

COURSE OBJECTIVES:**To make the students**

1. To Explain the core concepts of costing, costing types and its importance in managing a business
2. To develop a conceptual framework of costing and to acquaint the participants with the tools, techniques and process cost reduction and control in the realm of decision making.

COURSE OUTCOMES:**Learners should be able to**

1. Explain the core concepts of costing, costing types and its importance in managing a business
2. Develop a conceptual framework of costing and to acquaint the participants with the tools, techniques and process cost reduction and control in the realm of decision making
3. Compute using different costing methods.
4. Demonstrate capabilities of teamwork, problem-solving, critical thinking, and communication skills related to finance decisions.

UNIT I Process Costing**Weighted - Average and FIFO**

Weighted - Average process Costing; FIFO Process Costing; Materials Issued at Various Stages; Process Costing with Multiple Departments; Journal Entries for Process Costing; Impact of Flexible Manufacturing and JIT on Process Costing.

Process Costing - Addition of Materials, Spoilage and Defective Units

Addition of Materials; Accounting for Spoilage; Abnormal Gain; Accounting for Rework; Reworked in a Separate Process; Accounting for Scrap Material and Waste.

UNIT II Job Costing and Batch Costing

Nature, Purpose and Procedure of Job Costing, Recording and Controlling Costs in Job order Costing, Forms used in Job order Costing, Tenders and Quotations, Nature and use of Batch Costing, Determination of Economic batch quantity.

Unit III Service Costing

Meaning of Service Costing; Transport Costing; Power Costing; Canteen Costing; Hospital Costing; Educational Institute.

Unit IV Reconciliation of Costing profit with Financial Profit

Need for reconciliation, reasons for disagreements in Profit, procedure for reconciliation

Unit V Cost Control and Cost Reduction

Meaning, Elements, Scheme and techniques of Cost control, Essentials for success of cost control, meaning of cost reduction, areas of cost reduction, tools and techniques of cost reduction, distinction between cost control and Cost reduction

SUGGESTED READINGS:

1. Khan, M. Y. & P.K. Jain (2017), Cost Accounting, 2nd edition, McGraw Hill, New Delhi
2. Jain S. P, K.L. Narang and SimmiAgarawal (2016), Cost Accounting Principles and Practice, Kalyani Publishers
3. Tulsian P.C., Tulsian Bharat (2016), Cost Accounting for CA- IPC (Group-I) 9th edition, S.Chand, New Delhi.
4. Banerjee H (2014), Cost Accounting Theory and Practice, 13th edition, Prentice Hall India Learning Private Limited, New Delhi.
5. M N Arora (2012), Cost Accounting: Principles & Practice, Vikas Publishing, 12th edition, New Delhi.

LECTURE PLAN

S.No.	Lecture Duration	Topics to be Covered	Support Materials
Unit I			
1	1	Introduction of Cost Accounting – Meaning and Definition of Cost Accounting, Objectives of Costing, Advantages of Cost Accounting	T: I 1-6
2	1	Weighted - Average process Costing; FIFO Process Costing; Materials Issued at Various Stages	T: II 61-62
3	1	Problems on FIFO	T: II 63
4	1	Problems on LIFO	T: II 65
5	1	Problems on Simple and Weighted Average	T: II 68
6	1	Problems on Simple Average (T)	
7	1	Process Costing with Multiple Departments; Journal Entries for Process Costing; Impact of Flexible Manufacturing and JIT on Process Costing, Process Costing - Addition of Materials, Spoilage and Defective Units	T: IV 131-132
8	1	Addition of Materials; Accounting for Spoilage; Abnormal Gain; Accounting for Rework; Reworked in a Separate Process; Accounting for Scrap Material and Waste, Problems on Process costing	T: IV 132-133
9	1	Problems on Process costing (T)	T: IV 142
10	1	Problems on Process costing (T)	T: IV 143
11	1	Recapitulation and important question discussion	
Total Hours			11
Unit II			
1	1	Job Costing - Nature, Purpose and Procedure of Job Costing, Recording and Controlling Costs in Job order Costing, Forms used in Job order Costing	T: IV 1-4
2	1	Problems on Job costing	T: IV 7
3	1	Problems on Job costing (T)	T: IV 8
4	1	Problems on Tenders and Quotations	T: IV 63 - 66
5		Problems on Tenders and Quotations (T)	T: IV 67-69
6	1	Problems on Tenders and Quotations (T)	T: IV 67-69
7	1	Nature and use of Batch Costing, Determination of Economic batch quantity, Problems on Economic Batch Quantity	T: IV 15
8	1	Problems on Economic Batch Quantity (T)	T: IV 16-18
9	1	Recapitulation and important question discussion	

KARPAGAM ACADEMY OF HIGHER EDUCATION**CLASS : I – M.COM****COURSE NAME: APPLIED COST ACCOUNTING****COURSE CODE : 19CMP203****BATCH : 2019-2021**

S.No.	Lecture Duration	Topics to be Covered	Support Materials
Total Hours			9
Unit III			
1	1	Meaning of Service Costing	T: IV 90-92
2	1	Problems on Transport Costing	T: IV 93-99
3	1	Problems on Transport Costing (T)	T: IV 93-99
4	1	Problems on Power Costing	T: IV 106-108
5	1	Problems on Power Costing (T)	T: IV 106-108
6	1	Problems on Canteen Costing	T: IV 102-105
7	1	Problems on Hospital Costing	T: IV 108-110
8	1	Problems on Educational Institutions	W6
9	1	Recapitulation and important question discussion	
Total Hours			9
Unit IV			
1	1	Reconciliation of cost and financial accounts, need for reconciliation	T: III 28-29
2	1	Methods of reconciliation	T: III 30-31
3	1	Methods of reconciliation (T)	T: III 30-31
4	1	Problems on reconciliation	T: III 32-37
5	1	Problems on reconciliation (T)	T: III 32-37
6	1	Problems on reconciliation	T: III 32-37
7	1	Problems on reconciliation (T)	T: III 32-37
8	1	Problems on reconciliation (T)	T: III 32-37
9	1	Recapitulation and important question discussion	
Total Hours			9
Unit V			
1	1	Cost Control – Meaning, Elements of Cost Control	W1
2	1	Scheme and Technique of Cost Control	W2
3	1	Essentials for success of cost control	W1
4	1	Cost Reduction – Meaning, Areas of cost reduction	W3
5	1	Tools and techniques of cost reduction	W4
6	1	Distinction between cost control and Cost reduction	W5
7	1	Recapitulation and important question discussion	
8	1	Discussion of previous year ESE Question Paper	
9	1	Discussion of previous year ESE Question Paper	
10	1	Discussion of previous year ESE Question Paper	
Total Hours			10

REFERENCES

T: Jain, SP and Narang, K.L. 2014. Cost Accounting. Kalyani Publishers, Ludhian

W1: <http://www.yourarticlelibrary.com/cost-accounting/cost-control/cost-control-meaning-elements-and-techniques-organisation/73976>

W2: https://www.tutorialspoint.com/management_concepts/project_cost_control.htm

W3: <https://www.toppr.com/guides/fundamentals-of-accounting/fundamentals-of-cost-accounting/cost-control-and-cost-reduction/>

W4: https://www.tutorialspoint.com/accounting_basics/cost_accounting_cost_reduction.htm

W5: <https://keydifferences.com/difference-between-cost-control-and-cost-reduction.html>

W6:

https://www.icmai.in/upload/Institute/Updates/Guidance_note_on_Cost_Management_in_Higher_Education.pdf

UNIT I
SYLLABUS

Weighted - Average and FIFO: Weighted - Average process Costing; FIFO Process Costing; Materials Issued at Various Stages; Process Costing with Multiple Departments; Journal Entries for Process Costing; Impact of Flexible Manufacturing and JIT on Process Costing.

Process Costing - Addition of Materials, Spoilage and Defective Units : Addition of Materials; Accounting for Spoilage; Abnormal Gain; Accounting for Rework; Reworked in a Separate Process; Accounting for Scrap Material and Waste.

Introduction

Meaning of Material

Materials cost is one of the important elements of cost of product or unit. It constitutes a substantial proportion of the total cost of production. For material cost control purposes, it is very essential to know the important aspects of material, material control and material purchase control.

Materials:

The term 'materials' refers to all commodities or components which are consumed in the process of manufacture. The materials may be classified into Direct Materials and Indirect Materials.

Direct Materials:

Direct Materials form part of the finished products. They can be easily identified with a particular cost unit. For example, cotton used in textile mills, timber used in furniture industries.

Indirect Materials:

Indirect materials indirectly used for conversion from raw materials into finished products. They cannot be easily identified with a particular cost unit. For example, spare parts, tools, nails, lubrications etc.

Materials are further classified on the basis of the nature which have to be used such as:

- (a) Raw Materials, e.g., rubber, timber, steel etc.
- (b) Components, e.g., instruments
- (c) Consumable stores, e.g., cotton waste, brushes
- (d) Maintenance Materials, e.g., spare parts
- (e) Tools, e.g., jigs and fixtures

Materials Control

Materials control may be defined as the systematic control over the procurement, storage and usage of materials so as to maintain an even flow of materials and at the same time avoiding excessive investment in inventories.

From the above definition we can derive the following important aspects:

- (1) To ensure the smooth flow of production without interruptions.
- (2) Prevention of excessive investments in materials stock.

Functions of Materials Control

The following are the important functions involved in materials control in order to achieve the objectives of the stores department :

- (1) Purchasing of Materials
- (2) Receiving of Materials
- (3) Inspection of Materials
- (4) Storage of Materials
- (5) Issue of Materials
- (6) Maintenance of Stores Records
- (7) Stock Audit.

Objectives of Stores Control

The following are the objectives of stores control :

- (1) To receive materials and store them properly.
- (2) To ensure proper production and preservation of materials.
- (3) To make sure proper classification and codification of materials.
- (4) To provide proper information to the management about stock of materials.
- (5) To ensure good housekeeping and effective material handlings.
- (6) To assist in verification and provision of supporting information for effective purchase action.
- (7) To minimize obsolescence of materials adopted through effective control measures.
- (8) To ensure the optimum investment in materials to avoid overstocking or under stocking of materials.
- (9) To maintain proper records about materials, receipts, issues and balances.
- (10) To issue materials as per specifications.
- (11) To make sure of the availability of all types of materials.
- (12) To ensure proper utilization of floor space.

Essentials of Material Control

Effective materials control is required for the following essentials to be considered:

- (1) Systematic planning for requirement of materials.
- (2) Essentials for co-ordination and co-operation among different departments.
- (3) Fixing of stock level is essential for avoiding overstocking.
- (4) Floor space is required for smooth handling of materials.
- (5) Proper filing system should be adopted.
- (6) Proper codification and classification of materials as per specifications.
- (7) Perpetual inventory system should be adopted for verification of materials in stock.
- (8) Proper planned storage control and issue.
- (9) Systematic procedure should be adopted for materials, receipts and issues.
- (10) Qualified personnel required to manage the materials functions effectively.
- (11) Appropriate system of internal auditing should be adopted.

Advantages of Materials Control

The following are the advantages of materials control :

- (1) It ensures continuous flow of production.
- (2) There is maximum utilization of stores resources.
- (3) It facilitates economy of buying.
- (4) It ensures optimum investments in inventories.
- (5) There is possibility of reduction of loss of theft, leakage, obsolescence etc.
- (6) It minimizes cost of materials during purchase, storage and issue of materials.
- (7) It facilitates effective information.

Economic Order Quantity

- This represents the normal quantity to be placed on order when the stock has reached its re-order level.
- Re-ordering quantity is to be fixed taking into account the maximum and minimum stock levels. The quantity ordered must be that which, when added to the minimum stock, will not exceed the maximum stock to be carried at any point of time.

The following factors govern the re-ordering quantity.

1. Average consumption
2. Cost of placing order
3. Cost of storage
4. Interest on capital etc.,

Carrying cost of inventory consists of

- i) The costs of physical storage, such as cost of space, handling and upkeep expenses, insurance, cost of obsolescence etc.
- ii) Interest on capital invested (the opportunity cost of the capital blocked up) and
- iii) Cost of placing the order each time.

Economic order quantity or economic lot size (if it relates to production) refers to the number ordered in a single purchase or number of units should be manufactured in a single run so that the total costs-ordering or set up costs and inventory carrying costs are at the minimum level.

In other words, it is the quantity that should be ordered at one time so as to minimize the total of

- i) Cost of placing orders and receiving the goods, and
- ii) Cost of storing the goods as well as interest on the capital invested. The economic order quantity can be determined by the following simple formula.

$$E.O.Q. = \sqrt{\frac{2AS}{I}} ; \text{where}$$

EOQ = Economic order quantity or number of units in one lot.

A = Annual usage in units

S = Ordering costs for one order (or set-up costs for one set-up)

I = Inventory carrying costs per unit per year.

This formula is based in three assumptions:

- i) Price will remain constant throughout the year and quantity discount is not involved.
- ii) Pattern of consumption, variable ordering costs per order and variable inventory carrying charge per unit per annum will remain the same throughout, and

EOQ will be delivered each time the stock balance, excluding safety stock, is just reduced to nil.

A-B-C Analysis

To exercise proper control on stores, it is essential that the store items should be classified according to values so that the most valuable items may be paid greater and due a attention regarding their safety and care, as compared to others. The stores are divided into three categories generally, viz., A, B, and C.

In the ABC system, greatest care and control is to be exercised on the items of 'A' list as any loss or breakage or wastage of any items of this list may prove to be very costly; proper care need be exercised on 'B' list items and comparatively less control is needed for 'C' list items. The rules relating to receipt maintenance issue and writing off stores items should be formed in accordance with the utility and value of the items based on the above categorization.

Advantages:

- 1) A Strict Control is exercised on the items which represent a high percentage of the material costs.
- 2) Investment in inventory is reduced to the minimum possible level.
- 3) Storage cost is reduced as a reasonable quantity of materials, which account for high percentage of value of consumption, will be maintained in the stores.

Perpetual Inventory System

Perpetual Inventory is a system of records maintained by the controlling department, which reflects the physical movement of stocks and their current balance. It aims at devising the system of records by which the receipts and issues of stores may be recorded immediately at the time of each transaction and the balance may be brought out so as to show the up-to-date position.

The records used for perpetual inventory are:

- (1) Bin Cards;
- (2) Store Ledger Accounts or Stores Record cards;
- (3) The forms and documents used for receipt, issue and transfer of materials.

Advantages of Perpetual Inventory system

1. It keeps the record of stocks up to date.
2. The materials are kept within the Minimum and Maximum Limits. Non-observance of the limits fixed is detected.
3. The materials going out of stock are easily detected and purchased at the appropriate time to avoid the risk of closing down.

4. It acts as a moral check on the staff of the stores Department and so the possibilities of loss or theft of materials are minimized.
5. The recording of stocks in Bin cards as well as Store Record cards minimizes the error in entering the receipts and issues of stocks.
6. The discrepancies noted after physical counting are detected and corrective action is taken promptly to avoid future occurrence.
7. The materials getting state or being wasted are detected and placed in right atmosphere.
8. The prompt balancing of closing stocks enables quick preparation of final accounts.
9. The slow moving inventories, obsolete or dormant stocks are brought to the notice of the Purchase Department so that such stocks may purchased future in lesser quantities as required.
10. The availability of correct figures of stocks helps in the insurance of the stocks.

Purchasing Procedure

- (1) Bill of Materials.
- (2) Purchase Requisition.
- (3) Selection of Suppliers.
- (4) Purchase Orders.
- (5) Goods Received Note.
- (6) Inspection of Materials.

(1) Bill of Materials (Specification of Materials):

Bill of Materials is a list of containing all materials required for manufacturing a product. In other words, it is a form which indicates the quantity and quality and other specifications of materials required for a particular job or process or operation. This is a form sent to the purchase department for asking to purchase the said materials required for a particular work order. At least five copies of bill of materials are prepared by materials requiring department. Out of these copies one copy is sent to purchase department, to the stores, to the production section, to the cost office and to the office copy for further reference.

