overhead	30%

An increase of 15% in the cost of materials and of 25% in the cost of labour is anticipated. Assume no change in overhead.

This increased cost in relation to the present selling price would cause a 25% decrease in the amount of present profit per article.

(1) Prepare a statement of profit per article at present.

(2) Find the revised selling price to produce the same percentage of profit to sales as before. **(5 + 3 = 8 marks)**

(d) (i) Mahi Transport Company operates a Luxury bus, which runs between Delhi to Jaipur and back for 10 days in a month. The distance from Delhi to Jaipur is 270 kms. The bus completes the trip from Delhi to Jaipur and comes back on the same day. The bus goes on a Delhi-Agra trip for 10 days in a month. The distance from Delhi to Agra is 180 kms. This trip is also completed on the same day. For 4 days of its operation in a month it runs in the local city. Daily distance covered in the city is 65 kms.

The other information is given below:

Particulars	₹
Cost of Bus	₹ 15,00,000
Depreciation	15% per annum
Salary of Driver	₹ 9,000 per month
Salary of Conductor	₹ 8,000 per month
Salary of Part time Accountant	₹ 4,500 per month
Insurance	₹ 10,800 per quarter
Diesel	₹ 49 per litre
Distance covered per litre	5 kms.
Token Tax	₹ 8,100 per quarter
Lubricant oil	₹ 300 per 100 kms.
Repairs and Maintenance	₹ 8,000 per month
Permit Fee	₹ 13,050 per quarter
Normal capacity	50 persons

The bus is generally occupied 90% of the capacity when it goes to Jaipur and 80% when it goes to Agra. It is always full when it runs within the city. Passenger tax is 25% of the fare.

Calculate the rate the company should charge a passenger when it wants to earn a profit of $33\frac{1}{3}\%$ on its revenue. **(12 marks)**

Answer: (c) (i)

- (1) Selling price = ₹ 60,000
 Profit $\frac{1}{3}$ on sales = $60,000/3 = ₹ 20,000$
 Cost = $60,000 - 20,000 = ₹ 40,000$.

Statement of profit per article

Particulars	Amount (₹)
Selling Price	60,000
Less:	
Material Cost 20,000	
Labour Cost 8,000	
Overhead Cost <u>12,000</u>	
Profit	<u>20,000</u>

(2) Let the revised selling price be x:

Material cost = 20,000 + 15% of 20,000
= ₹ 23,000

Labour cost = 8,000 + 25% of 8,000
= ₹ 10,000

Overheads = ₹ 12,000

Revised Cost = ₹ 23,000 + ₹ 10,000 + ₹ 12,000 = ₹ 45,000

Profit = 1/3rd of selling price

$$x = 45,000 + x/3$$

$$x = ₹ 67,500$$

Hence revised selling price to maintain same level of profit on sales is ₹ 67,500.

Working Note:

Let cost be 100

	Existing (₹)	Revised (₹)
Direct Material	50	(50 + 15% of 50) 57.5
Direct Labour	20	(20 + 25% of 20) 25
Overheads	30	30
	100	110.5

Increase in cost ₹ 12.5

Reduction in profit due to increase in cost = 25%

Profit margin = 12.5/(25%) = 50% on cost

50% on cost i.e. 1/2 on cost

Or 1/3rd on sales.

Answer:

(d) (i)

(i) **Statement of total running kms. per month:**

Particulars	Kms. Per trip	Trips per day	Days per month	Kms. per month
Delhi to Jaipur	270	2	10	5,400
Delhi to Agra	180	2	10	3,600
Local City	65	--	4	260
Total running Kms. for the month				9,260

(ii) Statement of total seating capacity per month:

Particulars	No. of seats	No. of trips	No. of days	Total seating capacity
Delhi to Jaipur	50	2	10	1,000
Delhi to Agra	50	2	10	1,000
Local City	50	--	4	200

(iii) Statement of Passenger Km. per month:

Particulars	Delhi to		Local city
	Jaipur	Agra	
(a) Total seating capacity	1,000	1,000	200
(b) Capacity utilisation	90%	80%	100%
(c) Seats occupied	900	800	200
(d) Kms. per trip	270	180	65
Passenger KM per month (c × d)	2,43,000	1,44,000	13,000

