COST AND MANAGEMENT ACCOUNTING

THEORY BOOK

BY CA. DINESH JAIN

TABLE OF CONTENTS

Edition Details:

- Edition Four – Jul 2025
- Edition Three – Sep 2024
- Edition Two – Apr 2024
- Edition One – Aug 2023

Coverage Details:

- Material covers all questions of ICAI study material, RTP till May 2025, Suggested answers till Jan 2025 and MTP till May 2025

Theory Video Links:

CA Inter Costing Theory Video	https://youtu.be/mABdAXIqE6g?si=UjCs647k9BPzvDE3 https://youtu.be/YB0U-oNB9Js?si=lEZedNLWHRPdrUus
CA Inter FM Theory Video	https://youtu.be/1-V_CN1fYWA?si=kcKWhqMBuCW1I6x4

CHAPTER 1: INTRODUCTION TO COST AND MANAGEMENT ACCOUNTING

1. Define cost, costing, cost accounting, cost accountancy, management accounting and cost management?

Cost	Cost refers to the **amount of money that a company spends** on the creation or production of goods or services
Costing	Costing is defined as the **technique and process of ascertaining costs**
Cost Accounting	Cost accounting is defined as the process of accounting for cost which **begins with the recording of income and expenditure** or the bases on which they are calculated and ends with preparation of **periodical statements and reports for ascertaining and controlling costs**
Cost Accountancy	Cost accountancy is the application of costing and cost accounting principles, methods and techniques to the science, art and practice of **cost control and ascertainment of profitability**
Management accounting	Management accounting is application of the principles of accounting and financial management to create, protect, preserve and increase value for the stakeholders. In simple words management accounting is concerned **with providing relevant information to assist decision making**
Cost management	Application of management accounting concepts, methods of collections, analysis and presentation of data to **provide the information needed to plan, monitor and control costs**

2. What are objectives of cost accounting?

Cost ascertainment	✓ The main objective of Cost Accounting is **accumulation and ascertainment of cost**. ✓ Costs are accumulated, assigned and ascertained for each cost object. This cost object may be a **unit, job, operation, process, department or service**.
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**
Cost control	✓ It ensures that expenditures are in **consonance with predetermined set standard** and any variation from these set standards is noted and reported on continuous basis **Steps in Cost Control:** ✓ Determination of pre-determined standard or results ✓ Measurement of actual performance ✓ Comparison of actual performance with set standard or target ✓ Analysis of variance and action
Cost reduction	✓ Achievement of **real and permanent reduction** in the unit cost of goods manufactured or services rendered without **impairing the quality** **Actions taken:** ✓ Each activity within an entity is segmented to analyse and identify value added and non- value added activities. **All non-value added activities are eliminated** without affecting the essential characteristics of the product or process ✓ Conducting **continuous research** and study to know the most optimal way to manufacture a product or render a service
Decision making	✓ Cost and Management Accounting by **providing relevant information, assist management in** planning, implementing, measuring, controlling and evaluating of various activities. ✓ A robust cost and management accounting system provides **internal and external information to the industry** which will be relevant for decision making.

3. Differentiate Cost control and cost reduction? (Nov 2018 RTP, May 2019 RTP, Nov 2021 RTP, Nov 2022 RTP, May 2023 RTP, May 2019, Dec 2021, May 2024, May 2025 MTP)

Cost control	Cost reduction
1. Cost control aims at maintaining the cost in accordance with standards	1. Cost reduction is concerned with reducing costs
2. Cost control seeks to achieve lowest possible cost under existing conditions	2. Cost reduction recognizes no condition as permanent, since a change will result in lower cost

3. Emphasis is on past	3. Emphasis is on present and future
4. Preventive function	4. Corrective function
5. Cost control ends when targets are achieved	5. Cost reduction has no visible end

4. What is the scope of cost accounting?

Costing	Costing is the **technique and process for ascertaining costs** of products or services
Cost Accounting	It is a process which begins with **recording of all expenditure and ends with preparation of periodical statement** and reports for ascertaining and controlling cost
Cost Analysis	It involves the process for finding out the **factors responsible for variance in actual costs from the budgeted costs** and accordingly fix responsibility for cost differences
Cost comparisons	Cost accounting include **comparisons of cost from alternative courses of action** such as use of different technology for production, cost of making different products and activities, and **cost of same product/service over a period of time**
Cost control	Cost is analysed to know whether **cost is not exceeding its budgeted cost** and whether scope for further cost reduction exist
Cost reports	Cost reports helps in **planning and control, performance appraisal** and **managerial decision making**
Statutory compliances	Companies (cost records and audits) Rules, 2014 state specified companies have to **maintain cost records relating to utilization of material, labour and other items of cost** as applicable to production of goods or provision of services

5. Differentiate between Cost Accounting and Management Accounting? (Nov 2019 RTP, Nov 2020 RTP, Nov 2022 RTP, Nov 2020)

Basis	Cost Accounting	Management Accounting
Nature	Records the quantitative aspect	Records both qualitative and quantitative aspect
Objective	Ascertainment of cost for the purpose of cost control and decision making	Provides information to management for planning and co-ordination
Area	It deals only with cost ascertainment	It is wider in scope as it includes budgeting, tax planning among others
Rules and regulations	It follows certain principles and procedures for recording of costs of different products	It does not follow any specific rules and regulations
Recording of data	It uses both past and present information	It is focused with the projection of figures for future
Development	Its development is related to industrial revolution.	Its development is related to the need of modern business world.

6. Differentiate financial accounting and cost accounting?

Basis	Financial Accounting	Cost Accounting
Objective	Provides information about financial performance	Ascertainment of cost for the purpose of cost control and decision making
Recording of data	Records historical data	Makes use of both historical and pre-determined costs
Users of information	Shareholders, creditors, financial analysts, Government etc.	Internal management
Time period	Financial statements are usually prepared for a year	Reports and statements are prepared as and when required
Presentation of information	Set format is used for presenting financial information	There is no set format for presenting cost information
Analysis of cost and profit	It shows profit or loss of the organization either segment wise or as a whole.	It provides the cost details for each cost object i.e. product, process, job, operation, contracts etc.

7. What are the roles and functions of cost and management accountant?

The role of a cost and management accountant is to:

- **Provide relevant information** to management for decision making
- Assist management for **planning, measurement, evaluation and controlling** of business activities
- Helps in **allocation of cost to products** and inventories for both external and internal users

The functions of cost and management accountant include:

- **Collection** and accumulation of cost
- **Assigning** costs to cost objects to ascertain cost
- Cost and management accounting department **sets budget for a particular period and the actuals are compared** at the end of the period
- **Provision of relevant information** to the management for decision making. Decisions like cost optimisation, price fixation, implementation of plan related to product, process, marketing etc.
- Responsibility centre **performance evaluated using Cost and Management Accounting**, gathering data, analyzing, preparing reports, and taking necessary actions.

8. Who are the users of cost and management accounting? (May 2018, Jan 2025 MTP)

Internal users	✓ **Policy Makers:** Policy makers **formulate strategies** for organizations to achieve short and long-term goals, position them in the competitive market, and design organizational structures for policy implementation. ✓ **Managers:** Managers may use the information to know the cost of a cost object, price for the product or service, measure and evaluate performance, profitability analysis and decision making ✓ **Operational level staffs:** Operational levels staffs such as supervisors, foreman, team leaders can use it to know the objectives and performance goals, product and service specifications, performance parameters and divisional profitability ✓ **Employees:** Employees can use to find information related to time and attendance, incentives for work, performance standards
External users	✓ **Regulatory Authorities:** Regulatory authorities can use costing information for tariff determination, subsidies, rate fixation ✓ **Auditors:** Auditor needs information related with costing and reports reviewed by management for the purpose of financial audit/cost audit ✓ **Shareholders:** Shareholders are concerned with information that affects their investment in entity. Management periodically communicate information on new orders received, product expansion, market share for products to the shareholders ✓ **Creditors and Lenders:** Information which affects an entity's ability to serve lenders or creditors. Example: Net debt position and stock balances

9. What are the essentials of a good cost accounting system? (Nov 2018 RTP, May 2022, May 2024 MTP)

- **Informative and simple:** Costing system should be tailor-made, practical, simple and capable of meeting the requirements of the business concern
- **Accurate and authentic:** The data to be used by the cost accounting system should be accurate to avoid any wrong decisions
- **Uniformity and consistency:** Uniformity and consistency in classification, treatment and reporting of cost data and related information
- **Integrated and inclusive:** Cost accounting should be integrated with other systems like financial accounting, taxation, statistics and operational research
- **Flexible and adaptive:** System should be flexible enough to make necessary amendment and modifications in the system
- **Trust on the system:** Management should have faith in the costing system and should also provide a helping hand for its development and success

10. What are the factors to be considered before installing a cost accounting system? [Jan 2025 MTP, May 2025 MTP]

Objective	✓ Objective of cost accounting system can either be for fixing prices or insisting a system of cost control
Nature of business or industry	✓ Every business industry has its own peculiar feature and costing objectives. Cost Accounting records are maintained based on the cost accounting information requirement
Organizational Hierarchy	✓ Costing system should fulfil the requirement of different level of management such as top management, strategic management and operational level management
Knowing the product	✓ Nature of product determines the type of costing system to be implemented
Knowing the production process	✓ Good costing system can be established with complete knowledge of the production process

	✓ Cost apportionment can be done on most scientific and appropriate basis if cost accountant can identify degree of effort or resources consumed in a particular process
Information synchronisation	✓ Information needs of various departments should be taken. For example, a typical business organisation needs to submit monthly stock statement to its lender bank, quantity wise stock details at the time of filing returns to tax authorities etc.
Method of maintenance of cost records	✓ The company should decide on whether to maintain it is integrated system or non-integrated system
Statutory compliances and audit	✓ Records are to be maintained to comply with statutory requirements, standards to be followed
Information attributes	✓ Information generated from the costing system should possess all attributes of an information such as completeness, accuracy, timeliness, confidentiality etc.

11. What is the impact of information technology on cost accounting system? [May 2024 MTP]

- Information technology has led to **integration of different functional activities** and as a consequence a single entry into the cost accounting system provide custom made reports for every purpose and saves an organization from preparing different sets of documents
- **Move towards paperless environment** with all documents like Bill of material, Material requisition note, Goods received note being made in system
- Information technology with the help of internet can help in **resource procurement and mobilization**
- **Cost information is ascertained with accuracy in timely manner**. Cost centre and cost object is codified and all related costs are assigned using the codes
- **Uniformity** in preparation of report, budgets and standards can be achieved with the help of IT
- Cost and revenue variance reports can be prepared in **real time basis**
- IT enables an entity to monitor and analyse each process closely to eliminate **non-value-added activities**

12. Write a short note on Digital Costing System? (Nov 2020 RTP, May 2022 RTP, Jan 2021, Sep 2024)

- 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**.
- **Information:** Digital costing provides information such as cost incurred on a cost object, time spent, resource consumption, current market price of final product and raw materials, lead time and availability of material, product demand and trend

Benefits:

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

13. What is a cost object?

❖ Cost object is anything for which **separate measurement of cost** is required
❖ Cost object can be a product, service, project, activity, process and department

14. What is a cost unit? (Nov 2022 RTP)

❖ Cost unit is a **unit of product, service or time** (or combination of these) in relation to which costs may be ascertained or expressed

- **Example: Cost per tonne of steel, cost per tonne kilometre or cost per machine hour**
- Cost units are usually the **units of physical measurement** like number, weight, area, volume, length, time and value
- Some examples of cost unit in few industries is provided in the below table:

Industry	Cost unit
Transport	Passenger KM or Tonne KM
Brewing	Barrel
Coal mining	Tonne/ton
Engineering	Contract, job
Brick-making	1,000 bricks
Gas	Cubic feet
Power/Electricity	Kilo-watt hour
Hotel/Catering	Room days or meal
Hospital	Patient days
Steel	Tonne
Oil	Barrel, tonne, litre
Automobile	Numbers
Cement	Tonne/bag
Chemicals	Litre, gallon, Kilogram, tonne etc
Professional Services	Chargeable hour, job, contract
Education	Course, enrolled subject, successful student
Credit control	Accounts maintained
Selling	Customer call, value of sales, orders taken
Materials storage/handling	Requisition unit received/issued
Personnel administration	Personnel record

15. What is a cost driver?

- A cost driver is a **factor or variable which effect level of cost.** It can also be defined as the factor influencing the level of cost.
- **Examples of cost drivers** are number of set up hours for set up activity, number of purchase orders for purchase department, number of inspection hours for inspection activity

16. What is a responsibility centre and its types? (Nov 2018, Sep 2024 MTP)

- Department/function with specific **responsibility and authority** are known as responsibility centres
- Responsibility centre can be held **responsible for performance** in terms of expenditure, revenue, profitability and return on investment
- Following are the types of responsibility centre:
  - Cost Centres
  - Revenue Centres
  - Profit Centres
  - Investment Centres

17. What is a cost centre and its types? [Sep 2024 RTP]

- Cost centre is held responsible **for incurrence of costs** which are under its control. Performance of the cost centre is measured against pre-determined standards or budgets
- Cost centre are of the following two types:

Standard cost centre	Cost centre where output is measurable and input required for the output can be specified. The actual performance is compared with the set standards and the deviation is analysed into controllable and uncontrollable cost
Discretionary cost centre (May 2018 RTP, May 2020 RTP)	Cost centre where output cannot be measured in financial terms and thus input-output ratio cannot be defined. In this case the cost of input is compared with the allocated budget for the activity. Example: Advertisement, Research & Development

18. What are revenue centres, profit centres and investment centres?

Revenue centres	✓ Responsibility centres which are accountable for **generation of revenues**. **Example: Sales department**

	✓ Revenue centres does not have control on expenditure it incurs but these centres can incur expenditure like sales commission
Profit centres	✓ Responsibility centres which have both responsibility for **revenue generation and incurrence of expenditure** ✓ Profitability is the basis for measurement of performance of these responsibility centres **Example: Decentralized branches**
Investment centres (May 2018 RTP, May 2020 RTP)	✓ Responsibility centres which are **not only responsible for profitability but also has the authority to make capital investment decisions** ✓ Performance is measured on the basis of Return on Investment (ROI) ✓ Example: Maharatna, Navratna and Miniratna PSU

19. What are limitations of cost accounting system? (Nov 2021 RTP)

- **Expensive** – It is expensive because analysis, allocation and absorption of overheads require considerable amount of additional manpower and hence additional money
- **Requirement of reconciliation** – Results shown by cost accounts will differ from those of financial accounts and hence reconciliation statements are necessary to verify their accuracy
- **Duplication of work** – Duplication of work as organization has to maintain two sets of accounts

20. What is the cost classification on the basis of nature or element?

Direct Materials	✓ Materials which are present in the finished product and can be economically identified in the product ✓ Example: Cloth in the making of shirt
Direct Employee (Labour)	✓ Labour which can be economically identified or can be attributed wholly to a cost object ✓ Example: Employees engaged in the actual production
Direct Expenses	✓ Include all expenses other than direct material or direct labour which are specially incurred for a particular cost object and can be identified economically ✓ Example: Hire Charges of machinery for specific work
Indirect materials	✓ Materials which do not form part of the finished product are known as indirect materials ✓ Example: Stores used for maintaining machines and buildings
Indirect labour	✓ Labour costs which cannot be allocated but can be apportioned to or absorbed by cost units or cost centres ✓ Example: Foreman and Supervisor salary
Indirect expenses	✓ Expenses other than direct expenses are knows as indirect expenses ✓ Indirect expenses cannot be directly, conveniently and wholly allocated to a cost centre ✓ Example: Factory rent and rates
Overheads	✓ It is the aggregate of indirect material, indirect labour and indirect expenses ✓ Overheads are sub-divided into production/works overheads, administration overheads, selling & distribution overheads

21. Explain the cost classification on the basis of function?

Under this classification, costs are classification on the basis of the function for which they are incurred. It includes the following:

- Direct Material Cost
- Direct Employee (labour) Cost
- Direct Expenses
- Production/manufacturing overheads
- Administration overheads
- Selling Overheads
- Distribution Overheads
- Research and Development Costs

22. Explain the cost classification on the basis of variability or behaviour? (May 2019 RTP, May 2021 RTP)

Fixed costs	✓ These are the costs which are incurred for a period and which tend to be unaffected by fluctuations in the level of activity. ✓ These costs do not tend to increase or decrease with the changes in output ✓ Example: Rent
Variable costs	✓ These costs tend to vary with the volume of activity

	✓ Increase in the level of activity will result in an increase in variable costs and vice-versa ✓ Example: Direct Materials, Direct Wages
Semi-variable costs	✓ These costs contain both fixed and variable component and are thus partly affected by fluctuations in the level of activity ✓ Semi-variable cost can be split into variable and fixed component using the following steps: **Steps:** ✓ **Step 1:** Compute variable cost per unit. Variable cost per unit = Change in total cost / Change in units ✓ **Step 2:** Calculate total fixed cost. Total fixed cost = Total cost – total variable costs.

Note:

- **A reference to a change in variable cost has to be interpreted as change in variable cost per unit**
- **A reference to a change in fixed cost has to be interpreted as change in total fixed cost**
- **All items of cost under prime cost unless stated otherwise is a variable cost**

23. What are the methods to segregate semi-variable costs into fixed and variable costs?

Method 1: Graphical Method:

- Large number of observations regarding the total costs at different levels of output are plotted on a graph with output on x-axis and total cost on y-axis
- A line of "best fit" which passes through all or most of the points is drawn
- The point at which this line cuts the y-axis indicates total fixed cost component in the total cost
- Variable cost is computed by deducting the fixed cost from the overall cost

Method 2: High points and Low points method:

- Under this method the difference between the total cost at highest and lowest sales volume is divided by the difference between the sales value at these two points
- Variable cost ratio = Change in cost / Change in sales

Method 3: Analytical Method:

- Experienced cost accountant tries to judge what proportion of semi-variable cost would be variable and what would be fixed

Method 4: Comparison by period or level of activity method:

- Variable overhead may be determined by comparing two levels of output with the amount of expenses at those levels
- Variable cost per unit = Change in cost / Change in output

Method 5: Least squares method:

- This is a statistical method and is based on finding out a line of best fit for a number of observations
- Y = mx + c
  - Where Y = Total cost
  - m = Variable cost per unit
  - c = Total fixed cost
  - x = Volume of output

24. Explain the cost classification on the basis of controllability? (Nov 2018 RTP, May 2019 RTP, May 2021 RTP, May 2022 RTP, May 2024 MTP)

Controllable costs	✓ Cost that can be controlled, typically by a cost, profit or investment centre manager is called controllable cost ✓ Example: Direct Material cost
Uncontrollable costs	✓ Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs ✓ Example: Expenditure incurred on tool-room

25. Explain the cost Classification on the basis of normality?

Normal cost	✓ Cost which is normally incurred at a given level of output under the conditions in which the level of output is normally attained
Abnormal cost	✓ It is a cost which is incurred in excess of the normal cost. These costs are charged to costing profit & loss account

26. Explain the cost classification on the basis of managerial decision making? [May 2025 MTP]

Pre-determined cost	✓ Cost which is computed in advance before production or operations start on the basis of the specifications of all the factors affecting the cost
Standard cost	✓ Pre-determined cost which is calculated from management's expected standard of efficient operation. This is used as the basis for price fixing and for cost control through variance analysis
Marginal cost	✓ Cost increase or decrease due to change in output
Estimated cost	✓ Expected costs of manufacture on the basis of available information in absence of actual production or purchase. ✓ Estimated costs are prospective costs since they refer to prediction of costs
Differential costs	✓ It represents the change in total cost (variable as well as fixed) due to change in activity level, technology, process or method of production
Imputed costs	✓ These costs are notional costs which do not involve any cash outlay. Example: Interest on capital
Capitalized costs	✓ These are costs which are initially treated as assets and subsequently treated as expenses in the form of depreciation
Product costs [May 2025 RTP]	✓ These are costs which are associated with the purchase and sale of goods (in the case of traded goods). ✓ Costs associated with acquisition and conversion of materials and all other manufacturing inputs into finished product for sale
Opportunity cost (May 2018)	✓ Cost refers to the value of sacrifice made or benefit of opportunity foregone in accepting an alternative course of action
Out-of pocket cost	✓ It is that portion of total cost which involves cash outflow
Shut down costs	✓ These costs which continue to be incurred even when a plant is temporarily shut down. Example: Rent, Depreciation
Sunk costs	✓ Historical costs incurred in the past are known as sunk costs. They play no role in decision making for the current period
Absolute cost	✓ These costs refer to the cost of any product, process or unit in its totality ✓ When costs are presented in statement form, various cost statements may be shown in absolute amount or as a percentage of total cost or as per unit cost or all together. When they are shown as absolute amount then they are called as absolute cost
Discretionary costs	✓ Costs which arise from periodic decisions and can be avoided if the firm opts not to incur it. Example: Advertising
Period Costs	✓ These are the costs which are not assigned to the products but are charged as expenses against the revenues of the period in which they are incurred ✓ All non-manufacturing costs are to be recognized as period costs
Engineered costs	✓ These are costs that result specifically from a clear cause and effect relationships between inputs and outputs
Explicit costs	✓ These are also known as out-of pocket costs and refer to costs involving immediate payment of cash
Implicit costs	✓ These do not have any immediate cash payment. They are not recorded in the books of accounts and they are also known as economic costs

27. Explain the different methods of costing?

Method	Description
Job costing	✓ Cost of each job is ascertained separately ✓ Suitable in all cases where work is undertaken based on customer's order like printing press, motor work shop etc.
Batch costing	✓ A batch may represent a number of small orders passed through the factory in batch ✓ Each batch is treated as a cost unit and thus costed separately
Contract costing	✓ Cost of each contract is ascertained separately ✓ Suitable for firms engaged in the construction of roads, bridges, buildings etc.
Single or output costing	✓ Cost of a single product is ascertained
Process costing	✓ Cost of completing each stage of work is ascertained. ✓ Example: Cost of making pulp and cost of making paper from pulp is ascertained separately ✓ In mechanical operations, the cost of each operation may be ascertained separately; the name given is operation costing

Method	Description
Operating costing	✓ Used in concerns rendering service
Multiple costing	✓ Combination of two or more methods of costing outlined above ✓ Example: Firm manufacturing bi-cycles. The parts will be costed by the system of job or batch costing but the cost of assembling bicycle will be computed by single or output costing method

Summary of application of various methods:

Nature of output	Method	Cost	Example of Industries
A Series of Processes	Process Costing or Operation Costing	For each process	Sugar
Construction of building	Contract Costing	For each Contract	Real estate
Similar units of a Single Product, produced by Single Process	Unit or output or Single Costing	For the entire activity, but averaged for the output	Cold Drinks
Rendering of Services	Operating Costing	For all services	Hospitals
Customer Specifications: single Unit	Job Costing	For each order/ assignment/job	Advertising
Consisting of multiple varieties of activities and processes	Multiple Costing	Combination of any method	Car Assembly

Examples:

Industry	Method of costing	Suggestive cost unit
Transport	Operating Costing	Passenger KM or Tonne KM
Power	Operating costing	Kilowatt hours
Hotel	Operating costing	Room days
Hospital	Operating costing	Patient days
Steel	Process costing /Single costing	Tonne
Coal	Single costing	Tonne
Bicycles	Multiple costing	Number
Bridge construction	Contract costing	Project/unit
Interior decoration	Job costing	Assignment
Advertising	Job costing	Assignment
Furniture	Job costing	Number
Brick works	Single costing	Per unit
Oil refining mill	Process costing	Barrel/tonne/litre
Sugar company	Process costing	Tonne
Toy making	Batch costing	Units
Cement	Single costing	Tonne
Radio assembling	Multiple costing	Units
Ship Building	Contract costing	Project/unit

28. Explain the different techniques of costing? [Dec 2021]

Uniform costing	✓ When a number of firms in an industry agree to use the same system of costing in detail then they are said to be following uniform costing ✓ Uniform costing can help in making comparison of the performance with other firms/industry.
Marginal costing	✓ It is defined as the ascertainment of marginal cost by differentiating between fixed and variable costs. ✓ It is used to ascertain effect of changes in volume on profit and cost
Standard costing and variance analysis	✓ Standard costs are pre-determined and are subsequently compared with recorded actual costs to identify variances
Historical costing	✓ It is the ascertainment of costs after they have been incurred
Absorption costing	✓ Practice of charging all costs, both variable and fixed to operations, processes or products.

29. WHAT are the principles of estimation of costs and benefits? [Sep 2024 MTP]

After identification of the costs and benefits, it is now required to be quantified i.e., the cost and benefit should be measured and estimated. The estimation is done by following the two principles as discusses below:

- **Variability:** Variability means by how much a cost or benefit increased or decreased due to the choice of the option. Variable costs are the cost which differs under the different volume or activities. On the other hand, fixed costs remain same irrespective of volume and activities.
- **Traceability:** Traceability of cost means degree of relationship between the cost and the choice of the option. Direct costs are directly assigned to the option on the other hand indirect costs needs to be apportioned to the option on some reasonable basis.

30. Management of Tillu manufacturing co. is thinking of installing a costing system its company. What practical DIFFICULTIES management will expect and how management will OVERCOME the same? [Sep 2024 MTP]

Answer:

- **Lack of top management support:** Installation of a costing system does not receive the support of top management. They consider it as interference in their work. They believe that such, a system will involve additional paperwork. They also have a misconception in their minds that the system is meant for keeping a check on their activities.
- **Resistance from cost accounting departmental staff:** The staff resist because of fear of loosing their jobs and importance after the implementation of the new system.
- **Non co-operation from user departments:** The foremen, supervisor and other staff members may not cooperate in providing requisite data, as this would not only add to their responsibilities but will also increase paper work of the entire team as well.
- **Shortage of trained staff:** Since cost accounting system's installation involves specialised work, there may be a shortage of trained staff.

To overcome these practical difficulties, necessary steps required are:

- Sell the idea to top management and convince them of the utility of the system.
- Resistance and non co-operation can be overcome by behavioural approach. To deal with the staff concerned effectively.
- Proper training should be given to the staff at each level
- Regular meetings should be held with the cost accounting staff, user departments, staff and top management to clarify their doubts/ misgivings.

31. Explain:

- Pre-Production Costs
- Research and Development Costs
- Training Costs

Answer:

Pre-production Costs: These costs forms the part of development cost, incurred in making a trial production run, preliminary to formal production. These costs are incurred when a new factory is in the process of establishment or a new project is undertaken or a new product line or product is taken up, but there is no established or formal production to which such costs may be charged.
Research and Development Costs: • Research costs are the costs incurred for the original and planned investigation undertaken with a prospect of gaining new scientific or technical knowledge and understanding. • Development costs are the cost incurred in applying research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.
Training Costs: Costs which are incurred in and in relation to providing training to the workers, apprentices, executives etc. Training cost consists of wages and salaries paid to new trainees, fees paid to trainers, cost of materials and properties used to train the trainees, costs associated with training centre, loss suffered due to lower production and extra spoilage etc. The total cost of training section is thereafter apportioned to production centers.