(2) Purchase Requisition:

It is a form which indicates indent for materials. In any industry, the purchase department places orders for materials based on the purchase requisition form. Usually the purchase requisition form is initiated by the storekeeper for the standard items, the stock which require restocking again

and again. Sometimes, it is initiated by other departments for special materials which are not stocked in stores. Whenever any special material is required for production, the purchase requisition form is prepared in three copies. Out of these copies one copy is sent to purchase department, one to the production control department and one to the initiating department.

(3) Selection of Suppliers:

On receipt of the purchase requisition, the purchasing department prepares a list of suppliers who deals with the business of the materials to be purchased and are reliable. It is useful for the purchasing department to call for quotations. If the material to be purchased is of small Materials Cost Control quantities and is required urgently, it may be purchased locally. After receiving the quotations, prepare a comparative statement of the rates, terms and conditions mentioned in the tenders. If required samples may be received from the suppliers who have quoted the lowest rates. After satisfying the above, select the suitable suppliers to place the purchase order for required materials.

(4) Purchase Order:

Purchase order is a letter which is sent to the suppliers for asking to supply the specified materials. Purchase order must contain the rates, terms, quantity, quality, time of delivery and other conditions mentioned therein. At least five copies of purchase order are prepared by the purchase section and each copy sent to :

- (1) Original to the Suppliers.
- (2) Storekeeping Department.
- (3) Account Section.
- (4) Inspection Department.
- (5) Retained in the purchase department for further reference.

(5) Goods Received Note:

The materials receiving section is responsible to receive the goods and verify the contents of the packages along with Goods Received Note sent by the suppliers. This section should ensure that the goods have been received as per the purchase order and record the same in the Consignment Note. Five copies of the materials received report are generally prepared. Out of these copies, the original is sent to purchasing department and remaining each copy sent to Stores department, Inspection, Accounts department and one copy retained by it for future reference.

(6) Inspections of Materials:

A detailed inspection is carried out after the materials are received. The Inspection Section should ensure that the goods have been received according to purchase order specification. Return of materials to suppliers, if any, damaged, spoiled, excess or not in accordance with orders. If the materials are found to be satisfactory the bill of the suppliers is passed and the payment is made to the suppliers.

Stores Requisitions

Forms used to keep track of materials charged to a particular job or department. The form contains such items as job number, department, and description of the material, quantity, unit cost, and dollar amount.

STORES REQUISITION

Job No. _____		Date _____	
Department _____			
Debit Account _____			
Authorized By _____			
Description	Quantity	Unit Cost	Amount

Factors to be contributed to purchase control:

i) Determination of Quantity to be purchased

- Quantities purchased in excessive number or weight block the working capital and the quantities purchased below the reasonable limit endanger the continuous working of the factory.

ii) Determination of the Ordering Point

- The ordering point of the ordering level is one at which the order for purchase of materials is to be placed with the suppliers when the stock of that material is reduced to that point by consumption or otherwise.

iii) Determination of Price at which to be purchased

- The selection of right suppliers and the best terms available out of the quotations received helps this factor.

The Purchase cycle constitutes the following:

1. Initiating the purchase;

2. Receiving of the Purchase Requisitions;
3. Deciding important factors relating to purchase;
4. Selecting the suppliers;
5. Placing purchase-orders and follow-up
6. Receiving the supply and returning unwarranted suppliers;
7. Inspecting the material received; and
8. Passing invoices for payment.

The important factors to be decided are:

- a) What to purchase;
- b) When to purchase; and
- c) How much to purchase.

STORES RECORDS

1. Bin Card

- A Bin card, also known as Bin Tag or Stock card, is a card showing quantitative record of the receipts, issues and closing balances of the material kept in the corresponding bin.
- The Bin card is placed in the bin or shelf or is hung over the almirah or the rack otherwise known as 'Bin'.
- Separate Bin cards are prepared for each item of stores and if two different materials are kept in one almirah, two Bin cards, one for each, are prepared, treating the almirah as two bins.

2. Stores Ledger

- Stores Ledger is a record of stores, both in quantity and value and is maintained by the stores Accountant.
- It is similar to Bin card but with the main difference that value of material is shown in the Stores ledger.
- Stores Ledger is an important book and the account of each item of stores is maintained separately.
- While Bin cards are maintained by store-keeper in the store, Store Ledger is maintained in the accounting department by the Stores Accountant.

Material Control and its Requirements

“Material Control’ may be defined as the regulation of the procedures for requisitioning, buying, receiving, storing, handling and usage of materials”.

The main requirements of a system of material control are:

- Planning and fixation of definite responsibility for each function of material.

- Co-ordination between departments responsible for requisitioning, purchasing, receiving, inspecting, storing and utilizing the materials,
- Centralization on purchases.
- Use of material purchase budget and material requirement budget.
- Use of standard and uniform forms, and
- Proper system of stock control.

For proper application of the material control the following steps are necessary.

1. Purchasing of materials
2. Receiving and inspecting of materials
3. Storing of materials
4. Pricing material Issues
5. Accounting materials losses.
6. Keeping physical and perpetual inventory

Purchasing of Materials

- In a large manufacturing concern, a separate purchase department is set up with the object of affecting all purchases.
- The top management lays down the purchase department.
- It is the function of the purchaser department to decide:
 - i) What to purchase;
 - ii) When to purchase;
 - iii) form where to purchase;
 - iv) how much to purchase, and
 - v) finally at what price the material should be purchased.

Maintenance of Stock Levels

- The next important point after determination of EOQ is to decide as to when the order for purchase should be placed.
- The answer is simple. The order for purchase should be placed when the stock is reduced by usage to the Order Point.
- The Order Point is one where the order should be placed for the economic order quantity.
- For deciding Order Point, two things, viz.,
 - (1) Lead time and
 - (2) Usage during Lead time, are the determining factors.
- Lead time is the supply time, or to be more specific, Lead Time is “the time interval between placing an order and having materials on the factory floor ready for production...”

- Usage means the use of materials by consumptions for productions, or the stock of finished goods sold.
- Sometimes purchase are made in large bulk in a season if the goods are seasonal, i.e., available in one season only, or at a time when it is feared that the goods may not be found available in the near future due to some reason.
- Special items for which no limit or order-points are fixed may be purchased as and when needed.
- To avoid over-stocking and under stocking each items of the inventory has the Maximum Level. Minimum Level and an Order point.

Order Point

It is also known; 'Ordering Level'; or 'Reorder Point', or 'Reordering Level' or 'Ordering Limit', it has been stated earlier that Order Point is at which order for supply of materials or goods is placed. To decide the Order Point, three factors are considered, viz.,

- (1) Lead time
- (2) Usage during Lead time, and
- (3) Minimum Limit, or the Safety stock.

In order to ensure that the optimum quantity of material is purchased and stocked, neither less nor more, the storekeeper applies scientific techniques of materials management.

Fixing of certain levels for each item of materials is one of such techniques.

The following levels are generally fixed.

1. Maximum level
2. Minimum level
3. Order level
4. Danger level

1. Maximum level

- The maximum stock level indicates the maximum quantity of an item of material which can be held in stock at any time.
- The maximum stock can be calculated by applying the following formula.
- $\text{Maximum level} = \text{Re-order level} + \text{re-order quantity} - (\text{minimum consumption} \times \text{minimum re-order period})$

2. Minimum level

- Minimum level represents the quantity below which the inventory of any items should not allowed to fall;
- In other words, an enterprise must maintain minimum quantity of

stock so that the production is not hampered due to non-availability of materials.

- If some buffer inventory is acting as a cushion against reasonable expected maximum usage.

Formula:

Minimum level = Re-order level – (Normal consumption x normal re-order period)

3. Re-ordering Level Point

- Re-ordering stock level in relation to an items of stock is the point at which it becomes essential to initiate purchase orders for its fresh supplies.
- Normally, re-ordering level is a point between the maximum and the minimum levels.
- Fresh orders must be placed before the actual stocks touch the minimum level.

Formula:

Reorder level = maximum re-order period x maximum usage.

4. Danger level

- The danger level is below the minimum level and represents a stage where immediate steps are taken for getting stock replenished.
- When the stock reaches danger level it is indicative that if no emergency steps are taken to restock the material, the stores will be completely exhausted and normal production stopped.
- Generally the danger level of stock is fixed above the minimum level but below the re-ordering level.

CONTROL OVER WASTAGE, SCRAP AND SPOILAGE:

Material Losses

1. **Waste:** Waste is defined as discarded substances having no value.

- ❖ **Normal Waste:** It is the loss which is unavoidable on account inherent nature of material. Some materials such as liquid materials lose their weight due to evaporation. Similarly, there are some materials (i.e. coal) which are wasted due to loading and unloading.

Example:

	Units	Amount
Suppose, total cost of input(i.e. material, labour & o/h)	2,000	
20,000		
Less: Normal waste @ 5% (assumed)	100	-

Cost of normal output	1,900	20,000

20,000

Therefore, cost per unit = $\frac{20,000}{1,900}$ = Rs. 10.53

❖ **Abnormal Waste:** Any loss caused by unexpected or abnormal conditions such as sub-standard materials, carelessness, accident etc. or loss in excess of the margin anticipated for normal process loss should be regarded as abnormal waste.

The value of abnormal loss is calculated with the help of the following formula

$$\text{Abnormal Waste} = \frac{\text{Normal cost of normal output}}{\text{Normal output}} \times \text{Units of abnormal Waste}$$

1. Scrap

Scrap is discarded material having some value. It represents fragments or remnants of material that are left from certain type of manufacture. It is a material loss but has small value without further processing. Example of scrap are available in operations like turning, boring, punching, sawing, shavings, moldings, etc. from metals on which machine operations are carried out; saw dust and trimmings in the timber industry; dead heads and bottom ends in foundries; and cuttings, pieces and splits in leather industry.

2. Defectives

Defective products or units are those which do not meet with dimensional or quality standards and reworked for rectification of defects by application of material, labour and /or processing and salvaged to the point of either standard product or sub-standard product to be sold as seconds. So defectives are that portion which can be rectified at some extra cost of re-operation. Defectives may arise due to the following reasons:

1. Sub-standard materials
2. Poor workmanship
3. Poor maintenance of machines
4. Wrong tool setting
5. Faulty design of products

6. Bad supervision
7. Careless inspection
8. Poor working conditions
9. Lack of Control, such as humidity, furnace temperature etc
10. Excessive short runs.

3. Spoilage

Spoilage refers to production that does not meet with dimensional or quality standards in such a way that it cannot be rectified economically and is junked and sold for a disposal value. So it occurs when goods are so damaged in course of manufacturing process as to become not rectifiable with some additional cost. Material used in spoiled units can be used again as material by the same or another process or product. Spoilage cost is the difference between the costs incurred upon the point of rejection less salvage value or cost of material used.

Need for Inventory Control

The term 'Inventory' is used to denote

- (i) goods awaiting sale (the stock items of a trading concern and the finished stocks of a manufacturer);
- (ii) the goods in course of manufacture, known as work-in-progress, and
- (iii) goods to be used directly or indirectly in production, i.e., raw materials and supplies.

Objectives of Inventory Control

1. To exercise proper control on the purchases and issues of inventories; proper storing; elimination of wastage; and regulating the proper supplies to works and to customers;
2. Pricing of the inventories on suitable basis;
3. Proper recording, and scientific inventory management
4. To have proper assessment of income through the process of matching appropriate costs against revenues.
5. To maintain inventory of sufficient size for the operations to go on uninterruptedly but the size should match with the optimum financial involvement.

Methods of pricing

There are different methods of pricing materials issue. The various methods used fall under the following main categories:

I. Cost Price Methods

- (a) First in First out (FIFO)
- (b) Last in First out (LIFO)
- (c) Base Stock

II. Average Price Methods

- (a) Simple Average.
- (b) Weighted Average

III. Notional Price Method

- (a) Standard Price.
- (b) Inflated Price.
- (c) Replacement price.

First in First out Method (FIFO)

Under this method materials are used in the order in which they are received. In other words, materials received first are issued first. This process is repeated throughout.

The price of the earliest consignment is taken first and when that is exhausted, the price of the next consignment is adopted and so on. This method is most suitable for use where the material is slow moving and has comparatively high unit cost. This method is also useful in times of falling prices because the issue price of material to the job will be high while the replacement cost of material will be below.

Illustration

Show the Stores Ledger entries for the month of Jan, 2008 as they would appear when using FIFO method:

- Jan.1 Purchased 300 units @ Rs.3 per unit
- Jan.4 Purchased 600 units @ Rs.4 per unit
- Jan.6 Issued 500 units.
- Jan. 10 Purchased 700 units @ Rs.4 per unit.
- Jan. 15 Issued 800 units.

Jan.20 Purchased 300 units @ Rs.5 per unit.

Jan.23 Issued 100 units.

Ascertain the quantity and value of closing stock as on 31st Jan under FIFO method. Solution:

Stores ledger Account (FIFO Method)

200 units @ Rs.4 = 800 300 units @ Rs.5 = 1,500 Rs. 2,300

Advantages of FIFO method:

- (i) It is simple to understand and easy to calculate.
- (ii) FIFO method is based on sound principle that materials are issued in order of purchase. Thus materials received first are issued first.
- (iii) The value of closing stock will reflect current market price.
- (iv) This method is suitable when prices are falling.
- (v) This method is also useful if transactions are few and prices of material remain stable.
- (vi) Unrealized profit or loss does not arise as materials are issued at actual cost but not on estimate.
- (vii) Deterioration and obsolescence can be avoided by exhausting oldest materials at the time of issue.

Disadvantages

This method suffers from the following disadvantages:

- (i) The calculation becomes difficult and cumbersome when purchases are made very frequently at different prices.
- (ii) Issue price does not reflect current market price and so does cost of production.
- (iii) For pricing one requisition, more than one price has often to be taken.
- (iv) Cost of production tends to be high during the period of falling prices.
- (v) Two similar jobs cannot be compared as the issue price of one lot differs from that of other.

Last in First Out Method: (LIFO)

This method is exactly the opposite of FIFO method. Under this method materials received last are issued first. The price of the material to be issued would be the cost price of the last lot of materials purchased.

This method is useful during a period of rising prices because materials will be issued from the latest consignment at a price which is closely related to the current price levels. Under this method product cost is calculated on a basis which approximates to replacement cost.

Advantages of LIFO Method:

The following are the advantages of LIFO method:

- (i) This method is very simple to operate and quite useful where transactions are not too many and prices are fairly steady.
- (ii) Production is charged at the most recent prices so that it is based on the principle that costing should be related to current price levels.
- (iii) During the period of rising prices there is no windfall profit as in case of FIFO method.
- (iv) Closing stock will be valued at earlier price and will not, therefore, show unrealized profit.
- (v) This method reduces burden of income tax during the period of price rise

Disadvantages:

This method suffers from the following disadvantages:

- (i) Like FIFO system, calculations become complicated and cumbersome when transactions are many with frequent price fluctuations.
- (ii) Two similar jobs cannot be compared because of charging different rates of materials to different jobs.

(iii) Under this system, closing stocks are not shown at current market price.

(iv) Sometimes more than one price has to be adopted for pricing a single requisition.

(v) When prices are falling it will lead to low charge to production, whereas materials in the stock purchased at higher rate need adjustment for valuation of closing stock.

(vi) This system of material issue is not accepted by Income Tax Authorities.

Base Stock Price

This is not a distinct method of pricing materials issue. This method is based on the principle that a certain minimum quantity of material is always maintained in to ensure continuous production.

This minimum stock is treated as fixed asset and is called as base stock. Since minimum stock is created out of first lot of material purchased, it is always valued at cost price of first lot of materials. The quantity in excess of this base stock is issued at a price similar to FIFO or LIFO method.

This base stock method operates in conjunction with some other methods like FIFO or LIFO and is called Base Stock - FIFO method or Base Stock - LIFO method. The advantages of FIFO and LIFO are applicable in this method.

Simple Average Price Method

Under this method, materials issued are valued at average price. This is calculated by dividing the total of the price of the materials on the stock from which the material to be priced could be drawn by the number of prices used in that total.

Unit pieces of material in stock $\text{Issue Price} = \frac{\text{Number of purchases}}{\text{Total cost of purchases}}$

A new simple average price is to be determined when a fresh receipt is made. The rate is also revised when an earlier consignment is exhausted.