Total Passenger KM per month = 4,00,000

(iv) Statement of operating cost of Buses run between different cities:

Particulars	Per month (₹)
Fixed Cost:	
Driver's salary	9,000
Conductor's salary	8,000
Part time Accountant's Salary	4,500
Depreciation $\left(15,00,000 \times \frac{15}{100} \times \frac{1}{12} \right)$	18,750
Insurance (10,800/3)	3,600
Token tax (8,100/3)	2,700
Repair & Maintenance	8,000
Permit fee (13,050/3)	4,350
Total Fixed Cost	58,900

Variable Cost:	
Diesel $\left(\frac{9,260}{5} \times 49 \right)$	90,748
Lubrication oil $\left(\frac{9,260}{100} \times 300 \right)$	<u>27,780</u>
Total Variable Cost	<u>1,18,528</u>
Total Cost (Fixed Cost + Variable Cost)	1,77,428
Passenger tax	<u>1,06,457</u>
Total	2,83,885
Profit (W. Note)	<u>1,41,942</u>
Total takings	4,25,827
Rate per Passenger Km = $\frac{4,25,827}{4,00,000} ₹ 1.065$	
Fare to be charged per passenger:	
Delhi to Jaipur 270×1.065	287.55
Delhi to Agra 180×1.065	191.70
Local City 65×1.065	69.225

Working Note:

Let the taking be x

Then,

Passenger tax 25x

Profit x/3

$$x = 1,77,428 + \frac{25}{100}x + x/3$$

$$x - \frac{25}{100}x - \frac{x}{3} = 1,77,428$$

$$x = \frac{1,77,428 + 12}{5} = ₹ 4,25,827$$

$$\text{Hence, Profit} = \frac{₹4,25,827}{3} = ₹ 1,41,942$$

2015 - Dec [I] (d) Factory cost is ₹ 3,80,000 and cost of production is ₹ 4,10,000. Office and administrative overheads are 20% of factory overheads. What would be amount of prime cost? Assume no stock adjustments. **(2 marks)**

Answer:

Factory Cost (FC) = ₹ 3,80,000

Cost of Production (COP) = ₹ 4,10,000

FC + Office & Administration OH = COP

3,80,000 + Office & Administration OH = 4,10,000

Office & Adm. OH = 30,000

Factory OH = $\frac{30,000}{20} \times 100$

= ₹ 1,50,000

Prime Cost + Factory OH = Factory Cost

Prime Cost + 1,50,000 = 3,80,000

Prime Cost = ₹ 2,30,000

2016 - June [2] (a) The following information is available to Z Ltd. for the Financial Year ending 31st March, 2016:

Particulars	₹
Direct Material	3,45,000
Direct Wages	3,90,000
Production Overheads (75% variable)	2,40,000
Administration Overheads (75% fixed)	1,20,000
Selling and Distribution Overheads (50% fixed)	1,60,000
Sales — 10,000 units	15,50,000
Opening Stock — Nil	
Closing Stock — Finished Goods — 5,000 units	
No WIP (Opening/Closing)	

For the year 2016-17, it is estimated that:

- (i) Output will increase by one-third; Sales quantity will increase by 50% by incurring additional advertisement expenses of ₹ 1,45,200. Assume that opening stock is first sold before using the current year's output.
- (ii) Material prices will increase by 5%.
- (iii) Wage rate will increase by 5% while overall direct labour efficiency will decrease by 4%.
- (iv) The variable overheads will be at the same unit rates as last year.
- (v) Fixed production overheads will increase by 25%.
- (vi) Assume that production and sales units were achieved as per budget last year and will be achieved as per estimate this year also.
- (vii) The company will revise its selling price in 2016-17 to ₹ 125 per unit. This same selling price will hold for the units sold from the opening stock also.