CHAPTER 2: MATERIAL COST

1. What is material cost and explain its importance?

- The term material refers to all commodities/physical objects used by an organization. It can be a direct material or indirect material
- Materials constitute a significant part of total cost of finished product. Cost control starts with material, and for this purpose it is necessary that the principle of 3Es (Economy, Efficiency and Effectiveness) i.e. **economy in procurement, efficiency in handling and processing the material and effectiveness in producing desired output as per the standard.**
- Proper recording and control over material cost is essential due to following:

Quality of finished product	✓ The quality of output depends on the quality of inputs.
Price of the final product	✓ Material constitutes a **significant part of any product** and the cost of final product is directly related with cost of materials used to produce the product.
Production continuity	✓ There should be no interruption in production process for want of material
Cost of stock holding and stock-out	✓ An entity has to incur **stock holding costs in the form of interest and/or opportunity cost** for the fund used, stock handling losses like evaporation, obsolescence etc ✓ Under-stocking causes in **loss of revenue** due to stock-out and breach of commitment
Wastage and other losses	✓ Wastages and losses in the manufacturing processes should be avoided as far as possible
Regular information about resources	✓ Information about availability of materials and stores should be continuously available to ensure proper production and procurement planning

2. What is material control and explain its objectives? [Nov 2019]

- Inventory control is defined as the function of **ensuring that sufficient goods are retained in stock** to meet all requirements without carrying unnecessarily large stocks.
- Following are the objectives of material control:

Minimising interruptions in production process	✓ Ensuring constant availability of raw material so that there are no interruptions in production process for want of raw material
Optimisation of material cost	✓ Materials are procured at the lowest possible cost while ensuring adequate quality
Reduction in wastages	✓ Avoidance of unnecessary losses and wastages that may arise due to deterioration in quality
Adequate information	✓ Maintenance of proper records to ensure that reliable information is available for all items of materials and stores which would help in detecting losses and pilferages
Completion of order in time	✓ Proper material management is very necessary for fulfilling orders of the firm

3. What are requirements of material control?

- Proper **co-ordination** of all departments involved
- Determining **purchase procedure** to see that purchases are made, after making suitable enquiries, at the most favourable terms to the firm
- Use of **standard forms** for receipt of goods, placing an order, issuing of materials
- Preparation of budgets **concerning materials, supplies and equipment** to ensure economy in purchasing and use of materials
- Operation of a system of **internal check**
- Storage of all materials and supplies in a **well designated location** with proper safeguards
- Operation of a system of **perpetual inventory** together with continuous stock taking
- Operation of a system of **stores control and issue** so that there will be proper delivery of materials to user departments
- Development of system of **controlling accounts and subsidiary records** which exhibit summary and detailed material costs at the stage of material receipt and consumption.
- Regular reports of **materials purchased, issue from stock**, inventory balances, obsolete stock, goods returned to vendors and spoiled/defective units

4. What are the elements of material control?

Material control is a systematic control over the procurement, storage and usage of material so as to maintain an even flow of material. Material control involves efficient functioning of following operations:

- Purchasing of materials
- Receiving of materials
- Inspection of materials
- Storage of materials
- Issuing materials
- Maintenance of inventory records
- Stock audit

5. What are the documents associated with procurement of materials?

Bill of material (BOM) (or) Materials specification list or Materials list [Dec 2021]	✓ It is a detailed list **specifying the standard quantities and qualities of materials and components required** for producing a product or carrying out of any job ✓ It is prepared by the **product development team** commonly known as engineering or planning department in a standard form. This is shared with other concerned departments like **Marketing, Production, Store, and Cost/ Accounting department.** **Utility of BOM:** ✓ Purchase department **procures materials** on the basis of specifications contained in BOM ✓ **Production department:** Production is planned according to the specifications such as nature, volume of the materials required to be used. Accordingly, material requisition lists are prepared ✓ **Stores Department:** It is used as a reference document while issuing materials to the requisitioning department. ✓ **Cost accounting Department:** BOM is used by cost accounts department for preparing an estimate/budget of material cost for a job
Material Requisition Note (MRN)	✓ MRN is an **authorisation to the store keeper to issue materials**. This is used as user's acknowledgement for receipts of materials and forms the basis for material accounting. ✓ It is a voucher of authority used to get materials issued from store. Generally, it is prepared by the production department and materials are withdrawn on the basis of material requisition list or bill of materials
Purchase requisition (PR)	✓ PR is a formal request made by **production department to the purchasing department** for purchasing materials ✓ Purchase requisition note can also be **originated by the stores department in connection with regular materials** or by the production planning or other technical departments in respect of special materials ✓ The purpose of PR is to request and authorize the purchase department to order and procure the materials specified in stated quantities
Inviting tender / requesting for proposal (RFP)	✓ Materials purchase department has to answer the following question before initiating purchasing of materials o What to purchase – As per Purchase requisition o When to purchase - Based on lead time and consumption pattern o How much to purchase – Based on consumption pattern, storage cost, minimum order size o From where to purchase – Transparent and fair selection of suppliers o At what price to purchase – Selection of lowest bidder ✓ Purchase department makes an enquiry into the market for the required materials as per PR sent by user department ✓ The company gathers information about the rate, quantity, technology, services and support etc., through RFP sent to selected vendors. Alternatively, the company can also opt for tender notification wherein all companies can participate in the tender
Selection of quotation / proposal	✓ The purchase department should make a comparative assessment of various proposals of interested vendors

	✓ The assessment should factor in price, quality, quantity offered, delivery commitment etc and then finally select the best quote
Purchase orders (PO)	✓ The purchase department will issue a formal PO to the selected vendor ✓ PO is a **written request to the supplier to supply certain specified materials** at specified rates within a specified period
Goods received note (GRN)	✓ GRN is prepared by the receiving section, which forms the basis of entries in the stores ledger. ✓ If the material received is in order and the supply is considered suitable for acceptance, the Receiving department prepares a Receiving Report ✓ Generally, it is prepared in quadruplicate, the copies being distributed to **purchase department, store or order indenting department, receiving department and accounting department**
Material Returned Note	✓ Material Returned Note is used for recording return of materials to the supplier ✓ If the return takes place before the preparation of the receiving report, such **material obviously would not be included in the report and hence not shown in the stores ledgers.** In that case, no adjustment in the account books would be necessary. ✓ **But if the material is returned after its entry in the receiving report, a suitable document must be drawn up in support of the issue so as to exclude from the Stores of Material Account the value of the materials returned back**. This document usually takes the form of a Material Returned Note or Material outward return note.
Checking and passing bills for payment	✓ Invoice received from supplier is sent to stores accounting section to check authenticity and mathematical accuracy ✓ Quantity and price are checked with reference to GRN and PO. Stores accounting section after checking its accuracy finally certifies and passes the invoice for payment

6. Distinguish between Bill of Materials and Material Requisition Note? [May 2025 MTP]

Bill of Materials	Material Requisition Note
It is the document prepared by the engineering or planning dept.	It is prepared by the production or other consuming department.
It is a complete schedule of component parts and raw materials required for a particular job or work order	It is a document asking Store-keeper to issue materials to the consuming department
It often serves the purpose of a material requisition as it shows the complete schedule of materials required for a particular job i.e. it can replace material requisition	It cannot replace a bill materials.
It can be used for the purpose of quotations.	It is useful in arriving historical cost only
It helps in keeping a quantitative control on materials drawn through material requisition.	It shows the material actually drawn from stores.

7. Write a short note on Government e Marketplace (Gem)?

- A dedicated e-market for **different goods & services procured by Government Organisations / Departments / PSUs**.
- It aims to enhance **transparency, efficiency and speed in public procurement**. It provides the tools of e-bidding, reverse e-auction and demand aggregation to facilitate the government users, achieve the best value for their money.
- **The purchases through GeM by Government users have been authorised and made mandatory by Ministry of Finance.**

8. What are the rules for valuation of material receipts? [May 2022]

❖ Cost of material includes cost of purchase net of trade discounts, rebates, duty draw-back, input credit availed etc and other costs incurred in bringing the inventories to their present location and condition

Steps in calculation of material cost:

Step 1: Calculate aggregate material cost. Treatment of various items associated with purchase of materials is tabulated as below

Trade discount	✓ To be deducted

Quantity discount	✓ To be deducted
Cash discount	✓ To be ignored. It is to be treated as interest and financial charges
Subsidy / grant / incentives	✓ To be deducted
Road tax / toll tax	✓ To be added
Octroi / entry tax	✓ To be added
IGST/SGST/CGST	✓ To be ignored if input credit is available. Otherwise this needs to be added to cost of purchase ✓ If problem is silent then it is assumed ITC is available and hence we won't consider it part of cost
Custom duty	✓ To be added
Demurrage	✓ Penalty imposed by the transporter for not taking delivery. It is an abnormal cost and hence should not be added to cost of purchase
Detention charges / Fine	✓ Abnormal cost and hence should not be added to cost of purchase
Penalty	✓ Penalty of any type is not to be included in the cost of purchase
Insurance charges	✓ Insurance charges paid for transit period is to be added with cost of purchase
Commission or brokerage paid	✓ To be added with cost of purchase
Freight inwards	✓ To be added
Cost of containers	✓ Non-returnable containers to be added with cost of purchase ✓ Returnable containers: If the entire amount is receivable on return then the same should not be considered. However, if the entire amount is not received back then only the shortfall will be considered as cost of purchase

Step 2: Calculate effective good units. Effective good units = Total units ordered – Normal loss of material

Normal loss of material	✓ Good units absorb the cost of shortage due to normal reasons. Losses due to breaking of bulk, evaporation etc.
Abnormal loss of material	✓ Shortage due to abnormal reasons such as material mishandling, pilferage etc are not absorbed by good units. Losses due to abnormal reasons are debited to costing profit and loss account

Step 3: Cost per unit = Aggregate material cost / Effective good units

9. Why should a company ensure proper storage of raw material?

- The company has to ensure proper storage of raw material to preserve the quality of raw material
- If the purchased quantity is not properly stored, then material deteriorates in quality leading to loss for the company. The store-keeper has to ensure safe custody of raw material to preserve its quality

10. What are the Duties of store-keeper?

- General control over stores
- Safe custody of materials
- Maintaining records
- Initiate purchase requisition
- Maintaining adequate level of stock
- Issue of materials
- Stock verification and reconciliation

11. What are the forms in which Store records can be maintained?

The store records can be maintained in three forms

Bin Cards	Stock control cards	Store Ledger
✓ Bin refers to a box/container where materials are kept. ✓ Card is placed with each of the bin to record the details of material receipt, issue and return	✓ It is a record keeping document maintained by stores department for every item of material ✓ Recording includes receipt, issue, return, in hand and order given	✓ A store ledger maintains a record of both quantity and cost of stores received, issued and those in stock ✓ It is maintained by the cost accounting department
Advantages	**Advantages**	**Advantages:**

✓ Fewer chances of mistakes as entries are being made at the same time as goods are received or issued ✓ Control over stock can be more effective ✓ Identification of different items of materials is facilitated by reference to the Bin Card	✓ Records can be kept in a more compact manner ✓ All the records are at one place and hence it is possible to get an overall idea of the stock position	✓ Distribution of work among a greater number of clerks due to which receipts and issues are posted quickly ✓ Centralized record ✓ Testing of accuracy ✓ Cost effective ✓ Control over stock
Disadvantages ✓ Store records are dispersed over a wide area ✓ Cards are liable to be smeared with dirt and grease because of proximity to material and also because of handling of materials ✓ People handling materials are not ordinarily suitable for the clerical work involved in writing Bin Cards.	**Disadvantages** ✓ On the spot comparison of the physical stock of an item with its book value is not facilitated ✓ Physical identification of materials may not be as easy as bin cards	

12. Distinguish between Bin Card and Stores Ledger?

Bin Card	Stores Ledger
It is maintained by the storekeeper in the store.	It is maintained in cost accounting department.
It contains only quantitative details of material received, issued and returned to stores.	It contains information both in quantity and value.
Entries are made when transaction takes place.	It is always posted after the transactions
Each transaction is individually posted	Transactions may be summarized and posted
Inter-department transfer do not appear in Bin Card.	Material transfers from one job to another job are recorded for costing purposes.

13. What is Inventory Control?

- Inventory Control as "**The function of ensuring that sufficient goods are retained in stock** to meet all requirements without carrying unnecessarily large stocks."
- The main objective of inventory control is to maintain a **trade-off between stock-out and over-stocking**. The management may employ various methods of inventory control to have a balance.

14. What is Economic Order Quantity (EOQ)?

- EOQ refers to the best quantity to order. It is that quantity at which the total of ordering cost, carrying cost and material cost is lowest
- **Ordering Cost:** The term ordering cost means the cost of placing an order and receiving the quantity ordered. Example: Time & Documentation costs
- **Carrying Cost:** The term carrying cost means cost of carrying and holding inventory. Example: Storage cost, interest cost
- **Material Cost:** The term material cost refers to the basic price of the material

Relationship among quantity per order, ordering cost and carrying cost:

- Ordering cost is inversely proportional to quantity per order. If the quantity per order increase then the number of orders will decrease and hence the ordering cost will decrease
- Carrying cost is directly proportional to quantity per order. If the quantity per order increases then the no. of units carried in inventory increases and hence the carrying cost will increase
- Material cost will remain irrespective of quantity per order in case there are no price discounts

Formula:

$$EOQ = \sqrt{\frac{2 \times \text{Annual demand of RM} \times \text{Ordering cost per order}}{\text{Carrying cost per unit per annum}}}$$

Number of orders to be placed $= \frac{\text{Annual demand of RM}}{\text{Quantity per order}}$
Time lag between two orders $= \frac{365}{\text{No of orders}}$
Total ordering cost = Number of orders x Ordering cost per order
Total carrying cost = Average inventory x Carrying cost per unit per annum
Average inventory $= \frac{\text{Quantity per order}}{2}$
Material cost = Annual demand of Raw Material x Purchase Price
Total inventory cost = Material cost + Ordering cost + Carrying cost

Calculation of Carrying Cost:

- Carrying cost is normally expressed as a function of material price
- If the carrying cost is expressed as a percentage it must be applied as a percentage of material price
- Total carrying cost is computed based on average inventory. Average inventory is computed as half of quantity ordered due to uniform consumption and just in time purchases

Calculation of Annual Demand:

- EOQ is computed for the raw material and hence the annual demand for raw material is required for computation of EOQ
- In case the annual demand of FG is given then the same is converted into annual demand for raw material using the below formula
  - **Annual Demand of RM = Annual Demand of FG * Input / Output**
- If annual demand for FG is not given then annual demand for raw material is Q
  - **Annual Demand of RM = Normal consumption per day * 365 days**

Price-break and EOQ:

- Price break means price moves in class intervals of volume. The class intervals need not be uniform

Step 1: Compute tentative EOQ using normal formula for each class interval. Take the final order quantity as the quantity within the class interval which is closer to computed EOQ

Step 2: Compute the total cost for each of the identified quantity in each class interval. The format to be used for computing total cost is as under:

Qty per order	No of orders	Total Ordering Cost	Average Inventory	Carrying cost/unit	Total Carrying cost	Purchase Price	Material cost	Total inventory cost

Assumptions under-lying EOQ:

- Ordering cost per order and carrying cost per unit per annum are known and they are fixed.
- Anticipated usage of material in units is known
- Cost per unit of the material is constant and is known as well.
- The quantity of material ordered is received immediately i.e. the lead time is zero.

15. What are the various inventory levels?

Level	Definition	Formula
Re-order level	Level at which fresh order for purchase is made	Maximum lead time x maximum usage **(or)** Minimum level + (Normal consumption x Normal lead time)
Re-order quantity	The amount of quantity ordered at the re-order level	ROQ = EOQ
Maximum level	Level beyond which inventory should not be allowed to cross	ROL + ROQ – (Minimum consumption x minimum lead time)
Minimum level	Level below which inventory should not be allowed to fall. This would be below re-order level	ROL – (Normal consumption x Normal lead time)

Average level	The stock a company on an average is expected to hold	(Maximum level + Minimum level) / 2 (or) Minimum level + (ROQ/2)
Danger level	Level at which an emergency order for purchase is made	Normal consumption x Emergency lead time

Drivers of inventory levels:

- Consumption – Number of units consumed. The company can calculate maximum consumption, normal consumption and minimum consumption
- Lead time - Time gap between placing an order and receiving the quantity ordered. The company should identify maximum lead time, minimum lead time and normal lead time
- Lead time and consumption should be expressed in same units of time

16. What is Safety Stock?

- Safety stock is the buffer stock maintained by the company to protect themselves from stock-outs
- The company will have high stock-out cost in case of no safety stock. Alternatively, it has to incur high carrying cost in case safety stock is maintained
- **The company should select the optimum safety stock wherein the total of stock-out cost and carrying cost is the lowest**

17. What is Just in Time approach of inventory management? (May 2018, Nov 2022)

- **JIT is a system of inventory management with an approach to have a zero inventory in stores.** According to this approach material should only be purchased when it is actually required for production
- JIT is based on two principles:
  - Produce goods only when it is required and
  - The products should be delivered to customers at the time only when they want
- **This method is also known as 'Demand Pull' or 'Pull through' system of production**
- It involves the following:
  - Demand for final product
  - Production starts to process the demand for the product
  - Material requirement is sent to the purchase department
  - Order for raw materials sent to supplier
  - Supplier sends the material for production

18. What is ABC analysis?

- ABC analysis is an exercise in exercising better control
- This is based on Pareto's law which is also known as 80:20 rule
- The Pareto's law is applied to do an ABC analysis of materials based on their consumption values in order to lead to the following situations:

Category	Nature	Consumption Value	Consumption Quantity
A	Most Important	High (70%)	Low (10%)
B	Moderately Important	Medium (20%)	Medium (20%)
C	Least important	Low (10%)	High (70%)

Steps in ABC Analysis:

- **Step 1:** Sort the various items in the descending order of their consumption value
- **Step 2:** Compute cumulative value and cumulative quantity at the end of each item of quantity
- **Step 3:** Compute cumulative value as percentage of total value and cumulative quantity as percentage of total quantity
- **Step 4:** Split the various items on the basis of a pre-determined rule such as 60:30:10 or 70:20:10.

Advantages of ABC analysis:

- Continuity in production – It ensures that, without there being any danger of interruption of production for want of materials or stores, minimum inventories will be made in inventories of stocks of materials or stocks to be carried
- Lower cost – The cost of placing orders, receiving and maintaining stocks is minimized if the system is complemented with proper EOQ
- Less attention required – Management time is saved since attention needs to be paid only to some of the items rather than all the items

- Systematic working – With ABC, work connected with purchases can be systematized on a routine basis to be handled by subordinate staff

19. What are the various other ways of inventory classification? [Jul 2021, May 2024 MTP]

HML	High Cost, Medium Cost and Low Cost Inventory	Under this system, inventory is classified on the basis of the cost of an individual item, unlike ABC analysis where inventories are classified on the basis of overall value of inventory
VED	Vital, Essential and Desirable items	Under this system of inventory analysis, inventories are classified on the basis of its criticality for the production function and final product.
FSN	Fast moving, Slow moving and Non moving Inventory	Under this system, inventories are controlled by classifying them on the basis of frequency of usage.

20. What is a Two Bin system?

- Under this system each bin is divided into two parts (smaller and bigger part)
- The smaller part should stock the quantity equal to the minimum stock or even the re-ordering level, and the other to keep the remaining quantity
- Issues are made out of larger part; but as soon as it becomes necessary to use quantity out of smaller part of the bin, fresh order is placed

21. How can budgets help in inventory control?

- Inventory control can be ensured through proper budgets as the same would indicate how much raw materials will be required in future.
- The company should prepare raw material purchase and raw material consumption budget at the beginning of the year to ensure adequate control over material cost

22. What are perpetual records and what are its advantages?

Perpetual inventory represents a system of records maintained by the stores department. It infact comprise of Bin Cards and Stores Ledger. The process to be followed as under:

- Maintain stores ledger containing both quantity and amount
- Maintain stock control cards
- Reconcile the quantity between stores ledger and stock control cards
- Daily checking of quantity between stores ledger and stock control cards. Identify reasons for discrepancies and record the same

Advantages:

- Physical balance can be checked and reconciled on daily basis
- Quick compilation of profit and loss account due to prompt availability of stock figures
- Discrepancies are easily located and thus corrective action can be promptly taken

23. What is continuous stock-taking and its advantages?

- System of continuous stock-taking consists of counting and verifying the number of items daily throughout the year so that all items of stores are covered three or four times
- The stock verifiers are independent of the stores and the stores staff will have no prior knowledge of the items to be verified

Advantages:

- Closure of normal functioning is not necessary
- Stock discrepancies can be brought to notice and corrected much earlier than under the annual stock-taking system
- Movement of stores items can be watched more closely by the stores auditor so that the chances of obsolescence buying are reduced

24. What ratios can be used for controlling material cost?

Input-output ratio:

- Input-output ratio is the ratio of quantity of input of material to the quantity of output.
- The company can compare the standard consumption with actual consumption to identify whether usage of material is favourable or adverse

Inventory Turnover Ratio

- Inventory turnover measures the speed with which the stock of inventory is being used up.
- Inventory turnover ratios can help in categorizing goods as fast-moving and slow-moving items

Inventory Turnover Ratio = RM consumed / Average stock
Number of days inventory is maintained = 365 / Inventory Turnover Ratio

- The material with more inventory turnover ratio and less inventory days is considered as fast-moving item

25. Explain Material issue procedure and the associated documents?

Issue of Material - Material Requisition Note (MRN)	✓ MRN is an authorisation to the store keeper to issue materials. This is used as user's acknowledgement for receipts of materials and forms the basis for material accounting. ✓ MRN should clearly specify the job for which materials are required and the department which gets the materials issued. ✓ Store keeper must ensure that material requisition is signed by an authorised official and that the columns are filled in properly and legibly as any mistake will result in wrong accounting of material issued. The material requisition note should be pre numbered.
Transfer of material – Material Transfer Note (MTN)	✓ The surplus materials of a job or few unsuitable units can either be transferred back to stores or transferred to some other job ✓ MTN is required to be used for recording the transfer from one job to another job
Return of material – Shop Credit Note	✓ The surplus material when it is returned to the storeroom should be accompanied by a shop credit note or alternatively called as stores debit note ✓ This document should be prepared by the department returning surplus material and a copy of this is to be given to stores and costing department

26. What are the various methods for valuation of material issues?

Method and Meaning	Advantages	Disadvantages
Specific Price Method: ✓ This method is used when materials are purchased for a specific job and these materials are issued against the specific job	✓ Cost of materials are issued for production purposes to specific jobs and hence would represent actual and correct costs	✓ Method is difficult to operate when purchases and issues are numerous
First-in-first out method (FIFO) (May 2018) ✓ FIFO method is one in which the issues are priced in the order in which they are purchased	✓ Simple to understand and easy to operate ✓ Closing stock will be represented very closely at current market price	✓ Frequent fluctuation in prices can lead to clerical errors ✓ Each issue of material is related to specific purchase price, the cost charged to the same job are likely to show a deviation from period to period
Last-in-first out method (LIFO) (May 2018) ✓ LIFO method used for pricing the issues ✓ This method is based on the assumption that the last batch purchased is consumed first and hence under this method the prices of the last batch are used for pricing the issues	✓ Cost of material issued will be nearer to and or will reflect the current market price ✓ Over longer run use of LIFO method iron out the fluctuation in profits	✓ Frequent fluctuation in prices can lead to clerical errors ✓ Each issue of material is related to specific purchase price, the cost charged to the same job are likely to show a deviation from period to period ✓ This method of valuation is not acceptable to income tax authorities
Base Lot Method: ✓ Minimum quantity of stock under this method is **always held at a fixed price as reserve in the stock**, to meet the state of emergency, if it arises.		

Method and Meaning	Advantages	Disadvantages
✓ **This minimum stock is known as base stock and is valued at a price at which the first lot of materials is received and remains unaffected** by subsequent price fluctuations. ✓ Base stock of materials are valued at the original cost, whereas, **materials other than the base are valued using other methods like FIFO, LIFO etc.**		
Simple average price method: ✓ Under this method, materials issued are valued at average price, which is calculated by dividing the total of all units rate by the number of purchases	✓ Simple to understand and easy to operate	✓ Material issue cost does not represent actual cost price ✓ Wide fluctuation of prices can lead to incorrect results
Weighted average price method: ✓ Under this method, the weighted average rate is calculated by dividing the total value of purchases with total quantity purchased	✓ Smoothens the price fluctuations ✓ Issue price need not be calculated for each issue unless new lot is purchased	✓ Difficult to compute since every lot purchased would require re-computation of issue prices
Replacement price method: ✓ Material issued are valued at the replacement cost of the items ✓ Replacement cost refers to the price at which it is possible to purchase an item which is being consumed	✓ Product cost reflects the current market prices and it can be compared with the selling price	✓ Determination of market price before each issue of material can be difficult
Realisable price method: ✓ Realisable price means a price at which the materials to be issued can be sold in the market		
Standard price method: ✓ Materials are issued at some pre-determined rate or standard rate irrespective of the actual purchase cost of the materials	✓ Use of standard price method simplifies the task of valuing issues of materials ✓ Facilitates the task of judging the efficiency of the purchase department	✓ Use of standard price does not reflect the market price and thus can result in a profit or loss ✓ Fixation of standard price becomes difficult when prices fluctuate frequently
Inflated price method: ✓ In case material suffers loss in weight due to natural or climatic factors, e.g., evaporation, the issue price of the material is inflated to cover up the losses		
Re-use price method: ✓ When materials are **rejected and returned to the stores** or a processed material is put to some other use, other than for the purpose it is meant, **then such materials are priced at a rate quite different from the price paid for them originally**. There is no final procedure for valuing use of material.		

27. Explain the treatment of special items associated with materials?

Materials returned to vendor	✓ Materials which do not meet quantity and other specifications are considered to be unfit for production and are usually returned to vendor ✓ Materials returned to vendor should be returned at the stores ledger price (invoice price + all charges such as freight, handling charges) and not at the invoice price

	✓ In practice, **only invoice price is considered and the gap between the invoice price and stores ledger price is charged as overhead**. In stores ledger, the defective or sub-standard materials are shown in the issue column at the rate shown in the ledger, and the difference between issue price and invoice cost is debited to an inventory adjustment account
Materials returned to stores	✓ There are two ways of treating the return of material from stores which are ✓ Such returns are entered in the receipt column at the price at which they were originally issued and keep the material in suspense account to be issued at the same price against the next requisition ✓ Include the materials in stock as if they were fresh purchases at the original issue price
Valuation of shortages	✓ Shortages found during physical verification should be entered in the issue column and be valued at the rate as per the method adopted
Normal and abnormal loss of material	✓ Difference between the physical quantity and book quantity has to be accounted as shortage ✓ Normal shortage will be debited to overhead control account and abnormal loss of material will be debited to costing profit and loss account
Waste	✓ Portion of basic raw material lost in processing having no recoverable value ✓ Normal wastage of material – Normal waste is absorbed in the cost of net output ✓ Abnormal wastage of material – Abnormal waste is transferred to costing profit and loss account
Scrap	✓ Scrap is the incidental residue from certain types of manufacture, usually of small amount and low value, recoverable without further processing ✓ **Normal scrap:** The cost of scrap is borne by good units and income arises on account of realisable value is deducted from the cost ✓ **Abnormal scrap**: The scrap account should be charged with full cost. The credit is given to the job or process concerned. The profit or loss in the scrap account, on realisation, will be transferred to the Costing Profit and Loss Account
Spoilage	✓ Materials which are badly damaged in manufacturing operations and cannot be rectified economically are called as spoilage ✓ Normal spoilage is part and parcel of manufacturing process and hence the same is treated as production overhead ✓ Abnormal spoilage is not inherent in the manufacturing process and hence the same is charged to costing profit and loss account
Defectives	✓ Defectives refer to those units which can be rectified and turned into good units by application of additional material, labour or other service ✓ Cost of normal defectives can either be charged to good units or be treated as an overhead ✓ Cost of abnormal defectives are charged to costing profit and loss account
Obsolescence (Nov 2018)	✓ Obsolescence is defined as the loss in the intrinsic value of an asset due to its supersession ✓ Loss arising out of obsolescence are abnormal in nature and hence has to be charged to costing profit and loss account

28. Distinguish between Waste and Scrap? [May 2024]

Waste	Scrap
It is connected with raw material or inputs to the production process.	It is the loss connected with the output
Waste of materials may be visible or invisible.	Scraps are generally identifiable and has physical substance
Generally, waste has no recoverable value.	Scraps are termed as by-products and has small recoverable value.

29. Distinguish between Scrap and Defectives?

Scrap	Defectives
It is the loss connected with the output	This type of loss is connected with the output as well as the input
Scraps are not intended but cannot be eliminated due to the nature of material or process itself	Defectives also are not intended but can be eliminated through a proper control system

Generally, scraps are not used or rectified.	Defectives can be used after rectification
Scraps have insignificant recoverable value.	Defectives are sold at a lower value from that of the good one.

30. Distinguish between Spoilage and Defectives?

- The difference between spoilage and defectives is that while **spoilage cannot be repaired or reconditioned**, defectives can be rectified and transferred, either back to the standard production or to the seconds

31. Discuss the treatment of normal and abnormal scrap in Cost Accounts [May 2024]

Treatment of Scrap

- **Normal**- The cost of scrap is borne by good units and income arises on account of realisable value is deducted from the cost.
- **Abnormal-** The scrap account should be charged with full cost. The credit is given to the job or process concerned. The profit or loss in the scrap account, on realisation, will be transferred to the Costing Profit and Loss Account.

32. HOW is slow moving and non-moving item of stores detected and WHAT steps are necessary to reduce such stocks? [May 2024 MTP, Jan 2025 MTP]

Answer:

The existence of slow moving and non-moving item of stores can be detected in the following ways.

- By preparing and perusing periodic reports showing the status of different items or stores.
- By calculating the inventory turnover period of various items in terms of number of days/ months of consumption.
- By computing inventory turnover ratio periodically, relating to the issues as a percentage of average stock held.
- By implementing the use of a well designed information system.

Necessary steps to reduce stock of slow moving and non-moving item of stores:

- Proper procedure and guidelines should be laid down for the disposal of non-moving items, before they further deteriorates in value.
- Diversify production to use up such materials.
- Use these materials as substitute, in place of other materials.