The following example will illustrate this. Suppose, following are three different lots of materials in stock when materials is to be priced:

100 units purchased @ Rs.4.00 200 units purchased @ Rs.5.00 300 units purchased @ Rs.6.00

The simple average price will be = Rs.5.00

Advantages of Simple Average Price Method

The following are the advantages of simple average method:

- (1) It is easy to calculate and simple to operate.
- (2) A particular purchase at higher or lower rate cannot disturb the price to a great extent.
- (3) Issue rate remains the same until a fresh purchase is made.

Disadvantages:

- (1) It is not a logical method as it takes into account purchase price but not quantity.
- (2) The value of closing stock becomes absurd.
- (3) The issue price does not relate to the current market price.

Weighted Average Method

Merits

1. This method irons out the wide fluctuations in the prices.
2. With every new issue, a new rate is not calculated.
3. The total value of the material issued does not behave up and down to the total value of the material received, as is the case with Simple Average Method.

Demerits

1. Calculations are tedious. Prices are worked out in decimals to get correct results.
 2. A lot of materials purchased at a very high price at one time continues to reflect its effect in the average, for a considerable time after it is exhausted.
- 1) Show the Store Ledger entries as they would appear when using
- i) FIFO

- ii) LIFO
 - iii) Weighted average method
 - iv) Simple average method
- April 1. Balance 300 units Rs. 600/-
 2. Purchase 200 units Rs. 440/-
 4. Issued 150 units
 6. Purchase 200 units Rs. 460/-
 11. Issued 150 units
 19. Issued 200 units
 22. Purchase 200 units Rs. 480/-
 27. Issued 250 units

Problem 4

The following is the record of receipts and issues a certain material in the factory during a week.

April 1997

1. Opening Balance 50 tonnes @ Rs. 10 per tone.
 Issued 30 tonnes @ Rs. 10 per tones
2. Received 60 tonnes @ Rs. 10.20 per tone.
3. Issued 25 tonnes @ Rs. 10.20 per tone (stock verification reveals loss of tone)
4. Received back from orders 10 tonnes @ Rs. 10.20 per tone
 (Previously issued at Rs. 9.15 per tone)
5. Issued 40 tonnes @ Rs. 10.20 per tone.
6. Received 22 tonnes @ Rs. 10.30 per tone.
7. Issued 38 tonnes @ Rs. 10.30 per tone.

Solution 3

1) Stores Ledger Account as per FIFO METHOD

Date	Details	Receipt	Issued	Balance						
		Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
April 1	Balance	300	2/-	600	-	-	-	300	2/-	600
2	Purchase	200	2.20	440	-	-	-	300	2.00	600
								200	2.20	440
4	Issue				150	2.00	300	150	2.00	300
								200	2.20	440
6	Purchase	200	2.30	460				150	2.00	300

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								200	2.20	440
								200	2.30	460
11	Issue				150	2.00	300	200	2.20	440
								200	2.30	460
19	Issue				200	2.20	440	200	2.30	460
22	Purchase	200	2.40	480				200	2.30	460
								200	2.40	480
27	Issue				200	2.30	460	150	2.40	360
					50	2.40	120			

Value of Closing Stock : 150 units at the rate of Rs. 2.40 value Rs. 360/-

2) LIFO METHOD

Date	Details	Receipt	Issued	Balance						
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April 1	Balance	300	2.00	600	-	-	-	300	2.00	600
2	Purchase	200	2.20	440	-	-	-	300	2.00	600
								200	2.20	440
4	Issue				150	2.20	330	300	2.00	600
								50	2.20	110
6	Purchase	200	2.30	460				300	2.00	600
								50	2.20	110
								200	2.30	460
11	Issue				150	2.30	345	300	2.00	600
								50	2.20	110
								50	2.30	115
19	Issue				50	2.30	115	200	2.00	400
					50	2.20	110			
					100	2.00	200			
22	Purchase	200	2.40	480	-	-	-	200	2.00	400
								200	2.40	480
27	Issue				200	2.40	480	150	2.00	300
					50	2.00	100			

Value of Closing Stock : 150 units @ Rs. 2.00 value is Rs. 300/-

3) WEIGHTED AVERAGE METHOD

Date	Details	Receipt	Issued	Balance
------	---------	---------	--------	---------

		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April 1	Balance	300	2.00	600	-	-	-	300	2.00	600
2	Purchase	200	2.20	440	-	-	-	500	2.08	1040
4	Issue	-	-	-	150	2.08	312	350	2.08	728
6	Purchase	200	2.30	460	-	-	-	550	2.16	1118
11	Issue	-	-	-	150	2.16	324	400	2.16	864
19	Issue	-	-	-	200	2.16	432	200	2.16	432
22	Purchase	200	2.40	480	-	-	-	400	2.28	912
27	Issue	-	-	-	250	2.28	570	150	2.28	342

Value of Closing Stock : 150 units at the rate of Rs. 2.28 value Rs. 342.00/

4) SIMPLE AVERAGE METHOD

Date	Details	Receipt	Issued	Balance						
		Unit	Rate	Amt	Unit	Rate	Amt	Unit	Rate	Amt
April 1	Balance	300	2.00	600	-	-	-	300	2.00	600
2	Purchase	200	2.20	440	-	-	-	500	2.10	1050
4	Issue	-	-	-	150	2.10	315	350	2.10	35
6	Purchase	200	2.30	460	-	-	-	550	2.17	1193..50
11	Issue	-	-	-	150	2.17	325.50	400	2.17	868
19	Issue	-	-	-	200	2.17	434	200	2.17	434
22	Purchase	200	2.40	480	-	-	-	400	2.23	892
27	Issue	-	-	-	250	2.23	557.50	150	2.23	334.50

Value of Closing Stock : 150 units at the rate of Rs. 2.23 value Rs. 334.50

Solution 2

Stores Ledger Account Under LIFO

Date	Receipts	Issues	Balance						
	Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
1				30			50	10	500
1				30	10	300	20	10	200
2	60	10.20	612	-	-	-	20	10	200

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							60	10.20	612
3	-	-	-	25	10.20	255	20	10	200
				1	10.20	10.20	35	10.20	357
							20	10	200
4	10	9.15	91.5				34	10.20	346.80
				-	-	-	20	10	200
							34	10.20	346.80
							10	9.15	91.50
5	-	-	-	10	9.15	31.50	20	10	200
				3	10.20	306.0	4	10.20	40.80
6	22	10.30	226.6				20	10	200
							4	10.20	40.80
7	-	-	-	22	10.30	226.6			
				4	10.20	40.80	8	10.00	80.00
				12	10.00	120.0			

Closing Stock 8 tonnes @ Rs. 10 = Rs. 80/-

Stores Ledger Under FIFO

Date	Receipts	Issues	Balance						
	Qty	Rate	Amt	Qty	Rate	Amt	Qty	Rate	Amt
1				30			50	10	500
1				30	10	300	20	10	200
2	60	10.20	612	-	-	-	20	10	200
							60	10.20	612
3	-	-	-	20	10	200			
				5	10.20	51	55	10.20	561
				1(loss)	10.20	10.20	54	10.20	550.80
4	10	9.15	91.5	-			54	10.20	550.80
					-	-	10	9.15	91.50
5	-	-	-	40	10.20	408	14	10.20	142.80
							10	9.15	91.50
6	22	10.30	226.6	-			14	10.20	142.80
							10	9.15	31.50
							22	10.30	226.60
7	-	-	-	14	10.20	142.80			

				10	9.15	91.50	8	10.3	82.40
				22	10.30	226.60			
Closing stock 8 tonnes @ Rs. 10.30 = 82.40									

POSSIBLE QUESTIONS

PART A

ONE MARKS

ONLINE EXAMINATIONS

PART B

TWO MARKS

1. Explain the term minimum level.
2. Write a short notes on EOQ.
3. What do you understand by Classification of materials?
4. What is ABC Analysis?
5. What is perpetual Inventory?
6. Describe briefly job evaluations.
7. Write short notes on Idle time.

PART – C

SIX MARKS

1. Zee is a product manufactured out of three raw materials, 'M', 'N' and 'Q'. Each unit of Zee requires 10 Kgs., 8 Kgs. and 6 Kgs. of M, N and Q respectively. The re – order levels of M and N are 15,000 Kgs. and 10,000 Kgs. respectively while the minimum level of Q is 2,500 Kgs. The weekly production of Zee varies from 300 to 500 units, while the weekly average production is 400 units. You are required to compute :

- (a) The Minimum Stock of M
- (b) The Maximum Stock level of N and
- (c) The Re – order level of Q.

The following additional data are given :

Particulars	M	N	Q
Reorder Quantity (Kg)	20,000	15,000	
Delivery (in weeks):			
Minimum	2	4	3
Average	3	5	4
Maximum	4	6	5

2. The following particulars have been extracted in respect of Material X. Prepare Ledger account showing the receipts and issues, pricing the materials issued on the basis of Simple Average Method.

Receipts

3 rd Oct.	Purchased 500 units @ Rs. 4.00 per unit
13 th Oct.	Purchased 900 units @ Rs. 4.30 per unit
23 rd Oct.	Purchased 600 units @ Rs. 3.80 per unit

Issues

5 th Oct.	Issued 400 units
15 th Oct.	Issued 600 units
25 th Oct.	Issued 600 units

3. Show the Store Ledger entries as they would appear when using
- i) FIFO
 - ii) LIFO

April	1	Balance	300 units	Rs. 600/-
	2	Purchase	200 units	Rs. 440/-
	4	Issued	150 units	
	6	Purchase	200 units	Rs. 460/-

11	Issued	150 units	
19	Issued	200 units	
22	Purchase	200 units	Rs. 480/-
27	Issued	250 units	

4. Two materials X and Y are used as follows :

Minimum usage : 50 units per week each
Maximum usage : 150 units per week each
Normal usage : 100 units per week each
Ordering quantities - X – 600 units and Y – 1,000 units
Delivery period - X – 4 to 6 weeks, Y – 2 to 4 weeks
Calculate for each material

(a) Minimum level (b) Maximum level and (c) Ordering level

5. Show the Stores Ledger entries for the month of Jan, 2008 as they would appear when

using FIFO method:

Jan.1 Purchased 300 units @ Rs.3 per unit
Jan.4 Purchased 600 units @ Rs.4 per unit
Jan.6 Issued 500 units.
Jan. 10 Purchased 700 units @ Rs.4 per unit.
Jan. 15 Issued 800 units.
Jan.20 Purchased 300 units @ Rs.5 per unit.
Jan.23 Issued 100 units.

Ascertain the quantity and value of closing stock as on 31st Jan under
FIFO meth

6. In a factory three components E, F, G are used as follows:

Normal Usage 900 Units Per Week Each
Maximum Usage 1,350 Units Per Week Each
Minimum Usage 450 Units Per Week Each

Re – order quantity E - 7,200 F - 9,000 G – 10,800

Re – order period E – 2 – 4 weeks F – 4 – 6 weeks G – 3 – 5
weeks

Calculate for each component :

- (a) Re – order Level (b) Minimum Level
(c) Maximum Level (d) Average Stock Level

7. The following particulars have been extracted in respect of Material X.
Prepare Ledger account showing the receipts and issues, pricing the
materials issued on the basis of Weighted Average Method.

Receipts

3rd Oct. Purchased 500 units @ Rs. 4.00 per unit
13th Oct. Purchased 900 units @ Rs. 4.30 per unit
23rd Oct. Purchased 600 units @ Rs. 3.80 per unit

Issues

5th Oct. Issued 400 units

15th Oct. Issued 600 units
25th Oct. Issued 600 units

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Coimbatore – 641 021.

Applied Cost Accounting (19CM9203)
Unit –I

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
1.	The accounting which provides the methods and techniques to reduce the cost of production is called	Profit and Loss Account	Balance Sheet	Cost Accounting	Financial Accounting	Cost Accounting
2.	Cost accounting includes only the activities of	Non-Operating	Operating	Operating & Non-operating	Cost Auditing	Operating
3.	Cost incurred even after the stoppage of production is called	Shut down cost	Sunk Cost	Historical Cost	Relevant Cost	Shut down cost
4.	The difference between the purchase price of a fixed asset and its realized value, from sales is known as	Relevant Cost	Imputed Cost	Sunk Cost	Opportunity Cost	Sunk Cost
5.	If there is an increase in cost from one alternative to another, the differential cost is called	Incremental Cost	Decremental Cost	Sunk Cost	Imputed Cost	Incremental Cost
6.	The difference in the total cost between the two alternatives is called	Sunk Cost	Fixed Cost	Variable Cost	Differential Cost	Differential Cost
7.	The method of costing adopted for the production of identical products is called	Job Costing	Batch Costing	Contract Costing	Output Costing	Batch Costing
8.	The method of costing	Fixed Cost	Variable Cost	Job Costing	Batch	Job Costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	adopted in specific order is known as				Costing	
9.	The method of costing adopted when the period of a job is long is called	Contract Costing	Fixed Cost	Sunk Cost	Historical Costing	Contract Costing
10.	The cost which is partly fixed and partly variable is known as	Fixed Cost	Marginal Cost	Semi-variable cost	Contract Cost	Semi-variable cost
11.	Determination of cost before the cost is incurred is called	Historical Costing	Variable Costing	Marginal Costing	Standard Costing	Standard Costing
12.	The location or person for which cost is ascertained and used is	Cost Centre	Cost Unit	Costing Method	Uniform Cost	Cost Centre
13.	Costs which can easily be identified in a product is called	Indirect Cost	Direct Cost	Variable Cost	Differential Cost	Direct Cost
14.	The cost which remains constant up to a certain level of activity is known as	Semi-variable cost	Variable cost	Marginal cost	Fixed Cost	Fixed Cost
15.	Marginal Costing is otherwise called as	Variable costing	Operation costing	Process costing	Operating costing	Variable costing
16.	___ is a method of costing adopted by concerns which produce one product with identical and standard units through two or more process	Job Costing	Batch Costing	Single Costing	Operation Costing	Single Costing
17.	The method of costing adopted by concerns which render services is called	Job Costing	Batch Costing	Operating costing	Operation Costing	Operating costing
18.	___ includes only operating activities	Cost Accounting	Financial Accounting	Management Accounting	Corporate Accounting	Cost Accounting
19.	___ is concerned with both	Cost	Financial	Management	Corporate	Financial

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	operating and non-operating activities	Accounting	Accounting	Accounting	Accounting	Accounting
20.	___ is a method of costing adopted to concerns which produces group of identical or similar product in large units	Job Costing	Batch Costing	Operating costing	Operation Costing	Batch Costing
21.	___ is adopted by the concerns which produce product of constructions type	Operating costing	Operation Costing	Contract Costing	Process Costing	Contract Costing
22.	___ is adopted by concerns which produce products of mass scale with two or more processes	Operating costing	Operation Costing	Contract Costing	Process Costing	Process Costing
23.	___ is a method of costing adopted for the concerns, producing products with number of process or operations	Operating costing	Operation Costing	Contract Costing	Process Costing	Operation Costing
24.	The determination of cost after the costs are incurred is called	Historical Costing	Standard Costing	Absorption Costing	Marginal Costing	Historical Costing
25.	The determination of cost before the costs are incurred for the production is called	Historical Costing	Standard Costing	Absorption Costing	Marginal Costing	Standard Costing
26.	___ is also known as Full Costing	Historical Costing	Standard Costing	Absorption Costing	Marginal Costing	Absorption Costing
27.	Under ___ different costs incurred for manufacturing a product are charged to the product	Historical Costing	Standard Costing	Absorption Costing	Marginal Costing	Absorption Costing
28.	___ is also called variable	Historical	Standard	Absorption	Marginal	Marginal