You are required to prepare a statement showing cost of sales and sales and profit giving effect to the above for the financial year 2016-17. **(10 marks)**

Answer:

Statement of the Cost of Sales, Sales and Profit as under:

	2015-16			2016-17		
	Unit	Per unit	Amount (₹)	Unit	Per Unit	Amount (₹)
Direct Material	15,000	23	3,45,000	20,000	24.15*	4,83,000
Direct Wages	15,000	26	3,90,000		28.4375**	5,68,750
Prime Cost		49	7,35,000		52.5875	10,51,750
<i>Add: Production OH</i>						
75% Variable		12	1,80,000		12	2,40,000
25% Fixed		4	60,000		3.75	75,000
Factory/Work cost		65	9,75,000		68.3375	13,66,750

Add: Administration OH						
25% Variable		2	30,000		2	40,000
75% Fixed		6	90,000		4.50	90,000
Cost of production		73	10,95,000		74.8375	14,96,750
Add: Opening stock				5,000	73	3,65,000
Less: Closing stock	5,000	73	3,65,000	10,000	74.8375	7,48,375
Cost of goods sold	10,000		7,30,000	15,000	74.225	11,13,375
Add: Selling & Distribution OH						
50% Variable		8@	80,000		8	1,20,000
50% Fixed		8	80,000			80,000
Adv. Exp						1,45,200
Total Cost			8,90,000			14,58,575
Sales (125/u × 15,000)					125	18,75,000
Profit						4,16,425

*Direct Material ₹ 23.00 × 1.05 = ₹ 24.15

**Direct Labour (₹ 26.00 × 1.05)/0.96 (1.00 - 0.04) = ₹ 27.30/.96 = ₹ 28.4375
@ ₹ 80,000/10,000 = ₹ 8.00 (Variable).

2017 - Dec [4] (a) Component 'Citipride' is made entirely in cost Center 200. Material cost is 6 paise per component and each component takes 10 minutes to produce. The machine operator is paid 72 paise per hour, and machine hour rate is ₹ 1.50. The setting up of the machine to produce the component 'Citipride' takes 2 hours 30 minutes. On the basis of this information, prepare a cost sheet showing the production and setting up cost, both in total and per component, assuming that a batch of:

- (i) 10 components,
- (ii) 100 components, and
- (iii) 1000 components is produced.

(9 marks)

Answer:**Cost Sheet Component 'Citipride'**

Particulars	Batch Size					
	10 components		100 components		1000 components	
	Total ₹	Per component ₹	Total ₹	Per component ₹	Total ₹	Per component ₹
A. Setting up Cost:						
Machine Operators wages (2.5 hours @ ₹ 0.72 p.h)	1.80	0.180	1.80	0.0180	1.80	0.00180
Overheads 2.5 hours @ ₹ 1.50 p.h)	3.75	0.375	3.75	0.0375	3.75	0.00375
Total of (A)	5.55	0.555	5.55	0.0555	5.55	0.00555
B. Production Cost:						
Material Cost @ ₹ 0.06 per component	0.60	0.060	6.00	0.0600	60.00	0.06000
Machine Operators wages [(Refer to Working Note (1))]	1.20	0.120	12.00	0.1200	120.00	0.12000
Overheads [(Refer to Working Note (2))]	2.50	0.250	25.00	0.2500	250.00	0.25000
Total of (B)	4.30	0.430	43.00	0.4300	430.00	0.43000
C. Total Cost: (A +B)	9.85	0.985	48.55	0.4855	435.55	0.43555

Working Notes:

	10 Components	100 Components	1000 Components
(1) Operators Wages Time taken in minutes by machine operators @10 minutes per component Operators Wages @ ₹ 0.72 per hour (₹)	1.20 [(100/60) × 0.72]	12.00 [(1000/60) × 0.72]	120.00 [(10000/60) × 0.72]
(2) Overhead expenses Total overhead expenses @ ₹ 1.50 per Machine hour (₹)	2.50 [(100/60) × ₹ .1.50]	25.00 [(1000/60) × ₹ 1.50]	250.00 [(10000/60) × ₹ 1.50]

8.50

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2018 - June [4] (a) The following data are available from the books and records of VEEMYES Ltd. for the month of November 2017.