CHAPTER 3: EMPLOYEE COST AND DIRECT EXPENSES

1. What is labour cost and its types?

- Labour cost is **benefits paid or payable to the employees of an entity**, whether permanent, or temporary for the services rendered by them. Employee cost includes wages and salary, allowances and incentives, payment for overtime, employer's contribution to Provident fund and other welfare funds and other benefits such as leave with pay/subsidized food/leave travel concession
- Labour cost can be broadly classified **as direct labour cost and indirect labour cost**
- Direct labour cost refers to the wages paid to the employees which can be attributed to a cost object in an economically feasible manner. It is the cost incurred for labourers who are directly engaged in the production process.
- Indirect labour cost refers to the wages which cannot be attributed to a particular cost object

2. Distinguish between Direct employee cost and Indirect employee cost?

Direct Employee Cost	Indirect Employee Cost
It is the cost incurred in payment of employees who are **directly engaged in the production process**.	Cost incurred for payment of employees who are **not directly engaged** in the production process.
Direct employee cost can be **easily identified and allocated** to cost unit.	Indirect employee cost **is apportioned** on some appropriate basis
Direct employee cost **varies with the volume of production** and has positive relationship with the volume.	Indirect employee cost **may not vary** with the volume of production.

3. What is labour cost control and important factors for controlling employee cost?

- Labour cost control focuses on **keeping the wages per unit of output as low as possible**. This can be achieved by giving workers appropriate compensation **to encourage efficiency** so that optimum output can be achieved in effective manner.
- Factors which need consideration for controlling labour costs are the following:
  - ✓ Assessment of manpower requirements
  - ✓ Control over time-keeping and time-booking
  - ✓ Time & motion study
  - ✓ Control over idle time and overtime
  - ✓ Control over labour turnover
  - ✓ Wage and Incentive systems
  - ✓ Job evaluation and merit rating
  - ✓ Labour productivity

4. Identify the departments which can help an organization in labour cost control and explain the role played by them.

Personnel Department: • Personnel department searches **for required skills and qualifications**, ensures job-ready individuals, **arranges training**, maintains records, and evaluates performance periodically.
Engineering and Work Study Department: • Department prepares **job specifications**, provides training, **supervises production**, conducts time and motion studies, analyzes, and evaluates jobs.
Time-keeping department: • Concerned with maintenance of attendance records (time keeping) and recording of time spent by an employee on various jobs (time booking)
Payroll department: • Disbursal of salary and wage payments post preparation of payroll of the employees
Cost Accounting department: • Accumulation and classification of employee cost • Analysis and allocation of costs to various **cost centres or cost objects**

5. What is the purpose of collection of labour costs?

- Collection of labour costs is the responsibility of the costing department which record separately wages paid to direct and indirect labour
- Total wages is required to be analysed as under:
  - o Direct wages - Amount included in direct cost of goods produced or goods completed
  - o Indirect wages – Amount treated as indirect labour and hence considered as overheads

- Idle time – Amount treated as idle time and hence loss
- Abnormal loss/gain – Any abnormal item and directly recognized in costing profit and loss account

6. What is time-keeping and its objectives? [Sep 2024 MTP]

- Time-keeping refers to correct recording of the employees' attendance time
- Correct recording of employees' attendance is of **utmost importance where payment to labour is made on the basis of time worked**
- Following are the objectives of time-keeping:
  - For preparation of payrolls
  - For calculating **overtime**
  - For ascertaining and controlling cost
  - For ascertaining **idle time**
  - For disciplinary purposes
  - For **overhead distribution**

7. What are the methods of time-keeping?

Method	Description
	Manual Methods
Attendance Register Method	✓ Under this method an **attendance register is kept** and the time of arrival and departure may be noted by an employee known as time-keeper ✓ Method is **simple and inexpensive and** can be used in small firms where the number of workers is not large
Metal Disk Method	✓ Under this method, each worker is **allotted a metal disk or** a token with a hole bearing his identification number ✓ The workers are required to **remove their respective discs or tokens** from the box kept in the factory. Immediately after the scheduled time for entering the factory, **the box is removed and the late comers will have to personally give the tokens to the time-keeper**. The time-keeper can record the exact time of arrival for the late comers
	Mechanical Methods
Punch Card Attendance System	✓ A punch card is a flat and stiff paper with notches cut in and **contains digital information** ✓ In punch card attendance system, employees use this punch or proximity card for in and/or out ✓ Employees need to wave the card near a reader, which then records the time for the entry in/out of the employee
Bio-metric attendance system	✓ Biometrics has unique recognizing features which are **based on physical or behavioural traits of an individual** ✓ Recognizing an individual on the basis of physical traits include identification based on his fingerprint, DNA, eyes, iris, palm etc. while behavioural traits identification refers to voice or rhythm recognition ✓ Some of the popularly used bio-metrics attendance system are fingerprint recognition system and face recognition

8. What are the requisites of a Good Time-Keeping System? [Nov 2020]

- System of time-keeping should be such **that it does not allow proxy** for another worker
- Provision for **recording attendance of piece workers** so that regular attendance and discipline may be maintained
- **Time of arrival as well as time of departure** of workers should be recorded
- **Late-comers should record late arrivals**. Any relaxation by the timekeeper in this regard will encourage indiscipline
- Method of recording **should be mechanical** so that chances of disputes regarding time may not arise between workers and time-keeper
- **Simple, smooth and quick**. Unnecessary queuing at the factory gate should be avoided

9. What is time-booking and what are its objectives? [Sep 2024 MTP]

- Time-keeping merely records the amount of time spent by a person in the factory and the same is used for calculation of wages

- **Time-booking helps in analysing how the total time has spent in the factory on various jobs and waiting time**. Reasons for waiting time is also recorded such as lack of material, lack of instructions, machine breakdown, power failure etc.
- Following are the objectives of time-booking:
  - **Time booking for costing:** The time spent on a particular job or activity is used to compute the cost of the job or activity
  - **Time booking to measure efficiency:** The efficiency of the employees is measures by comparing the **actual time taken by an employee with the standard time** that should have been taken.
  - **Time booking for fixation of responsibility:** The reasons for variance is further classified as controllable and uncontrollable. **The controllable reasons are those which can be avoided by due care and efficiency**. On the other hand, uncontrollable reasons cannot be avoided under the normal circumstances. **Employees or any other concerned person or departments are made accountable for variance under controllable reasons**

10. What is a time (or job) card and what are its types?

- Record used to collect time-booking data is called as time card or job card

Types:

- **One containing analysis of time with reference to each job:** A separate job card is employed in respect of a job undertaken; where a job involves several operations, a separate entry is made in respect of each operation.
- **The other with reference to each employee:** Under this system, a separate card would be used for each employee for each day or for each week and the time **which he spends on different jobs (and also any idle time) would be recorded in the** same card so that the card would have a complete history on it as to how his time had been spent during the period.

11. What are the procedures involved in payroll processing?

Procedure	Description
Attendance and time details	✓ Detailed number of days or hours worked by each employee and units or percentage of work as reflected in time keeping records are sent to the payroll department by the time keeping department
List of employees and other details	✓ List of employees on roll and the rate at which they would be paid is sent by the personnel/HR department to the payroll department
Computation of wages and other incentives	✓ Payroll department based on details provided by personnel and time-keeping department calculate wages/salary to be paid to the employees
Payment to the employees	✓ Cost/accounting department deduct all statutory deduction such as employee's contribution to provident fund and employees state insurance (ESI) scheme and then makes the payment to the employees
Deposit of all statutory liabilities	✓ All statutory deduction made from employees along with employer contribution are paid to the respective statutory bodies

12. What are the general deductions from payroll?

Type of Deduction	Description
Statutory Deductions	
Provident Fund	✓ Employee's contribution to the provident fund is deducted from the salary/wage of the concerned employee
Employee state insurance (ESI)	✓ Employee's contribution to the ESI is to be deducted from wages. The current ESI contribution is 1.75 percent of wages
Tax deducted at source (TDS)	✓ Employer is obliged to deduct tax at source if the payment to the employee is beyond the exemption limit
Professional Tax	✓ Professional tax is imposed at state level and the same is imposed on owners, working individuals, merchants and people carrying out various occupations
Other Deductions	
Voluntary contribution to provident fund	✓ If any employee desires to contribute a higher amount to provident fund, then the employer should deduct the same and deposit in provident fund
Contribution to any benevolent fund	✓ Voluntary contribution to any benevolent fund needs to be deducted from wages
Loan deductions	✓ Instalments of any loan taken by the employee
Other advances and dues	✓ Other advances like festival advance and unadjusted advances taken

13. What is idle time and its accounting treatment? (May 2019 RTP, Jan 2025 MTP)

Meaning	✓ It is a time during which no production is carried out **because the worker remains idle even though they are paid**.
Types	✓ Normal idle time and abnormal idle time
Normal idle time	✓ It is the time which cannot be avoided or reduced in the normal course of business ✓ **Causes:** o Time lost between factory gate and place of work o Interval between one job to another o Setting up time for machine o Normal fatigue ✓ **Treatment:** o **It is treated as part of cost of production** o Direct workers – An allowance for normal idle time is built into the labour cost rates o Indirect workers – **Normal idle time is treated as factory overhead** and spread over all products/jobs
Abnormal idle time	✓ It is the idle time in addition to normal idle time due to certain abnormal factors ✓ **Causes:** o Lack of coordination o Power failure o Breakdown of machines o Non-availability of raw material, strikes, lockouts ✓ **Treatment:** o Abnormal idle time is not considered as part of production cost and is shown as a separate item in the costing profit and loss account

14. What is overtime and explain its accounting treatment? (May 2019 RTP)

- **Work beyond normal working hours** is known as 'overtime work'
- The rate for overtime work is higher than the normal time rate and is usually at double the normal rates
- As per Factories Act 1948 "Where a worker works in a factory **for more than nine hours in any day** or **for more than forty-eight hours in any week**, he shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages"

Causes of overtime and treatment of overtime premium in cost accounting:

Causes	Treatment
Where overtime is worked regularly as a policy due to labour shortage	Overtime premium is treated as part of labour cost and job is charged at average inflated wage rate
Customer may agree to bear the entire charge of overtime because of urgency	Overtime premium is to be charged to the job directly
Overtime to make up for any shortfall in production due to some unexpected development	Overtime premium should be treated as overhead cost of the particular department or cost centre which works overtime
Overtime may be necessary to make up a shortfall in production due to some fault of management	Overtime is worked in a department due to fault of another department, then overtime premium is charged to the latter department
Overtime due to abnormal conditions such as flood, earthquake	Overtime on account of abnormal conditions should not be charged to cost but to costing profit and loss account

15. Discuss the effect of overtime on productivity? [May 2025 MTP]

Overtime work should be resorted to only when it is extremely essential because it involves extra cost. The overtime payment increases the cost of production in the following ways:

- The overtime premium paid is an extra payment in addition to the normal rate.
- The efficiency of operators during overtime work may fall and thus output may be less than normal output.
- In order to earn more the workers may not concentrate on work during normal time and thus the output during normal hours may also fall.
- Reduced output and increased premium of overtime will bring about an increase in cost of production.

16. What is labour turnover and methods to calculate the same?

- Labour turnover is the rate of change in the composition of labour force during a specified period measured against a suitable index

$$\text{Replacement method} = \frac{\text{Number of employees replaced}}{\text{Average work force}} \text{ x } 100$$

$$\text{Separation method} = \frac{\text{Number of employees Separated}}{\text{Average work force}} \text{ x } 100$$

$$\text{Flux method} = \frac{\text{Replacements} + \text{Separations} + \text{New recruitments}}{\text{Average work force}} \text{ x } 100$$

$$\text{New recruitment method} = \frac{\text{Number of New recruitments}}{\text{Average work force}} \text{ x } 100$$

$$\text{Accession method} = \frac{\text{New recruitments} + \text{Replacements}}{\text{Average work force}} \text{ x } 100$$

$$\textbf{Equivalent Employee Turnover rate} = \frac{\textbf{Employee turnover rate}}{\textbf{No of days in period}} \textbf{ x 365}$$

17. What are the Causes of Labour Turnover?

Causes of labour turnover can be broadly classified under the following three heads:

- Personal Causes
  - Change of jobs for betterment
  - Premature retirement
  - Domestic problems and family responsibilities
  - Discontent over the job and working environment
- Unavoidable Causes
  - Seasonal nature of business
  - Shortage of raw material, power, slack market for the product
  - Change in the plant location
  - Disability, making a worker unfit for work
  - Disciplinary measures
  - Marriage
- Avoidable Causes
  - Dissatisfaction with job, remuneration, hours of work
  - Strained relationship with management, supervisors
  - Lack of training facilities and promotional avenues
  - Lack of recreational and medical facilities
  - Low wages and allowances

18. What are the Effects of Labour Turnover?

High Labour Turnover increases the cost of production in the following ways:

- Even flow of production is disturbed
- Efficiency of new workers is low and hence costs go up
- Increased cost of training and induction
- New workers cause increased breakage of tools and wastage of materials
- Cost of recruitment and training increases

19. What are the Costs associated with Labour Turnover?

- **Prevention Costs:** These include costs incurred to keep the labour turnover at a low level. If a company incurs high prevention costs, the rate of labour turnover is usually low
- **Replacement Costs:** These are costs which arise due to high labour turnover. The company has to incur additional costs on new workers for recruitment, training, costs of inefficiency and wastage

20. What are the remedial steps to minimize Labour Turnover? [May 2024 MTP]

- Exit Interview
- Job Analysis and Evaluation
- Scientific system of recruitment, placement and promotion
- Enlightened attitude of management
- Use of committee

21. What are the advantages and disadvantages of Premium Bonus Method?

Halsey Premium System:

- Under Halsey premium plan a standard time is fixed for each job or process. **If there is no saving on this standard time allowance, the worker is paid only his day rate**. He gets his time rate even if he exceeds the standard time limit, since his day rate is guaranteed
- If, however, he does the job in less than the standard time, **he gets a bonus equal to 50 percent of the wages of time saved**

Advantages:

- Time rate is guaranteed while there is opportunity for increasing earnings by increasing production.
- The system is equitable in as much as the employer gets a direct return for his efforts in improving production methods and providing better equipment

Disadvantages:

- Incentive is not so strong as with piece rate system. In fact the harder the worker works, the lesser he gets per piece
- The sharing principle may not be liked by employees

Rowan Premium System [Jul 2021]

- According to this system a standard time allowance is fixed for the performance of a job and bonus is paid if time is saved. **Under Rowan System the bonus is that proportion of the time wages as time saved bears to the standard time.**

Advantages:

- It is claimed to be a fool-proof system in as much as a worker can never double his earnings even if there is bad rate setting.
- It is admirably suitable for encouraging moderately efficient workers as it provides a better return for moderate efficiency than under the Halsey Plan
- The sharing principle appeals to the employer as being equitable

Disadvantages:

- The system is a bit complicated.
- The incentive is weak at a high production level where the time saved is more than 50% of the time allowed.
- The sharing principle is not generally welcomed by employees

22. What is Group Bonus?

- ❖ Group bonus refers to the bonus paid for the collective efforts made by a group of workers
- ❖ The amount of bonus is distributed among the individual members of the group on some agreed basis
- ❖ Under group bonus scheme, bonus is paid to a team/group of employees working together

23. Explain the accounting treatment of items related to wages?

Wages	❖ Wages comprise various components namely basic wages, dearness allowance, overtime allowance, production bonus, PF and ESI contribution among others ❖ Wage cost per hour = Total wages cost / Number of hours
Holiday wages	❖ **Option 1:** Payment on account of paid holiday and leave can be treated as departmental overheads ❖ **Option 2:** Consider it as part of normal wages and inflate the wage cost per hour for costing purposes
Night shift allowance	❖ To be treated as overheads

24. What is direct expense and explain its accounting treatment? (May 2019)

- ❖ Expenses other than direct material and direct labour which can be directly traced in an economically feasible manner to a cost object
- ❖ **Examples: Royalty, Hire Charges, Cost for product/service specific design or drawing**
- ❖ Direct expenses are measured at invoice or agreed price net of rebate or discount but includes duties and taxes, commission and other directly attributable costs
- ❖ **Treatment:** Direct expenses form part of prime cost for the product or service for which it can be directly traceable. In case of lump-sum payment the amount can be amortized over the estimated production volume. Furthermore, if the expenses are of insignificant amount then the same can be treated as part of overheads

25. Describe briefly idle time and Explain the treatment of idle time in cost accounts in following situations:

(i) The setting up time for the machine in case of Direct Worker Mr. A.
(ii) Normal break time for lunch in case of Indirect Worker Mr. B.
(iii) Time lost due to breakdown of machine in case of Worker Mr. C.
(iv) The time lost between factory gate and the place of work
(v) The interval between one job and another
(vi) Idle time may also arise due to abnormal factors like lack of coordination
(vii) Power failure, Breakdown of machines

Answer:

The time during which no production is carried-out because the worker remains idle but are paid. In other words, it is the difference between the time paid and the time booked. Idle time can be normal or abnormal.

Situation	Idle Time	Treatment
The setting up time for the machine in case of Direct Worker Mr. A	Normal Idle Time	It is treated as a part of cost of production. It is to be considered while setting of standard hours or standard rate.
Normal rest time, break time for lunch in case of Indirect Worker Mr. B	Normal Idle Time	It is to be considered for the computation of overhead rate.
Time lost due to break down of machines in case of Worker Mr. C	Abnormal Idle Time	It is to be shown as a separate item in the Costing Profit and Loss Account.
The time lost between factory gate and the place of work	Normal Idle Time	It is treated as a part of cost of production. Thus, in the case of direct workers an allowance for normal idle time is considered setting of standard hours or standard rate. In case of indirect workers, normal idle time is considered for the computation of overhead rate
The interval between one job and another	Normal Idle Time	It is treated as a part of cost of production. Thus, in the case of direct workers an allowance for normal idle time is considered setting of standard hours or standard rate. In case of indirect workers, normal idle time is considered for the computation of overhead rate
Idle time may also arise due to abnormal factors like lack of coordination	Abnormal Idle Time	Abnormal idle time cost is not included as a part of production cost and is shown as a separate item in the Costing Profit and Loss Account.
Power failure, Breakdown of machines	Abnormal Idle Time	Abnormal idle time cost is not included as a part of production cost and is shown as a separate item in the Costing Profit and Loss Account.

26. EXPLAIN the efficiency rating procedures of the employees. [Sep 2024 MTP]

Efficiency is usually related with performance and may be computed by comparing the time taken with the standard time allotted to perform the given job/task. If the time taken by a worker on a job equals or less than the standard time, then he is rated efficient. In case he takes more time than the standard time he is rated as inefficient.

$$\text{Efficiency \%} = \frac{\text{Time allowed as per standard}}{\text{Time Taken}} \text{ x } 100$$

For efficiency rating of employees the following procedures may be followed:

- **Determining standard time/performance standards:** The first step is to determine the standard time taken by a worker for performing a particular job/task. The standard time can be determined by using Time & Motion study or Work study techniques. While determining the standard time for a job/task a heterogeneous group of workers is taken and contingency allowances are added for determining standard time.
- **Measuring Actual Performance of workers:** For computing efficiency rating it is necessary to develop a procedure for recording the actual performance of workers. The system developed should record the output of each worker along with the time taken by him.
- **Computation of efficiency rating:** The efficiency rating of each worker can be computed by using the above mentioned Formula.

CHAPTER 4: OVERHEADS – ABSORPTION COSTING METHOD

1. What is overheads cost?

- Overheads are the expenditure which cannot be conveniently traced to or identified with any particular cost unit.
- Overheads are incurred for output generally and not for any particular work order
- Overheads also represent expenses that have been incurred in providing certain ancillary facilities or services which facilitate the production process

2. What are the various classification of overheads?

<table>
<tr><td colspan="3"><u>Classification by Function:</u></td></tr>
<tr>
<td><u>Factory or Manufacturing or Production Overheads:</u>
❖ Factory overheads is the indirect cost incurred for manufacturing activity
❖ It includes all indirect expenses incurred from procurement of material to completion of production
❖ <u>Example:</u> Stock-keeping expenses, Repairs & maintenance of plant</td>
<td><u>Office and Administrative overheads:</u>
❖ Expenditure incurred on all activities relating to general management and administration
❖ It will include all expenses which is not related directly to production, selling, distribution, research or development activity
❖ <u>Example:</u> Salary paid to office staff, Depreciation of office building</td>
<td><u>Selling & Distribution Overheads:</u>
❖ Expenses related to sale of products and include all indirect expenses in sales management
❖ Distribution cost which include all expenses for making the product available for sale in market
❖ <u>Example:</u> Salesman Commission, Advertisement cost, Delivery van expenses</td>
</tr>
<tr><td colspan="3">Classification by Nature:</td></tr>
<tr>
<td><u>Fixed Overheads:</u>
❖ Fixed overheads are those expenses that remain unaffected by fluctuations in the levels of production
❖ <u>Example:</u> Depreciation, Insurance</td>
<td><u>Variable Overheads:</u>
❖ These costs tend to vary with the volume of production
❖ <u>Example:</u> Power, tools and spares</td>
<td><u>Semi-variable Overheads:</u>
❖ These costs contain both fixed and variable components and hence are partly affected by fluctuations in the level of activity
❖ <u>Example:</u> Electricity cost, Repairs & Maintenance</td>
</tr>
<tr><td colspan="3"><u>Classification by Element:</u></td></tr>
<tr>
<td><u>Indirect Material:</u>
❖ Material which do not normally form part of the finished product
❖ <u>Example:</u> Stores used for machines, consumables for machines</td>
<td><u>Indirect Labour:</u>
❖ Labour costs which cannot be directly allocated to cost units
❖ <u>Example:</u> Salary paid to foreman, salary for administrative staff</td>
<td><u>Indirect expenses:</u>
❖ Expenses which cannot be directly allocated to cost centre
❖ <u>Example:</u> Rent & rates, Insurance, Depreciation</td>
</tr>
<tr><td colspan="3"><u>Classification by Controllability</u></td></tr>
<tr>
<td colspan="2"><u>Controllable costs:</u>
❖ Costs which can be controlled by the implementation of appropriate managerial influence and policies
❖ <u>Example:</u> Material costs, Wages & Salaries</td>
<td><u>Uncontrollable costs:</u>
❖ Costs which cannot be controlled even after implementation of appropriate managerial influence and policies
❖ <u>Example:</u> Rent & rates, Depreciation</td>
</tr>
</table>

3. What are the advantages of classifying overheads into fixed and variable?

- **<u>Controlling expenses:</u>** Classification of expenses into fixed and variable helps in controlling expenses. Fixed costs are generally unavoidable and hence cannot be controlled whereas variable costs are generally avoidable and hence can be controlled
- **<u>Preparation of Budget Estimates:</u>** Fixed and variable cost classification is required for preparation of flexible budget. Cost classification can help in identifying the cost at various levels of activity
- **<u>Decision making:</u>** Decision like price to be charged, shut-down of factory, introduction of new product, acceptance of new contract can be done with accurate cost classification.

4. What is allocation, apportionment and absorption of overheads?

Term	Meaning

Cost Centre	Location, Machinery, Individual or department with reference to which costs are collected
Apportionment	Distribution of costs to various cost centres and profits centres (production department) on suitable basis
Allocation	Allotting whole item of cost to a cost centre or a profit centre
Primary overhead distribution	The overheads of the company are distributed to the production departments and service department either by a process of allocation or apportionment
Secondary overhead distribution	The total cost of the service department including its direct cost are transferred to the production department
Profit centre	Centre that generates revenues or profits
Cost driver	It is the factor which drives or causes a cost to take place
Absorption	It is a process by which the overheads of the company are charged to the jobs on the basis of the resources consumed

5. Distinguish between Allocation and Apportionment?

Allocation	Apportionment
Allocation **deals with the whole items of cost**, which are identifiable with any one department. For example, indirect wages of three departments are separately obtained and hence each department will be charged by the respective amount of wages individually.	Apportionment **deals with the proportions of an item of cost** for example; the cost of the benefit of a service department will be divided between those departments which has availed those benefits.
Allocation is a **direct process of charging** expenses to different cost centres	Apportionment is an **indirect process because there is a need for the identification** of the appropriate portion of an expense to be borne by the different departments benefited

6. How to compute cost of a job?

- **Step 1:** Prepare primary overhead distribution statement
- **Step 2:** Prepare secondary overhead distribution statement
- **Step 3:** Compute overhead absorption rate using the formula
  - OAR = Budgeted overheads/Budgeted suitable base
- **Step 4:** Compute cost of the job using the following format:

Particulars	Amount
Direct Material	XXX
Direct Labour	XXX
Overheads (OAR * Actual suitable base)	XXX
Total cost	**XXX**
Profit	XXX
Selling Price	**XXX**

7. What is the basis of absorbing different overheads? (Nov 2018)

Overhead cost	Bases of apportionment
❖ Rent and Building expenses ❖ Lighting and heating ❖ Fire precaution service ❖ Air-conditioning	Floor area, or volume of department
❖ Perquisites ❖ Labour welfare expenses ❖ Time-keeping ❖ Personnel office ❖ Supervision	Number of workers
❖ Compensation to workers ❖ Holiday pay ❖ ESI and PF contribution ❖ Perquisites	Direct wages
❖ General overhead	Direct labour hour or Direct wages or Machine hours
❖ Depreciation of plant and machinery	Capital values

❖ Repairs and maintenance of plant and machinery ❖ Insurance of stock	
❖ Power/steam consumption ❖ Internal transport ❖ Management salaries	Technical estimates
❖ Lighting expenses (light)	No of light points or Area of Metered units
❖ Electric Power (Machine Operation)	HP of machines * Machine hours or Horse value of machines or Number of machine hour or value of machines or units consumed
❖ Material handling ❖ Stores overhead	Weight of materials or volume of materials or value of materials or unit of materials

8. What is the basis of Re-apportionment of service department expenses over production department?

Service Department	Basis
❖ Maintenance and repair shop ❖ Planning and progress ❖ Tool room	Direct labour hours, machine hours, Direct wages, Asset value * hours worked
❖ Canteen and welfare ❖ Hospital and dispensary ❖ Personnel department	No of employees
❖ Time-keeping	No of cards punched, No of employees
❖ Computer section	Computer hours
❖ Power house (lighting)	No of light points or floor area
❖ Power house (Power)	Horse Power x Machine hours, Horse Power, KWH
❖ Stores department	No of requisitions, weight or value of materials used
❖ Transport department	Crane hours, truck hours
❖ Fire protection	Capital values
❖ Inspection	Inspection hours

9. What are the methods for re-apportionment of overheads (Secondary overhead distribution)?

- ❖ Direct re-distribution method
- ❖ Step method or non-reciprocal method
- ❖ Reciprocal service method
  - o Simultaneous equations method
  - o Trial and error method
  - o Repeated distribution method

10. How does direct re-distribution method work?

- ❖ This method is used when one service department does not serve another service department
- ❖ The cost of service department (including direct cost of service department) is distributed to the various production departments
- ❖ The sequence in which the cost of the service department is taken up for distribution is not relevant

11. Explain Step method or non-reciprocal method?

- ❖ This is used when one service department serves another service department but in turn is not served by the other service department
- ❖ The sequence of service department taken up for distribution is important
- ❖ The service department which has served the maximum number of service departments is taken up first for distribution. In case there is a tie in the number of departments served then the ranking is done on the basis of the percentage of service offered
- ❖ Once the cost of service department has been served out, there will be no service back to the department

12. Explain Simultaneous equations method in detail?

- ❖ This method is used when one service department serves the other department and is in turn served by the other department
- ❖ Following steps are to be used in this method:
  - o **Step 1:** Let the total cost of S1 after all transfers be X and the total cost of S2 after all transfers be Y
  - o **Step 2:** Following equations are made:

- X = Primary overhead of S1 + Direct cost of S1 + % transfer from S2
- Y = Primary overhead of S2 + Direct cost of S2 + % transfer from S1

- **Step 3:** Solve the two equations and get X and Y
- **Step 4:** Distribute the amount of X and Y to the other departments in the specified ratio

13. How does repeated distribution method work?

- This method is used when one service department serves the other department and is in turn served by the other department
- Following steps are to be used in this method:
  - **Step 1:** Distribute the total cost of S1 to all production departments and to the other department which it serves. This reduces the value of S1 to Zero
  - **Step 2:** Distribute the revised total cost of S2 to all departments and to the other service department it serves. This reduced the value of S2 to Zero
  - **Step 3a:** While the cost of S1 was reduced to zero in step 1 it has now attained a value on account of distribution from S2. This cost must be redistributed to all production and other service department which it serves
  - **Step 3b:** While the cost of S2 was reduced to zero in step 2 it has now attained a value on account of distribution from S1. This cost must be redistributed to all production and other service department which it serves
  - **Step 4:** Repeat step 3 a number of times until the values of S1 and S2 become insignificant

14. Explain the working of Trial and error method?

- This method is used when one service department serves the other department and is in turn served by the other department
- **Step 1:** Distribute the cost of S1 department to the other service department to the extent of its share
- **Step 2:** Distribute the revised cost of S2 department to the other department to the extent of its share
- **Step 3:** Redistribute the cost between S1 and S2 until the values of both department become insignificant
- **Step4:** Compute the sum of distributed amount. This amount will be same as X and Y of simultaneous equations method
- **Step 5:** Distribute the amount of X and Y to the other departments in the specified ratio