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	costing	Costing	Costing	Costing	Costing	Costing
29.	___ helps the management to take decisions on the basis of variable cost and fixed cost	Historical Costing	Standard Costing	Absorption Costing	Marginal Costing	Marginal Costing
30.	___ is an adoption of similar costing principles and practices	Historical Costing	Uniform Costing	Absorption Costing	Marginal Costing	Uniform Costing
31.	A cost centre which consists of a person or group of persons for which costs may be ascertained is called as ___	Personal Cost Centre	Impersonal Cost Centre	Operation Cost Centre	Process Cost Centre	Personal Cost Centre
32.	A cost centre which consists of a location or item of equipment or group of these is called ___	Personal Cost Centre	Impersonal Cost Centre	Operation Cost Centre	Process Cost Centre	Impersonal Cost Centre
33.	A cost centre which consists of the machines or person carrying out similar operations is called ___	Personal Cost Centre	Impersonal Cost Centre	Operation Cost Centre	Process Cost Centre	Operation Cost Centre
34.	A cost centre which consists of a specific process or a continuous sequence of operations is called ___	Personal Cost Centre	Impersonal Cost Centre	Operation Cost Centre	Process Cost Centre	Process Cost Centre
35.	The cost incurred for the purchase and storage of material is called ___	Material Cost	Labour Cost	Expenses	Production Cost	Material Cost
36.	___ are those material cost which can be easily identified in a product	Direct Material Cost	Direct Labour Cost	Direct Expenses	Direct Production Cost	Direct Material Cost
37.	___ can be easily allocated to the process of production	Material Cost	Labour Cost	Expenses	Production Cost	Material Cost

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
38.	___ are those material costs which cannot be easily identified in the product	Direct Material Cost	Indirect Material Cost	Direct Expense	Indirect Expenses	Indirect Material Cost
39.	___ cannot be allocated but apportioned, to the process of production	Direct Material Cost	Indirect Material Cost	Direct Expense	Indirect Expenses	Indirect Material Cost
40.	___ incurred in the form of wages and salaries to the employees	Material Cost	Labour Cost	Expenses	Production Cost	Labour Cost
41.	The costs other than the material costs and labour cost are called ___	Material Cost	Labour Cost	Expenses	Production Cost	Expenses
42.	The cost incurred in the factory or work place of a concern is called ___	Production Cost	Administration Cost	Selling & Distribution Cost	None of the Above	Production Cost
43.	The cost of administration of an organization is called	Production Cost	Administration Cost	Selling & Distribution Cost	None of the Above	Administration Cost
44.	The costs incurred for selling and distribution of a product are called ___	Production Cost	Administration Cost	Selling & Distribution Cost	None of the Above	Selling & Distribution Cost
45.	___ are those costs which can easily be identified in a product	Direct Costs	Indirect Costs	Fixed Costs	Variable Costs	Direct Costs
46.	___ are those costs which cannot be easily be identified in a product	Direct Costs	Indirect Costs	Fixed Costs	Variable Costs	Indirect Costs
47.	The cost which remains constant up to a certain level of activity is called	Direct Costs	Indirect Costs	Fixed Costs	Variable Costs	Fixed Costs
48.	The costs which changes according to the changes in	Direct Costs	Indirect Costs	Fixed Costs	Variable Costs	Variable Costs

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	the volume of production is called ____					
49.	The costs which is partly fixed and partly variable is called	Fixed Costs	Variable Costs	Semi-variable costs	Sunk Cost	Semi-variable costs
50.	The costs which can be influenced by the action of the management of a concern are called	Controllable Cost	Uncontrollable Costs	Semi-variable costs	Sunk Cost	Controllable Cost
51.	The costs which cannot be influenced by the action of the management of a concern are called	Controllable Cost	Uncontrollable Costs	Semi-variable costs	Sunk Cost	Uncontrollable Costs
52.	Costs which have already been incurred are called	Historical Cost	Pre-determined Costs	Relevant Costs	Irrelevant Costs	Historical Cost
53.	Costs which are estimated in advance before the commencement of production are called as ____	Historical Cost	Pre-determined Costs	Relevant Costs	Irrelevant Costs	Pre-determined Costs
54.	____ are those costs which are reliable for taking managerial decision	Historical Cost	Pre-determined Costs	Relevant Costs	Irrelevant Costs	Relevant Costs
55.	____ are those costs which are not relevant for taking managerial decision	Historical Cost	Pre-determined Costs	Relevant Costs	Irrelevant Costs	Irrelevant Costs
56.	____ means expired cost	Cost	Expenses	Loss	Opportunity Cost	Expenses
57.	____ is the amount of expenditure incurred for the activities like production of product or services	Cost	Expenses	Loss	Opportunity Cost	Cost
58.	When the revenue is less	Cost	Expenses	Loss	Opportunity	Loss

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	than expenses it is known as _____				Cost	
59.	The cost connected with the loss of an opportunity is called _____	Cost	Expenses	Loss	Opportunity Cost	Opportunity Cost
60.	_____ cost be stated as the difference between book value and scrap value of an asset	Opportunity Cost	Sunk Cost	Differential Cost	Imputed Cost	Sunk Cost
61.	The difference in the total cost between any two alternatives is called _____	Opportunity Cost	Sunk Cost	Differential Cost	Imputed Cost	Differential Cost
62.	_____ are those cost which are maintained or estimated for managerial decision making	Opportunity Cost	Sunk Cost	Differential Cost	Imputed Cost	Imputed Cost
63.	_____ means the cost actually spent for manufacturing a product	Opportunity Cost	Sunk Cost	Differential Cost	Out-of-pocket cost	Out-of-pocket cost
64.	The cost of labour which cannot be easily identified in the production is called _____	Indirect Labour cost	Direct labour cost	Total labor cost	Fixed labor cost	Indirect Labour cost
65.	The method of recording the time spent by each worker in a company is known as _____	Pay Roll	Time Keeping	Time Study	Motion Study	Time Keeping
66.	The recording of the time spent by worker on each job or operation is called _____	Time Management	Pay Roll	Personal Department	Time Booking	Time Booking
67.	The card given to each worker to record the time spent by him in a job is called _____	Job Card	Bin Card	Wage Card	Salary Card	Job Card
68.	The difference between the _____	Real time	Work time	Job time	Idle time`	Idle time`

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	time spent in the factory and in the job is known as _					
69.	The time spent by workers over and above the normal working hours is called	Idle time	Over time	Actual Time	Job Time	Over time
70.	A study about the job and its method is known as _	Work Study	Time Study	Motion Study	Idle Time	Work Study
71.	A study about the movement of workers in a factory is called	Motion Study	Time Study	Work Measurement	Work Study	Motion Study
72.	The process of assessment and analysis of each job is known as	Merit Rating	Time Keeping	Work Study	Job Evaluation	Job Evaluation
73.	The systematic evaluation of the performance of the employee is called _ -	Job evaluation	Merit rating	Work study	Time Study	Merit rating
74.	The rate of change of labour force in an organization is known as	Material Turnover	Debtors Turnover	Labor Turnover	Work Assessment	Labor Turnover
75.	The payment of wages on the basis of time spent by workers is called	Piece wage	Time wage	Indirect wage	Direct wage	Time wage
76.	The payment of wages on the basis of the number of units produced is called _	Piece wage	Time wage	Indirect wage	Direct wage	Piece wage
77.	The payment of wages according to the efficiency of the workers is called	Incentive wages	Time wage	Direct wage	Piece wage	Incentive wages
78.	When the incentive is shared by all the workers in a job, it is known as _	Incentive wages	Time wage	Direct wage	Group Bonus	Group Bonus
79.	If purchasing is done at one	Decentralized	Optimum	Centralized	Economical	Centralized

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	central place, it is called	Purchasing	Purchasing	Purchasing	Purchasing	Purchasing
80.	The process of assigning numbers or symbols to materials is called	Store Keeping	Codification	Store	Bin Card	Codification
81.	Maximum consumption X Maximum re-order period is called	Re-ordering level	Maximum level	Minimum level	Re-ordering Quantity	Re-ordering level
82.	Cost of storage of materials is known as	Ordering Cost	EOQ	Carrying Cost	Total Cost	Carrying Cost
83.	The quantity of which material ordering cost and carrying cost equal is called	Maximum Quantity	Economic Ordering Quantity	Minimum Quantity	Re-ordering Quantity	Economic Ordering Quantity
84.	A quantitative record of receipts, issues and closing balances of a particular item of stores is known as	Material Order	Wage Card	Material Card	Bin Card	Bin Card
85.	The physical movement of receipts and issues of material is recorded in	Stores Ledger	Pay Roll	Cost Sheet	Wage Sheet	Stores Ledger
86.	The analysis based on the concept of selective inventory management is known as	EOQ Analysis	VED Analysis	BEP Analysis	ABC Analysis	ABC Analysis
87.	The analysis used primarily for the control of spare parts is called	EOQ Analysis	VED Analysis	BEP Analysis	ABC Analysis	VED Analysis
88.	Inventory turnover ratio is a ratio between cost of material consumed and	Average Stock	Base Stock	Opening Stock	Closing Stock	Average Stock
89.	When the issue price is based on the price of the oldest material, it is called	LIFO	FIFO	HIFO	Average Price	FIFO

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
90.	When the issue price is based on the price of latest material, it is called	LIFO	FIFO	HIFO	Average Price	FIFO
91.	___ is the process of receiving and maintaining of material in a place called storehouse	Store Keeping	Codification	Store	Bin Card	Store Keeping
92.	___ are those materials which can easily be identified in the product	Direct Material	Indirect Material	Direct Labour	Indirect Labour	Direct Material
93.	___ are those materials which cannot easily be identified in the product	Direct Material	Indirect Material	Direct Labour	Indirect Labour	Indirect Material
94.	___ is the person in charge of the store house	Store Keeper	Production Manager	Sales Manager	Human Resource Manager	Store Keeper
95.	___ is a card maintained by the store-keeper to record the quantitative data of receipt, issue and balance of the material	Bin Card	Stock Verification	Stock Ledger	Voucher	Bin Card
96.	___ is the process of comparing the physical quantity or weights of materials in the store with the records	Bin Card	Stock Verification	Stock Ledger	Voucher	Stock Verification
97.	___ is a method of verifying the stock periodically	Perpetual Stock Verification	Periodic Stock Verification	Irregular Stock Verification	None of the Above	Periodic Stock Verification
98.	___ is otherwise called as continuous stock verification	Perpetual Stock Verification	Periodic Stock Verification	Irregular Stock Verification	None of the Above	Perpetual Stock Verification
99.	In ___ method the	Perpetual	Periodic Stock	Irregular	None of the	Perpetual Stock

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	verification of stock is done continuously	Stock Verification	Verification	Stock Verification	Above	Verification
100.	___ level means the maximum quantity of material kept as stock at any time	Maximum level	Minimum level	Reorder level	Danger Level	Maximum level
101.	The stock level should not be raise beyond	Maximum level	Minimum level	Reorder level	Danger Level	Maximum level
102.	___ is a level below which the quantity of material should not be allowed to fall	Maximum level	Minimum level	Reorder level	Danger Level	Minimum level
103.	___ is a level at which the order for material should be placed	Maximum level	Minimum level	Reorder level	Danger Level	Reorder level
104.	___ is a level below the minimum level	Maximum level	Minimum level	Reorder level	Danger Level	Danger Level
105.	Under this method a minimum stock is kept as base stock	FIFO	LIFO	Base Stock	Average Stock	Base Stock
106.	In this method, the average of the price of previous purchase should be considered	Simple Average Method	Weighted Average Price Method	LIFO	FIFO	Simple Average Method
107.	Under this method, the issue price of material is calculated by dividing the total cost of available in the store with the total quantity of material	Simple Average Method	Weighted Average Price Method	LIFO	FIFO	Weighted Average Price Method
108.	___ costs are those costs which are incurred to reduce the rate of labour turnover	Preventive Costs	Replacement Costs	Idle Cost	Imputed Costs	Preventive Costs
109.	___ are those costs incurred	Preventive	Replacement	Idle Cost	Imputed	Replacement

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	due to labor turnover	Costs	Costs		Costs	Costs
110.	___ arises due to unavoidable circumstances	Normal Idle Time	Abnormal Idle Time	Avoidable Idle Time	Unavoidable Idle time	Normal Idle Time
111.	___arises due to abnormal situation is called	Normal Idle Time	Abnormal Idle Time	Avoidable Idle Time	Unavoidable Idle time	Abnormal Idle Time
112.	___card contains columns to record the attendance time and job work time of the workers for one week	Time and Job Card	Weekly Time Sheets	Labor Cost Card	Job Ticket	Time and Job Card
113.	___is a card given to each worker to record the time spent by him in a job	Time and Job Card	Weekly Time Sheets	Labor Cost Card	Job Ticket	Job Ticket
114.	When the job involves many operations ___ is issued by the concern	Job Card	Labor Cost Card	Daily Time Sheet	Weekly Time Sheets	Labor Cost Card
115.	This sheet is meant for recording the daily time spent by the workers in different jobs	Job Card	Labor Cost Card	Daily Time Sheet	Weekly Time Sheets	Daily Time Sheet
116.	___contains columns to fill the time spent by work for a week	Job Card	Labor Cost Card	Daily Time Sheet	Weekly Time Sheets	Weekly Time Sheets
117.	___is otherwise called as Stock Turnover Ratio	Inventory Turnover Ratio	Debtors Turnover Ratio	Creditors Turnover Ratio	Asset Turnover Ratio	Inventory Turnover Ratio
118.	Under this method, the materials are grouped into high priced, medium priced and low priced materials	ABC Analysis	VED Analysis	Input Output Analysis	FIFO	ABC Analysis
119.	___ is used for classifying and controlling the spare parts	ABC Analysis	VED Analysis	Input Output Analysis	FIFO	VED Analysis

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
120.	___ is the ratio between standard cost of actual quantity consumed and standard cost of standard quantity of output	ABC Analysis	VED Analysis	Input Output Analysis	FIFO	Input Output Analysis
121.	If the stock level falls below the ___, it will hamper the production	Maximum Level	Minimum Level	Danger Level	Reorder Level	Minimum Level
122.	___ should be determined by taking into account of the requirement of material for production for a particular period	Maximum Level	Minimum Level	Danger Level	Reorder Level	Minimum Level
123.	___ depends upon the lead time, rate of consumption and economic order quantity	Maximum level	Minimum level	Reorder level	Danger Level	Reorder level

UNIT II
SYLLABUS

Job Costing and Batch Costing - Nature, Purpose and Procedure of Job Costing, Recording and Controlling Costs in Job order Costing, Forms used in Job order Costing, Tenders and Quotations, Nature and use of Batch Costing, Determination of Economic batch quantity.

MEANING

It means ascertaining costs of an individual job, work order or project separately. According to ICMA London, “job costing is that form of specific order costing which applies where work is undertaken to customer’s specific requirements and each order is of comparatively of short duration.” Under this method of costing, each job is considered to be a distinct cost unit. As such, each job is separately identifiable.

In the case of a job, work is usually carried out within the factory or workshop. Sometimes, a job is accomplished even in the customer’s premises. This method of costing is applicable to ship building, printing, engineering, machine tools, readymade garments, shoes, hats, furniture, musical instruments, interior decorations etc.

OBJECTIVES OF JOB COSTING

1. It helps in finding out the cost of production of every order and thus helps in ascertaining profit or loss made out on its execution. The management can judge the profitability of each job and decide its future course of action
2. It helps management in making more accurate estimates about the costs of similar jobs to be executed in future on the basis of past records. The management can conveniently and accurately determine and quote prices for orders of a similar nature which are in prospect.
3. It enables management to control operational inefficiency by comparing actual costs with the estimated ones.

FEATURES OF JOB COSTING

1. Each job has its own characteristics, depending up on the special order placed by the customer.
2. Each job is treated as a cost unit.
3. A separate job cost sheet is made out for each job on the basis of distinguishing numbers.
4. A separate work in progress ledger is maintained for each job.
5. The duration of the job is normally a short period.
6. Profit or loss is determined for each job independently of others

NATURE OF JOB COSTING

- (i) It helps to find out the cost of production of every job or order and to know the profit or loss made on its execution. This ultimately helps the management to judge the profitability of each job and decide the future course of action.
- (ii) It helps the management to make more accurate estimates for costs of similar jobs to be executed in future on the basis of past records. Management can easily and accurately determine and quote prices of jobs of a similar nature which are in prospect.

(iii) It helps the management to control the operational inefficiency by making a comparison of actual costs with estimated ones.

(iv) It helps the management to provide a valuation of work-in-progress.

PURPOSE AND PROCEDURE OF JOB COSTING

1. Receiving an Enquiry:

Before placing an order with the manufacturer, usually the customer will enquire about the price, quality to be maintained, the duration within which the order is to be executed and other specifications of the job.