Direct Labour cost : ₹ 20,000 (125% of factory overheads)

Inventory accounts show the following figures:

	November 1	November 30
	₹	₹
Raw materials	10,000	20,000
Work in progress	8,000	4,000
Finished goods	10,000	5,000
Selling expenses		15,000
Office expenses		10,000
Sales		1,25,000

The company maintains a profit of 25% on cost.

You are **required to prepare** a cost sheet for the month of November 2017 with all elements. **(8 marks)**

Answer:

Statement of Cost and Profit

Particulars	Amount in ₹
Opening Stock of Raw Materials	10,000
Purchase of Raw Materials	40,000
	50,000
<i>Less:</i> Closing Stock of Raw Materials	20,000
Cost of Materials Consumed	30,000
<i>Add:</i> Direct Labour Cost	20,000
Prime Cost	50,000
<i>Add:</i> Factory Overheads	16,000
	66,000

<i>Add:</i> Opening Stock of Work-in –Progress	<u>8,000</u>
	74,000
<i>Less:</i> Closing Stock of Work-in-Progress	<u>4,000</u>
Factory Cost	70,000
<i>Add:</i> Office Expenses	<u>10,000</u>
Cost of Production	80,000
<i>Add:</i> Opening Stock of Finished Goods	<u>10,000</u>
	90,000
<i>Less:</i> Closing Stock of Finished Goods	<u>5,000</u>
Cost of Goods sold	85,000
<i>Add:</i> Selling Expenses	<u>15,000</u>
Total Cost	1,00,000
<i>Add:</i> Profit	<u>25,000</u>
Sales	<u>1,25,000</u>

Workings: Calculation of Purchase of Raw Materials

Details	Amount in ₹
Sales	1,25,000
<i>Less:</i> Profit	<u>25,000</u>
Total Cost	1,00,000
<i>Less:</i> Selling Expenses	<u>15,000</u>
Cost of Goods Sold	85,000
<i>Add:</i> Closing Stock of Finished Goods	<u>5,000</u>
	90,000
<i>Less:</i> Opening Stock of Finished Goods	<u>10,000</u>

Cost of Production	80,000
<i>Less: Office Expenses</i>	<u>10,000</u>
Factory Cost	70,000
<i>Add: Closing Stock of Work-in-Progress</i>	<u>4,000</u>
	74,000
<i>Less: Opening Stock of Work-in-Progress</i>	<u>8,000</u>
	66,000
<i>Less: Factory Overheads</i>	<u>16,000</u>
Prime Cost	<u>50,000</u>
<i>Less: Direct Labour Cost</i>	<u>20,000</u>
Cost of Raw Materials Consumed	30,000
<i>Less: Opening Stock of Raw Materials</i>	<u>10,000</u>
	20,000
<i>Add: Closing Stock of Raw Materials</i>	<u>20,000</u>
Purchase of Raw Materials	<u>40,000</u>

2018 - Dec [4] (a) Z Ltd., manufactured and sold 200 typewriters in the year 2017. Its summarised Trading and Profit & Loss Account for the year 2017 is as follows:

Total Output (in units) 200

Particulars	₹	Particulars	₹
To Cost of Material consumed	1,20,000	By Sales	6,00,000
To Direct Wages	1,80,000		
To Manufacturing Charges	75,000		
To Gross Profit c/d	2,25,000		
	6,00,000		6,00,000

To Management Expenses	90,000	By Gross Profit b/d	2,25,000
To General Expenses	30,000		
To Rent, Rates & Taxes	15,000		
To Selling Expenses	45,000		
To Net Profit	45,000		
	2,25,000		2,25,000

For the year 2018, it is estimated that

- (i) The output and sales will be 300 typewriters.
- (ii) Price of material will rise by 25% compared to previous year level.
- (iii) Wages per unit will rise by 10%.
- (iv) Manufacturing charges will increase in proportion to the combined cost of material and wages.
- (v) Selling expenses per unit will remain unchanged.
- (vi) Other expenses will remain unaffected by the rise in output.