15. What are the various methods of absorbing overheads to various products?

- The method selected for charging overheads should ensure the following:
  - ✓ Overheads charged (or recovered) in a period does not differ materially from the actual expenses incurred in the period
  - ✓ Amount charged to individual jobs or products is equitable
- Following are the commonly used method for absorbing overheads:
  - ✓ Percentage of direct materials
  - ✓ Percentage of prime cost
  - ✓ Percentage of direct labour cost
  - ✓ Labour hour rate
  - ✓ Machine hour rate and
  - ✓ Rate per unit of output

Formula for overhead absorption rate = Budgeted overheads / Budgeted suitable base

16. Explain machine hour rate method in detail?

- Machine hour rate method is the most popular method of absorbing overheads and the same is calculated with the following formula
- OAR = Budgeted overheads / Effective machine hours

Steps for computation of machine hour rate:

- **Step 1:** Compute budgeted overheads relatable to the machine
- **Step 2:** Compute effective machine hours.
- **Step 3:** Compute machine hour rate. MHR = Step 1/Step 2

Variants of Machine Hour Rate Method:

- **Direct Machine Hour rate Method:** Under this method only the expenses directly or immediately connected with the operation of the machine are taken into account

- **Comprehensive Machine Hour Rate Method:** It will be obvious, however, that in addition to the expenses stated above **there may still be other manufacturing expenses such as** supervision charges, shop cleaning and lighting, consumable stores and shop supplies, shop general labour, rent and rates, etc. incurred for the department as a whole and, hence, not charged to any particular machine or group of machines. **We will also include wages paid to machine operator in order to compute Comprehensive Machine Hour rate.**

17. How is multiple machine hour rate calculated?

- Comprehensive machine hour rate includes the cost of wages attributable to the working of the machine
- When a machine performs two different operations in respect of which costs are consumed differently, each operation of the machine will have different machine hour rate
- **Example:** A printer can do either colour or black & white printing. The charges for colour printing will be different while the charges for black & white printing will be different as the resourced consumed are different

Steps in computation of multiple machine hour rate:

- **Step 1:** Compute common cost – Common costs are those cost which are commonly and jointly incurred across various operations
- **Step 2:** Compute specified cost – Specific cost refers to those cost which is specifically incurred for one operation or one in respect of which the cost per hour is different for two activities
- **Step 3:** Compute specific hours – Specific hours refer to total number of hours spent on each operation
- **Step 4:** Compute common hours – Common hours means the number of hours across which the common cost is to be distributed. It is the total of specific hours

MHR = Common cost/hour + Specific cost/hour
Common cost/hour = Common costs/common hours
Specific cost/hour = Specific costs/specific hours

18. What are the different types of overhead rates? [Jan 2021]

Normal rate	This rate is calculated by dividing the actual overheads by actual base Normal OH rate = Actual OH / Actual base
Pre-determined overhead rate	This rate is determined in advance by estimating the amount of OH for the period in which it is used. Pre-determined rate = Budgeted OH / Budgeted base
Blanket overhead rate	This refers to the computation of one single overhead rate for the whole factory Blanket rate = Total OH / Total base
Department overhead rate	It refers to the computation of one single overhead rate for a particular production unit or department Departmental rate = Departmental OH / Departmental base

19. Explain the treatment of under/over absorption of overheads? [May 2024 MTP]

- Overhead expenses are usually applied to production on the basis of pre-determined rates. However the actual rate is determined at the end of the year and there can be variation between the actual rate and pre-determined rate
- Variation between actual rate and pre-determined rate will lead to under/over absorption of overheads at the end of the year
- Treatment of under/over absorption is presented below:

When under/over absorption is very small	Transfer the entire amount to costing profit & loss account
Large under/over absorption due to abnormal reasons	Transfer the entire amount to costing profit & loss account
Large under/over absorption due to normal reasons	Calculate supplementary recovery rate (SRR) and charge the amount to units sold, units unsold and units in process SRR = **Amount of normal under-absorption / Units produced (including WIP)**

Note: Under/over absorption overheads can also be carried forward to the next year and recovered in the next year

20. Explain the accounting treatment of administrative overheads?

- Administrative overhead constitutes the expenses incurred in connection with activities which cannot be directly related to production, marketing, research or development

❖ Following are the three methods of accounting for administrative overheads:

Apportioning between production and sales	✓ Apportion the admin OH to the production and sales departments as these two departments are benefitted out of administration department ✓ Under this method admin OH loses its identity and gets merged with production and selling overheads
Charging to costing P&L account	✓ Under this method the entire amount of admin OH is transferred to costing P&L. This is because admin OH is not directly linked to sales and production activity and hence difficult to find suitable basis for distributing the overheads
Treating admin OH as a separate addition to cost of production/sales	✓ Under this method the admin OH are shown as a separate cost item while preparing the cost sheet and the amount is not merged with production/sales activity

21. What are the ways to Control Administrative Overheads?

✓ Admin OH are generally fixed in nature and hence are non-controllable. However we cannot allow admin OH to increase disproportionately and hence some degree of control is to be exercised on them

✓ Admin OH can be controlled through following ways
- Classification and analysis of overheads by administrative departments according to their functions and a comparison with accomplished results
- Control through budgets
- Control through standard

22. Explain the accounting treatment of selling and distribution overheads?

❖ Selling expenses are those expenses which are incurred for the purpose of promoting the marketing and sales of different products. Distribution expenses are those expenses that are related to delivery and dispatch of goods

❖ Selling overheads are to be apportioned to various products/services on appropriate basis such as units sold, value of sales, no of salesman among others

23. What are the ways to Control selling and distribution OH? [Jan 2025]

✓ Controlling selling and distribution OH is a difficult task as these expenses are normally incurred based on external factors

✓ Selling and distribution OH can be controlled through following ways
- Comparison with past performance
- Budgetary control
- Standard costing

24. What are the different forms of capacity?

Installed/rated capacity	✓ Maximum capacity of producing goods or providing services ✓ It is also known as theoretical capacity as the same cannot be achieved in normal operating circumstances
Practical capacity	✓ Practical capacity takes into account loss of time due to repairs, maintenance, minor breakdown among others ✓ It is also called as net capacity or available capacity
Normal capacity	✓ Normal capacity is the volume of production or services achieved or achievable on an average over a period under normal circumstances. This is calculated based on expected sales
Actual capacity	✓ It is the capacity actually achieved during a given period
Idle capacity	✓ It is that part of the capacity of a plant which cannot be effectively utilized in production
Normal idle capacity	✓ Difference between installed capacity and normal capacity
Abnormal idle capacity	✓ Difference between normal capacity and actual capacity

25. What is the accounting Treatment of idle capacity cost? [May 2025 MTP]

Idle capacity cost due to unavoidable reasons such as Repairs & maintenance, changeover of job	Use supplementary overhead rate to recover the idle capacity cost
Idle capacity cost due to unavoidable reasons such as faulty planning, power failure	Charge to costing profit & loss account

Idle capacity cost due to seasonal factors	Charge to cost of production by inflating overhead rates

26. Explain the accounting treatment of certain special items?

Depreciation	✓ Depreciation is the diminution in the value of asset due to use/lapse of time ✓ Depreciation is to be treated as indirect cost and traced to the appropriate function
Interest and Finance Charges	✓ Interest paid on long-term funds is ignored in cost accounts ✓ **However, any payment in nature of interest for use of non-equity funds and incidental cost that an entity incurs in arranging those funds will form part of cost sheet and presented as a separate line item of cost of sales**
Packing expenses	✓ Primary packing is to be treated as part of cost of production and the secondary packing is to be treated as selling overhead
Fringe benefits	✓ Fringe benefits are extra benefits given to employees apart from their salary and allowances ✓ If the value of fringe benefits is very large then the same to be treated as part of direct wages ✓ If the benefits are not large then the same can be treated as part of production overheads
Bad debts	✓ Bad debt can be treated in two different ways ✓ One view is that it is related to sales activity and hence to be treated as selling overhead ✓ Another view is that it is related to financial loss and hence therefore should not be included in the cost of a particular job or product
Training expenses	✓ Training expenses are necessary to provide the requisite skills to the employees ✓ Training expense should be traced to the appropriate function and can be treated as factory/administrative/selling overhead
Canteen expenses	✓ Canteen expense should be traced to the appropriate function and can be treated as factory/administrative/selling overhead
Carriage and cartage expenses	✓ Expenses relating to transportation of direct material (incoming) be treated as part of direct material cost ✓ Expenses relating to transportation of indirect material (incoming) be treated as part of factory overhead ✓ Expenses relating to transportation of finished goods (outgoing) be treated as part of selling overhead
Expenses for welfare activities	✓ Expenses incurred on welfare activities are part of general overheads and should be distributed between factory, office and selling function on the basis of number of employees
Night shift allowance	✓ Workers in the factories which operate during night time are paid some extra amount known as night shift allowance ✓ If this is due to normal reasons then it can be treated as part of direct wages ✓ If this is incurred due to some specific customer then the same is to be charged to the concerned customer ✓ If night shifts are due to abnormal reasons then the same is to be charged to costing profit & loss account
Research and Development expenses	✓ Research refers to the expenses incurred for searching a new or improved product, new application of materials or new or improved methods ✓ Research is treated either as production/administration/selling OH depending on the function for which research is undertaken ✓ Development expense are incurred in connection with a particular product and should be charged directly to the product. It will be treated as a deferred revenue expenditure and recovered as a cost per unit of the product when production is fully established
Expenses on removal and re-erection of machines	✓ Expenses on removal and re-erection of machines are to be treated as production overheads ✓ When amount of such expenses is large, it may be spread over a period of time ✓ If such expenses are incurred due to faulty planning or some other abnormal factor, then **they may be charged to costing Profit and Loss Account**

27. DISCUSS in brief three main methods of allocating support departments costs to operating departments. [Jan 2025 MTP]

- **Direct re-distribution method:** Under this method, support department costs are directly apportioned to various production departments only. This method does not consider the service provided by one support department to another support department.
- **Step method:** Under this method the cost of the support departments that serves the maximum numbers of departments is first apportioned to other support departments and production departments. After this the cost of support department serving the next largest number of departments is apportioned. In this manner we finally arrive on the cost of production departments only.
- **Reciprocal service method:** This method recognises the fact that where there are two or more support departments they may render services to each other and, therefore, these inter-departmental services are to be given due weight while re-distributing the expenses of the support departments. The methods available for dealing with reciprocal services are:
    - Simultaneous equation method
    - Repeated distribution method
    - Trial and error method

CHAPTER 5: ACTIVITY BASED COSTING

1. What are the factors prompting development of ABC?

- Growing overhead costs because of increasingly automated production
- Increasing market competition and hence the need for accurate costs
- Increasing product diversity to secure economies of scope and increased market share
- Decreasing costs of information processing

2. Explain the situations in which ABC is useful? [Sep 2024 MTP, Jan 2025 MTP]

- High amount of overhead
- Wide range of products
- Presence of non-volume related activities
- Stiff competition

3. What is ABC?

- ABC is an accounting methodology that assigns costs to activities rather than products or services
- ABC assigns cost to activities based on their use of resources. It then assigns costs to cost objects, such as products or services, based on their use of activities

4. Explain the various terms associated with ABC?

Activity	Activity refers to an event that incurs cost
Cost object	It is an item for which cost measurement is required
Cost driver	It is a factor that causes a change in the cost of an activity. It can either be a resource cost driver or activity cost driver
Resource cost driver	It is a measure of quantity of resources consumed by an activity
Activity cost driver	It is a measure of frequency and intensity of demand placed on activities by cost objects
Cost pool	It represents a group of various individual cost items having same cause effect relationship

5. Differentiate ABC and traditional absorption costing system?

Activity Based Costing	**Traditional Absorption Costing**
Overheads are related to activities and grouped into activity cost pools	Overheads are related to cost centers/departments
Costs are related to activities and hence are more realistic	Costs are related to cost centers and hence not realistic
Activity-wise cost drivers are determined	Time is assumed to be the cost driver governing costs in all departments
Activity-wise recovery rates are determined and there is no concept of single overhead recovery rate	Either multiple overhead recovery rates are determined or a single overhead recovery rate may be determined for absorbing overheads
Costs are assigned to cost objects	Costs are assigned to cost units
Essential activities can be simplified and unnecessary activities can be eliminated. Thus, the corresponding costs are also reduced/ minimized. **Hence ABC aids cost control**	Cost Centers/ departments cannot be eliminated. **Hence, not suitable for cost control.**

6. What are the different types of activities under ABC? [Nov 2020]

Activities basically fall into four different categories, known as the manufacturing cost hierarchy. These categories were first identified by Cooper in 1990 and help to determine the type of activity cost driver required. The categories are:

(i) **Unit level activities:** These are activities for which the consumption of resources can be identified with the number of units produced. E.g. Use of indirect materials, Inspection or testing of every item produced or say every 100th item produced, Indirect consumables, etc.

(ii) **Batch level activities:** The costs of some activities (mainly manufacturing support activities) are driven by the number of batches of units produced. These are activities related to setting up of a batch or a production run. The costs of such activities vary with the number of batches made, but is fixed for all units within that batch. E.g. Production scheduling, Material movement, Machine set up costs, Inspection of products – like first item of every batch, etc.

(iii) **Product level activities:** The costs of some activities (often once only activities) are driven by the creation of a new product line and its maintenance. These are activities performed to support different products in the product line. E.g. Designing the product, Producing parts to a certain specification, Advertising costs, if advertisement is for individual products, etc.

(iv) **Facility level activities:** These are activities necessary for sustaining the manufacturing process and cannot be directly attributed to individual products. E.g. Maintenance of buildings, Plant security, Production manager's salaries, Advertising campaigns promoting the co., etc.

7. What are various stages in ABC implementation?

- Identify the different activities within the organization
- Relate the overheads to the activities
- Support activities are then spread across the primary activities
- Determine the activity cost drivers
- Calculate activity cost driver rate for each activity
    - Activity cost driver rate = Total cost of activity / activity driver

8. Give some examples of Cost Drivers for the various Activity Pools?

Activity Cost Pools	Related Cost Drivers
Ordering and Receiving Materials cost	Number of purchase orders
Setting up machines costs	Number of Set-ups
Machining costs	Machine hours
Assembling costs	Number of parts
Inspecting and testing costs	Number of tests
Painting costs	Number of parts
Supervising Costs	Direct Labour hours

9. Cost Drivers [Nov 2022]

PP Limited is in the process of implementation of Activity Based Costing System in the organisation. For this purpose, it has identified the following Business Functions in its organisation:
(i) Research and Development (ii) Design of Products, Services and Procedures (iii) Customer Service (iv) Marketing (v) Distribution You are required to specify two cost drivers for each Business Function Identified above

Answer:

Business Function	Cost Driver
Research and Development	• Number of research projects • Personnel hours on a project • Technical complexities of the project
Design of products, services and procedures	• Number of products in design • Number of parts per product • Number of engineering hours
Customer Service	• Number of service calls • Number of products serviced • Hours spent on servicing products
Marketing	• Number of Advertisements • Number of sales personnel • Sales revenue
Distribution	• Number of units distributed • Number of customers • Weight of items distributed

10. What are the advantages and limitations of ABC?

Advantages:	Limitations:
✓ Accurate costing of products/services ✓ Overhead allocation is done on logical basis ✓ Enables better pricing policies ✓ Utilizes unit cost rather than just total cost	✓ More expensive than traditional method ✓ Not helpful for small organization ✓ May not be applied to organization with very limited products ✓ Selection of most suitable cost driver may not be helpful

✓ Help to identify non-value added activities ✓ Helpful to organization with multiple product ✓ Highlights problem areas which require attention	

11. What are the requirements of ABC implementation?

- ❖ Staff Training
- ❖ Process specification
- ❖ Activity definition
- ❖ Activity driver selection
- ❖ Assigning cost

12. How ABC can be used as a decision-making tool?

- ❖ ABC with other techniques can be used to improve performance and profitability
- ❖ Wholesale distributors can gain significant advantage in the decision making process by correlating costs to various activity
- ❖ Can assist in decisions related to facility and resource expansion
- ❖ Decision support for human resource can be augmented
- ❖ Companies who wish to determine price based on cost plus markup basis find ABC method of costing very relevant

13. What is activity based management?

- ❖ Use of ABC as a costing tool to manage costs at activity level is known as activity based cost management (ABM)
- ❖ ABM focuses on efficient and effective management of activities to continuously improve the value received by customers
- ❖ Various analysis of ABM include:
    - o **Cost driver analysis** – Cost driver analysis identifies the casual factors that causes a cost to take place
    - o **Activity analysis** – Activities are classified into valued-added activities and non-value added activities. Valued added activities are those activities which are indispensable in order to complete the process. Non-value added activity represents work that is not valued by the external or internal customer
    - o **Performance analysis** – Identification of appropriate measures to report the performance of activity centers
- ❖ ABM can be used for cost reduction, business process re-engineering, benchmarking and performance assessment

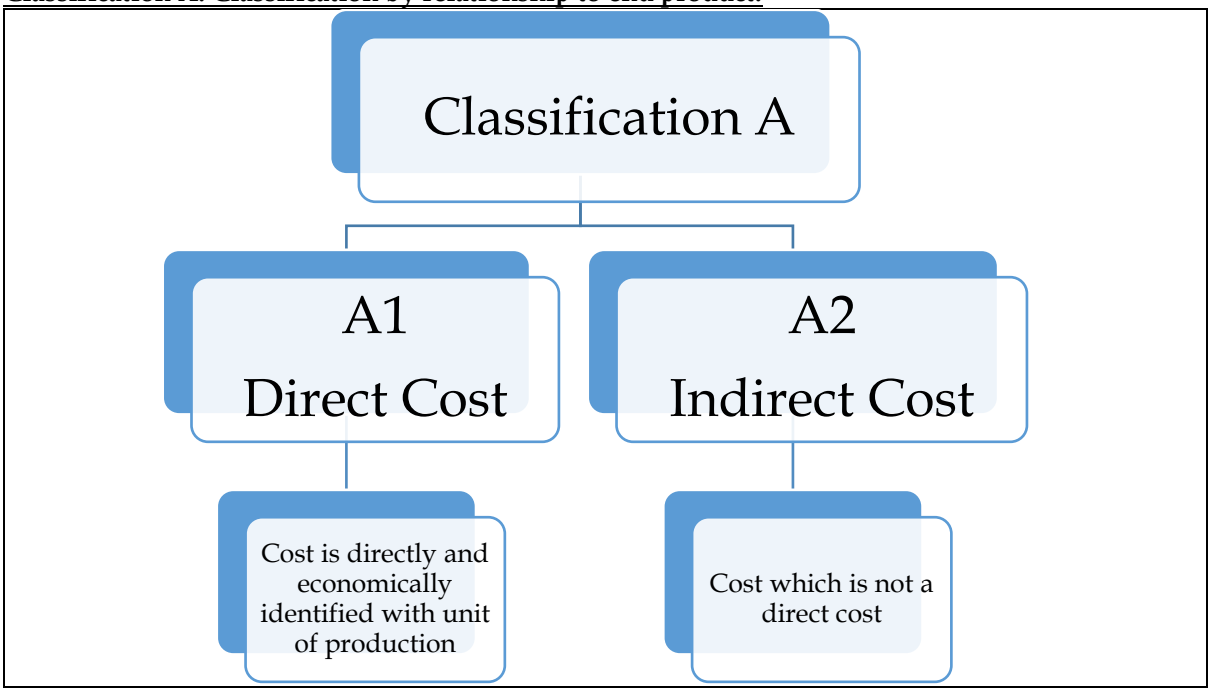
14. What is activity based budgeting? (Nov 2018)

- ❖ Activity based budgeting (ABB) analyse the resource input or cost for each activity
- ❖ It provides a framework for estimating the amount of resource required in accordance with budgeted level of activity. Actual results can be compared with budgeted results to highlight discrepancies
- ❖ It means planning and controlling the expected activities of the organization to derive a cost-effective budget that meets forecast workload and agreed strategic goals
- ❖ Key elements of ABB are type of work/activity to be performed, quantity of work/activity to be performed and cost of work/activity to be performed.
- ❖ **Benefits:** ABB can enhance accuracy of financial forecasts. It can also rapidly and accurately produce financial plans and models. ABB eliminates much of the needless work created by traditional budgeting techniques

CHAPTER 6: COST SHEET

Classification of costs:

Classification A: Classification by relationship to end product:



Explanation:

- The term directly means instantly or spontaneously
- The term economically means cost of identifying as direct cost should be cost effective

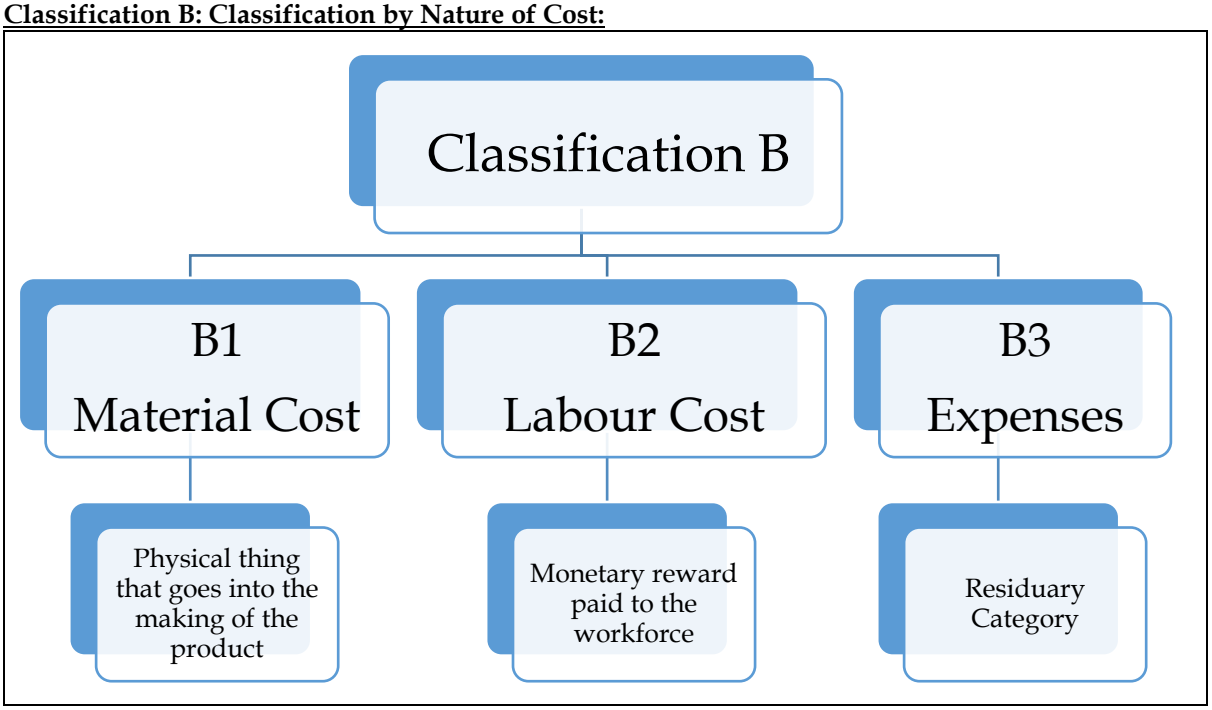
Example:

- Cloth in the making of shirt – Direct Cost
- Leather in the making of shoe – Direct Cost
- Thread in the making of shirt – Indirect Cost – This is because it is not cost-effective to find out how much of a thread went into the production

PRINCIPLE NO.1:

DIRECTLY IDENTIFIABLE	ECONOMICALLY IDENTIFIABLE	TYPE OF COST
YES	YES	DIRECT
YES	NO	INDIRECT
NO	NO	INDIRECT
NO	YES	INDIRECT

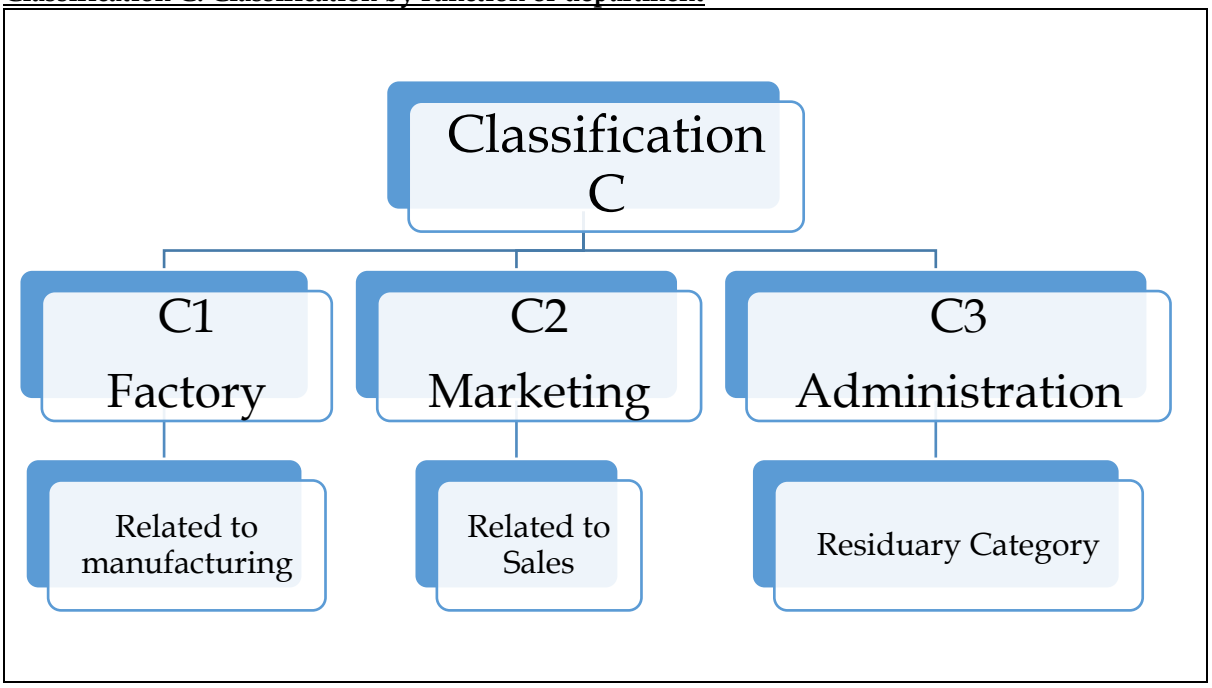
Classification B: Classification by Nature of Cost:



Examples:

- Cloth in the making of shirt – Material cost
- Wages paid to the tailor – Labour cost
- Rent in the organisation - Expenses

Classification C: Classification by function or department



PRINCIPLE NO.2:

- CLASSIFICATION A,B OR C ARE NOT MUTUALLY EXCLUSIVE
- THE SUB-CLASSIFICATION WITHIN A CLASSIFICATION IS HOWEVER MUTUALLY EXCLUSIVE. FOR EXAMPLE AN ITEM OF COST CAN BE EITHER DIRECT OR INDIRECT COST BUT CANNOT BE BOTH

Construction of Cost-Sheet:

- Sub-classification A1 (Direct Cost) is combined with sub-classification B1, B2 and B3 to arrive at
  - Direct Material
  - Direct Labour
  - Direct Expenses
- Sub-classification A2 is combined with C1, C2 and C3 to arrive at
  - Factory overheads

- Selling & Distribution Overheads
- Administration Overheads

Indicative list of expenses along with classification:

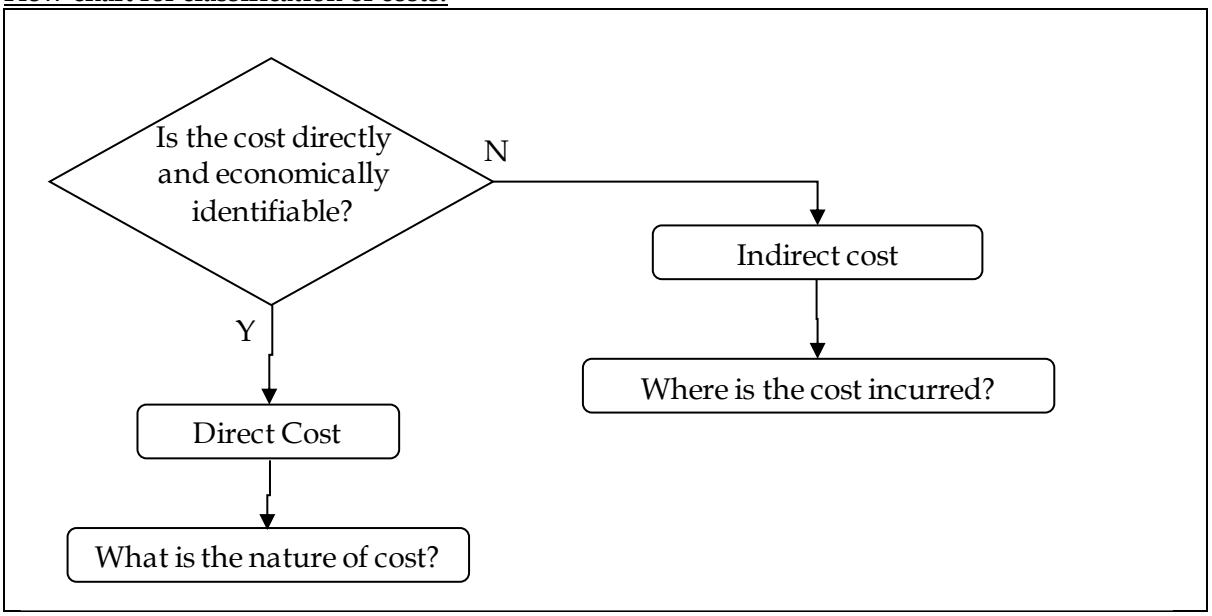
DIRECT MATERIAL • Cost of material • Freight inwards • Insurance and other expenditure directly attributable to procurement • Trade discounts or rebates (to be deducted); • Duties & Taxes (if input tax credit is not available/ availed) etc.	**DIRECT EMPLOYEE (LABOUR) COST** • Wages and salary • Allowances and incentives • Payment for overtimes • Bonus/ ex-gratia; • Employer's contribution to welfare funds such as Provident fund and other similar funds; • Other benefits (medical, leave with pay, free or subsidised food, leave travel concession and provisions for retirement benefits) etc
DIRECT EXPENSES • Cost of utilities such as power & fuel, steam etc.; • Royalty paid/ payable for production or provision of service; • Hire charges paid for hiring specific equipment; • Fee for technical assistance and know-how; • Amortised cost of moulds, patterns, patents etc.; • Cost for product/ service specific design or drawing; • Cost of product/ service specific software; • Other expenses which are directly related with the production of goods or provision of service.	**FACTORY OVERHEADS** • Consumable stores and spares; • Depreciation of plant and machinery, factory building etc. • Lease rent of production assets; • Repair and maintenance of plant and machinery, factory building etc. • Indirect employees cost related with production activities; • Drawing and Designing department cost; • Insurance of plant and machinery, factory building, stock of raw material & WIP etc. • Amortized cost of jigs, fixtures, tooling etc. • Service department cost such Maintenance, Pollution Control etc.
GENERAL ADMIN OVERHEADS • Depreciation and maintenance of, building, furniture etc. of corporate or general management. • Salary of administrative employees, accountants, directors, secretaries etc. • Rent, rates & taxes, insurance, lighting, office expenses etc. • Indirect materials- printing and stationery, office supplies etc. • Legal charges, audit fees, corporate office expenses like directors' sitting fees, remuneration and commission, meeting expenses etc.	**SELLING OVERHEADS** • Salary and wages related with sales department and employees directly related with selling of goods. • Rent, depreciation, maintenance and other cost related with sales department. • Cost of advertisement, maintenance of website for online sales, market research etc.
DISTRIBUTION OVERHEADS • Salary and wages of employees engaged in distribution of goods. • Transportation and insurance costs related with distribution. • Depreciation, hire charges, maintenance and other operating costs related with distribution vehicles etc.	