2. Estimation of the Price of the Job:

The cost accountant estimate the cost of job after considering the various elements of cost and keeping in mind the specification of customer. This is based on the cost of execution of similar job in the previous year and considering the possible changes in the various elements of the cost. The estimated cost of the job is then informed to the prospective customer.

3. Receiving of Order:

The customer will then place the order if he is satisfied with the quotation price and other terms of executing the job. The production control department receives the order and it will give a number for every order thus received which is known as job order number. The job is known by this number until it is completed.

4. Preparation of Production Order:

A production order is prepared by the production control department is sent to the concerned persons such as the employees to enable them to carry out the job, to the store-keeper to facilitate him to stock all the required materials, to cost accountant to enable him to prepare job cost sheet in order to ascertain the profit on every job completed.

Problem

From the following particulars calculate the cost of Job No.505 and price for the job to give a profit of 25% on the selling price.

Material	:	Rs. 6820
Wage details:		
Department X	:	60 hrs @ Rs. 3 per hr
Y	:	50 hrs @ Rs. 3 per hr
Z	:	30 hrs @ Rs. 5 per hr
The variable Overheads are as follows:		
Department X	:	Rs. 5000 for 5000 hrs
Y	:	Rs. 4000 for 2000 hrs
Z	:	Rs. 2000 for 500 hrs

The total fixed expenses amounted to Rs. 20,000 for 10,000 working hours. Calculate the cost of Job No. 505 and price for the job to give a profit of 25% on selling price

KARPAGAM ACADEMY OF HIGHER EDUCATION**CLASS : I M.Com.****COURSE NAME: APPLIED COST ACCOUNTING****COURSE CODE : 19CMP203****BATCH : 2019-2021****UNIT II (JOB AND BATCH COSTING)****Job Cost Sheet No. 505**

Rs.

Direct Material	6,820
Wages:	
Department X	
Department Y	480
Department Z	
Prime Cost	7,300
Overheads: - Variables	
Department X	
Department Y	280
Department Y	
-----	7,580
Fixed OH $140 \times 2 = 280(60+50+30 \times 2)$	280

Total cost	7,860
Profit 25% on selling price ie $1/3$ of cost $7860 \times 1/3$	2,620

Selling price	10,480

BATCH COSTING

Batch costing is a modification of job costing. It is used where articles are manufactured in definite batches and help in stock for assembly of components to produce finished product or for sales to customers. A batch, in fact, is a cost unit consisting of a group of identical items which maintain their identity throughout one or more stages of production. Batch costing is generally followed in toy making, aircraft manufacturing, bakeries, biscuit factories, radio-sets and watches manufacturing factories, where manufacture of products or components can be done more conveniently in batches of a definite number.

The costing procedure for batch costing is similar to that under job costing except with the difference that a batch becomes the cost unit instead of a job. Separate job cost sheets are maintained for each batch of products. Each batch is allotted a number. Material requisitions are prepared batchwise, the direct labour is engaged batchwise and the overheads are also recovered batchwise. Cost per unit is ascertained by dividing the total cost of a batch by number of items produced in that batch. Ordinary principles of inventory control are used. Production orders are issued only when the stock of finished goods reaches the ordering level. In case the batches are repetitive, the costing work is much simplified.

Determination of Economic Batch Quantity

One very important matter which is considered in batch costing is the determination of the economic batch quantity. Since production is done in batches, and each batch can contain any number of items, the determination of the optimum batch quantity is very significant. To determine economic batch quantity, the general principles of inventory control with regard to economic order quantity are followed. The determination of the economic (optimum) batch quantity or lot size requires that the following factors be considered:

1. The demand for the components in a given period, generally a year.
2. The cost of setting up tools on the machines for each batch.
3. The cost of manufacturing the components in each batch.
4. The cost of capital blocked in the stock of components
5. The cost of storage.

The following formula may be used to determine the economic or optimum batch quantity (EBQ) :

$$EBQ = \sqrt{\frac{2DS}{C}}$$

Where, EBQ = Economic batch quantity
D = Demand of the component in a year
S = Setting up cost per batch
C = Cost of capital and storage (carrying cost) per unit per annum.

A firm requires 12,000 units of component X per annum. The setting up cost per batch amounts to Rs.600. The annual cost of capital and storage comes to 24% per annum and manufacturing cost per unit of the component is estimated at Rs.60.

You are required to determine the economic batch quantity.

Solution

$$EBQ = \text{SQRT}(2DS) / C$$

$$EBQ = \text{SQRT}(2 \times 12000 \times 600) / 14.4 = 1000 \text{ units}$$

PRICE QUOTATIONS OR TENDERS AND ESTIMATED COST SHEET

Quite often the management has to quote prices of its products in advance or has to submit tenders for goods to be supplied. For this purpose an estimated cost sheet has to be prepared. Such an estimated cost sheet is prepared to show the estimated cost of products to be manufactured. In this cost sheet, cost of direct materials, direct wages and various types of overheads are pre-determined on the basis of past costs after taking into account the present conditions and also the anticipated changes in the future price level. Overheads are absorbed on the basis of a suitable method of absorption like percentage of direct materials, or wages or machine hour rate, etc.

Calculation of Profit. After the total cost has been estimated, a desired percentage of profit is added to arrive at the price to be quoted. Such profit may be given as a percentage of cost or percentage of selling price. In order to calculate the amount of profit, it is easy to assume that figure as 100 on which profit percentage is given and then calculate the amount of profit.

Example 1

Given: Total cost = ₹ 50,000
Profit = 20% of cost
Suppose cost = ₹ 100
Profit = $100 \times 20\%$ = ₹ 20
∴ When cost is ₹ 50,000

Profit = $50,000 \times 20\%$ = ₹ 10,000

Example 2

Given: Total cost = ₹ 50,000
Profit = 20% of selling price
Suppose selling price = ₹ 100
Profit = $100 \times 20\%$ = ₹ 20
Cost = Selling Price – Profit
= $100 - 20$ = ₹ 80

So when profit is 20% or $1/5$ of selling price, it is $20/80 = 1/4$ or 25% of cost. When total cost is ₹ 50,000, the profit will be calculated as follows:

Profit = $50,000 \times 25\%$ = ₹ 12,500

Example 3

Given: Selling price = ₹ 50,000
Profit = 20% of cost
Suppose cost = ₹ 100
Profit = $100 \times 20\%$ = ₹ 20
Selling price = Cost + Profit
= $100 + 20$ = ₹ 120

So profit of 20% of cost is equal to $20/120$ or $1/6$ of selling price. Thus, the profit will be calculated as follows :

Profit = $50,000 \times 1/6$ = ₹ 8333.33.

Mr. Gopal furnishes the following data relating to the manufacture of a standard product during the month of April 2013 :

Raw materials consumed	₹ 15,000
Direct labour charges	₹ 9,000
Machine hours worked	900
Machine hour rate	₹ 5
Administration overheads	20% on works cost
Selling overhead	Re. 0.50 per unit

Units produced	17,100
Units sold	16,000 at ₹ 4 per unit
You are required to prepare a cost sheet from the above, showing :	
(a) the cost per unit,	
(b) cost per unit sold and profit for the period.	

Cost Sheet for the month of April 2013		Output : 17,100 units	
		Total	per unit
Direct materials		15,000	0.877
Direct labour		9,000	0.526
	Prime Cost	24,000	1.403
Production overheads (900 machine hrs. @ ₹ 5 per hour)		4,500	0.263
	Works Cost	28,500	1.666
Administration overhead (@ 20% on works cost)		5,700	0.334
	Cost of Production	34,200	2.000
Less: Closing Stock on 30th April, 2008 (1,100 units @ ₹ 2 per unit)		2,200	
	Cost of Goods Sold	32,000	2.000
Selling overhead (@Re. 0.50 per unit for 16,000)		8,000	0.500
	Cost of Sales	40,000	2.500
Profit		24,000	1.500
Sales (16,000 units)		64,000	4.00

From the following information for the month of January, prepare a cost sheet to show the following components : (a) Prime Cost, (b) Factory Cost, (c) Cost of Production, (d) Total Cost.

Direct material	57,000
Direct wages	28,500
Factory rent and rates	2,500
Office rent and rates	500
Plant repairs and maintenance	1,000
Plant depreciation	1,250
Factory heating and lighting	400
Factory manager's salary	2,000
Office salaries	1,600
Director's remuneration	1,500

Telephone and postage	200
Printing and stationery	100
Legal charges	150
Advertisement	1,500
Salesmen's salaries	2,500
Showroom rent	500
Sales	1,16,000

Solution

Cost Sheet for the month of Jan.

Direct materials		57,000
Direct wages		28,500
	Prime Cost	85,500
Factory Overhead :		
Factory rent and rates	2,500	
Plant repair and maintenance	1,000	
Plant depreciation	1,250	
Factory heating and lighting	400	
Factory manager's salary	2,000	7,150
	Factory Cost	92,650
Office and Administration Overhead:		
Office salaries	1,600	
Director's remuneration	1,500	
Telephone and postage	200	
Office rent and rates	500	
Printing and stationery	100	
Legal charges	150	4,050
	Cost of Production	96,700
Selling and Distribution Overhead :		
Advertisement	1,500	
Salesmen's salaries	2,500	
Showroom rent	500	4,500
	Total Cost (or cost of sales)	1,01,200
	PROFIT	14,800
Sales		1,16,000

From the following particulars, prepare a cost statement :

Stock, 1-1-2013: Raw materials	30,500
Finished goods	20,400
Stock, 31-1-2013: Raw materials	48,500
Finished goods	10,000
Purchase of raw materials	25,000
Work-in-progress, 1-1-2013	8,000
Work-in-progress, 31-1-2013	9,000
Sales	95,000

Direct wages	20,400
Factory expenses	10,500
Office expenses	5,400
Selling expenses	3,800
Distribution expenses	2,500

Also calculate the percentage of works expenses to direct wages and the percentage of office expenses to works cost.

Statement of Costs

for the month ended 31-1-2013

Stock of raw materials, 1-1-2013	30,500	
Add : Purchase of raw materials	25,000	
	55,500	
Less: Stock of raw materials, 31-1-2013	48,500	
Materials consumed		7,000
Direct wages		20,400
	Prime Cost	27,400
Works or factory expenses		10,500
		37,900
Add : Work-in-progress, 1-1-2013		8,000
		45,900
Less: Work-in-progress, 31-1-2013		9,000
	Works Cost or Factory Cost	36,900
Office expenses		5,400
	Cost of Production	42,300
Add: Finished Stock, 1-1-2013		20,400
		62,700
Less : Finished Stock, 31-1-2013		10,000
	Cost of Goods Sold	52,700
Selling and distribution expenses (3,800 + 2,500)		6,300
	Cost of Sales	59,000
	Profit	36,000
	Sales	95,000

Calculation of Overhead Rates:

- Percentage of works expenses to direct wages*

$$= \frac{\text{Works expenses}}{\text{Direct wages}} \times 100 = \frac{\text{Rs. } 10,500}{20,400} \times 100 = 51.47\%$$

- Percentage of office expenses to works cost*

$$= \frac{\text{Office expenses}}{\text{Works costs}} \times 100 = \frac{5,400}{36,900} \times 100 = 14.63\%$$

In respect of a factory the following particulars have been extracted for the year 2013 :

Cost of materials	6,00,000
Wages	5,00,000

Factory overheads	3,00,000
Administration charges	3,36,000
Selling charges	2,24,000
Distribution charges	1,40,000
Profit	4,20,000

A work order has to be executed in 2014 and the estimated expenses are :

Materials ` 8,000, wages ` 5,000.

Assuming that in 2014, the rate of factory overheads has gone up by 20%, distribution charges have gone down by 10% and selling and administration charges have gone each up by 15%, at what price should the product be sold so as to earn the same rate of profit on the selling price as in 2013 ?

Factory overheads are based on wages and administration, selling and distribution overheads on factory cost.

**Statement of cost
for the year 2013**

Direct Materials	6,00,000
Wages	5,00,000
Prime Cost	11,00,000
Factory Overheads	3,00,000
Factory or Works Cost	14,00,000
Administration Charges	3,36,000
Cost of Production	17,36,000
Selling Charges	2,24,000
Distribution Charges	1,40,000
Total Cost or Cost of Sales	21,00,000
Profit	4,20,000
Sales	25,20,000

Statement of Estimated Cost and Profit on Work Order in 2014

Materials	8,000
Wages	5,000
Prime Cost	13,000
Factory Overheads (60% of wages, increased by 20%, i.e., 72%)	3,600
Factory Cost	16,600
Administration Charges (24% of factory cost, increased by 15%, i.e., 27.6%)	4,581

Cost of Production	21,181
Selling Charges (16% of factory cost, increased by 15%, i.e., 18.4%)	3,054
Distribution Charges (10% of factory cost, decreased by 10%, i.e., 9%)	1,494
Cost of Sales	25,729
Profit (20% on cost of sales)	5,146
Price to be quoted	30,875

The accounts of a machine manufacturing company disclose the following information for the six months ending 31st Dec., 2013.

Materials used	1,50,000
Direct wages	1,20,000
Factory overhead expenses	24,000
Office expenses	17,640

Prepare a Cost Sheet of the machines and calculate the price which the company should quote for the manufacture of a machine requiring materials valued at ` 1,250 and expenditure on productive wages of ` 750, so that the price may yield a profit of 20% on the selling price.

For the purpose of price quotation, charge factory overhead as a percentage of direct wages and charge office overhead as a percentage of works cost.

Cost Sheet
for the period of six months ending 31st Dec. 2013

Materials used	1,50,000
Direct wages	1,20,000
	Prime Cost
Factory overhead expenses	24,000
	Works or Factory Cost
Office and general expenses	17,640
	Cost of Production
	3,11,640

Statement showing the Quotation of Price of a Machine

Materials	1,250.00
Wages	750.00
	Prime Cost
Factory overhead (20% on wages)	150.00
	Factory Cost
Office overhead (6% on factory cost)	129.00
	Total Cost or Cost of Production
	2,279.00
*Profit (25% of total cost)	569.75
	Selling Price
	2,848.75

The accounts of Flex Manufacturing Co. for the year ended 31st March, 2013, show the following information :

Production wages	2,50,000
Direct material used	3,18,200
Chargeable expenses	30,000
Sales	7,80,000
Drawing office salaries	10,000
Counting office salaries	18,800
Cash discount allowed	3,000
Carriage outward	5,400
Bad debts written off	8,500
Rent, rates and taxes	
(i) Office	4,000
(ii) Works	15,400
Travelling expenses	3,600
Travellers'salaries and commission	8,500
Depreciation on plant and machinery	6,500
Depreciation on office furniture	1,000
Directors'fee	12,000
Gas and water (3/ 4 Factory, 1/ 4 Office)	2,800
Manager's salary (3/ 4 Factory, 1/ 4 Office)	24,000
General expenses	4,000
Hire of crane	5,000
Donations to charitable trust	2,000

Prepare a statement showing (i) Prime Cost (ii) Factory Cost and (iii) Total Cost and (iv) Net Profit.

Statement of Cost year ended 31 st March, 2013

<i>Particulars</i>		
Direct Material used		3,18,200
Production Wages		2,50,000
Chargeable Expenses		30,000
	Prime Cost	5,98,200
Factory Overhead:		
Drawing Office Salaries	10,000	
Rent, Rate and Taxes (Works)	15,400	
Depreciation on Plant and Machinery	6,500	
Gas and Water (3/ 4)	2,100	
Manager's Salary (3/ 4)	18,000	
Hire of crane	5,000	57,000
	Factory Cost	6,55,200
Office and Selling Overhead:		
Counting Office Salaries	18,800	
Carriage Outward	5,400	
Bad Debts written off	8,500	
Rent, Rates and Taxes (Office)	4,000	
Travelling Expenses	3,600	
Travellers' Salaries and Commission	8,500	
Depreciation on Office Furniture	1,000	
Directors' Fees	12,000	
Gas and Water (1/ 4)	700	

Manager's Salary (1/ 4)	6,000	
General Expenses	4,000	72,500
Total Cost		7,27,700
Net Profit		52,300
Sales		7,80,000

JOB COST

Job No. 718 was commenced on 10th October, 2013 and completed on 1st November, 2013. Materials used were ` 600 and labour charged directly to the job was ` 400. Other informations were as follows:

Machine No. 215 used for 40 hours; the machine hour rate is ` 3.50

Machine No. 169 used for 30 hours; the machine hour rate is ` 4

Six welders worked on the job for 5 days of 8 hours each; the direct labour hour rate for welders is 20 paise.