Required:

Prepare a Cost Sheet showing the cost at which typewriters will be manufactured in 2018 and give price at which it should be marketed so as to show profit of 10% on selling price. **(8 marks)**

Answer:

Cost Sheet of Z Ltd. for the year 2017

Particulars	Total Cost ₹	Cost per unit ₹
Direct Material	1,20,000	600
Direct Labour	1,80,000	900
Prime Cost	3,00,000	1,500
<i>Add: Factory Overhead (Manufacturing exp.)</i>	<i>75,000</i>	<i>375</i>
Factory Cost	3,75,000	1,875

<i>Add:</i> Office Overhead:			
Management Expenses	90,000		
General Expenses	30,000		
Rent, Rates & Taxes	<u>15,000</u>	1,35,000	675
Cost of Production		5,10,000	2,550
<i>Add:</i> Selling & Distribution Expenses		45,000	225
Total Cost		5,55,000	2,775
Profit		45,000	225
Selling Price		6,00,000	3,000

Estimate for the year 2018 :	₹
1. Material Cost per Unit:	600
<i>Add:</i> Expected increase in Price of Material in 2018 (It is 25% compared to year 2017)	<u>150</u>
Expected price of material per unit	<u>750</u>
2. Wages per unit	900
<i>Add:</i> Expected increase @ 10%	<u>90</u>
Expected Wages per Unit	<u>990</u>
3. Manufacturing charges are ₹ 375 per Unit and total of Material and Labour cost is ₹ 1,500 per Unit so percentage of manufacturing expenses to combined Cost of Material and Wages is as follows:	
= $\frac{\text{Manufacturing Expenses}}{\text{Material Cost} + \text{Labour Cost}} \times 100$	
= $\frac{375}{1,500} \times 100 = 25\%$	

Manufacturing expenses are 25% of combined Cost of Material and Wages: 25% of ₹ 1,740	435
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To ascertain the Selling Price to be quoted in the year 2018 the estimated cost sheet for the year 2018 will be prepared as follows:

Estimated Cost Sheet for the year 2018

Production = 300 Units

Particulars	Total Cost ₹	Cost per unit ₹
Direct Material	2,25,000	750.00
Direct Labour	2,97,000	990.00
Prime Cost	5,22,000	1,740.00
Factory Overhead (25% of Cost of Material & Wages)	1,30,500	435.00
Factory Cost	6,52,500	2,175.00
Office Overhead	<u>1,35,000</u>	<u>450.00</u>
Cost of Production	7,87,500	2,625.00
Selling & Distribution Overhead (300 × ₹ 225)	67,500	225.00
Total Cost	8,55,000	2,850.00
Profit (10% of Selling Price or 1/9 of Total Cost)	95,000	316.67
Selling Price	9,50,000	3,166.67

ALTERNATIVE

An alternative answer with volume multiplier can simplify the solution as follows

Particulars	Amount in ₹	Cost Per Unit ₹
Direct materials (1,20,000*1.5*1.25)	2,25,000	750
Direct Labour (1,80,000*1.5*1.1)	2,97,000	990

Prime Cost		5,22,000	1,740
Manufacturing Charges (75,000/3,00,000)*5,22,000		1,30,500	435
Factory Cost		6,52,500	2,175
Office Overheads:			
Management Expenses	90,000		
General Expenses	30,000		
Rent , Rates & Taxes	<u>15,000</u>	1,35,000	450
Cost of Production		7,87,500	2,625
Selling Expenses (45,000*1.5)		67,500	225
Total Cost		8,55,000	2,850
Profit (1/9 of 8,55,000)		95,000	317
Sales		9,50,000	3,167
Selling price per typewriter (9,50,000/300)		3,166.67	r/o 3,167

Note: Volume multiple is $300/200 = 1.5$ times.

2019 - June [4] (a) VIPUL LTD. submits the following information on 31st March, 2019:

Particulars	Amount (₹)
Sales for the year	55,00,000
Purchases of material for the year	22,00,000
Direct labour	13,00,000
Inventories at the beginning of the year—	
Finished goods	1,40,000
Work-in-progress	80,000
Materials inventory—	
At the beginning of the year	60,000
At the end of the year	80,000
Inventories at the end of the year—	
Work-in-progress	1,20,000
Finished goods	1,60,000

Factory overheads were 60% of the direct labour cost.