Format of Cost-Sheet:

Particulars	Amount	Amount

Direct Material Consumed		
Opening stock of RM	XXX	
Add: Purchases and other incidental expenses	XXX	
Less: Closing stock of RM	(XXX)	XXX
Direct employee (labour) cost		XXX
Direct expenses		XXX
Prime cost		**XXX**
Add: Works/factory overheads		XXX
Gross Works Cost		**XXX**
Add: Opening work-in-progress		XXX
Less: Closing work-in-progress		(XXX)
Works/factory cost		**XXX**
Add: Quality control cost		XXX
Add: Research and development cost		XXX
Add: Administrative overheads relating to production		XXX
Less: Credit for recoveries/scrap		(XXX)
Add: Primary packing cost		XXX
Cost of Production		**XXX**
Add: Opening stock of FG		XXX
Less: Closing stock of FG		(XXX)
Cost of goods sold		**XXX**
Add: General administrative overheads		XXX
Add: Selling and distribution overheads		XXX
Cost of sales		**XXX**
Profit		XXX
Sales		XXX

Flow-chart for classification of costs:

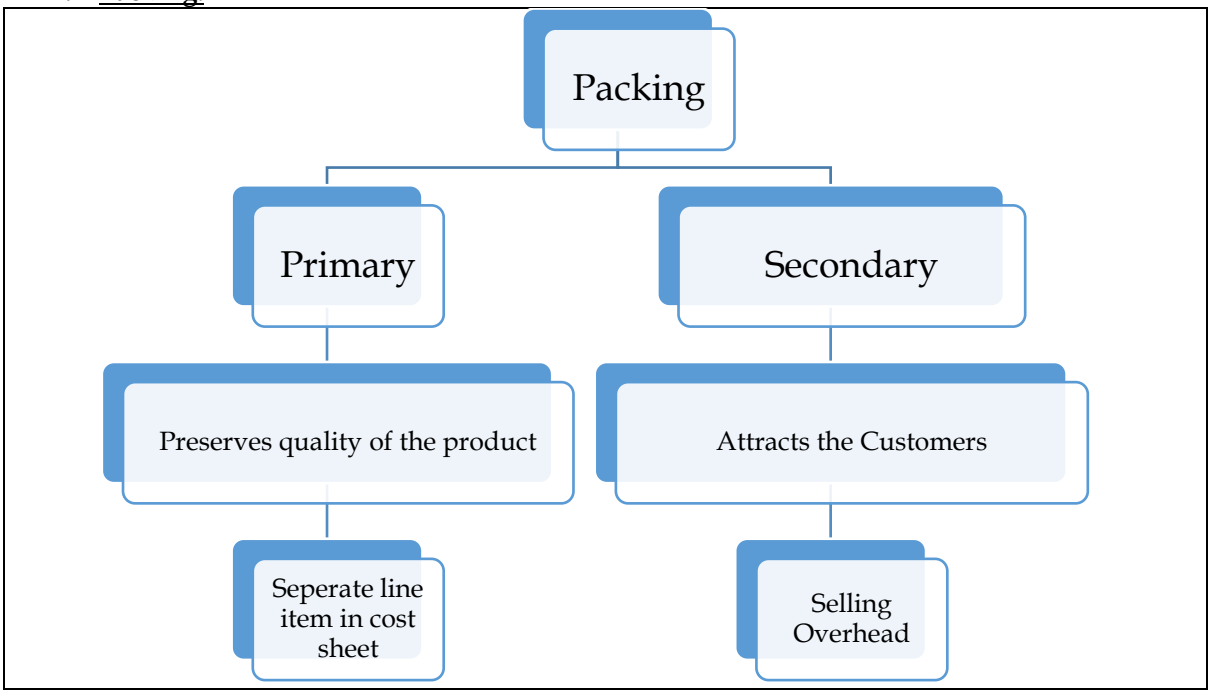


Explanation:

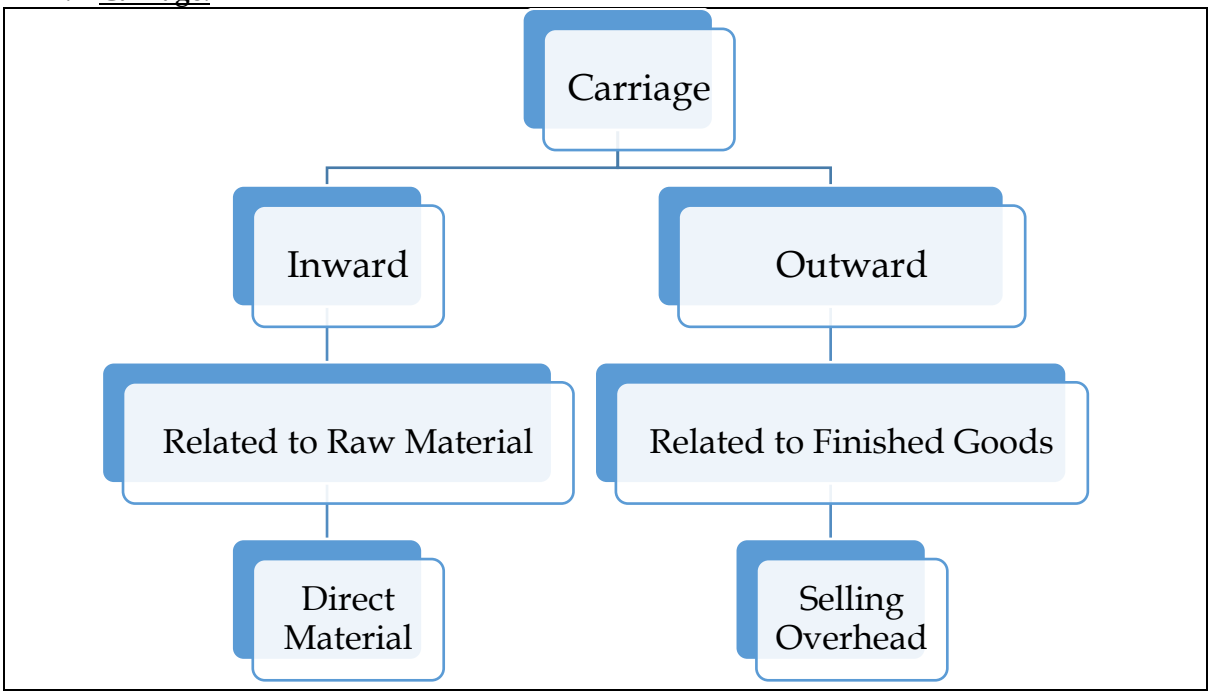
- In the case of direct cost the question to be raised is "What is the nature of cost"?
- In the case of indirect cost the question to be raised is "Where is cost incurred"?

Treatment of few items of cost:

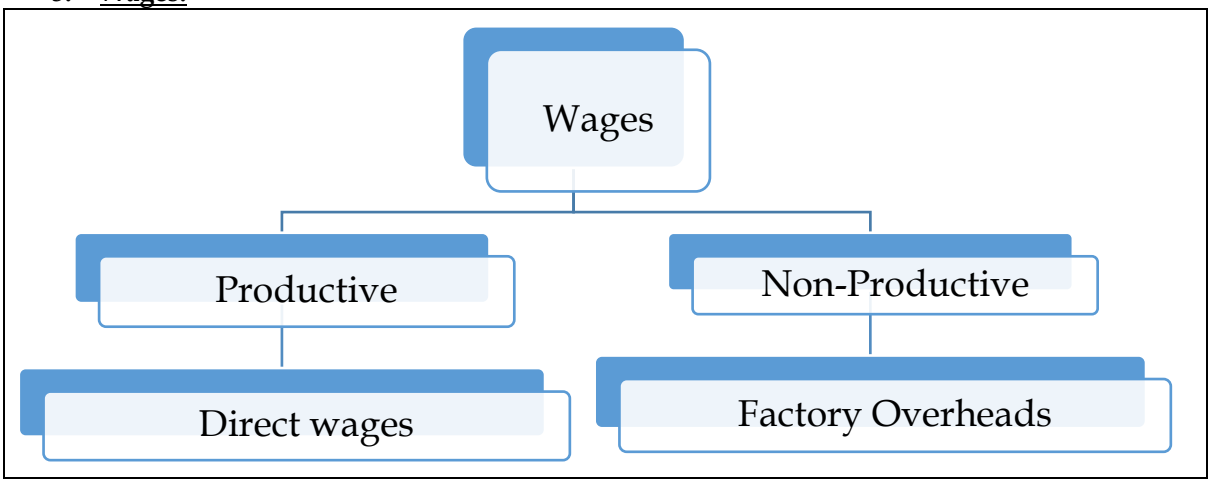
1. **Packing:**



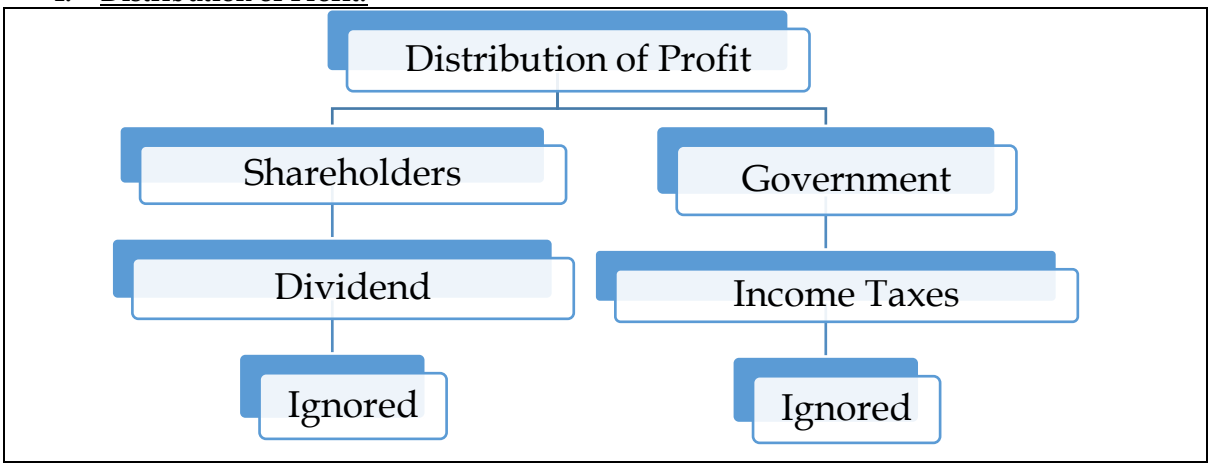
2. **Carriage:**



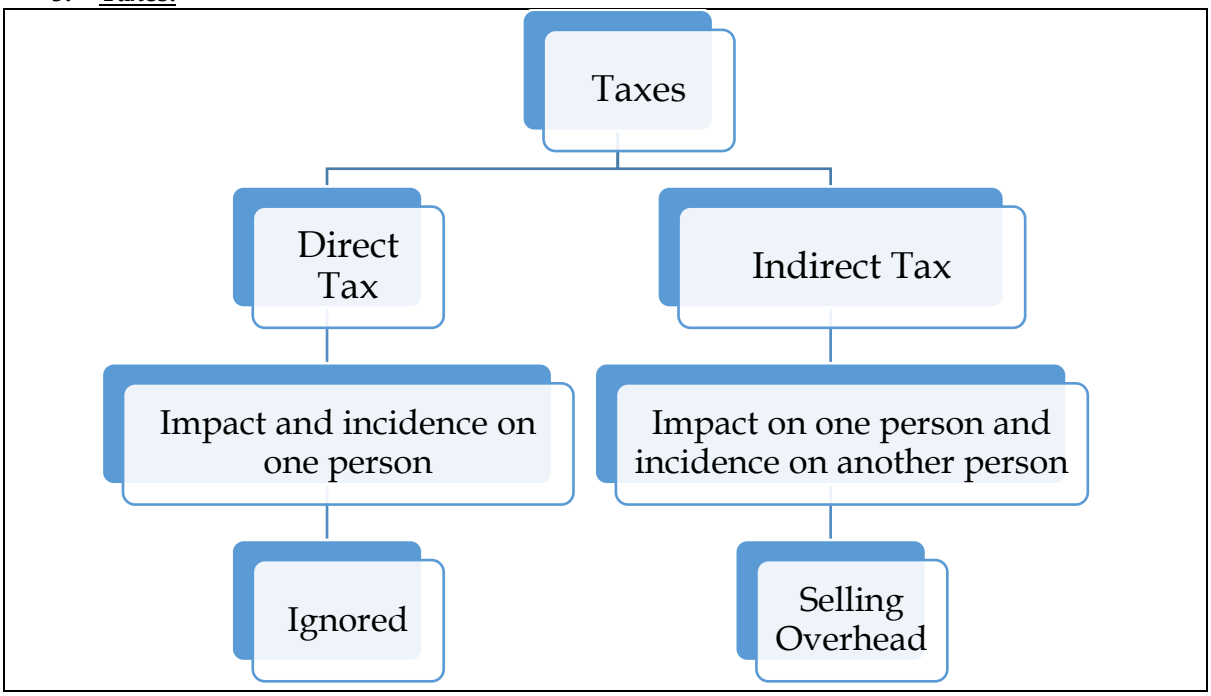
3. **Wages:**



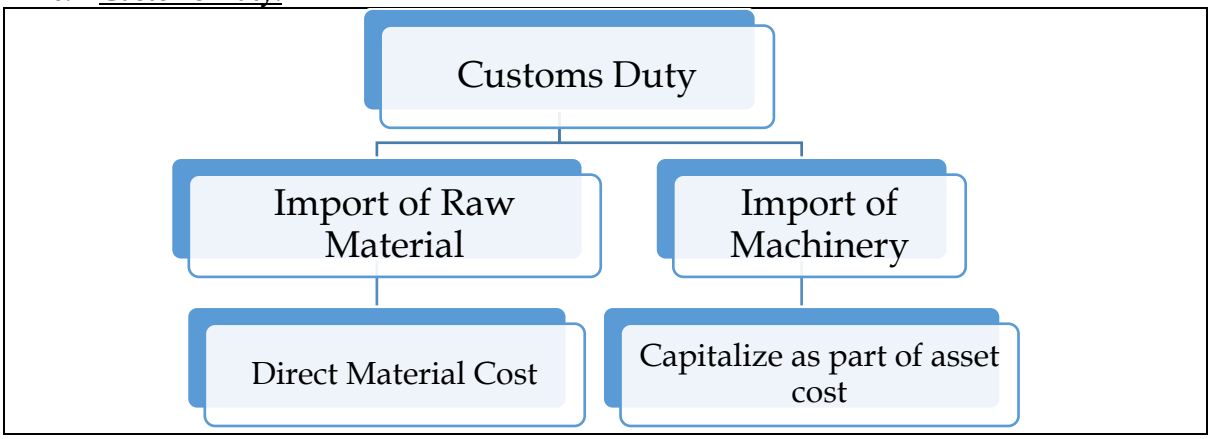
4. **Distribution of Profit:**



5. **Taxes:**



6. **Customs Duty:**



7. **Special Items:**

Abnormal Costs	Any abnormal cost, where it is material and quantifiable, shall not form part of cost of production or acquisition or supply of goods or provision of service. Example: Cost pertaining to or arising out of a pandemic e.g. COVID-19 (or) Cost associated with employees due to **sudden lockdown**
Subsidy/Grant/Incentives	Any such type of payment received/ receivable **are reduced** from the cost objects to which such amount pertains
Penalty, fine, damages, and demurrage	These types of expenses are not form part of cost.
Interest and other finance costs	Interest, including any payment in the nature of interest for use of non-equity funds and incidental cost that an entity incurs in arranging those funds. Interest and finance charges are not included in cost of production. **Interest and Financing Charges shall be presented in the cost statement as a separate item of cost of sales.**

Methods of Valuation of FG:

- **FIFO Method:** Closing stock is to be valued based on FIFO Method in case the closing stock comes entirely from current year production
- **Weighted Average Cost Method:** Closing stock is to be valued under weighted average cost method in case the closing stock comes partly from current year production and partly from last year production

8. **EXPLAIN the treatment of following items in cost sheet. [Sep 2024 MTP]**

(i) Credit for recoveries

(ii) Packing Cost (primary)
(iii) Joint Products and By-Products
(iv) Quality Control Cost

Answer:

- **Credit for Recoveries:** The realised or realisable value of scrap or waste is deducted as it reduces the cost of production.
- **Packing Cost (primary):** Packing material which is essential to hold and preserve the product for its use by the customer is added in the factory cost.
- **Joint Products and By-Products:** Joint costs are allocated between/among the products on a rational and consistent basis. In case of by-products, the net realisable value of by-products is deducted from the cost of production.
- **Quality Control Cost:** It is added in the factory cost as this is the cost of resources consumed towards quality control procedures.

CHAPTER 7: COST ACCOUNTING SYSTEM

1. What are the two methods of maintaining cost accounting records?

Cost accounting records can be maintained under the following two systems

- Non-Integrated – Cost and financial accounting records are maintained separately
- Integrated – Cost and financial accounting records are integrated

2. What is non-integrated accounting system?

- System in which **separate ledgers** are being maintained for cost and financial accounts
- Under this system the cost accounts records **only those transactions which relate to the product or service being provided**. Hence transactions like interest, bad debts, miscellaneous income, income taxes etc. are ignored in this system
- An advantage of non-integrated accounting system is that **it would record notional expenses** like rent on own premises facilitating comparison amongst factories
- NIA system does not record all accounts and hence items of accounts which are excluded are represented by account called **cost ledger control account**.

3. What are the ledgers maintained under non-integrated system? [May 2024 MTP]

Ledger	Description
Cost Ledger Control Account	✓ This is also known as General Ledger Adjustment Account. This account is used to complete double entry
Stores Ledger Control Account	✓ This account records all inflow (debited) and outflow (credited) of raw material. ✓ Normal loss of raw material is transferred to overhead account whereas abnormal loss of raw material is transferred to costing profit and loss account
Wages Control Account	✓ This account is debited with entire wages paid. ✓ Direct wages is transferred to WIP control account and indirect wages is transferred to factory overhead control account. ✓ Wages for abnormal idle time is transferred to costing profit and loss account ✓ Non-productive of direct workers is to be treated as indirect wages and the same will be transferred to factory overhead control account
Manufacturing/ Production/ Works/ Factory Overhead Control Account	✓ This account is debited with overheads incurred ✓ The account is credited with overheads recovered and the same is transferred to WIP control account ✓ The difference between debit and credit side is under/over absorption of overheads. This amount can be either carried forward to next year or be transferred to costing profit & loss account
Work-in-progress control account	✓ This account is debited with cost of production which would include Direct Material, Direct Labour, Direct Expenses and Factory overheads ✓ The production for the current year will be transferred to finished goods control account and the same would be credited in this account
Administration overhead control account	✓ This account is debited with overheads incurred ✓ The account is credited with overheads recovered and the same is transferred to FG Control account ✓ The difference between debit and credit side is under/over absorption of overheads. This amount can be either carried forward to next year or be transferred to costing profit & loss account
Finished Goods Control Account	✓ This account is debited with value of goods transferred from work-in-progress and administration overheads recovered. ✓ This account is credited with cost of units sold during the year and the same is transferred to cost of sales account
Selling and Distribution Overhead Control Account	✓ This account is debited with overheads incurred ✓ The account is credited with overheads recovered and the same is transferred to cost of sales account ✓ The difference between debit and credit side is under/over absorption of overheads. This amount can be either carried forward to next year or be transferred to costing profit & loss account

Ledger	Description
Cost of sales account	✓ This account is debited with cost of finished goods transferred from FG account as well as selling and distribution overheads account ✓ This account is closed by transferring the balance to costing profit and loss account
Sales account	✓ This account is credited with sales and the same is transferred to costing profit and loss account
Costing Profit and Loss Account	✓ This account records cost of sales, sales and under/over absorbed overheads ✓ Profit/loss for the year is transferred to cost ledger control account

4. What are the journal entries under NIA system?

Transaction	Journal Entry
Entries relating to raw material:	
Purchase of raw material	Stores Ledger Control A/c Dr To Cost Ledger Control A/c
Purchases for special job	WIP Control A/c Dr To Cost Ledger Control A/c
Return of materials to vendor	Cost Ledger Control A/c Dr To Stores Ledger Control A/c
Materials issued to production	WIP Control A/c Dr To Stores Ledger Control A/c
Materials issued for maintenance	FOH/AOH/SOH Control A/c Dr To Stores Ledger Control A/c
Material returned from shop to stores	Stores Ledger Control A/c Dr To WIP Control A/c
Normal loss of raw material	FOH Control A/c Dr To Stores Ledger Control A/c
Abnormal loss of raw material	Costing P& L A/c Dr To Stores Ledger Control A/c
Entries relating to direct wages	
Payment of wages	Wages control A/c Dr To Cost Ledger Control A/c
Analysis of wages into direct and indirect wages	WIP Control A/c Dr (Direct) FOH Control A/c Dr (Indirect) To Wages Control A/c
Abnormal idle time	Costing P& L A/c Dr To Wages Control A/c
Entries relating to direct expenses	
Incurrence of direct expenses	WIP Control A/c Dr To Cost Ledger Control A/c
Entries relating to overheads	
Incurrence of FOH / AOH / SOH	FOH / AOH / SOH Control A/c Dr To Cost Ledger Control A/c
Recovery of Manufacturing overheads	WIP Control A/c Dr To FOH Control A/c
Recovery of Administration overheads	FG Control A/c Dr To AOH Control A/c
Recovery of Selling Overheads	Cost of Sales A/c Dr To SOH Control A/c
Under recovery of overheads	Costing P& L A/c Dr To FOH/AOH/SOH Control A/c
Over recovery of overheads	FOH / AOH / SOH Control A/c Dr To Costing P & L A/c
Other entries	
Completion of production during the year	FG Control A/C Dr To WIP Control A/c
Recording cost of goods sold	Cost of sales A/c Dr To FG Control A/c

Transaction	Journal Entry
Recording sales	Cost Ledger Control A/c Dr To Sales A/c
Transfer of cost of sales	Costing P & L A/c Dr To Cost of sales A/c
Transfer of sales	Sales A/c Dr To Costing P&L A/c
Recording of Profit for the year	Costing P&L A/c Dr To Cost Ledger Control A/c
Recording of loss for the year	Cost Ledger Control A/c Dr To Costing P&L A/c

5. What is integrated accounting system? (May 2023 RTP, May 2019, Nov 2020, May 2024 MTP, Sep 2024 MTP)

- ❖ Integrated accounts is a system of accounting whereby both cost and financial accounts are kept in the same set of books
- ❖ The system can provide information for finding out cost of a product or service as well as information to prepare a profit and loss account and balance sheet

Advantages	Pre-requisites
✓ No need for reconciliation ✓ Less efforts ✓ Less time consuming ✓ Economical process	✓ Stage of integration is to be decided. Some companies can integrate up to the stage of primary cost and some companies prefer full integration of the entire accounting records ✓ Coding system must be prepared ✓ Perfect coordination between the staff responsible for financial and cost accounting must be ensured

6. What are the features of integrated accounting system?

- ❖ Complete details of all cost, sales, cash transactions, all assets and liabilities are kept
- ❖ Notional transactions like rent on own premises is not recorded
- ❖ Journal entries are similar to NIA. However entries having cost ledger control account will get replaced with such as Bank Account, Debtors Account, Creditors Account and Provision for depreciation account

7. Why reconciliation of profits under cost and financial accounts are necessary? (May 2022 RTP, May 2024 MTP, Jan 2025 RTP)

When the cost and financial accounts are kept separately, it is imperative to reconcile the profits under both systems due to following reasons:

a) Items included in financial accounts but not in cost accounts:
   a. Appropriation of profits
      i. Income-tax
      ii. Transfer to reserve
      iii. Dividends paid
      iv. Goodwill preliminary expenses written off
   b. Pure financial items
      i. Interest, dividends
      ii. Losses on sale of investments
      iii. Expenses of Co's share transfer office
      iv. Damages & penalties

b) Items included in cost accounts but not in financial accounts
   a. Opportunity cost of capital
   b. Notional rent
   c. Under/over absorption of expenses in cost accounts
   d. Different bases of inventory valuation

8. "Is reconciliation of cost accounts and financial accounts necessary in case of integrated accounting system?" explain. [OR] WHEN is the reconciliation statement of Cost and Financial accounts not required? **[May 2024 RTP, May 2024 MTP]**

- In integrated accounting system cost and financial accounts are kept in the same set of books. Such a system will have to afford full information required for Costing as well as for Financial Accounts. In other words, information and data should be recorded in such a way so as to enable the firm to ascertain the cost (together with the necessary analysis) of each product, job, process, operation or any other identifiable activity. It also ensures the ascertainment of marginal cost, variances, abnormal losses and gains. In fact, all information that management requires from a system of Costing for doing its work properly is made available. The integrated accounts give full information in such a manner so that the profit and loss account and the balance sheet can be prepared according to the requirements of law and the management maintains full control over the liabilities and assets of its business.
- Since, only one set of books are kept for both cost accounting and financial accounting purpose so there is no necessity of reconciliation of cost and financial accounts.

9. Explain the steps involved in the procedure for reconciliation of cost and financial accounts. Also explain the circumstances where reconciliation statement can be avoided. **[Jan 2025]**

Answer:

There are 3 steps involved in the procedure for reconciliation.

- Ascertainment of profit as per Financial Accounts
- Ascertainment of profit as per Cost Accounts
- Reconciliation of both the profits

Circumstances where reconciliation statement can be avoided:

When the Cost and Financial Accounts are integrated - there is no need to have a separate reconciliation statement between the two sets of accounts. Integration means that the same set of accounts fulfil the requirement of both i.e., Cost and Financial Accounts.