Other expenditures of the concern not apportioned for calculating the machine hour or the direct hour rates amounted to ` 20,000, total direct wages for the period being ` 20,000.

Ascertain the works cost of Job No. 718.

Job Cost Sheet of Job No. 718

<i>Particulars</i>		
Materials		600
Labour		400
	Prime Cost	1,000
Factory overhead :		
Machine No. 215 (40 hrs. @ ` 3.50 each)	140	
Machine No. 169 (30 hrs. @ ` 4 each)	120	
Welders (6 × 5 × 8 × 0.20)	48	
Other expenses (100% of direct wages*)	400	708
	Works Cost	1,708

A factory uses job costing. The following data are obtained from its books for the year ended 31st December, 2013.

Direct materials	90,000	Selling and dist. overheads	52,500
Direct wages	75,000	Administration overheads	42,000
Factory overheads	45,000	Profit	60,900

(a) Prepare a Cost Sheet indicating the Prime cost, Works cost. Production cost, Cost of sales and the Sales value.

(b) In 2014, the factory received an order for a number of jobs. It is estimated that direct materials required will be ` 1,20,000 and direct labour will cost ` 75,000. What should be the price for these jobs if factory intends to earn the same rate of profit on sales assuming that the selling and distribution overheads

have gone up by 15% ? The factory recovers factory overheads as a percentage of direct wages and administration, selling and distribution overheads as a percentage of works cost, based on cost rates prevailing in the previous year.

Cost Sheet for the year ended 31st Dec., 2013

Materials		90,000
Wages		75,000
Prime Cost	1,65,000	
Factory overheads		45,000
Works Cost	2,10,000	
Administration overheads		42,000
Cost of Production	2,52,000	
Selling and distribution overheads		52,500
Cost of Sales	3,04,500	
	60,900	
Sales Value	3,65,400	

The following direct costs were incurred on Job No. 239 of XYL Co. Ltd.
 Materials ` 6,010

Wages: Deptt. A — 60 hours @ ` 30 per hr.
 B — 40 hours @ ` 20 per hr.
 C — 20 hours @ ` 50 per hr.

Overhead for these three departments were estimated as follows :

Variable overheads: Deptt. A — ` 15,000 for 1,500 labour hours
 B — ` 4,000 for 200 labour hours
 C — ` 12,000 for 300 labour hours

Fixed overheads: Estimated at ` 40,000 for 2,000 normal working hours.

You are required to calculate the cost of Job No. 239 and quote the price to give profit of 25% on selling price.

Job Cost Sheet
Job No. 239

Direct materials			6,010
Wages Deptt. A — 60 hrs. × ` 30		1,800	
B — 40 hrs. × ` 20		800	
C — 20 hrs. × ` 50		1,000	3,600
*Variable Overheads			
Deptt. A — 60 hrs. @ ` 10		600	
B — 40 hrs. @ ` 20		800	
C — 20 hrs. @ ` 40		800	2,200
* Fixed Overheads : 120 hrs. @ ` 20 per hour			2,400
	Total Cost		14,210
Profit (25% of sales or $33\frac{1}{3}$ % of total cost)			4,737
	Selling Price		18,947

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Applied Cost Accounting (19CMP203)
Unit –II

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
1.	The system of costing adopted for specific job order is called ____	Batch Costing	Job Costing	Contract Costing	Job Costing	Job Costing
2.	The period of completion of job is normally more than one year in ____	Batch Costing	Job Costing	Contract Costing	Job Costing	Contract Costing
3.	Work certified in a contract account is treated in ____	Work-in-Progress Account	Prime Cost	Direct Expense	Indirect Expense	Work-in-Progress Account
4.	The difference between revenue and expenses in contract costing without crediting for reserve is called ____	Net Profit	Notional Profit	Gross Profit	Net Loss	Notional Profit
5.	The difference between work certified and cash received in a contract account is called ____	Revenue	General Revenue	Retention Money	Works Cost	Retention Money
6.	Normal Process loss is adjusted with the ____	Cost of Production	P&L A/c.	Overhead	Fixed Cost	Cost of Production
7.	The loss caused due to unexpected condition is called ____	Normal loss	Abnormal loss	Gross loss	Net loss	Abnormal loss
8.	The loss which could not be avoided is called ____	Normal loss	Abnormal loss	Gross loss	Net loss	Normal loss
9.	If the output in a process is in excess of the expected output after adjusting the normal loss is known as ____	Abnormal loss	Cost of Production	Abnormal gain	Normal loss	Abnormal gain
10.	Abnormal loss is the difference between the actual loss and ____	Normal loss	Net Loss	Net Profit	Gross Profit	Normal loss

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
11.	The value of abnormal loss is debited in the ____	Process Account	Costing Profit & Loss Account	Income & Expenditure A/c.	Cost Sheet	Costing Profit & Loss Account
12.	Equivalent production units are calculated in process account due to ____	Editing	Cost Centre	Cost Unit	Work-in-Progress	Work-in-Progress
13.	When two or more products of equal importance are simultaneously produced, the products are called ____	By-Products	Joint Products	Quality Products	Discounted Products	Joint Products
14.	One or more products of relatively small value which are produced simultaneously are called ____	By-Products	Joint Products	Quality Products	Discounted Products	By-Products
15.	The method of costing adopted for products which undergo different stages of production is called ____	Marginal Costing	Standard Costing	Budgeting	Process Costing	Process Costing
16.	The method of costing applied to undertakings which render services is called ____	Operating Costing	Operation Costing	Output Costing	Output Costing	Operating Costing
17.	In transport costing Insurance paid is a ____	Running Charges	Variable Cost	Standard Charge	Selling Cost	Standard Charge
18.	Petrol expense in transport costing is ____	Running Charges	Variable Cost	Standard Charge	Selling Cost	Running Charges
19.	The method of costing applied for generation of electricity is known as ____	Canteen Costing	Transport Costing	Contract Costing	Power House Costing	Power House Costing
20.	The profit for a canteen in a company is the difference between sales and ____	Expenses	Expenses minus Subsidy	Expenses plus Subsidy	Expenses and Loss	Expenses minus Subsidy
21.	The companies that produce many different products or services usually use	Process Costing	Job Order Costing	Both process and job order costing	None of the above	Job Order Costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
22.	Total cost of producing similar products divided by number of units produced is a technique known as	Sale costing system	Job Costing System	Price Costing System	Process Costing System	Process Costing System
23.	The method of unit costing is adopted by	Transport services	Steel Industry	Mines	Bicycle Industry	Mines
24.	_____ costing is a type of job costing	Multiple	Operating	Unit	Batch	Batch
25.	The stage of production at which separate products are identified is known as _____	Process Costing	Reverse Cost Method	Subsequent Cost	Equivalent Production	Subsequent Cost
26.	The costing method which can be used in industry where the product passes through different process is known as _____	Job Costing	Operating Costing	Batch Costing	Process Costing	Process Costing
27.	Abnormal process loss can be transferred to _____	Costing Profit and Loss A/c.	Financial Profit and Loss A/c.	Manufacturing	Trading	Costing Profit and Loss A/c.
28.	When two products are simultaneously produced in a process and one of them has comparatively high value and other is of low value, the low value product is called as _____	Joint products	By products	Seasonal products	Economic products	By products
29.	If any by-product is produced and sold it is credited to _____	Profit and Loss A/c.	By-product A/c.	Process A/c.	Abnormal gain A/c.	Process A/c.
30.	Balance of abnormal gain account is transferred to ____	Balance Sheet	Debit side of P&L A/c.	Credit side of P&L A/c.	Costing P&L A/c.	Costing P&L A/c.
31.	Inter process profits are ____	Credited to each process a/c	Debited to respective process a/c	Shown only in the finished stock a/c	Shown in the balance sheet	Debited to respective process a/c
32.	Job Costing method is the most suitable method for ____	Oil process units	Transport companies	Sugar Industries	Repair shops	Repair shops
33.	Which method of costing can be used in furniture manufacture industry?	Job Costing	Contract Costing	Process Costing	Specific Order	Job Costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
					Costing	
34.	Contract costing is most appropriate method of costing for ____	Construction Industry	Banking Industry	Textile Mills	Cement Industry	Construction Industry
35.	Process account is a ____	Nominal account	A Real Account	Personal Account	None of the Above	Nominal account
36.	Which method of costing is best suited for interior decoration?	Contract Costing	Operating Costing	Process Costing	Job Costing	Job Costing
37.	When cash is received from contractee which account should be credited?	Cash account	Contract account	Contractor account	Contractee account	Contractee account
38.	The type of process loss that should not affect the cost of inventory value is ____	Abnormal loss	Normal loss	Seasonal loss	Standard loss	Abnormal loss
39.	Job Costing used in ____	Paper mills	Chemical works	Printing Works	Textile mill	Printing Works
40.	Single or multiple units of distinct services or products are classified as	Cost	Job	Post	Price	Job
41.	Second step in processing costing system is to ____	Summarize total costs	Compute cost for each equivalent unit	Summarize flow of output	Compute output in units	Compute output in units
42.	Third step in process costing system is to ____	Summarize total costs	Compute cost for each equivalent unit	Summarize flow of output	Compute output in units	Summarize flow of output
43.	Which of the following organizations should not be advised to use service costing?	Distribution Service	Hospital	Maintenance division of a manufacturing company	A light engineering company	A light engineering company
44.	Transportation cost mainly depends on which of the following factors?	Distance	Weight of merchandise	Time required for transportation	All of the above	All of the above

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
45.	In a joint process of production, a product which yields high volume of sales as compared to total sales volume of other products is known as	Incremental product	Sunk Product	Main Product	Split off Product	Main Product
46.	In process and job costing system, normal spoilage cost is considered as	Conversion costs	Sunk Costs	Inventoriable Costs	Non inventoriable costs	Inventoriable Costs
47.	_____ costing is used by a business to price unique products for different jobs	Actual	Job	Process	Traditional	Job
48.	Job-costing may only be used by	Service companies	Merchandising companies	Manufacturing companies	All of these may use job-costing	All of these may use job-costing
49.	Many large companies which have multiple production methods and processes have hybrid costing systems that are	Job Costing	Actual Costing	Process Costing	A mix of job-costing and process costing	A mix of job-costing and process costing
50.	Process costing is suitable for	Hospitals	Oil refinery firms	Transport firms	Brick laying firms	Oil refinery firms
51.	Toy manufacturing industry should use____	Unit Costing	Process Costing	Batch costing	Multiple costing	Batch costing
52.	The costing method which can be used in industry where the product pass through different processes is known as	Unit Costing	Process Costing	Batch costing	Multiple costing	Process Costing
53.	The expenses relating to a particular process is	Debited to that process a/c.	Credited to that process a/c.	Debited to costing profit and loss a/c.	Debited to profit and loss a/c.	Debited to that process a/c.
54.	Classification and accumulation of costs by fixed and variable costs is of special importance in	Unit Costing	Process Costing	Batch costing	Multiple costing	Process Costing
55.	Two economically equal importance product are simultaneously produced in the same manufacturing process, these product	Joint Products	By Products	Two process products	Economic products	Joint Products

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	are					
56.	Process cost is ascertained and recorded in	Balance Sheet	Profit and Loss account	Separate Statement	Separate Ledge Account	Separate Ledge Account
57.	Inter process profits are	Inter process profits are	Debited to respective process a/c	Shown only in the finished stock a/c.	Shown in the balance sheet	Debited to respective process a/c
58.	Batch costing is useful to determine	Maximum quantity of output	Minimum quantity of output	Economic batch quantity	Profit of batches	Economic batch quantity
59.	The basis for the payment of cash by contractee under contract is	Work certified	Work certified	Contract cost	Value of plant used in the contract	Work certified
60.	Unit costing otherwise termed as ____	Single Costing	Process Costing	Batch Costing	Service Costing	Single Costing

UNIT III
SYLLABUS

Service Costing - Meaning of Service Costing; Transport Costing; Power Costing; Canteen Costing; Hospital Costing; Educational Institute.

OPERATING COSTING

Operating Costing method is normally used in service sector. When the service is not completely standardized, it is the cost of producing and monitoring a service. It is a method of costing applied to undertakings which provide service rather than production of commodities. Service may be performed internally and externally. Services are termed as internal when they have to be performed on inter-departmental basis in factory itself e.g. Power house services, canteen service etc.

Services are termed as external when they are to be rendered to outside parties. Public utility services like transport, water supply, electricity supply, hospitals are the best example for the service costing. Thus operating costing is a method of cost accumulation which is designed to determine the cost of services.

Operating costing is just a variant of unit or output costing. Operating costs are collected periodically like process cost. The cost of rendering the service for particular period is related to quantum of services rendered during the particular period to arrive at cost per unit of service rendered. So the principal of unit costing is used in operating costing.

MEANING OF OPERATING COSTING:

Operating costing is a method of ascertaining the cost of providing or operating a service. It is also known as service costing CIMA London, defines Operating Costing as “that form of operation costing which applies where standardized services are rendered either by an undertaking or by a service cost renter with in an undertaking”.

Cost Unit:

Determining the suitable cost unit to be used for cost ascertainment is a major problem in service costing. Selection of a proper cost unit is a difficult task. A proper unit of cost must be related with reference to nature of work and the cost objectives.

The cost unit related must be simple i.e. per bed in a hospital, per cup of tea sold in a canteen and per child in a school. In a certain cases a composite unit is used i.e. Passenger – Kilometer in a transport company. The following are some of example of cost units used in different organizations

Enterprises	Cost per unit
Passenger transport	Kilometer
Goods transport	Ton – Kilometer
Hotel	Per room per day
Hospital	Per bed per day
Canteen	Per item, per meal
Water supply	Per 1000 liters
Electricity	Per kilowatt

Collection of costing data:

After determining the cost unit, the cost relating to the service is collected. The collected cost is a presented under the heads suitable for control purpose i.e. fixed expenditure and variable expenditure. The presentation of cost data under difficult categories helps to improve managerial control over cost.

TRANSPORT COSTING

Meaning

Transport costing is method of ascertaining the cost of providing service by a transport undertaking. This includes air, water, road and railways; motor transport includes private cars, carriers for owners, buses, taxies, carrier Lorries etc. The objective of motor transport costing may be summarized as follows:

- to ascertain the operation cost of running a vehicle
- to provide and accurate basis for quotation and fixing of rates
- to provide cost companion between own transport and alternative e.g. hiring
- to compare the cost of monitoring one group of vehicle with another group

- to determine the cost to be charged against departments using the service
- to ensure the cost of maintenance and repairs is not excessive

Classification of costs:

Costs are classified into the following three heads:

1. Standing or Fixed Charges: These charges are included whether vehicle is operating or not. Insurance, tax, depreciation and part of driver wages. Interest on capital, general supervision, and salary of operating managers are items that come under the category of fixed or standing charges.
2. Maintenance charges: There are semi variable expenses in nature and include wear on tires, repairs and overheads painting etc.
3. Operating and running charges: Running costs are the cost of operations. These charges vary more or less in direct proportion to kilometers etc. These expenses are variable in nature because they are dependent on distance covered and trips made.

Though the above three classification is done, in practical it is difficult to distribute. It depends basically on the circumstances of each case e.g. if the salary paid to driver is on monthly basis then it is a fixed charge but if the same is limited to kilometer run then it is a running cost.