Administration expenses were 5% of sales.

Selling & distribution expenses were 10% of sales.

You are required to prepare a Cost Sheet with all elements.

(8 marks)

Answer:

Cost Sheet on 31st March, 2019

Particulars	Amount (₹)
Materials consumed:	
Opening Stock + Purchase – Closing Stock ₹ (60,000 + 22,00,000 – 80,000)	21,80,000
Direct Labour	13,00,000
Prime Cost	34,80,000
Factory Overheads (60% of Direct Labour Cost)	7,80,000
	42,60,000
<i>Add:</i> Opening Work-in-progress	80,000
<i>Less:</i> Closing Work-in-progress	1,20,000
Factory Cost	42,20,000
Administration Expenses (5% of Sales)	2,75,000
Cost of Production	44,95,000
<i>Add:</i> Opening Stock of Finished Goods	1,40,000
<i>Less:</i> Closing Stock of Finished Goods	1,60,000
Cost of Goods Sold	44,75,000
Selling & Distribution Expenses (10% of Sales)	5,50,000
Cost of Sales	50,25,000
Sales	55,00,000
Profit (Sales-Cost of Sales)	4,75,000

2022 - Dec [4] (a) ZOXIN LTD. manufactures two types of pens 'Super Pen' and 'Normal Pen'. The cost data for the year ended 31st March, 2022 is as follows:

	₹
Direct Materials	8,00,000
Direct Wages	4,48,000
Production Overhead	<u>1,92,000</u>
Total	<u>14,40,000</u>

It is further ascertained that:

- (1) Direct materials cost in Super Pen was twice as much as direct material in Normal Pen
- (2) Direct Wages for Normal Pen were 60% of those for Super Pen
- (3) Production overhead per unit was at the same rate for both the types
- (4) Administration overhead was 200% of direct labour for each
- (5) Selling cost was ₹ 1 per Super Pen
- (6) Production and sales during the year were as follow:

Production		Sales	
		No. of Units	No. of Units
Super Pen	40,000	Super Pen	36,000
Normal Pen	1,20,000		

- (7) Selling price was ₹ 30 per unit for Super Pen.

Required:

Prepare a cost sheet for 'Super Pen' showing:

- (i) Total work cost
- (ii) Cost per unit and Total Cost
- (iii) Profit per unit and Total Profit

(8 marks)

Answer:

Cost sheet of Super Pen

Particulars	Total Cost	Cost per unit
Direct Material	3,20,000	8
Direct Wages	1,60,000	4

Prime Cost	4,80,000	12
Production Overhead	48,000	1.2
Factory Cost	5,28,000	13.2
Less: Closing Stock	52,800	—
Cost of Goods Sold	4,75,200	13.2
Administration Overhead	3,20,000	8.89
Selling Expense	36,000	1
Total Cost	8,31,200	23.09

- (i) 5,28,000
(ii) 23.09 per unit & Total Cost 8,31,200
(iii) Profit 6.91 per unit total profit 2,48,800.

2023 - June [2] (a) M/s PQR Ltd. submits the following information on 31st March, 2023:

Particulars	Amount (₹)
Sales for the year	55,00,000
Purchases of material for the year	22,00,000
Direct labour	13,00,000
Inventories at the beginning of the year—	
• Finished goods	1,40,000
• Work-in-progress	80,000
Materials inventory—	
• At the beginning of the year	60,000
• At the end of the year	80,000
Inventories at the end of the year-	
• Work-in-progress	1,20,000
• Finished goods	1,60,000

8.60

Scanner CMA Inter Gr. I Paper 8 (2022 Syllabus)

Factory overheads were 60% of the direct labour cost.

Administration expenses were 5% of sales.

Selling & distribution expenses were 10% of sales.

You are required to prepare a Cost Sheet with all elements. (7 marks)

Answer:

Cost Sheet of M/s PQR Ltd.