CHAPTER 8: UNIT & BATCH COSTING

1. What is unit costing and explain in which industry it is used? [May 2024]

- Unit costing is a method of costing used where the output produced by an entity is identical and each unit of output require identical cost.
- Unit costing is synonymously known as single or output costing but these are sub-divisions of unit costing method
- Used in an industry which produces single output or variant of a single output

Cost per unit = Total cost of production / No. of units produced

- Unit Costing is used in industries like paper, cement, steel works, mining, breweries etc

2. Explain cost allocation procedure in unit costing?

Collection of Material Cost	• Cost of materials issued for production are collected from Material Requisition notes and accumulated for a certain period or volume of activity.
Collection of Labour Cost	• All direct employee (labour) cost is collected from job time cards or sheets and accumulated for a certain period or volume of activity. • The time booked or recorded in the job time and idle time cards is valued at appropriate rates and entered in the cost accounting system
Collection of Overheads	• Overheads are collected under suitable standing orders numbers, and selling and distribution overheads against cost accounts numbers • The total overhead of production departments is then **applied to products on some realistic basis**, e.g. machine hour; labour hour; percentage of direct wages; percentage of direct materials; etc

3. Explain the treatment of spoiled and defective work?

Loss due to normal reasons	• When a normal rate of defectives has already been established and actual number of defectives is within the normal limit, **the cost of rectification or loss will be charged to the entire output**
Loss due to abnormal reasons	• In this case cost of rectification and loss is treated as abnormal cost and **the cost of rectification or loss is written off as loss in Costing Profit and Loss Account**

4. What is Batch costing and explain where it is used? [May 2024]

- Batch costing is a type of specific order costing where articles are manufactured in predetermined lots known as batch
- Under this method the cost object for cost determination is a batch for production rather output as seen in unit costing method
- Such a method of costing is used in the case of pharmaceutical or drug industries, readymade garment industries, industries, manufacturing electronic parts of T.V. radio sets etc.

5. Explain Costing procedure in Batch Costing?

- Costing is done by allotting **one number for each batch**. Material cost for the batch is arrived at on the basis of material requisitions for the batch and labour cost is arrived at by multiplying the time spent on the batch by direct workers as ascertained from time cards or job tickets.
- Overheads are absorbed on some suitable basis like machine hours, direct labour hours etc.

6. What is Economic Batch Quantity? (OR) Happi Ltd. Produces product RP in batches, management of the Happi Ltd. wants to know the number of batches of product RP to be produced where the cost incurred on batch setup and carrying cost of production is at optimum level [May 2024 MTP]

- Product is produced in batches or lots and hence the lot size will be critical for least cost operation
- Total production cost under batch costing comprise two costs namely
  - Machine set-up costs and
  - Inventory holding costs

❖ Economic batch quantity is the optimum quantity to be produced in any batch and the one which minimizes the sum of set-up and carrying cost

$$EBQ = \sqrt{\frac{2 \times \text{Annual Production} \times \text{Setup cost per Setup}}{\text{Carrying Cost per Unit}}}$$

7. Differentiate between Job costing and batch costing? (Nov 2018 RTP, Nov 2021 RTP, May 2023 RTP, May 2018, Sep 2024)

Job costing	Batch costing
Method of costing used for non-standard and non-repetitive products produced as per customer specifications	Homogenous products produced in a continuous production flow in lots
Cost determined for each job	Cost determined in aggregate for the entire batch and then arrived on per unit basis
Each job is unique and different from each other	Produced are homogenous and lack individuality

CHAPTER 9: JOB COSTING

1. What is job costing? [Sep 2024]

- Job costing is used in an industry where the work consists of separate contracts, jobs or batches, each of which is authorized by specific order or contract
- Each job or unit of production is treated as a separate entity for the purpose of costing
- Batch production basically is of the same character as the job order production, the difference being mainly one in the size of different orders
- **Examples of industries where job costing is used are printing, furniture, hardware, ship-building, heavy machinery, interior decoration, repairs and other similar work**

2. Explain when job costing is used?

- When jobs are executed for different customers according to their specifications
- When no two orders are alike and each order/job needs special treatment
- Where the work-in-progress differs from period to period on the basis of the number of orders in hand

3. How are costs collected for the purpose of Job Costing?

Collection of Material Cost	• Direct materials and their cost must be traced to and identified with specific job or work order • Cost is identified with separate stores requisition for each job or work order
Collection of Labour cost	• All direct labour is booked against specific jobs in the job time cards or sheets.
Collection of overheads	• The total overhead of production departments is then applied to products on some realistic basis, e.g. machine hour; labour hour; percentage of direct wages; percentage of direct materials; etc

4. Explain the treatment of Spoilage and Defective work in Job Costing? [Jan 2025]

- Spoiled work is the quantity of production that has been totally rejected and cannot be rectified
- Defective work refers to production that is not as perfect as the saleable product but is capable of being rectified and brought to the required degree of perfection provided some additional expenditure is incurred

Where a percentage of defective work is allowed in a particular batch as it cannot be avoided.	• The cost of rectification will be charged to the whole job and spread over the entire output of the batch
Where defect is due to bad workmanship.	• Cost of rectification shall be written off as a loss
Where defect is due to the Inspection Department wrongly accepting incoming material of poor quality.	• Cost of rectification will be charged to the department and will not be considered as cost of manufacture of the batch. • However being an abnormal cost this would ultimately be transferred to costing profit and loss account

5. What are the advantages and disadvantages of Job costing?

Advantage	Disadvantages
Details of material, labour and overhead cost is available for control	Costly and laborious method
Profitability of each job can be derived	Lot of clerical process is involved and hence chance of errors is more
Facilitates production planning	Not suitable for inflationary condition
Budgetary control and standard costing can be applied in job costing	Previous records of costs will be meaningless if there is a change in market condition
Spoilage and defectives can be identified and responsibilities can be fixed accordingly	

6. Differentiate Job Costing and Process Costing? [May 2022]

Job Costing	Process Costing
Used for specific and unique order	Used for products going through a series of processes
Costs are determined for each job	Cost are compiled for each process and on time basis
Each job is unique	Products manufactured are homogenous
Costs are computed when a job is completed	Costs are computed at the end of the cost period

Each job is unique and hence managerial control is required for effective control	Production process is usually standardized and hence the need for management control is limited

CHAPTER 10: PROCESS & OPERATION COSTING

1. What is process costing and explain its application?

- Process costing is a type of costing under which the basic raw material goes through a series of distinctively identifiable process before emerging as finished product
- At the end of each process a distinctively identifiable new product emerges. The output of the first process becomes the input of the subsequent process
- Process costing involves finding out the cost of each of these processes. Process costing is used in the manufacturing of products like steel, paper, medicines, soaps, chemicals, rubber among others

Example:

Process	Input	Output
1	Raw Cotton	Ginned Cotton
2	Ginned Cotton	Cotton Yarn
3	Cotton Yarn	Fabric
4	Fabric	Readymade Garment

2. What are basic features of industries which use process costing?

- Each plant or factory is divided into a number of processes, cost centres or departments, and each such division is a stage of production or a process.
- **Manufacturing activity is carried on continuously by means of one or more process run sequentially, selectively or simultaneously**
- The output of one process becomes the input of another process
- The end product usually is of like units not distinguishable from one another
- **It is not possible to trace the identity of any particular lot of output to any lot of input materials.** For example, in the sugar industry, it is impossible to trace any lot of sugar bags to a particular lot of sugarcane fed or vice versa
- Production of a product may give rise to Joint and/or By-Products

3. What are the steps to be followed in process costing without equivalent units?

Step 1: Prepare Input-Output Statement:

Particulars	Units
Opening stock	XXX
Add: Input/transfer from previous process	XXX
Total Input	XXX
Less: Closing Stock	(XXX)
Processed Production	XXX
Less: Normal loss	(XXX)
Expected output (A)	XXX
Actual output (B)	XXX
Abnormal loss/gain (B-A)	XXX

Note:

- Normal loss is a scientifically determined loss. It is unavoidable and is part & parcel of each manufacturing process. It is computed either as a percentage of
  - Input
  - Total input
  - Processed Production
- Cost of normal loss is absorbed by good units produced under the process. The amount realized by the sale of normal process loss units should be credited to the process account
- Abnormal loss is the loss which is in excess of normal loss. It arises when the actual output is less than the expected output
- Cost of abnormal loss is equal to the cost of a good unit. Total cost of abnormal loss is credited to the process account and the net abnormal loss is then transferred directly to costing profit & loss account
- Abnormal gain is the extent to which the actual loss is less than the normal loss

Step 2: Proforma of Process Account:

Particulars	Units	Amount	Particulars	Units	Amount
To Material	XXX	XXX	By Normal loss	XXX	XXX
To Direct Labour		XXX	By Abnormal loss	XXX	XXX
To Overheads		XXX	By Transfer to next process	XXX	XXX

To Abnormal Gain	XXX	XXX			
Total	**XXX**	**XXX**	**Total**	**XXX**	**XXX**

Note:

Each line in the process account is identified as follows:

- Material, Labour and Overheads will be directly given in the question
- Abnormal Gain = Units * Cost Per Unit
- Normal Loss = Units * Realizable value per unit
- Abnormal Loss = Units * Cost Per Unit
- Transfer to next process = Units * Cost Per unit

CPU= Debit side of process a/c excluding abnormal gain – Sale value of normal loss / Expected Output

4. Explain the accounting treatment of normal and abnormal loss?

Particulars	Normal Loss	Abnormal Loss	Abnormal Gain
Recording of item	Normal loss A/c Dr To Process A/c	Abnormal loss A/c Dr To Process A/c	Process A/c Dr To Abnormal gain
Sale entry	Bank A/c Dr To Normal loss A/c	Bank A/c Dr To Abnormal loss A/c	-
Transfer of Abnormal gain to Normal loss	Abnormal Gain A/c To Normal Loss A/c	-	Abnormal Gain A/c To Normal Loss A/c
Transfer to net gain/loss to costing P&L	-	Costing P&L A/c Dr To Abnormal loss	Abnormal Gain Dr To Costing P&L

5. What is equivalent units? (Nov 2019 RTP)

- Equivalent unit concept can be used for valuation of units which are in progress. According to this 300 units which are 60 percent complete can be regarded as equivalent to 180 fully completed units
- Equivalent units = Total units x Degree of Completion

6. Which method to adopt for WIP valuation?

- If the breakup of opening WIP in terms of various costs are given then average stock method is used
- If the DOC of opening WIP is given then FIFO method can be used
- If both details are available then either of the two methods can be used

7. What are inter-process profits?

- In some process industries output of one process is transferred to the next process at market value or cost plus a percentage of profit. The difference between the cost and transfer price is known as inter-process profits
- **Advantages:** Comparison between cost and its market price is facilitated at every stage; profitability of each process is computed separately
- **Disadvantages:** Use of inter-process profits involve complication and it can show profits which are not realized

8. What is operation costing? (May 2018 RTP, May 2020 RTP)

- Operation costing is used when an entity produces more than one variant of final product using different materials but with similar conversion activities
- Operation costing is also known as hybrid product costing system as material costs are accumulated by job order or batch wise but conversion costs are accumulated by department and process costing methods are used to assign these costs to products
- **Example: Ready-made garments, shoe making, jewellery**

9. DISCUSS normal and abnormal Process Loss and ENUMERATE their treatment in Cost Accounts. [Jan 2025 RTP]

Answer:

Normal Process Loss:

- It is also known as normal wastage. It is defined as the loss of material which is inherent in the nature of work. Such a loss can be reasonably anticipated from the nature of the material, nature of operation, the

experience and technical data. It is unavoidable because of nature of the material or the process. It also includes units withdrawn from the process for test or sampling.

- **Treatment in Cost Accounts:** The cost of normal process loss in practice is absorbed by good units produced under the process. The amount realised by the sale of normal process loss units should be credited to the process account.

Abnormal Process Loss:

- It is also known as abnormal wastage. It is defined as the **loss in excess of the pre-determined loss (Normal process loss).** This type of loss may occur due to the carelessness of workers, a bad plant design or operation, sabotage etc. Such a loss cannot obviously be estimated in advance. But it can be kept under control by taking suitable measures.
- **Treatment in Cost Accounts:** The cost of an abnormal process loss unit is equal to the cost of a good unit. The total cost of abnormal process loss is credited to the process account from which it arises. **Cost of abnormal process loss is not treated as a part of the cost of the product. In fact, the total cost of abnormal process loss is debited to costing profit and loss account.**

CHAPTER 11: JOINT PRODUCTS AND BY PRODUCTS

1. What are joint products and by-products? [Dec 2021]

- When a manufacturing process results in the production of two or more products **which have equal economic significance are called as joint products**
- If one of the **products has lower economic significance** it is called as by-product and the product having higher economic significance is called as main product

2. What are co-products?

- Joint products and co-products are used synonymously but still the two has some distinction
- Co-products can be defined as two are more products which are contemporary but do not emerge necessarily from the same material in the same process
- **Example:** Timber boards from different trees

3. What is split-off point?

- The point at **which the product emerge with separate identities** is called split off point
- All costs incurred upto the split off point are called joint costs and are jointly incurred over the products. All costs incurred after the split off point are called as further processing cost

4. What are the steps to prepare profitability statement in joint & by-product costing?

- **Step 1:** Identify joint cost
- **Step 2:** Identify ratio of distribution
- **Step 3:** Distribute the joint cost on the basis of the identified ratio
- **Step 4:** Compute profit using the following format:

Particulars	Product A	Product B	Product C
Sales	XXX	XXX	XXX
Less: Share of joint cost	(XXX)	(XXX)	(XXX)
Less: Further processing cost	(XXX)	(XXX)	(XXX)
Profit	XXX	XXX	XXX

5. What are the various methods for distribution of costs? (May 2021 RTP, May 2024 MTP, Sep 2024 RTP, May 2025 MTP)

Method	Basis of distribution
Physical units method	✓ Joint cost is distributed in the ratio of the number of units
Net realizable value at split off method	✓ Joint cost is distributed on the basis of NRV ✓ NRV is calculated using the below format Particulars | Amount Sales value after further processing | XXX Less: Estimated profit margins | (XXX) Less: Selling & distribution costs | (XXX) Less: Further processing costs | (XXX) NRV | XXX
Technical estimates	✓ Certain joint products may consume more of the joint cost resources and hence points need to be given to them ✓ Joint cost is distributed on the basis of units * points
Market value at the point of separation	✓ Joint cost is distributed on the basis of market value at split-off point
Market value after further processing	✓ Joint cost is distributed on the basis of the market value after further processing
Contribution margin method	✓ Joint cost is split as variable cost and fixed cost ✓ Variable cost is split on the basis of physical units or average cost ✓ Fixed cost is split on the basis of contribution
Average unit cost method	✓ Ttotal process cost (upto the point of separation) is divided by total units of joint products produced. On division average cost per unit of production is obtained and the same is used for apportioning joint cost

Selection of Method:

Selection of the method would depend on the circumstances and the same is summarized as under:

Physical Unit method	When sale price of all the products is uniform.

Net Realisable Value (NRV) at Split-off Point Method	When the realisable value of joint products at split-off is not known.
Technical Estimate	When the result obtained by Net Realisable Value (NRV) at Split-off Point Method does not match with the resources consumed by joint products.
Market value at the point of separation	Where further processing costs are incurred disproportionately.
Market value after further processing	Where further processing costs after the point of separation are proportionate and all the joint products are subject to further processing
Average Unit Cost Method	When units produced have same unit.

6. What are the methods of apportioning joint costs to by-products? [Sep 2024 RTP]

Net Realizable Value Method	✓ Under this method the NRV of the by-product may be deducted from the total joint cost to arrive at the cost of the main product
Standard cost in technical estimates	✓ By-products are valued at standard costs which are determined on the basis of past costs or making some technical estimates
Comparative price	✓ Value of the by-product is ascertained with reference to the price of a similar or an alternative material
Re-use basis	✓ By-products can be reprocessed in the same process as part of the input of the process. Hence in that case the by-product cost should be same as that of the materials introduced in the process

7. What is the treatment of by-product cost in cost accounting? (Nov 2020 RTP, Nov 2021 RTP, Nov 2018, Sep 2024 MTP, Jan 2025 RTP, Sep 2024)

When they are of small value	✓ Sale value of the by-products can be credited to costing profit and loss account and be treated as miscellaneous income or additional revenue ✓ Sale value can also be shown as deduction from the total cost
When the by-products are of considerable total value	✓ In this case the by-products are to be treated as joint products
Where they require further processing	✓ In this case NRV of the by-product at the split off point is determined. If the NRV is small then it is treated as per point (a) and if NRV is considerable then the same is treated as per point (b)

8. How apportionment of joint costs upto the point of separation amongst the joint products using market value at the point of separation and net realizable value method is done? Discuss [May 2024 RTP, May 2024 MTP, May 2025 RTP]

Apportionment of Joint Cost amongst Joint Products using: Market value at the point of separation: This method is used for apportionment of joint costs to joint products upto the split off point. It is difficult to apply if the market value of the product at the point of separation is not available. It is useful method where further processing costs are incurred disproportionately.

Net realizable value Method: From the sales value of joint products (at finished stage) the followings are deducted:

- Estimated profit margins
- Selling & distribution expenses, if any
- Post split off costs.

The resultant figure so obtained is known as net realizable value of joint products. Joint costs are apportioned in the ratio of net realizable value.

CHAPTER 12: SERVICE COSTING

1. What are the areas of application of Service Costing?

Internal	Service costing is necessary **for in-house services provided by a service cost center to other responsibility centers**, such as canteens, hospitals, boiler houses, power generation units, vehicles, IT departments, research, development, quality assurance, and laboratories.
External	When services are **offered to outside customers as a profit** centre in consonance with organisational objectives as an output like goods or passenger transport service provided by a transporter, hospitality services provided by a hotel, provision of services by financial institutions, insurance and IT companies etc.

2. Differentiate service costing and product costing? [Sep 2024 RTP]

Service costing differs from product costing in the following ways:

- **Tangibility:** Unlike products, services are intangible and hence there is no inventory for the services
- **Cost units:** Use of composite cost units for cost measurement and to express the volume of outputs
- **Material vs Employee Cost:** Employee cost forms a major cost element in service costing
- **Traceability of costs:** Service sector heavily depends on support services and hence indirect costs like administration overheads are generally a significant proportion of total cost

3. What is a service cost unit?

- Cost unit is a **unit of product, service or time** (or combination of these) in relation to which costs may be ascertained or expressed
- Service sector can employ composite cost units as costs are driven by multiple factors. Typical cost units for some of the services is provided in the below table:

Service Industry	Unit of cost
Transport services	Passenger Kilometres, Quintal Kilometres, Ton-KM
Electricity supply	Kilowatt hours
Hospital	Patient days, room days, per bed, per operation
Canteen	Per item, per meal
Cinema	Per ticket
Hotels	Guest days or room days
Bank of financial institutions	Per transaction or per service
Educational institutions	Per course, per student, per batch, per lecture
IT & ITES	Cost per project, per module
Insurance	Per policy, per claim, per TPA

4. What is a Key-Performance Indicator?

- KPIs are **quantitative and qualitative factors** used to assess an organization's performance and achieve goals.
- They help compare cost or revenue against industry standards, such as Average Return per User (ARPU) in the telecom industry.

Service Industry	KPI
Transportation	Number of Shipments, Truck Turnaround Time (Truck Turning) and Lead Time (Order Cycle Time)
Hotel	Cost per occupied room, Occupancy Rate, Revenue per Available Room
Hospitals	Bed occupancy rate, Staff-to-patient ratio, Average Treatment charge
IT and ITES Sector	Gross Burn Rate, Customer Acquisition Cost, Customer Lifetime Value, Monthly Recurring Revenue, Churn Rate, Cost per Feature
Telecom	Average Revenue Per user, Subscriber Acquisition Cost, Network Operating Cost, Gross Revenue Retention
Education Sector	Instructional Costs, Administrative costs per student, Tuition Costs, Student-to-faculty ratio
Insurance sector	Average Cost Per Claim, Components of Claim Costs, Cost Per Quote, Administrative Costs Per Policy, Average Policy Size

5. What is a composite cost unit? [Nov 2019]

- Two measurement units are combined together to know the cost of service is known as composite cost unit.
- Example: Passenger KM, Patient days, Student hours

6. What is absolute tonne KM and commercial tonne KM?

- ❖ Absolute tonne KM is the summation of the respective distance multiplied by respective quantity
- ❖ Commercial tonne KM is calculated as total distance travelled multiplied by average quantity

7. What is equivalent cost unit?

- To calculate cost or pricing of two or more **different grade of services which uses common resources,** each grade of service is assigned a weight and converted into equivalent units.
- Converting services into equivalent units make different grade of **services equivalent and comparable**

8. Explain Build-Operate-Transfer (BOT) approach and classify the following expenses in Capital Cost or Operating and Maintenance Cost for Toll Roads:

- Land acquisition
- Interest expenses incurred for servicing term loans
- Material and Labour
- Toll Collection Expenses
- Contingency Allowance
- Periodic painting cost of railings etc

Answer:

- Governments are increasingly seeking private sector investments in public projects through the BOT scheme, **where the private sector designs, finances, constructs, and operates facilities**.
- After a specified concession period, **ownership is transferred to the government**. This technique enables private sector participation in infrastructure projects, ensuring traffic flow levels equate social costs with user benefits.

Expenses	Classification
Land acquisition	Capital Cost
Interest expenses incurred for servicing term loans	Operating and Maintenance Cost
Material and Labour	Capital Cost
Toll Collection Expenses	Operating and Maintenance Cost
Contingency Allowance	Capital Cost
Periodic painting cost of railings etc.	Operating and Maintenance Cost

9. Explain the methods for ascertaining service cost unit [Jan 2025 MTP]

Composite Cost Unit	• Sometime two measurement units are combined together to know the cost of service or operation. **These are called composite cost units**. • For example, a public transportation undertaking would measure the operating cost per passenger per kilometer. Examples of Composite units are Tonne- km., Quintal- km, Passenger km., Patient-day etc. Composite unit may be computed in two ways. • **Weighted average or absolute basis:** It is a summation of the products of qualitative and quantitative factors. For example, to calculate absolute Tonne-Km for a goods transport is calculated as follows: **(Weight Carried × Distance of 1) + (Weight Carried × Distance of 2) +….+(Weight Carried × Distance of n)** • **Simple Average or Commercial Basis:** It is the product of average qualitative and total quantitative factors. For example, in case of goods transport, Commercial Tonne-Km is arrived at by multiplying total distance km., by average load quantity
Equivalent Cost Unit/ Equivalent Service Unit	• To calculate cost or pricing of two more different grade of services which uses common resources, each grade of service is assigned a weight and converted into equivalent units. **Converting services into equivalent units make different grade of services equivalent and comparable**

10. WHAT do you understand by Operating Costs? DESCRIBE its essential features and state where it can be usefully implemented? [May 2025 RTP]

Answer:

Operating Costs or Service Costing are the costs incurred by undertakings which do not manufacture any product but provide a service. Such undertakings for example are — Transport concerns, Gas agencies; Electricity Undertakings; Hospitals; Theatres etc. Because of the varied nature of activities carried out by

the service undertakings, the cost system used is obviously different from that followed in manufacturing concerns.
The essential features of operating costs are as follows: • The operating costs can be classified under three categories. For example in the case of transport undertaking these three categories are as follows: o **Operating and running charges:** It includes expenses of variable nature. For example expenses on petrol, diesel, lubricating oil, and grease etc. o **Maintenance charges:** These expenses are of semi variable nature and includes the cost of tyres and tubes, repairs and maintenance, spares and accessories, overhaul, etc. o **Fixed or standing charges:** These includes garage rent, insurance, road licence, depreciation, interest on capital, salary of operating manager, etc. • The cost unit used is composite like passenger-mile; Kilowatt-hour, etc.
It can be implemented in all firms of transport, airlines, bus service, etc., and by all firms of distribution undertakings.

CHAPTER 13: STANDARD COSTING

1. What is Standard Cost?

- Standard Cost refers to the **planned unit cost of** a product, component or service provided in a period
- Standard costs are **established to evaluate the performance of a particular cost centre** or responsibility centre, control costs and establish selling prices

2. Explain the need for standard costing?

- Standard costing is a method of costing which measures the performance by comparing the actuals with standards, analyse the variations (deviations) and reporting of variances
- Standard costing does not end with only computation of variances but will also extend fixation of responsibility for deviation in performance
- Following are the benefits of standard costing:
    - Prediction of future cost for decision making
    - Provide target to be achieved
    - Used in budgeting and performance evaluation
    - Interim profit measurement and inventory valuation

3. What are the different types of standards?

Ideal standards	• Represent the level of performance attainable when prices for material and labour are most favourable, when the highest output is achieve and when the maximum efficiency in utilization of resources is done
Normal standards	• Standards that are achieved under normal operating conditions
Basic or bogey standards	• These standards are used when they are likely to remain constant or unaltered over a long period • When basic standards are used, variances are not calculated but the actual cost is expressed as a percentage of basic cost
Current standards	• These reflect the management's anticipation of what actual costs will be for current periods • Variances arising from the expected standards represent the degree of efficiency in usage of the factors of production, variation in prices paid for materials and services and difference in the volume of production

4. Explain the process of Standard Costing?

- Setting of Standards
- Ascertainment of actual costs
- Comparison of actual cost with standard cost
- Investigation of variances
- Disposition of variances

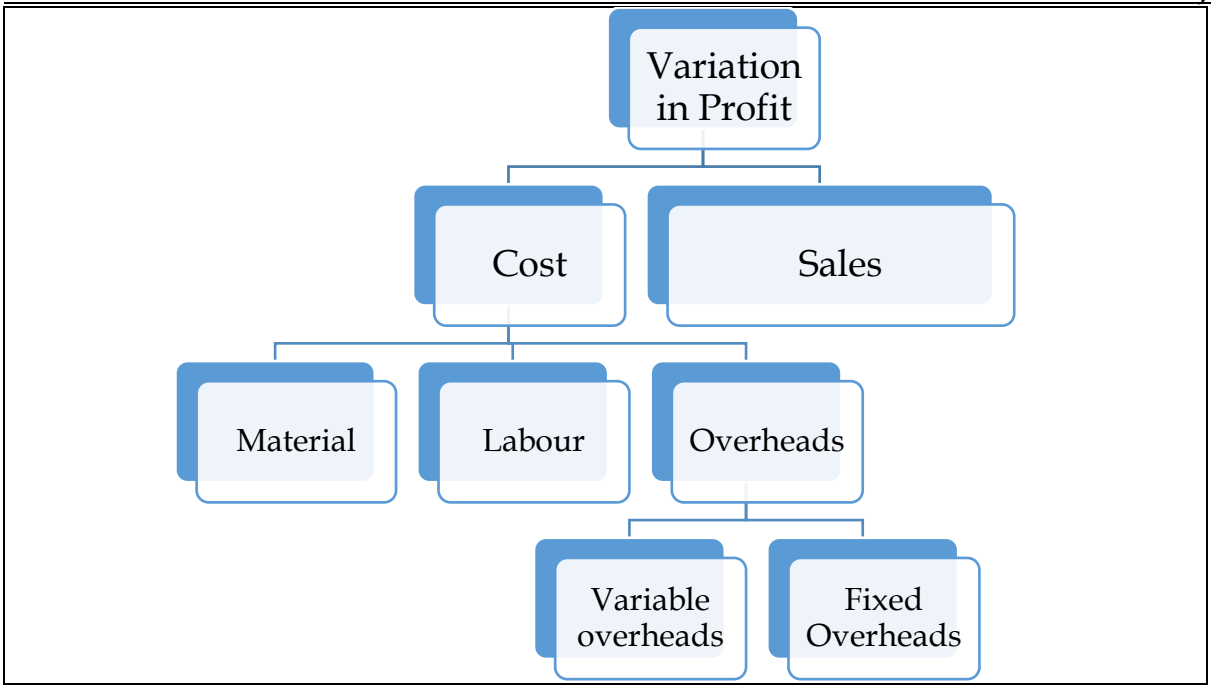
5. What are the types of variances? [Sep 2024 RTP, Sep 2024]

Controllable and uncontrollable variances:

- Purpose of standard costing is to investigate the reasons for significant variance so as to identify the reasons for significant variation and to take corrective action
- Controllable variances are those which can be controlled by departmental heads whereas uncontrollable variances are those which are beyond their control
- Responsibility will be only fixed for controllable variances. If there is a significant uncontrollable variance then the standards may need revision

Favourable and adverse variances:

- Favourable variances are those which are profitable for the company and adverse variances are those which causes loss to the company



6. Differentiate Standard Cost and Budgeted Cost?

- Budgeted cost refers to the cost to be incurred for producing budgeted output and standard cost refers to the cost to be incurred for producing actual profit
- Standards are concerned with analysing the reasons for variation between **actual cost and standard cost**

Example:
Budgeted output = 20,000 units; Budgeted Cost = Rs.4,00,000; Actual output = 16,000 units; Actual cost = Rs.3,60,000

- Budgeted Cost = Rs.4,00,000
- Actual Cost = Rs.3,60,000
- Standard cost = 16,000 units x Rs.20/unit = Rs.3,20,000
- Cost Variance = Standard cost – Actual Cost = 40,000 A

7. Who is to be held responsible for various variances?

Material Price Variance	Purchase department
Material Usage Variance	Production department
Labour rate variance	Personnel Manager
Labour efficiency variance	Production manager or foreman

8. What are the advantages and criticisms of standard costing? [May 2022]

Advantages of standard costing:

- Serves as a basis for measuring operating performance and cost control
- Standard costing can be used to predict costs and hence the same aids in fixing prices
- Standard costing facilitates evaluation of jobs and introduction of incentives
- It is used as a basis for inventory valuation
- It aids in measurement of profits
- It aids business planning, budgeting and managerial decision making
- Standard costing aids in standardization of products, operations and processes
- It provides objectives and targets to be achieved by each level of management
- Standard costing sets a uniform basis for comparison of all elements of cost
- Wastage of material and loss due to idle time can be controlled

Criticisms of standard costing:

- **Variation in prices:** One of the chief problems faced in the operation of the standard costing system is the precise estimation of likely prices or rates to be paid. Variation in prices can be huge and hence the actual profit can show a huge deviation
- **Varying levels of output:** If the standard level of output is not achieved then it will not be possible for the company to achieve the standard cost for fixed overheads and hence the variation can be significant
- **Changing standard of technology:** Standard costing is not suitable for industries where frequent technological changes happen

- **Mix of products:** Standard costing assumes a mix of products and in case the mixture of materials is not same then the costs can vary
- Fixation of standards can be costly
- Standard cannot possibly reflect the true value in exchange

9. "Calculation of variances in standard costing is not an end in itself, but a means to an end." DISCUSS. [Jan 2025 MTP]

- The crux of standard costing lies in variance analysis. Standard costing is the technique whereby standard costs are predetermined and subsequently compared with the recorded actual costs. It is a technique of cost ascertainment and cost control. **It establishes predetermined estimates of the cost of products and services based on management's standards of efficient operation**. It thus lays emphasis on "what the cost should be". These should be costs are when compared with the actual costs. The difference between standard cost and actual cost of actual output is defined as the variance.
- The variance in other words in the difference between the actual performance and the standard performance. The calculations of variances are simple. A variance may be favourable or unfavourable. If the actual cost is less than the standard cost, the variance is favourable but if the actual cost is more than the standard cost, the variance will be unfavourable. They are easily expressible and do not provide detailed analysis to enable management of exercise control over them. It is not enough to know the figures of these variances from month to month. We in fact are required to trace their origin and causes of occurrence for taking necessary remedial steps to reduce / eliminate them.
- A detailed probe into the variance particularly the controllable variances helps the management to ascertain:
    - the amount of variance
    - the factors or causes of their occurrence
    - the responsibility to be laid on executives and departments and
    - corrective actions which should be taken to obviate or reduce the variances.
- Mere calculation and analysis of variances is of no use. The success of variance analysis depends upon how quickly and effectively the corrective actions can be taken on the analysed variances. In fact variance gives information. The manager needs to act on the information provided for taking corrective action. Information is the means and action taken on it is the end. In other words, the calculation of variances in standard costing is not an end in itself, but a means to an end.