Collection of Cost Data:

Each vehicle is given a separate unique number and all the basic documents will contain the assigned number of the respective vehicles. A separate daily log sheet for each vehicle is maintained to record the details of trips, running time, capacity, distance covered, cost of petrol / diesel, lubricants, loading and unloading time etc on daily basis. A specimen of log sheet is given below:

Daily log sheet Table

Vehicle No.:	Route No.:-----
Date of Purchase:	Driver:
Make and Specification:	
Time of Leaving:	
License No.:	Time of Returning:

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UNIT III (SERVICE COSTING)

Trip no.	From	To	Packages		Kilometers	Time			Remarks
			Out	Collected		Out	In	Hrs	

Supplies Worker's time abnormal delays Petrol / dieselDriver
Loading / unloading..... OilconductorAccident

 GreaseCleanerTraffic DelaysOthers

Format of transport operating cost sheet:

Operating cost sheet

Vehicle No. : Period

Cost Unit: No. of Cost units

Particulars	Rs.	Total	Per Km	
		Rs.	Rs.	
A. Fixed Cost (or Standing charges)				
1. Road Tax	xx		xx	
2. Insurance	xx		xx	
3. Driver's Salary	xx		xx	
4. Conductor's Salary	xx		xx	
5. Depreciation	xx		xx	
6. Interest on Capital	xx		xx	
7. Garage Rent	xx		xx	
8. Office & Administration	xx	xx	xx	xx
Overheads				
B. Variable (Running) costs				
Depreciation	xx		xx	

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Petrol Diesel	xx		xx	
Oil & Grease	xx		xx	
Repairs and maintenance	xx		xx	
Tyres and tubes	xx	xx	xx	xx
Total operating cost		xxx		xxx

Note: Maintenance expenses can be shown separately also depends on case

Illustration 1:

From the following information calculate fare for passenger KM.

The cost of the Bus	Rs. 450000
Insurance charges	3 % p.a.
Annual tax	Rs. 4500
Garage rent	Rs. 500 p.m.
Annual repairs	Rs. 4800
Expected life of the bus	5 yrs
Value of scrap at the end of 5 years	Rs. 3000
Route distance	20 km long
Driver's salary	Rs. 550 p.m.
Conductor's Salary	R. 500 p.m.
Commission to Driver & conductor (shared equally)	10 % of the takings
Stationary	Rs. 250 p.m.
Manager-cum-accountant's Salary	Rs. 1750 p.m.
Diesel and Oil (for 100 kms)	125

The bus will make 3 rounds trips for carrying on the average 40 passenger's in each trip.

Assume 15 % profit on takings. The bus will work on the average 25 days in a month.

Solution :**Operating Cost Statement**

Bus No.

Capacity: 40 persons

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Particulars	Per Annum Rs.	Per Annum Rs.	Per Annum Rs.
A. Standing Charges			
Depreciation	84,000		
Tax	4,500		
Insurance	13,500		
Stationery	3,000		
Manager's Salary	21,000	1,26,000	00.08750
B. Maintenance Charges			
Garage Rent	6,000		
Repairs	4,800	10,800	00.00750
C. Operating (or) Running Charges			
Diesel & Oil	3,750		
Driver's Salary	6,600		
Conductor's Salary	6,000	16,350	00.01135
Total		1,53,150	00.10635
Add : Commission and Profit 25/75			00.03545
Fare per passenger km.			00.14180

Working Note:(1) No. of Km run in a month : $3 \times 2 \times 20 \times 25 = 3000 \text{ km}$ (2) No. of passenger km per annum : $3000 \times 40 \times 12 = 14,40,000$ (3) Diesel and oil : $3000 \times 125 / 100 = \text{Rs. } 3750$

(4) Commission & Profits: Commission 10 % of taking + profit 15 % of Taking

total = 25 % of taking so the cost

Cost is only 75 %

Illustration 2 :

From the following data relating to two different vehicles A and B, compute cost per running mile.

	Vehicle A	Vehicle B
Milage run (annual)	15000	6000
Cost of vehicles	Rs. 25000	Rs. 15000
Road License (Annual)	750	750
Immune (Annual)	700	400
Garage rent (Annual)	600	500
Supervision and Salaries (Annual)	1200	1200
Driver's wage per hour	3	3
Cost of fuel per gallon	3	3
Miles runs per gallon	20	15
Repairs and maintenance per mile (Rs.)	1.65	2.00
Tire allocation per mile	0.80	0.60
Estimated life of vehicle (miles)	1,00,000	75,000

Charge interest @ 5 % p.a. on cost of vehicles. The vehicles run 20 miles per hour on an average

Solution :

Operating cost sheet (cost per mile)

Particulars	Vehicle-A	Vehicle-B
A. Operating and Maintenance Charges		
Depreciation A – $25000 / 100000$	0.25	--
B – $15000 / 75000$	--	0.20
Repairs and maintenance	1.65	0.20
Tire allocation	0.80	2.00
Fuel (3 / 20 miles)	0.15	0.60
Driver's wages (A – $3 / 20$) ($3 - 3 / 15$)	0.15	0.15

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			3.00	3.15
B. Standing Charges				
	A	B		
	Rs.	Rs.		
Road license	750	750		
Insurance	700	400		
Charges	600	500		
Supervision	1200	1200		
Interest @ 5 % p.a.	1250	750		
	4500	3600		
Mileage run per annum	15000	6000		
Fixed standing charge	0.30	0.60	0.30	0.60
per mile				
Operating cost per mile			3.30	3.75

Note : (1) Depreciation is linked with mileage so operating cost.

(2) Driver wage is taken as operating since it is paid per hour.

Illustration 3 :

A company presently brings coal to its factory from a nearby yard and the rate paid for transportation of coal from the yard located 6 kms. Away to factory is Rs. 50 per ton. The total coal to be handled in a month is 24,000 tones.

The company is considering proposal to buy its own trucks and has the option of buying either a 10 ton capacity or a 8 ton capacity trucks.

The following information is available:

	10 Ton Truck	8 Ton Truck
Purchase Price Rs.	10,00,000	8,50,000
Life (Years)	5	5
Scrap value at the end of 5 th year	Nil	Nil

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KM Per liter of diesel	3	4
Repair and maintenance p.a. per truck (Rs.)	60,000	48,000
Other fixed expenses p.a. (Rs.)	60,000	36,000
Lubricants and sundries per 100 km (Rs.)	20	20

Each truck will daily make 5 trips (to and fro) on an average for 24 days in a month. Cost of diesel Rs. 15/- per liter. Salary of driver Rs. 3,000/-, p.a. month. Two drivers will be required per truck. Other staff expenses Rs. 1,08,000 p.a.

Present a comparative cost sheet on the basis of above data showing transport cost per ton of operating 10 ton and 8 ton Truck at full capacity utilization.

Solution :

Comparative statement of operating cost sheet :

	10 Ton Truck Rs.	8 Ton Truck Rs.
Fixed Charges (p.m.)		
Driver's Salary (working no. 1)	12,000	15,000
Staff expenses	9,000	9,000
Other fixed expenses	5,000	3,000
Operating & Maintenance Charges (p.m.)		
Depreciation (Note No. 2)	3,33,333	3,54,167
Diesel Cost (Note No. 3)	1,44,000	1,35,000
Lubricants & Sundries (Note No. 3)	5,760	7,200
Repairs & Maintenance	1,00,000	1,00,000
Total Cost (A)	7,17,093	7,58,367
Tons Carried (B)	24,000	24,000
Cost per ton (A/B)	29.87	31.59

Conclusion : A comparison of cost per ton by using 10 ton trucks is more economical. The cost paid for bringing coal per ton presently viz. Rs. 50/- is the highest.

Working Note :

	10 ton	8 ton
1 Total number o trucks and drivers required		
Coal brought to the factory per month		
(5 x 24 x 10)	1200	--
(5 x 24 x 8)		960
No. of truck required to bring 24,000 tons is	$24000/1200=20$	$24000/960=25$
Total number of drivers required	$20 \times 2 = 40$	$25 \times 2 = 50$
2 Total monthly depreciation		
Depreciation per truck per annum	2,00,000	1,70,000
Depreciation per truck per month	1,666.66	14,166.66
Total depreciation	16666.66×20 $= 3,33,333$	14166.66×25 $= 3,54,167$
3 Diesel requires		
Total Km run per truck p.m.		
(6 km x 10 trips x 24 days)	1440	1440
Total KM run by all trucks	28800	36000
Km per liter of diesel	3	4
Diesel required liters	9600 (28800 / 3)	9000 (36000 / 4)

Illustration.4 :

You are required to calculate a suggested fare per passenger – km from the following information for a mini bus.

- (i) Length of route 30 km
- (ii) Purchase price Rs. 4,00,000.
- (iii) Part of above cost meet by loan, annual interest Rs. 10,000 p.a.
- (iv) Other annual charges : Insurance Rs. 15,000, Garage Rent Rs. 9,000, Road Taxes Rs. 3,000, Repairs and Maintenance Rs. 5,000. Administrative charges Rs. 5000.
- (v) Running expenses : Driver & Conductor Rs. 5000 p.m., Repairs / Replacement of tyre tube Rs. 3600 p.a. Diesel and Oil cost per Km Rs. 5/-
- (vi) Effective life of vehicle is estimated at 5 years at the end of which it will have a scrap value of Rs. 10,000.
- (vii) Mini Bus has 20 seats and is planned to make six two way trips for 25 days / p.m.
- (viii) Provide profit @ 20 % of total revenue.

Solution :

Particulars	Cost per Annum Rs.	Cost Per Month Rs.
Fixed Expenses :		
Insurance	15,000	
Garage Rent	9,000	
Road Tax	3,000	
Administrative charges	5,000	
Depreciation (4,00,000–10,000 ÷ 5 years)	78,000	
Interest on Loan	10,000	
Total	1,20,000	10,000
Running Expenses :		

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Repairs & Maintenance	15,000	1,250
Replacement of tyre tube	3,600	300
Diesel and oil cost (9000 km x Rs. 5/-)		45,000
Driver & Conductor's Salary		5,000
Total Cost per month		61,550
Add : Profit 20 % of total		
Revenue 25 % Total cost		15,387.50
Total Revenue		76,937.50

Rate per passenger km :

Rs. 36937.50 / 1,80,000 passenger km = 0.4274305 or 0.43 paise

Workings:

Total distance travelled by mini bus in 25 days = 60 km x 6 trips x 25 days = 9000 km

Total passenger km = 9000 km x 20 seats = 1,80,000 passengers km

Illustration 5 :

Krishna Transport Ltd. Charges Rs. 150 per ton for its 10 ton lorry load from city A to city B. the charges for the return journey are Rs. 140 per ton. No concession is made for any delivery of goods at intermediate station 'C' in January 2008. The truck made 10 outward journeys for city B with full load of which 2 ton were unloaded twice at city 'C'. The truck carried a load of 12 ton in its return journey for 4 times but once caught by police and Rs. 1500 was paid as fine. For the remaining trips it carried full load out of which all the goods on load were unloaded once at city 'C'. The distance from city A to city A and city 'B' are 150 km and 250 km respectively. Annual fixed cost are Rs. 1,20,000 and maintenance cost is Rs. 15,000. Running charges spent during January 2008 are Rs. 3500.

Calculate the cost per tone-kilometer and the profit for January 2008.

Solution:

Operating Cost and Profit Statement of Krishna Transport Ltd.

Particulars	Rs.
1. Fixed cost (12000 / 12)	
2. Maintenance charges 15000 / 12	
3. Running charges	
Total operating cost	
Cost per ton km	
Net revenue received (working note)	
Less : Total operating cost	
Profit	

Working note:

(1) Tone km on outward journeys

From city A to C–10 journeys x 10 ton x 150 km	=	15,000	
From city C to B–8 journeys x 10 ton x 100 km	=	8,000	
2 journey x 8 ton x 100 km	=	1,600	
Total		24,600	Tone – km

(2) Tone km on return journey

From city B to A – 4 journeys x 250 km x 12ton	=	12,000	
From city B to A – 5 journeys x 250 km x 10ton	=	12,500	
From city B to C - 1 journey x 100 km x 10 ton	=	1,000	
Total		25,500	Tone – km

Total tone km = 24,600 + 25,500 = 50,100 ton- km

(3) Net revenue received

From city A to B–10 journeys x 10 ton X Rs.150	=	15,000	
From city B to A–4 journeys x 12 ton X Rs. 140	=	6,720	
From city B to A -5 journeys x 10 ton X Rs. 140	=	7,000	
From city B to C -1 journeys x 10 ton X Rs. 140		1,000	
Total		29,720	Tone – km
Less : Fine Paid		1,500	

Net revenue received

28,220

HOSPITAL COSTING

Hospitals comes under service sector, big companies also maintain hospitals. For costing purpose the hospital service can be divided in two following categories

- (1) Outpatient department
- (2) Wards
- (3) Medical service departments such as radio therapy 'X' ray etc.
- (4) General Services such as heating, lighting, catering laundry etc.
- (5) Other services such as transport, dispensary, cleaning e

Cost Statement:

The expenses of hospital can be broadly divided into two categories i.e. (1) Capital Expenditure and (2) Maintenance Expenditure – this includes salaries and wages, provision, staff uniforms clothing, medical and surgical appliances and equipments, fuel light and power, laundry, water etc.

Format of a cost Sheet of a Hospital:

Particulars	Rs.	Rs.
A) Fixed standing charges		
Rent	xx	
Repairs and maintenance	xx	
General administrative expenses	xx	
Depreciation	xx	
Salaries to staff	xx	
Cost of Oxygen, X ray etc.	xx	xx
B) Running or maintenance costs		
Doctor's fees	xx	
Food	xx	
Medicines	xx	
Laundry	xx	

Hire charges	xx	xx
Total operating cost		xx

$$\text{Cost per patient day} = \frac{\text{Total Operating cost}}{\text{No of Patient Days}}$$

Illustration 7:

The following information is available from a intensive care unit.

Rent (including repairs) Rs. 10000 p.m.

The unit cost consists of 25 beds and 5 more beds can be accommodate when the occasion demands. The permanent staff attached to the unit is as follows:

2 supervisors each at a salary or Rs. 2000 per month.

4 nurse each at a salary of Rs. 1500 per month.

2 ward boys each at a salary of Rs. 1000 per month.

Though the unit was open for the patients all the 365 days in a year, security of accounts of 2008 revealed that only 150 days in a year the unit had the full capacity of 25 patients per day and for another 80 days it had on an average 20 beds only occupied per day. But there were occasions when the beds were full, extra beds were hired from outside at a charge of Rs. 10 per bed per day and this did not come to more than 5 beds extra above the normal capacity any one day. The total hire charges for the whole year were Rs. 4000.

The unit engaged expert doctor from outside to attend on the patients and the fees were paid on the basis of number of patients attended at time spent by them on an average worked out to Rs. 2000 per month in 2008. The other expenses for the year were as under.

	Rs.
Repairs and maintenance	8,000
Food supplied to patients	1,00,000
Janitor and other services for patients	25,000
Laundry charges for bed linens	40,000
Medicines supplied	70,000

Cost of oxygen, x ray etc other than directly born for
treatment of patients (Fixed)

90,000

General administration charges allocated to the unit

1,00,000

(1) If the unit recovered an overall amount of Rs. 200 per day on an average from each patient what is the profit per patient day made by the unit in 2008.

(2) The unit wants to work out a budget for 2009, since the number of patients is very uncertain, annuity the same revenue and expenses prevail in 2009, work out the number of patient days required break-even.

Solution:

Statement of cost and profit

Particulars		Rs.	Rs.
A)	Income received (Rs. 200 x 6150)		1,23,000
B)	Variable cost (per annum)		
	Food	1,00,000	
	Janitor and other services	25,000	
	Laundry charges	40,000	
	Medicines	70,000	
	Doctors fees (20,000 x 12)	2,40,000	
	Hire charges for extra bed	4,000	
	(B)	4,79,000	
C)	Fixed Costs		
	Salaries		
	Supervisor	4,800	
	Nurses	72,000	
	Ward boys	24,000	
	Rent (10000 x 12)	1,20,000	
	Repairs & Maintenance	8,000	
	General administration	1,00,000	
	Cost of oxygen, X ray etc.	90,000	

(C)	4,62,000	
Total cost (B + C)		9,41,000
Profit		2,89,000

Profit per patient day = $\frac{28900}{6150} = 46.91$ loss Rs. 47/-6150

Working Note: Calculation of No. of patient days in 2008 25 beds x 150

days = 3750

20 beds x 80 days = 1600 Extra beds $4000 \div 5 =$

800

6150

Breakeven point = Fixed

Cost x income = $\frac{46200}{1230000}$

Income – Variable cost 751000

(or)

= Rs. 756671 $\frac{756671}{200} = 3783.25$ patient days

200

HOTEL COSTING

Hotel industry is a service industry and covers various activities such as provision for food and accommodation. It also provides other comforts like recreations, business facilities, shopping areas etc. The expenses incurred in a hotel are fixed or variable. Fixed expenses comprises of staff salaries, repairs, interior decoration, laundry contract cost, sundries and depreciation on fixed assets. The variable expenses incurred are lighting, attendants' salaries, power etc. To find out room rent to be charged from customers a notional profit is added with the cost and divided by the number of rooms available. The number of rooms available is calculated after for considering availability of suits and occupancy.