Particulars		Amount
Material		
Opening	60,000.00	
+ Purchases	22,00,000.00	
- Closing	80,000.00	21,80,000.00
<i>Add: labour</i>		13,00,000.00
Prime Cost		34,80,000.00
Overheads @60% of 1300000		7,80,000.00
Works Cost		42,60,000.00
WIP		
Opening	80,000.00	
<i>Less: Closing</i>	1,20,000.00	(40,000.00)
<i>Add: Administrative Overhead</i>		2,75,000.00
Cost of production		44,95,000.00
Adjustment of finished goods		
Opening	1,40,000.00	

Less: Closing	(1,60,000.00)	(20,000.00)
Cost Of goods sold		44,75,000.00
Add: Selling overhead		5,50,000.00
Cost of sales		50,25,000.00
Profit (balancing Figure)		4,75,000.00
Sales		55,00,000.00

2023 - Dec [2] (a) Sun & Moon Ltd. (SML) is a leading hardware manufacturing startup. It manufactured and sold 200 computers in the year 2022. The summarised Trading and Profit & Loss Account of SML for the year 2022 is as follows:

Total Output (in units) = 200

Particulars	₹	Particulars	₹
To Cost of Material consumed	12,00,000	By Sales	60,00,000
To Direct Wages	18,00,000		
To Manufacturing Charges	7,50,000		
To Gross Profit c/d	22,50,000		
	60,00,000		60,00,000
To Management Expenses	9,00,000	By Gross Profit b/d	22,50,000
To General Expenses	3,00,000		
To Rent, Rates & Taxes	1,50,000		
To Selling Expenses	4,50,000		
To Net Profit	4,50,000		
	22,50,000		22,50,000

The management of SML estimated the following facts for the year 2023:

1. The output and sales will be 300 computers.
2. Price of material will rise by 25% compared to previous year level.
3. Wages per unit will rise by 10%.
4. Manufacturing charges will increase in proportion to the combined cost of material and wages.
5. Selling expenses per unit will remain unchanged.
6. Other expenses will remain unaffected by the rise in output.

Required:

- (i) Prepare a Cost Sheet for the year 2023.
 - (ii) Suggest a Selling Price per unit to earn a profit of 20% on selling price.
- (7 marks)**

Answer:

Estimated Cost Sheet for the Year 2023:

Particulars	Total Cost	Cost per Unit ₹
Direct Material	22,50,000	7,500
Direct Labour	<u>29,70,000</u>	<u>9,900</u>
Prime Cost	52,20,000	17,400
Factory Overhead	<u>13,05,000</u>	<u>4,350</u>
Factory Cost	65,25,000	21,750
Office Overhead	<u>13,50,000</u>	<u>4,500</u>
Cost of Production	78,75,000	26,250
Selling & Distribution Overhead	<u>6,75,000</u>	<u>2,250</u>
Total Cost	85,50,000	28,500
Profit	<u>21,37,500</u>	<u>7,125</u>
Selling Price	<u>1,06,87,500</u>	<u>35,625</u>

2024 - June [2] (a) PQR & Co. is an advertising agency which has received an enquiry to submit the quotation. Bill of Materials prepared by the production department for the quotation states the following requirement of materials:

Paper 20 reams @ ₹ 2,200 per ream

Ink and other printing material ₹ 8,000

Binding material and other consumables ₹ 4,000

Some photography is required for the job. The agency does not have a photographer as an employee. It decides to hire one by paying ₹ 20,000 to him. Estimated job card prepared by production department specifies that service of following employees will be required for this job:

Artist (₹ 18,000 per month) 80 hours

Copywriter (₹ 15,000 per month) 75 hours

Client servicing (₹ 13,500 per month) 30 hours

The primary packing material will be required to the tune of ₹ 6,000. Production Overheads 40% of Prime cost, while the Selling and Distribution Overheads are likely to be 20% on Production cost. The agency works 25 days in a month and 6 hours a day. The agency expects a profit of 20% on the quoted price.

Required:

Prepare a Statement of Profit showing quotation price.

(7 marks)

FOR NOTE

A large rectangular box designed for taking notes. It features a solid black border at the top and bottom, and a dashed black line running horizontally across the middle, creating two distinct sections for writing. The interior of the box is otherwise empty.