CHAPTER 14: MARGINAL COSTING

1. What is marginal cost, marginal costing, differential and incremental cost?

Marginal cost:

- Marginal cost is the incremental cost of production arising due to one-unit increase in the production quantity
- Variable costs have directly relationship with volume whereas fixed costs remains constant irrespective of the volume of production. Hence variable cost can be considered as marginal cost

Marginal costing:

- It is a costing system where products or services and inventories are valued at variable costs
- This system does not take into consideration fixed costs for valuation of inventory

Differential and incremental cost:

- Differential cost is the difference between the costs of two different production levels. It is relative representation of costs for two different levels and can either be increase or decrease in cost
- Incremental cost is the cost increase due to change in volume or process of production activities

2. What are the characteristics of marginal costing? [May 2024 MTP]

- All elements of costs are classified into fixed and variable components. Semi-variable costs are also analysed into fixed and variable costs
- Marginal or variable costs are treated as the cost of product
- Finished goods and work-in-progress is valued only based on variable production costs
- Fixed costs are treated as period costs and are charged to profit and loss account for the period for which they are incurred
- Prices are determined based on marginal costs and contribution margin
- Profitability of products and departments is determined on the basis of contribution margin

3. How is the profit statement prepared under marginal costing?

Particulars	**Per Unit**	**Total (XXX Units)**
Sales	XXX	XXX
Less: Variable costs	(XXX)	(XXX)
Contribution	**XXX**	**XXX**
Less: Fixed costs		(XXX)
Profit		**XXX**

4. What are the key differences between marginal costing and absorption costing? [Nov 2020]

Marginal costing	**Absorption costing**
Variable costs are considered for product costing and inventory valuation	Fixed and variable costs are considered for production costing and inventory valuation
Fixed costs are considered as period costs	Fixed production costs are charged to the cost of production and hence becomes a product cost
Cost data highlight total contribution of each product	Net profit of each product is determined post subtracting fixed cost as well as variable cost
Difference in the magnitude of opening stock and closing stock does not affect the unit cost of production	Unit cost of production is impacted due to difference in opening and closing stock due to impact of related fixed cost
Cost per unit remains same irrespective of the production	Cost per unit reduces as the production increases due to reduction in fixed cost per unit

5. Show the detailed profitability statement under absorption and marginal costing?

Income statement under absorption costing:

Particulars	Calculation	Amount
Variable manufacturing costs	Units produced * Cost per unit	XXX
Fixed manufacturing costs (absorbed)	Units produced * OAR	XXX
Cost of production		**XXX**
Add: Opening FG	Units * Cost per unit	XXX
Less: Closing FG	Units * Cost per unit	(XXX)
Cost of goods sold		**XXX**

Variable non-manufacturing costs	Units sold * Cost per unit	XXX
Fixed non-manufacturing costs		XXX
Cost of sales		**XXX**
Add/Less: Under/over absorbed overheads		XXX
Revised cost of sales		**XXX**
Profit (Balancing figure)		XXX
Sales		**XXX**

Income statement under marginal costing:

Particulars	Calculation	Amount
Sales	Units sold * Selling Price	XXX
Less: Variable costs	Note 1	(XXX)
Contribution		**XXX**
Less: Fixed costs	Fixed manufacturing + fixed non-manufacturing costs	XXX
Profit		**XXX**

Working Note 1: Calculation of Variable costs:

Particulars	Calculation	Amount
Variable manufacturing costs	Units produced * Cost per unit	XXX
Add: Opening FG	Units * Cost per unit	XXX
Less: Closing FG	Units * Cost per unit	(XXX)
Variable cost of goods sold		**XXX**
Add: Variable non-manufacturing costs	Units sold * Cost per unit	XXX
Total costs		**XXX**

6. What are the advantages and limitations of marginal costing? [May 2019, Jan 2025 RTP]

Advantages	Limitations
❖ Simplified pricing policy ❖ Proper recovery of overheads ❖ Shows realistic profit ❖ Helps in deciding how much to produce ❖ More control over expenditure ❖ Helps in decision making ❖ Short term profit planning	❖ Difficulty in classifying fixed and variable components ❖ Dependence on key factors ❖ Scope for low profitability ❖ Faulty valuation ❖ Unpredictable nature of cost ❖ Marginal costing ignores time factor and investment ❖ Understating of Work in Process

7. What is cost-volume profit analysis?

❖ It is a managerial tool showing the relationship between various ingredients of profit planning (cost, volume and profit)

❖ Understanding of CVP analysis is extremely useful to management in budgeting and profit planning

8. What is Profit Volume Ratio?

❖ PVR measures the extent of change in contribution/profit on account of change in sales. Net profit ratio keeps on changing for different sale amounts whereas PVR is constant.

❖ PVR is the true indicator of the profitability of the product

PVR = Contribution / sales	**PVR = Change in contribution / Change in sales**
PVR = Contribution per unit / SP	**PVR = Change in profit / change in sales**

9. What is break-even point?

❖ BEP refers to the sales level at which the company earns no profit and no loss. This can be either expressed in units or rupees.

❖ If expressed in units it is called BEP and if expressed in rupees it is called Break even sales.

❖ Moreover at BEP, contribution = fixed cost and sales = total cost

BEP in units = Fixed cost / Contribution per unit	**BEP in Rs. = Fixed cost / PVR**
BEP in Rupees = BEP in units * Selling Price	

10. What is margin of safety (MOS)? [Jul 2021]

❖ MOS is the difference between the actual sales and break even sales. It is the extent of allowable drop in sales before the company starts incurring losses

- MOS can be expressed in rupees or in units or as a percentage of total sales

MOS in units = Profit / Contribution per unit	MOS in Rs. = Profit/ PVR
MOS in Rupees = MOS in units * Selling Price	
Sales in rupees = BEP in rupees + MOS in rupees	

11. How break-even point is computed for multiple products?

- BEP is computed using fixed cost and PVR/Contribution per unit. However in case of multiple products there will be multiple PVR/Contribution per unit
- BEP for multiple products (in units) = TFC/Contribution per set. It would be assumed that one set would contain the product mix as given in the question
- BEP for multiple products (in rupees) = TFC/Composite PVR. Composite PVR would be calculated as overall contribution/overall sales

12. What is shut-down point?

- In case of adverse economic conditions a company might have to make a decision on whether to continue their business or temporarily shut the business unless the demand revives

$$\text{Shutdown point} = \left(\frac{\left(\text{Normal Fixed Cost} - (\text{FC during shutdown} + \text{Additional FC to resume operation})\right)}{\text{Contribution per unit (or) PVR}}\right)$$

- If the expected sales volume is less than the shutdown point then the company should close their business or else continue producing

13. What is break-even chart?

- Break-even chart records costs and revenues on the vertical axis and the level of activity on the horizontal axis
- Lines representing fixed costs, total costs and revenues at maximum level shall be drawn next
- BEP is the point where the sales revenue line intersects the total cost line. Other measures like MOS and profit can also be measured from the chart

14. What is contribution breakeven chart?

- The breakeven chart cannot assess in computing the contribution for any level of activity
- Under this chart lines representing fixed costs, variable costs, total costs and revenues shall be drawn
- Contribution can be read as the difference between sales revenue line and variable cost line

15. What is profit-volume chart?

- Vertical axis represent profits and losses and the horizontal axis represent level of activity
- The level of profits and losses are recorded at every level of activity and the point at which zero profit is made is considered as break-even point

16. What is angle of incidence?

- Angle of incidence is the intersection of sales line and total line at the break-even point
- Angle shows the rate at which profit is earned once the break-even point is reached. The wider the angle the greater is the rate of earning profits
- A larger angle of incidence with a high margin of safety indicates extremely favourable position

17. What are the decisions which can be done with CVP analysis?

- Decisions related with excess supply, such as:
  - Processing of export order
  - Determination of price for stimulating demand
  - Local versus export sale
  - Determination of minimum price for price quotations
  - Shut-down or continue decision
- Decisions related with excess demand, such as:
  - Make or Buy/ in-house processing versus outsourcing
  - Product mix decision under resource constraints
  - Sales mix decisions
  - Sale or further processing

18. What is limiting factor?

- Limiting factor is one which acts as a bottleneck and limits the company's ability to serve the demand of the external market

- ❖ Limiting factor is a situation where in the demand for the limiting factor is always greater than the supply for the limiting factor
- ❖ **Example:** RM availability, Labour availability, Machine availability

19. DISCUSS basic assumptions of Cost Volume Profit analysis. [May 2024 MTP]

- Changes in the levels of revenues and costs arise only because of changes in the number of products (or service) units produced and sold.
- Total cost can be separated into two components: Fixed and variable
- Graphically, the behaviour of total revenues and total cost are linear in relation to output level within a relevant range.
- Selling price, variable cost per unit and total fixed costs are known and constant.
- All revenues and costs can be added, sub traded and compared without taking into account the time value of money.

CHAPTER 15: BUDGET & BUDGETARY CONTROL

1. What is budget and budgeting?

- Budget is a **financial and/or quantitative statement**, prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective. **It may include income, expenditure and employment of capital**
- Budgeting refers to the process of preparing the budget by coordinating with the various departments within the company. The main emphasis in budgeting process **is the provision of resources to support plans which are being implemented**

2. As a consultant, a client has approached you to set up a budgetary control system in their organization. WHAT sequential steps would you follow to design, implement, and monitor the system? [Jan 2025 MTP]

- Organisational structure should be clearly defined and responsibilities are assigned to identifiable units within the organization
- Setting of clear objectives with reasonable targets
- Objectives and degree of responsibility should be clearly stated and communicated
- Budget may be prepared for future periods based on expected course of action
- Budgets should be revised for events that were not kept while preparing the budgets. Hence budget should be flexible for mid-term revision
- Budgets should be quantifiable and master budget should be broken down into various functional budgets
- Periodical monitoring of budgets and budgetary performance must be linked effectively to the reward system

3. What are the characteristics of a budget?

- Budget is concerned for a definite time period
- Budget is a written document
- Budget is a detailed plan of all economic activities of a business
- Budget is a mean to achieve business and it is not an end in itself
- Budget helps in planning, coordination and control
- Budget needs to be updated, corrected and controlled every time when circumstances change
- Budget acts as a business barometer
- Budget is usually prepared in the light of past experiences

4. What are the objectives of budgeting? [May 2025 MTP]

- **Planning:** Budgeting is dependent on effective planning within an organization. Budget plans are made in line with the overall objectives of the organization. Individual plans at unit level must be in line with organization plan. Budgets reflect plans and that planning should have taken place before budgets are prepared.
- **Directing and coordinating:** Budget plans can be used to direct and coordinate operations in order to achieve the stated targets. Business is much more complex and requires more formal direction and coordination. Budgetary units of an organization are called responsibility centers. Objectives and degree of a performance expected from responsibility centres are communicated periodically and hence the same can help in proper direction and coordination
- **Controlling:** Actual performance of the company is compared against the planned targets and this enables the company in effective control. Deviations in the performance are analyzed and the same helps prevent unplanned expenditures. Budget encourages employees to establish their spending priorities
- **The main objective of Budgeting is to help in achieving the overall objective of the organization**

5. What is Budgetary Control? [Dec 2021]

- Budgetary control is the system of **management control and accounting** in which all the operations are forecasted and planned in advance to the extent possible and the actual results compared with the forecasted and planned results
- Budgetary control involves:
  - Establishment of budgets
  - Continuous comparison of actual with budgets for achievement of targets
  - Revision of budgets after considering changed circumstances
  - Placing the responsibility for failure to achieve the budget targets

6. What are objectives of budgetary control?

- ❖ Determining targets of performance for each section or department of the business
- ❖ Laying down the responsibilities of each of the executives
- ❖ Providing a basis for the comparison of actual performance with the predetermined targets and investigation of the deviation
- ❖ Ensuring best use of available resources to maximize profit
- ❖ Coordinating the various activities of the business
- ❖ Providing a basis for revision of current and future policies
- ❖ Drawing up long range plans with fair measure of accuracy
- ❖ Providing a yardstick against which actual results can be compared

7. Explain the steps to be followed for establishing Budgetary Control?

- **Determining the objectives to be achieved**, over the budget period, and the policy or policies that might be adopted for the achievement of these objectives
- **Determining the activities that should be undertaken** for the achievement of the objectives.
- **Drawing up a plan or a scheme** of operation in respect of each class of activity, in quantitative as well as monetary terms for the budget period
- **Laying out a system of comparison** of actual performance by each person, or department with the relevant budget and determination of causes for the variation, if any.
- **Ensuring that corrective action will be taken** where the plan has not been achieved and, if that is not possible, for the revision of the plan

8. Explain feedback and feedforward control? [May 2024]

- **Feedback Control:** The feedback system of budgetary control, **the actual results for the budgeted period are collected and compared with the budgeted figures**. The exercise of variance identification is done after the completion of the budget period. The variances are reported and based on the report corrective actions are taken, responsibility is fixed and based on experience, modification in future targets is implemented. **As the name suggests, it is an Ex-post Corrective control system of budget. Though this type of control system is less expensive to maintain but has limitations**
- **Feedforward Control:** This is the opposite of feedback control system of budgetary control. **It is Ex-Ante Preventive control mechanism of budgetary control**. The budgets are set at the inception of the budgeted period and the actual results are continuously monitored and compared. The targets are kept realistic as far as possible and the targets are reviewed and reset if necessary. **This system is very expensive and beneficial for the organisations where the business environment is dynamic and information has important role in getting edge in competition and todays data warfare.**

9. Explain the role of a budget committee/budget officer?

- ❖ The responsibility for successful implementation of a budgetary control system rests with the budget committee acting through the budget officer
- ❖ The main responsibilities of the budget officer are:
  - o Assisting in preparation of the various budgets
  - o Forwarding the budget to the responsible individuals
  - o Preparing periodical reports to compare actuals against budget to the concerned
  - o Follow-up for action on the budget reports
  - o Prepare an overall budget working report for discussion at budget committee meetings
  - o Providing periodical reports for the board meeting

10. What are the advantages of budgetary control system?

- ❖ **Efficiency:** Helps the company to reduce unplanned expenditures and hence improves efficiency
- ❖ **Control on expenditure:** Powerful instrument to cut down the expenditure as this is used as a yardstick for evaluating the performance of individuals and departments
- ❖ **Finding deviations:** Reveals deviations in performance as compared to the budget
- ❖ **Effective utilization of resources:** Enables effective utilization of resources as the production is planned after taking the resources into account
- ❖ **Revision of plans:** Review of current trends and based on the plans can be changed
- ❖ **Implementation of standard costing system:** Standard costing system can be implemented only when a plan exist in the organization
- ❖ **Cost consciousness:** Budgets are analyzed by outside fund providers and hence the same encourages management to be cost conscious and target maximum utilization of available resources

- **Credit Rating:** Management which has developed a well-ordered budget plans and which operate accordingly, receive greater favour from credit agencies

11. What are the limitations of budgetary control system? [Jan 2021, Jan 2025 MTP, May 2025 MTP]

- **Based on estimates:** Budgets are based on estimates prevailing at the time of preparation of budget and the same may require revision if conditions change
- **Time factor:** Preparation and execution of budgets involves investment of time and cost
- **Cooperation required:** Staff cooperation is required for successful implementation of the budgetary control system. In a decentralized organization each unit has its own objective and hence may not provide the desired level of cooperation
- **Expensive:** Implementation of the budgetary control system is expensive. For successful implementation of the system a proper organization structure with responsibility is prerequisite
- **Not a substitute for management:** Budget is only a managerial tool and must be applied correctly for management to get benefitted. It cannot replace budget
- **Rigid document:** Budgets are considered to be rigid document and hence it lacks the desired flexibility to absorb various internal and external factors

12. What are the components of budgetary control system? [Dec 2021]

- **Physical budgets:** Physical budgets contain information in terms of physical units like quantity of sales, quantity of production, inventory etc
- **Cost budgets:** Budgets which provide information in respect of manufacturing, selling and administration cost
- **Profit budgets:** A budget which enables in the ascertainment of profit, for example sales budget, profit budget
- **Financial budgets:** A budget which facilitates in ascertaining the financial position of a concern. Example: Capital expenditure budget, cash budget, budgeted balance sheet

13. Explain the impact of budget on motivation of employee?

Budgeting process should have the following consideration to make it motivating one

- **Performance Measurement:** Budget communication to all executives is crucial for achieving desired performance. **Target achievement should be measured and evaluated at individual and departmental levels**, with rewards like promotions and bonuses being appropriate motivation factors.
- **Achievable targets:** An unrealistic target has reverse impact and may be demotivate the executives. Setting targets requires **considering practical aspects like resource availability** and realism of figures
- **Optimum utilization of resources:** A budget targets **which is easily achievable may underutilise** the resources such as potential skills of executives. Pressure sometime forcing to explore innovative ways to get things done. Thus, to keep motivation alive, **a balanced approach** should be applied for optimum utilisation of resources upto its effort zone, though beyond the comfort zone.
- **Involvement in budgeting process: Participative budgeting** involves executives from all departments, motivating them and giving them a sense of ownership. Involving executives at planning stages can meet their requirements and achieve targets, but excessive involvement can distort the budget's objective.

14. How a budget is prepared? [Sep 2024]

- **Definition of objectives:** A budget being a plan for the achievement of certain operational objectives and that the same are defined precisely
- **Location of the key (or budget) factor:** There is usually one factor which sets a limit to the total activity. Lack of demand may limit production and hence the same can be a key factor
- **Appointment of controller:** Controller is responsible for coordinating and development of budget programmes and preparing the manual of instruction, known as budget manual
- **Budget manual:** Effective budgetary planning relies on the provision of adequate information to the individuals involved in the planning process. A budget manual is a collection of documents that contain key information for those involved in the planning process
- **Budget period:** The period covered by a budget is known as budget period. There is no general rule governing the selection of the budget period.
- **Standard of activity or output:** For preparing budgets for the future, the company must rely on combination of past information and the expectations of the future operating conditions.

15. Write a short note on budget manual? (Nov 2019 RTP, May 2021 RTP, Nov 2022, Sep 2024)

- A budget manual is a collection of documents that contain key information for those involved in the planning process

Features:

- Budget manual contains much information which is required for **effective budgetary planning**.
- An introductory explanation of the budgetary planning and control process, **including a statement of the budgetary objective and desired results** is included in Budget Manual.
- Budget Manual contains a **form of organisation chart** to show who is responsible for the preparation of each functional budget and the way in which the budgets are interrelated.
- In **contains a timetable** for the preparation of each budget.
- **Copies of all forms to be completed by** those responsible for preparing budgets, with explanations concerning their completion is included in Budget Manual.

16. What is the budget classification on the basis of capacity or flexibility? [OR] Fixed budgets are very simple to understand and less time consuming, however, only flexible budgets are more realistic and practicable because it gives due consideration to behaviour of revenue and cost at different levels of activity. But still there are certain demerits of both the budgets. NARRATE the same. (May 2019, Sep 2024 MTP)

Fixed budget:

- A fixed budget is one which remain unchanged irrespective of the level of activity actually attained
- Fixed budgeting is used by many service companies and for some administration function of manufacturing companies
- Fixed budget is used when the following conditions are satisfied:
  - When the nature of business is not seasonal
  - No impact of external factors on the business activities
  - Demand of the product is certain and stable
  - There is a trend of price stability and supply of production inputs is regular
- **Merits:**
  - Very simple to understand
  - Less time consuming
- **Demerits:**
  - Misleading as poor performance remain undetected and a good performance may go unrealized
  - Not suitable for long period
  - Accurate estimates are not possible

Flexible budget:

- A flexible budget is defined as a budget which recognizes the difference between fixed, variable and semi-variable costs and hence shows the expected costs at different activity levels
- Flexible budget is suitable for the following situations:
  - Seasonal fluctuations in sales and/or production
  - Company which keeps introducing new products
  - Industries engaged in make-to-order business
  - Industry which is influenced by changes in fashion and
  - General changes in sales
- **Merits:**
  - Cost and profits may be calculated easily at various levels of production capacity
  - Adjustment is very simple according to change in business conditions
  - Determination of production level which can lead to maximum profits
  - Shows the quantity of product to be produced to earn determined profit
- **Demerits:**
  - Formulation of flexible budget is possible only when proper accounting system is maintained
  - Flexible budget also requires system of standard costing
  - Very expensive and labour oriented

17. Difference between fixed and flexible budget?

Fixed Budget	Flexible Budget
Does not change with actual volume of activity	Can be re-cased on the basis of activity level to be achieved
Operates at one level of activity under one set of conditions	Consists of various budgets for different levels of activity
All costs are related to only one level of activity and hence variance analysis does not give useful information	Analysis of variance provides useful information as cost is analysed according to its behaviour

If the budgeted and actual activity differ significantly then the aspect like cost ascertainment and price fixation do not give a correct picture	Flexible budgeting at different levels of activity facilitates the ascertainment of cost, fixation of selling price and tendering of quotations

18. How budgets are classified on the basis of function?

- A functional budget is one which is related to function of the business.
- Functional budgets are prepared for each function and they are subsidiary to the master budget of the business
- Commonly used functional budgets are:
    - Sales budget
    - Production budget
    - Plant utilization budget
    - Direct material usage budget
    - Direct material purchase budget
    - Direct labour budget
    - Factory overhead budget
    - Production cost budget
    - Ending inventory budget
    - Cost of goods sold budget
    - Selling and distribution cost budget
    - Administration expenses budget
    - Research and development cost budget
    - Capital expenditure budget
    - Cash budget

19. What is a master budget?

- Post preparation of all functional budgets, the budget officer will prepare the master budget which will consist of budgeted profit and loss account and budgeted balance sheet
- Master budget represents a standard for the achievement of which all the departments will work

20. How are budgets classified on the basis of period?

- **Long term budget:** The budgets are prepared to depict the long term planning of the business. The period of long term budgets varies between three to ten years
- **Short term budget:** These budgets are generally for one or two years
- **Current budgets:** The period of current budgets is generally of months and weeks

21. What is zero-based budgeting? (May 2018 RTP, May 2020 RTP, May 2018, Nov 2019)

- Zero based budgeting is defined as a method of budgeting which requires each cost element to be specifically justified, although the activities to which the budgets relates are being undertaken for the first time.
- It involves the following stages:
    - Identification and description of decision packages
    - Evaluation of decision packages
    - Ranking of decision packages
    - Allocation of resources
- **Advantages:** Zero-based budgeting is superior to traditional budgeting in the following manner:
    - Provide a systematic approach for evaluation of different activities
    - Various functions are being performed in the best possible way
    - Allocation of resources only after a detailed cost-benefit analysis
    - Areas of wasteful expenditure can be easily identified and eliminated
    - Departmental budgets can be closely linked with company objectives
- **Limitations:**
    - Process is very tedious as new data is to be collected
    - ZBB is difficult to implement

22. Differentiate traditional budgeting and zero-based budgeting?

- Traditional budgeting is primarily based on previous level of expenditure whereas zero-based budgeting makes decision oriented approach with justification for every item

- Traditional budgeting makes first reference to the past and then adjusts the same for inflation and new programmes. Zero-based budgeting focuses attention to only on decision packages, which enjoy priority to others
- In traditional budgeting, some managers can deliberately inflate the budget request. However the same cannot be done under ZBB as the rationale for every item is to be provided
- Traditional budgeting is not as clear and as responsive as ZBB
- Traditional budgeting makes a routine approach whereas ZBB makes a very straight forward approach and immediately focuses on the decision packages which enjoy priority over others

23. What is performance budgeting? [Nov 2020, Sep 2024]

- Performance budget (PB) is one which presents the **purposes and objectives for which funds are required**, the costs of the programmes proposed for achieving those objectives, and quantities data measuring the accomplishments and work performed under each programme
- PB is a technique of presenting budgets for costs and revenues **in terms of functions (objectives)**
- PB aims at establishing a relationship between the inputs and the outputs
- PB involve the following steps:
    - Establishing a meaningful functional programme and activity classification
    - Bring system of accounting and financial management in accordance with the classification
    - Develop suitable norms, yardsticks, work units of performance and unit costs for various programmes and activities

24. Compare Traditional Budgeting and Performance Budgeting?

- The traditional budgeting **gives more emphasis on the financial aspect** than the physical aspects or performance. PB aims at establishing a relationship between the inputs and the outputs.
- Traditional budgets are **generally prepared with the main basis towards the objects or items of expenditure i**.e., it highlights the items of expenditure, namely, salaries, stores and materials, rates, rents and taxes and so on. **In the PB emphasis is more on the functions of the organisation, the programmes to discharge this function and the activities which will be involved in undertaking these programmes.**

25. What are budget ratios?

- Budget ratio provides information about the performance level. If the ratio is more than 100%, then the performance is considered as favourable. If the ratio is less than 100%, then the performance is considered as adverse
- Following are the various ratios:

Efficiency ratio = Standard Hours / Actual hours
Activity ratio = Standard hours / Budgeted hours
Calendar ratio = Actual working days / Budgeted working days
Standard capacity usage ratio = Budgeted hours / Maximum possible hours
Actual capacity usage ratio = Actual hours worked / Maximum possible hours
Actual usage of budgeted capacity ratio = Actual hours worked / budgeted hours

MCQ:

Which of the following statements relating to Zero Based Budgeting (ZBB) is false:

a. It is a method of budgeting whereby all activities are re-evaluated each time a budget is formulated.
b. ZBB attempts to eliminate unnecessary expenditure being retained in budgets.
c. It is probably the least time consuming and least costly approach to budgeting.
d. It requires that budgets are built up from scratch

[May 2024 MTP]

Answer:

It is probably the least time consuming and least costly approach to budgeting.

SUMMARY THEORY NOTES

Chapter 1 – Introduction to Cost and Management Accounting

Basic Terms

- Cost = Expenditure incurred on product or service
- Costing = Method used to ascertain costs
- Cost Accounting = Preparation of periodical statements for ascertaining and controlling costs
- Cost Accountancy = Application of costing and cost accounting principles
- Management Accounting = Having relevant information for decision making
- Cost Management = Planning, monitoring and controlling costs = Otherwise managing costs.

Objectives of Cost Accounting

Cost Ascertainment + Cost Control + Cost reduction + Determination of Selling price + Ascertainment of Profitability + Decision Making

Cost Control vs Cost Reduction

- Cost control - Achieve cost as per set standard + Preventive function + Focus on Past + Ends if target is achieved
- Cost reduction - Real and permanent reduction + Corrective function + Focus on future + No visible end for cost reduction

Scope of Cost Accounting

- Scope = Utility of cost accounting

Areas of Application:

- Cost Analysis = Analzing cost and understanding deviation
- Cost Comparison = Comparing cost of different product (or) same product at different time
- Cost Control
- Cost reports - To provide information for planning and decision making
- Statutory compliance = Mandatory for specified companies Under companies (cost record and audit) rules, 2014

Cost Accounting vs Management Accounting

- Cost Accounting = Quantitative + Focus on cost ascertainment + Past and present information
- Management Accounting = Qualitative as well as Quantitative + Focus on information for decision making + Wider in scope + Focus on future

Financial Accounting vs Management Accounting

- Financial Accounting = Financial Performance + Historical data + External users + Set period/format
- Cost Accounting = Cost ascertainment + Historical/pre-determined cost + Internal users + No specific periodicity/format

Role and Function of Cost and Management Accountant

- Role of Cost Accountant = Providing information + Cost Allocation + Assist management in planning, evaluation and control of business activities
- Function = Cost collection + Cost allocation + Cost ascertainment + Performance evaluation of responsibility centres

Users of Cost and Management Accounting:

- Internal users = Policy makers (top management for formulating strategies) + Managers (Information about cost, price of their division) + Operational level staff (performance metrics) + Employees (Working hours, Incentives)
- External users = Regulatory authorities (subsidies, rate determination) + Auditors (for completing financial audit/cost audit) + Shareholders (new order received/product expansion) + Lenders/creditors (Net debt position, Stock balances)

Essentials of Good Cost Accounting System:

- Informative and simple + Accurate and authentic + Integrated and inclusive + Flexible and adaptive + Uniformity and consistency + Trust on the system

Factors to be considered before implementing a new system:

- Objective (Cost reduction/SP Fixation) + Nature of industry + Nature of Product + Understanding of production process + Information needs of multiple layers of management + Information attributes (complete/accurate/timely/confidential) + Method (Integrated/Non-integrated) + Statutory compliance and audit + Information synchronization

Impact of Information Technology:

- Improved accuracy + Integration of different functions + Paperless environment + Real-time information + Uniformity in presentation and classification

Digital Costing System:

- Costing system using technology is called digital costing system + We can link various functions + Link our system with that of supplier/customer
- **Benefits:** Certainty of cost + Helps in material procurement and planning + helps in establishing standards and measure performance + Eliminate non-value-added activities

Cost Object and Cost Unit:

- Cost object is something for which separate measurement of cost is required
- Cost unit is basically product/service/time (or combination of these) in relation to which costs are normally ascertained

Limitations of cost Accounting System:

- Expensive + Need for reconciliation + Duplication of efforts

Chapter 2 – Material Cost

Material:

- Physical thing which goes into making of a product
- **Two types:** Direct Material and Indirect Material
- We should ensure economy in procurement, efficiency in storage and processing and effectiveness in production
- **Why material cost is important:** Quality of finished product, Price of the final product, Production continuity, Cost of stock-holding and stockout, wastage and other losses, regular information about resources available

Material control or inventory control:

- Ensuring there are no stoppages in production while not carrying large amount of inventory
- **Objectives:** Minimal production stoppage, optimization of material cost, reduction in wastages, adequate information and completion of order on time

Requirements of material control:

Proper co-ordination of all departments (Purchase/stores/production/inspection/sales) + Standard procedures and standard forms + Budgeting + Internal checks

Elements of material control/Procedure:

Purchase + Receipt + Inspection + Storage + Issue + Inventory records (PSL) + Stock Audit

Documents associated with procurement:

- **Bill of Material:** BOM is a detailed list specifying the standard quantity and quality of material required + Prepared by engineering department + useful for stores/production/purchase/cost accounting department
- **Material requisition Note:** Document used by production department to request for raw material from stores
- **Purchase requisition:** Formal request by production department to the purchase department for purchasing raw material + For regular items the request can be from stores department to purchase department
- Inviting tenders/requesting for proposal
- Selection of quotation/proposal
- **Purchase order:** Formal request from purchase department to the supplier to supply raw material
- **Goods Received Note:** Document prepared on receiving the material – usually prepared by stores
- **Material returned note:** Document for recording return of material to supplier
- Checking and passing bills for payment

Government e-market place: Dedicated e-market for procuring different goods and services by Government organizations/departments/PSU + It is mandatory to be followed

Proper storage of raw material by store keeper is necessary for ensuring good quality

Duties of store keeper: Control over stores + Safe custody + Maintaining records + issue of material

Store Records:

- **Bin Cards:** They are kept next to material + Only quantity is recorded + Maintained by stores + Fewer chances of mistakes + Possibility of damage of Bin card
- **Stock Control Cards:** They are kept at single place for all materials + Only quantity is recorded + Maintained by stores + Possibility of mismatch in stock + records are maintained in compact manner
- **Stores Ledger:** Maintained by cost accounting department + Records quantity as well as value

Just-in-time:

- Objective to have zero inventory
- JIT Production = Produce product only when it is needed + Plan is to have zero FG Inventory
- JIT Purchase = Purchase raw material only when it is needed for consumption + Plan is to have zero RM inventory
- This is also known as demand pull or pull through system of production

Other ways of inventory classification:

- HML = High cost, Medium cost and Low cost = Classification on the basis of price of individual item
- VED = Vital, Essential and Desirable = Classification on the basis of criticality of item
- FSN = Fast moving, slow moving and non-moving

Two Bin system:

- Bin is divided into two parts – Smaller part and bigger part
- Smaller part will have minimum quantity – Bigger part will have remaining quantity – Issue of material is done from bigger part
- Fresh order is placed when we are required to use smaller part

Role of budgets in inventory control:

- Raw material purchase budget and raw material consumption budget can help in inventory control
- It will tell us what quantity to purchase and same can be used to optimize material cost

Perpetual records:

- Maintaining daily records of receipt/issue/return of raw material in form of bin cards/stock control cards + Posting this information in priced stores ledger on daily basis
- Helps in up-to-date information about inventory
- Daily physical verification can be done

Continuous stock taking:

- System of daily verification and counting of inventory such that all items are covered three to four times in a year
- **Advantages:** Normal functioning will not be impacted + Early reconciliation of physical and book inventory
- Continuous stock taking is possible only if perpetual records are maintained

Documents relating to material issue:

- Material requisition note = Document for issue of material from stores to production
- Material Transfer Note = Document used for transferring material from one production department to another production department
- Shop Credit Note/Stores Debit Note = Document for return of material from production to stores

Methods for valuation of material issues:

- **Specific price method:** Material is issued at the specific price paid for purchase
- **FIFO Method:** Material issue is valued under first in first out principle + Closing stock would be closer to current market price
- **LIFO Method:** Material issued is valued under last in first out principle + Value of material issued would be closer to current market price
- **Base lot method:** Minimum inventory is called as base lot and same is valued at fixed price + Balance inventory can be valued under FIFO/LIFO/Weighted average etc
- **Simple average price method:** Issue price = Simple average of different purchase price
- **Weighted average price method:** Issue price = Weighted average of different purchase price + This method smoothens price fluctuations and can be used when there is huge variation in prices
- **Replacement price Method:** Issue price = Replacement price (Price at which raw material can be purchased today)
- **Realisable price method:** Issue price = Realizable price (Price at which raw material can be sold today)
- **Standard Price Method:** Issue price = Pre-determined price
- **Inflated price method:** Issue price = Price inflated to account for loss in quantity due to issues such as evaporation
- **Re-used price method:** Useful when there is a rejection of material + issue price should be different from the original purchase price

Special items:

- Shortage = Normal shortage + Abnormal shortage
- Normal shortage is treated as OH + Abnormal shortage is transferred to costing P&L Account
- Wastage = Raw material lost in manufacturing process with no recoverable value
- Scrap = Raw material residue left after manufacturing process – This has some realizable value
- Spoilage = Finished product which is badly damaged and cannot be rectified
- Defective = Finished product which is damaged and can be rectified
- Obsolescence = Loss in value of RM/finished product

Chapter 3 – Employee Cost and Direct Expenses

Labour cost:

- Labour cost represents reward paid to employees. It includes basic wages + Overtime + DA + other allowances + Employer contribution to PF/ESI
- **Two types:** Direct labour cost (paid to employees engaged in production) and Indirect Labour Cost

Labour cost control:

- Labour cost control focuses on minimizing the labour cost per unit. Overall labour cost can increase but labour cost per unit can decline if productivity improves
- **Important factors:** Control over idle time/overtime/labour turnover/time booking/time keeping

Departments involved in labour cost control:

- **Personnel department/HR department:** Responsible for recruitment + Arranging training + Performance appraisal
- **Engineering and work study department:** Preparing job specifications + Provide training + Conduct time and motion study (this will help in computing standard time)
- Time keeping and time booking department
- **Payroll department:** Compute wages + Disbursal of wages
- **Cost Accounting department:** Accounting of wages and distribution to various cost objects

Purpose of collection of labour cost:

- Controlling labour cost
- Classification of labour cost as direct and indirect
- Computation of idle time – Abnormal idle time will be debited to costing P&L and not form part of cost of product

Time-keeping:

- Time-keeping refers to correct recording of time spent by an employee in factory
- **Purpose:** To compute wages/overtime/efficiency/control cost
- **Manual methods of time keeping:** Attendance register method and Metal Disk Method
- **Mechanical/automated methods:** Punch card method (or) Biometric system
- **Requisites of good time keeping:** Recording exact time (entry/exit) + No proxy + No relaxation by time-keeper + Mechanical system + Simple and easy to implement

Time-booking:

- Time-booking records the amount of time spent by employee on every job
- **Purpose:** To compute cost of job + measure efficiency + Identify idle time (normal and abnormal)
- **Methods:** Job card for each job (records time spent by different employees on specific job) (or) job card for each employee (records time spent by an employee on different jobs)

Procedure in payroll processing:

- Attendance and time details
- List of employees and other details
- Computation of wages and incentives
- Payment to employees
- Deposit to statutory authorities

Causes of labour turnover:

- Personal causes
- Unavoidable causes
- Avoidable causes

Effect of labour turnover

- Impact on production + Extra training cost + Extra recruitment cost + Productivity is impacted

Cost associated with labour turnover:

- **Prevention costs:** Cost incurred to reduce labour turnover
- **Replacement costs:** Cost incurred due to high labour turnover

Steps to minimize labour turnover:

- Exit interview + Good working conditions + Good Pay + Better incentives + Recreational facilities + Better jobs

Treatment of wages:

$$\text{Wage cost per hour} = \frac{\text{Total wage cost including incentives}}{\text{Effective working hours}}$$

$$\text{Effective working hours} = \text{Total hours} - \text{Normal idle time}$$

Holiday wages:

- **Option 1:** Treat holiday wages as an overhead
- **Option 2:** Include holiday wages as part of labour cost and inflate the cost per hour

Night shift allowance – Treat the same as an overhead
Direct Expenses: • Costs other than direct material/labour which can be directly and economically identified with a unit of production • If the amount is insignificant then the same can be treated as overhead • **Example:** Power and fuel, Job charges paid to job workers, Royalty, Hire Charges, Cost for product/service specific design or drawing

Chapter 4 – Overheads – Absorption Costing Method

Overhead Cost:

- Overhead cost are those which are generally incurred and cannot be traced directly to a product/job order

Classification of overheads:

- **Classification 1 – Functional Classification:** Factory overheads, administrative overheads and selling and distribution overheads
- **Classification 2 – Based on nature/behaviour:** Variable overheads, Fixed overheads and semi-variable overheads
- **Classification 3 – Based on Element:** Indirect material, Indirect labour and Indirect expenses
- **Classification 4 – Based on controllability:** Controllable cost and Non-controllable cost

Advantages of Classification overheads into fixed and variable:

- Controlling costs – Fixed costs are generally uncontrollable and variable costs are generally controllable
- Budget estimation – Accurate budgets will need proper classification of variable and fixed costs
- Decision Making – Price to be charged + shut-down analysis + selection of alternative

Allocation and Apportionment:

- Allocation would mean allotting the whole item of cost to a cost centre or profit centre
- Apportionment would mean distribution of expenses to various production department and service department using suitable cost driver

Variants of machine hour rate method:

- **Direct Machine Hour Rate Method:** Under this method only the direct costs related to the operating of the machine is considered for computing MHR
- **Comprehensive Machine Hour Rate method:** Under this method all costs (Direct as well as indirect) are considered for computing MHR. We have followed this method for all problem solving

Different types of overhead rates:

- Blanket overhead rate – Single OAR for the entire company
- Departmental Overhead rate – Different OAR for every department
- Actual rate/Normal rate = Actual overhead/Actual suitable base
- Pre-determined recovery rate = Budgeted OH/Budgeted suitable base

Accounting treatment of admin OH:

- Option 1 – Distribute admin OH to production activity (Production OH) and sales activity (Selling OH)
- Option 2 – Transfer entire Admin OH to Costing P&L
- Option 3 – Show as a separate line item in cost sheet for computing cost of production/cost of sales

Controlling Admin OH:

- Most of the Admin overheads are fixed in nature and hence non-controllable
- Admin overheads can be controlled through a system of budgets (Budgetary control)

Selling and distribution OH:

- Selling and distribution OH can be apportioned to the products on the basis of units sold/ % of revenues
- Selling OH can be controlled through a system of budgetary control

Idle Capacity:

- Idle capacity = Capacity not utilized by the company
- Normal idle capacity = Maximum capacity – Normal capacity
- Abnormal idle capacity = Normal capacity – Actual capacity

Accounting treatment of idle capacity cost:

- Idle capacity due to unavoidable reasons = Use supplementary recovery rate
- Idle capacity due to avoidable reasons/abnormal reasons = Transfer to Costing P&L
- Idle capacity due to seasonal factors – Use Inflated rates

Fringe Benefits:

- These are extra benefits provided to employees
- If amount is material – Treat fringe benefits as part of direct wages
- If amount is small – Treat it as part of factory overheads

Bad debt:

- Option 1 – Treat it as selling Overhead
- Option 2 – Ignore in cost sheet (Mostly we follow this)

Carriage and cartage expenses:

- Related to Raw material – Direct Material Cost
- Related to Indirect material – Factory OH
- Related to Finished Product – Selling and distribution overheads

Night shift allowance:

- Normal reasons – Part of Direct wages
- Request of specific customer – Charge to specific customer
- Abnormal reasons – Transfer to Costing P&L

Expenses on removal and re-erection of machine:

- Normal reasons (Small amount) – Factory OH
- Normal reasons (Large Amount) – Factory OH (Spread over multiple years)
- Abnormal reasons – Transfer to Costing P&L

Chapter 5 – Activity Based Costing

Factors Prompting development of ABC:

- Increasing competition + Growing overhead cost + Decreased cost of information processing

Situations in which ABC is useful:

- High amount of overhead + Stiff competition + Wide range of products

ABC:

- ABC is accounting methodology which assigns costs to activities and from activities, costs are distributed to products/services

Terms related to ABC:

- Activity – Event that incurs cost
- Cost pools – Pooling of different costs which will have same cost driver
- Resource cost driver – Basis used to distribute costs to various activities
- Activity cost driver – Basis used to distribute activity costs to various products/services

ABC vs Traditional Method:

- ABC will give accurate costs as compared to traditional method
- ABC can assist in cost reduction
- Under ABC multiple cost driver rates are used – We work with single OAR/multiple OAR under traditional method

Classification of activities:

- Unit level Activity – Costs which are incurred for every unit of output. Example: Machining
- Batch level Activity – Costs which are incurred for every batch of output. Example: Setting-up cost
- Product level Activity – Costs which are incurred for a specific product. Example: Advertising of product X
- Facility level Activity – Costs which cannot be associated with a specific product. Example: Advertising of company

Stages in ABC Implementation:

- Identify the Activities + Distributed OH cost to Activities + Identify the Cost Driver + Compute cost driver quantity and get cost driver rate

Advantages and limitations of ABC:

- **Advantages:** Accurate costs + Accurate Pricing + Cost Reduction
- **Disadvantages:** More expensive + Not suitable for small organizations/Limited products

Requirements of ABC Implementation:

- Staff training + Activity Definition + Identifying activity driver + Assigning costs

ABC as decision making tool:

- Assists in facility expansion + Useful to determine price under cost plus profit scenario

Activity based cost management (ABM):

- ABM is a costing tool to manage costs + Basically cost management application of ABC
- It includes Cost driver analysis + Activity analysis + Performance analysis

Activity Based Budgeting (ABB):

- ABB is budgeting activity wise + it improves accuracy of forecast + Determines activity to be done, quantity of the activity and the cost of the activity

Chapter 7 – Cost Accounting System

Non-integrated Accounting System:

- Maintenance of separate costing records
- Records all expenses and income related to product/service + Records notional expenses as well
- CLC Account will be used for accounts which are not maintained

Integrated Accounting System

- Single system for both financial and costing records
- All transactions relating to assets/liabilities/incomes/expenses are recorded – System will give information to compute financial profit as well as cost of product/service
- **Benefits:** No need for reconciliation + Economical
- **Issues:** Proper coordination is needed between cost accounting and financial accounting staff

Chapter 8 – Unit and Batch Costing

Cost Allocation Procedure in Unit Costing/Batch Costing/Job Costing:

- **Material Cost:** This would be collected from material requisition notes
- **Labour cost:** This would be collected from job cards or time sheets
- **Overheads:** Absorbed on the basis of suitable base

Treatment of Spoilage and Defectives:

- **Normal reasons:** Cost of rectification/loss is absorbed by good units
- **Abnormal reasons:** Charged to Costing Profit and Loss Account

Job Costing vs Batch Costing:

- Job costing is used for non-standard work (customized) and batch costing is used for homogenous production
- Costing is done per job vs costing is done per batch

Chapter 9 – Job Costing

Treatment of spoilage and defectives:

- **Normal reasons such as allowed loss:** Charged as cost of the job and absorbed by good units
- **Bad workmanship:** Charge to costing profit and loss account
- **Negligence of inspection department of incoming material:** Charge to inspection department and ultimately transfer to Costing Profit and Loss Account

Advantages and disadvantages of Job Costing:

- **Advantages:** Facilitates production planning + Job wise profitability + Detailed break-up of cost and hence better control
- **Disadvantages:** Costly and laborious method + Possibility of errors + Not useful under inflationary/changes in market condition

Job Costing vs Process Costing:

- Costing per job vs costing per process
- Customized work vs Standardized work
- Extensive management control vs Limited management control

Chapter 10 – Process & Operation Costing

Process costing:

- Used in those industries where raw material goes through multiple processes – At the end of each process a unique product emerges
- **Examples:** Steel, Paper, Medicines, Soaps, Chemicals

Features:

- Output of one process becomes input of next process
- Lot tracing is not possible
- Production can be of single product or Joint/by product

Advantages and disadvantages of inter-process profits:

- **Advantages:** Process wise profit can be computed – improves efficiency of process
- **Disadvantages:** Accounting complication + Elimination of profit on closing stock

Operation Costing:

- Operation is a part of process
- It is used when an entity manufactures more than one variant of end product using different raw material but with similar conversion activity (operation)
- **Example:** Ready-made garment, Shoe making, Jewellery

Chapter 11 – Joint Products and By Products

Co-Products:

- Co-products are those products which are related but not produced from single raw material
- **Example:** Timber boards from different trees

Which method to be followed:

- **When selling price of all product is uniform –** Physical units method
- **When realizable value at split-off is not known –** NRV Method
- **When FPC is incurred disproportionately –** Sale value at split-off
- **When all product require further processing and FPC is incurred proportionately -** Sale value after further processing
- **When products have same unit of measure –** Average unit cost method

Methods of apportioning joint cost to by-products:

- NRV (preferred approach)
- Standard cost determined on basis of past data/technical estimates
- Comparative price – Price of a similar/alternative material
- Re-use basis – Cost of a substitute material (By-product is used as a substitute of other product)

Chapter 12 – Service Costing

Service costing vs Product Costing:

- Employee cost is the major cost in service industry as compared to material cost in manufacturing industry
- Composite cost unit is used in service costing as compared to simple cost unit in product costing
- Overheads forms a significant part of total cost in service industry

Key Performance Indicator:

- KPI is a quantitative/qualitative measure to assess the performance as compared to benchmark. It is basically used to assess the performance against critical success factor

Equivalent cost unit:

- This is useful in case an organization provides two or more different grades of service while using common resources
- Weights need to be applied to convert them into equivalent units

BOT Approach (Build, Operate and Transfer)

- This is used in case of infrastructure projects
- Private players would design, construct, operate and maintain the facility – After a specific concession period the infra asset would be transferred to the Government

Chapter 13 – Standard Costing

Standard Cost:

- Standard cost refers to the planned unit cost + Purpose of standard cost is to evaluate performance, control costs and establish selling price

Need for standard costing:

- Guidance for future performance and corrective action can be taken based on variances
- Interim profit measurement is possible
- Fixation of responsibility for variances

Different types of standards:

- **Ideal Standard:** Standard which are achievable when company works at maximum efficiency, procures resources at lowest cost
- **Normal standard:** Standard which is achievable under normal operating conditions
- **Basic standard:** Standard which remains constant and is not altered
- **Current standard:** This reflect management expectation of the performance and this is used as standard for performance evaluation

Process of standard costing:

- Setting of standard + measurement of actual performance + comparison of performance + Investigation of variances + Disposition of variances

Types of variances:

- **Controllable vs Uncontrollable:** Controllable variance is due to factors which are under control of departmental head + Departmental head will be made responsible for this + Uncontrollable variance is due to factors which are beyond the control of departmental head + No responsibility fixed for this + Standards may change if there is a significant uncontrollable variance
- **Favorable vs adverse:** Favorable variance is profitable for the company and adverse variance is loss-making for the company

Responsibility:

- Material price variance = Purchase Department/Purchase Manager
- Material usage variance = Production department/Production manager
- Labour rate variance = Personnel/HR/Manpower department/Manager
- Labour efficiency variance = Production department/manager/foreman

Advantages and criticism of standard costing:

- **Advantages:** Performance evaluation + Profit computation + SP fixation + Inventory valuation + Guidance/targets/objectives for the company + Cost control + Waste minimization
- **Criticisms:** Variation in prices + Variation in output + Changes in technology + Changes in product mix + Difficulty in fixing standards

Chapter 14 – Marginal Costing

Introduction:

- Marginal cost = Incremental cost of producing one unit Example: Variable cost
- Marginal costing = Method of costing which does not consider fixed costs for inventory valuation
- Differential cost = Difference in cost (increase/decrease) between two levels of production activity

Advantages of Marginal costing:

- Simplified pricing policy + Helps in determining optimum mix + Decision making

Disadvantages:

- Ignoring fixed cost for inventory valuation + Differentiating costs as fixed and variable can be a challenge

CVP Analysis:

- Marginal costing is also known as CVP Analysis + In this we find the impact of change in volume on cost and profit of organization

Charts:

- Break-even chart records total cost, fixed cost and total sales in Y-axis for different volumes in X-axis. Point at which total cost line intersects with total sales line is called as Break-even point
- Contribution chart records additionally variable cost line. Difference between total sales and variable cost line is called contribution
- Profit volume charts records profits or losses in Y-axis for different sales volumes in X -axis. BEP is the point at which we make zero profit

Angle of incidence:

- This measures the rate at which profit is earned after attaining BEP
- Wider Angle = More PVR = More profits

Decisions with marginal costing:

- Decisions relating to excess supply = Processing of export order + Fixation of minimum price + Local sale vs Export sale
- Decisions relating to excess demand = Deciding product mix + Deciding sales mix + Make vs Buy decision + Sale or further processing

Chapter 15 – Budget & Budgetary Control

Budget and Budgeting:

- Budget is a quantitative statement prepared ahead of time to forecast income/expense/ employment of capital
- Budgeting is the process of preparing the budget by co-ordinating with various departments

Essential steps/elements of budget:

- Reasonable targets + Quantifiable + Scope for revision + Regular monitoring and performance linked payments + Defined responsibility + Clear organization structure

Characteristics of budget

- Definite time period + Written document + Scope for revision + Used for planning, co-ordination and control + Based on past experience

Objective of Budgeting

- Helping an organization in achieving the overall objectives of the company
- Budgeting = Planning + Directing and co-ordinating + Controlling

Budgetary control:

- Budgetary control = Preparation of budget + Comparison of Actual with budget (Variance analysis) + Fix responsibility for deviation in performance + Revise budgets if needed based on actual circumstances

Objectives of budgetary control

- Preparation of budget + Fixing responsibility + Providing a yardstick to compare actual performance + Provide a basis for future plans and revision of plans

Steps to be followed for establishing effective budgetary control:

- Determining the objectives to be achieved + Determination of Activities + Laying out of plans + Comparison of Actual performance + Taking corrective action

Feedback control and Feed-forward control:

- **Feedback control:** System of corrective control + Comparison of Actual performance with budgets and based on that corrective action is taken + Less expensive and has limitations
- **Feedforward control:** System of preventive control + Involves forecasting of future performance and comparison of same with budgets to take corrective action before the event + Expensive but useful in dynamic environment

Budget committee/budget officer:

- Responsible for successful implementation of budgetary control system
- Takes care of preparation of budgets + comparison of actuals + taking corrective action

Advantages of budgetary control:

- Improves efficiency + Reduction in cost + Effective utilization of resources + Implementation of standard costing system + Cost consciousness

Limitation of budgetary control:

- Based on estimates (revision may be required) + Expensive + Proper co-ordination + Time and money + Not a substitute for management + Rigid document

Components of Budgetary Control System:

- **Physical Budgets:** Specifies physical quantities such as sales quantity, production quantity
- **Cost Budgets:** Provides budgets for various costs such as manufacturing cost budget
- **Profit Budgets:** Helps in ascertainment of Profit Example: Sales Budget
- **Financial Budgets:** Helps in ascertainment of financial position Example – Capital Expenditure Budget, Budgeted Balance Sheet

Impact of budget on motivation of employees:

- Involvement in budgeting process – Participative Budgeting – Involve employees in budgeting process which motivates them and leads to achievable targets
- Optimum utilization of resources – Fix targets upto effort zone and the same should be beyond comfort zone
- Performance measurement – Measure performance at individual as well as department level – Pay rewards based on this

How budget is prepared?

- Definition of objectives + Identification of key or limiting factor (demand/production) +Appointment of controller + Budget manual + Decide budget period + Standards of activity or output

Budget manual:

- Contains detailed information for guiding people in effective budgetary process
- It will contain information such as organization objectives, people responsible for different functional budgets, organization chart etc

Budgets based on capacity or flexibility:

- **Fixed Budgets:** Budget which remains same irrespective of actual activity attained + Budget remains fixed + useful when there is stability and certainty
- **Flexible Budgets:** Budget which undergoes change based on actual activity + Budget recognizes the difference between fixed, variable and semi-variable cost + useful when there is uncertainty and lot of changes

Classification of budgets on basis of period:

- **Long-term budget:** Provides long-term planning of the business – 3 to 10 years
- **Short-term budget:** 1 to 2 years
- **Current budget:** Weeks/month

Zero-based budgeting:

- Budgeting approach wherein every cost element needs to be justified properly even if the activity is being done for the first time
- **Advantages:** Systematic approach + Best utilization of resources + wasteful expenditure can be eliminated + Resource allocation post proper cost-benefit analysis
- **Disadvantages:** Lengthy process + Difficult to implement

Traditional budgeting vs zero based budgeting:

- Traditional budgeting focuses on past information whereas zero-based budgeting needs adequate justification for every forecast

Performance Budgeting:

- Identification of key purpose/objective + Programs to achieve the purpose/objective + Performance measurement of the objective
- Establishes clear relationship between inputs and outputs
- Traditional budgeting focuses more on financial aspect and controlling/reducing cost + Performance budgeting focuses on key objectives and the attainment of the same