Rooms rent may be different from season to season. Sometime besides accommodation they also provide food. Then the cost of meals, other direct and indirect costs are considered to

work out the costs to be charged from customers.

Operating cost sheet of a Hotel:

Particulars	Rs.	Rs.
A) Fixed Charge		
Salaries to Staff	XX	
Repairs and Renovation	XX	
Depreciation	XX	
Interior decoration	XX	
Sundries	XX	
Laundry contract cost	XX	
Rent	XX	XX
B) Running charges (Variable cost)		
Power	XX	
Attendant salaries	XX	XX
Total Operating Cost		XX
No. of Room Days		XX
Cost per Room Days		XX

Illustration 8:

A company runs a holiday home for this purpose it hired a building at a rent of Rs. 10,000 per month along with 5% of total takings. It has three types of suites for its customer's viz. single room, double room and triple rooms.

Following information is given:

Types of suite	Number	Occupancy percentage
Single rooms	100	100 %
Double rooms	50	80 %
Triple rooms	30	60 %

The rent of double room's suite is to be fixed at 2.5 times of the single room and that

of triple rooms at twice of the double room suite.

The other expenses for the year 2009 are as follows:

	Rs.
Staff salaries	14,25,000
Room attendants wages	4,50,000
Lighting heating and powers	2,15,000
Repairs and renovations	1,23,500
Laundry charges	80,500
Interior decoration	74,000
Sundries	1,53,000

Provide profit @ 20 % on total takings and assume 360 days in a year. You are required to calculate the rent to be charged for each type of suite

Solution:

Calculation of room occupancy

Type of suite	Number	Occupancy %	No. of days in a year	Room occupancy days
Single Room	100	100	360	36000
Double Room	50	80	360	14400
Triple Room	30	60	360	6480

Calculation of equalant single room suits occupancy

$$36,000 \times 1 + 14400 \times 2.5 + 6480 \times 5 = 104400$$

Calculation of Total Cost :

	Rs.
Staff salaries	14,25,000

Room attendant wages	4,50,000
Lighting heating and power	2,15,000
Repair and renovation	1,23,500
Laundry charges	80,500
Interior decoration	74,000
Sundries	1,53,000
Total cost excluding building rent	25,21,000
Building rent = 10000 x 12 + 5% of taking	2,96,066
Total cost	28,17,066
Profit 20 % of takings	7,04,267
Total takings	35,21,333

Rent for a single room = $3521333 \div 104400 = \text{Rs. } 33.73$

Rent for a double room = $33.73 \times 2.5 = \text{Rs. } 84.325$

Rent for a triple room = $84.325 \times 2 = \text{Rs. } 168.65$

Illustration 9:

A lodging home is being run in a small hill station with 50 single rooms. The home offers concessional rate during six off season months in a year. During this period, half of the full room rent is charged. The management profit margin is targeted at 20% of the room rent. The following are the cost estimates and other details for the year ending 31st March, 1996 (assume a month to be of 30 days)

(a) Occupancy during the season is 80%, while in the off season is 40% only.

(b) Expenses :

(i) Staff Salary (excluding room attendants)	Rs. 2,75,000
(ii) Repairs to buildings	Rs. 1,30,000
(iii) Laundry and linen	Rs. 40,000
(iv) Interior and tapestry	Rs. 87,500
(v) Sundry expenses	Rs. 95,400

- (c) Annual depreciation is to be provided for building at 5% and on furniture and equipments at 15% on straight line basis.
- (d) Room attendants are paid Rs. 5/- per room-day on the basis of occupancy of the rooms in a month.
- (e) Monthly lighting charges are Rs. 120 per room, expect in four months of winter when it is Rs. 30 per room and this cost is on the basis of full occupancy for a month and
- (f) Total investments in the home are Rs. 100 lakhs of which Rs. 80 lakhs relate to buildings and balance for furniture and equipments.

You are required to work out the room rent chargeable per day both during the season and the off-season months, on the basis of the foregoing information.

Solution:

Total estimated costs for the year ending 31.03.1996

Particulars	Total Rs.	Per room day (Rs.)
Salary	2,75,000	
Repairs	1,30,000	
Laundry and linen	40,000	
Interior decoration	87,500	
Depreciation: Rs.		
Building 5% on 80 lakhs = 4,00,000		
Furniture 15 % on 20 lakhs = 3,00,000	7,00,000	
Miscellaneous expenses	95,400	
Attendant's salary	54,000*	
Lighting charges	36,000**	
Total cost	14,18,400 / 9000	157.60
	*** full room days	
Add : Profit margin at 20% on rent or 25% of cost		197.00

During season room rent is Rs. 197 and during off-season room rent is Rs. 98.50

* Attendant' salary

For 10,800 room days @ Rs. 5 per day = Rs. 54,000

** Total light bill

Light bill during 8 months at Rs. 120 per month or $120 \div 30 = \text{Rs. 4 Per room day}$.

Light bill during 4 months of winter at Rs. 30 per month or $30 \div 30 = \text{Re. 1 per Room day}$.

Total light bill for full one year

	Rs.
- During season @ Rs. 4 for 7,200 days	28,800
- During 2 months of off-season	
@ Rs. 4 for 1,200 days ($2 \div 6 \times 3,600$)	4,800
- During 4 months of winter at Re. 1	
For 2,400 days ($4 \div 6 \times 3,600$)	2,400
Total	36,000

*** Number of room days in a year :

Seasons occupancy for 6 months @ 80% ($50 \times 0.8 \times 6 \times 30$) = 7,200 room days
 Off season's occupancy for 6 months @ 40 % ($50 \times 0.4 \times 6 \times 30$) = 3,600 room days

Total room days during the Year 10,800

Total full room days in terms of rate

Season	7,200
Off Season (in terms of 50 % rate on 3,600 days)	<u>1,800</u>
Total Full room days	<u>9,000</u> per annum

KARPAGAM ACADEMY OF HIGHER EDUCATION
(Deemed-to-be-University)
(Established Under Sec. 3 of UGC Act, 1956)
Coimbatore – 641 021.

Applied Cost Accounting (19CMP203)
Unit –III

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
1.	_____ type of costing used in transport services	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
2.	operating costing is also called _____	Process	Job costing	Contract costing	Service costing	Service Costing
3.	_____ is a method of costing applied to ascertain the cost of providing a service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
4.	Service rendered in the same organization is known as _____	Internal Service	External Service	Both	Costing Service	Internal Service
5.	other name of service costing	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
6.	service rendered to the customers is known as	Internal Service	External Service	Both	Costing Service	external service
7.	Examples of external services _____	Hospital	Manufacturing industry	service outlet	distributors	Hospitals
8.	the basic problem in _____ costing is the selection of cost unit	Composite costing	multiple costing	single unit costing	opertaing costing	Operating Costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
9.	_____ changes are incurred whether the vehicle is running or not	Standing Charges	operating charges	maintenance charges	variable charges	standing charges
10.	_____ is one of the example of standing charge	Rent	Salary	Fuel	Power	Rent
11.	_____ expenses variable in nature	Standing Charges	operating charges	maintenance charges	variable charges	operating charges
12.	_____ is an example of operating charge	Petrol/ diesel	annual tax	Insurance	Rent	Petrol/Diesel
13.	_____ charges are semi variable in nature	Standing Charges	operating charges	maintenance charges	variable charges	maintenance charges
14.	_____ is an example of maintenance charge	Repairs	Depreciation	Wages	Annual Tax	Repairs
15.	Garrage rent will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost
16.	Tax and insurance will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost
17.	general supervision will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost
18.	tyres and tube cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
19.	repair cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
20.	Painting Cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
21.	Petrol, oil, grease Cost will incur in	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
22.	Wages of operators will incur in _____ cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
23.	Depreciation will incur in _____ cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
24.	_____ costing is generally for long duration	Job costing	Process costing	unit costing	Contract Costing	contract costing
25.	the contract price is paid in _____ depending on the process of work	monthly	annually	installments	quarterly	Installments
26.	Each contract is treated as a _____ unit	Cost	Sales	Purchase	Supply	Cost
27.	All cost are accumulated and ascertained for _____ contract	All	Each	Single	Multiple	All
28.	A _____ contract accounts are prepared for each contract	Multiple	separate	Single	All	Separate
29.	In Standing charges variables are _____ in nature	Fixed	Variable	Semi variable	Changed	Fixed
30.	In integrated accounting one set of books is maintained for financial transactions and ____	Accounting transactions	Material transactions	Costing transactions	Inventory transactions	Costing transactions
31.	Integration is done through____	Control accounts	Inventory accounts	Work-in-progress	Contribution	Control accounts
32.	For purchase of material, cost ledger control account should be ____	Debited	Credited	Added	Deducted	Credited

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
33.	Balance in overhead suspense account is transferred to ____	Balance sheet	Overhead control account	Cost sheet	Profit and loss account	Profit and loss account
34.	Cost of sales account is debited in ____	Sales account	Purchase account	Wages account	Administration overhead account	Sales account
35.	Work-in-progress account is debited in ____	Sales account	Purchase account	Finished goods account	Cost of sales account	Finished goods account
36.	Administration overhead account is debited in ____	Cost of sales account	Sales account	Factory overhead account	Finished good account	Finished good account
37.	Over-absorption of overhead in cost account is a ____	Profit	Gross Profit	Profit or Loss	Cost of Sales	Profit
38.	Under absorption of overhead in cost account is a ____	Profit or loss	Loss	Cost of Sales	Prime cost	Loss
39.	Profit on sale of fixed assets is a ____	Costing transaction	Financial and Costing transaction	Financial transaction	Personal transaction	Financial transaction
40.	In reconciliation statement, over-valuation of opening stock in cost account is added with ____	Financial profit	Gross Profit	Net Profit	Costing Profit	Costing Profit
41.	In reconciliation statement, over-valuation of closing stock in cost account is added with ____	Costing Profit	Financial profit	Gross Profit	Net Profit	Financial profit
42.	For reconciliation, interest received is deducted with ____	Financial profit	Costing profit	Gross profit	Net loss	Financial profit

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
43.	In reconciliation, goodwill written off is deducted with ____	Fixed Cost	Variable cost	Financial profit	Costing profit	Costing profit
44.	If work completed _____ of the contract price is taken to profit and loss account	one fourth	two fourth	three fourth	one fifth	one fourth
45.	_____ contracts such as constructions of bridges, theatres and hospitals takes a long time to complete	Large	small	medium	Very small	Large
46.	_____ percent is calculated by dividing the total cost by number of service units produced or rendered	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
47.	A proper cost unit must be selected in order to ascertain the _____ unit of services	Cost	Demand	Sales	Supply	Cost
48.	industries using _____ costing do not produce goods but render service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
49.	In _____ case only one variable is taken	Simple cost unit	composite cost unit	Multiple cost unit	single cost unit	simple cost unit
50.	In _____ case more than one variable is combined	Composite costing	multiple costing	single unit costing	operating costing	composite costing
51.	in Standing charges variables are _____ in nature	Fixed	Variable	Semi variable	Changed	Fixed
52.	_____ on contract is usually executed at the size of the	Work	Process	Account	Sales	Work

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	contract					
53.	_____ usually constitute a major portion	Direct cost	Indirect cost	total cost	Fixed Cost	Direct Cost
54.	_____ expenses which cannot be directly charged to contracts	Direct expenses	Indirect Expenses	variable expenses	Fixed Expenses	Direct Expenses
55.	_____ can be ascertained only on completion of the contract	Profit	Loss	Sales	Demand	Profit
56.	the direct expenses incurred for the contract is also _____ to the contract account	Debited	Credited	Entered	Fixed	Debited
57.	_____ which cannot be directly charged to contract	Direct expenses	Indirect Expenses	Fixed Expenses	Variable Expenses	Indirect Expenses
58.	_____ contracts take a long time for completion and require huge investments	Large	Small	Medium	Very High	Large
59.	_____ money is paid to the contractor after the expiry of a stipulate time	usable	recovery	wastage	useful	recovery
60.	_____ is treated as a reserve	Notional profit	recovery	wastage	useful	Notional Profit
61.	the _____ price is paid in installments depending on the process of work	Process costing	Job costing	Unit costing	Contract costing	Contract Costing
62.	_____ contract is a contract in which the contractee agrees to pay the cost of work done plus a percentage of it towards	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	profit					
63.	In which contract _____ contracts is assure a fixed percentage of profit	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract
64.	_____ is clause in contract agreement	Cost + contract	Escalation clause	Retention money	Unit Contract	Escalation clause

UNIT IV
SYLLABUS

Reconciliation of Costing profit with Financial Profit - Need for reconciliation, reasons for disagreements in Profit, procedure for reconciliation
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1. Book Keeping in Cost Accounting

Since cost accounts and financial accounts are kept for different purposes, the patterns of collecting information are different. The basis of passing journal entries (i.e., double entry system) is the same, both in cost accounts and financial accounts. There are two systems of cost control accounting to keep costs books:

(i) Non-integral or Non-Integrated Accounting, and

(ii) Integral or Integrated Accounting.

Where cost and financial transactions are kept separately, the system is referred to as non-integral accounting. Where both financial and costing transactions are recorded in one set of books, it is referred to as integral or integrated accounting. While non-integrated system of accounting necessitates reconciliation between financial and cost accounts, no reconciliation between two sets of accounts is required under integrated accounting.

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3. Non-Integrated accounting systems

Non-Integrated accounting system is also referred to as cost ledger accounting system. Under this system, there are separate sets of books for cost accounts and financial accounts. While cost accountant is responsible for recording cost ledgers, financial accountant is responsible for financial ledgers. Some items appear in cost ledgers only and some items appear only in financial accounts. This does not affect the double entry system.

The Chartered Institute of Management Accountants, London has defined non-integrated accounting system as "a system in which cost accounts are distinct from financial accounts, the two sets of accounts being kept continuously in agreement by the use of control accounts or made really reconcilable by other means."

Principal Ledgers in Cost Departments

Since personal accounts and real accounts (except stock items) are not kept in cost accounts therefore, cost accounts department maintain only four important ledgers under non-integrated accounting system. These include:

(i) Cost Ledger:

This is the principal ledger of costing department. It contains all impersonal accounts. It is made self-balancing by maintaining therein a control account for each of the other ledgers.

(ii) Stores Ledger:

This contains all stores accounts. A separate account is opened for each item of stores.

All purchases, issues, losses, etc. of stores items are entered in their respective accounts. This ledger contains the opening and closing balance of the stores items in their individual accounts.

(iii) Work-in-progress Ledger:

This ledger keeps record of each type of jobs undertaken and cost incurred therefore. All material costs, wages and overheads for each job in progress are posted to the respective job account in this ledger.

(iv) Finished Goods Ledger:

This contains account of completely finished product or job. A separate account is opened for each type of finished product.

Control Accounts

Control accounts are the total accounts in the cost ledger. In these accounts, entries are made once in each accounting period. Periodically total of all transactions in related subsidiary ledger is entered as one entry in the concerned control account.

Advantages of Control accounts

The main advantages of control accounts are:

- (i) Cost control accounts provide summary of the accounting period transactions of various subsidiary ledgers.
- (ii) These accounts facilitate early preparation of costing profit and loss account and the trial balance because of availability of cost and revenue information in totals.
- (iii) Job-wise ascertainment of cost and profitability is made simple.
- (iv) Control accounts help in prompt reconciliation of cost and financial accounts.

Principal Control Accounts

Following are the accounts, which are generally maintained, when a separate cost ledger is kept.

(1) General Ledger Adjustment Account:

This is also known as cost ledger control account. This account is operated to make cost ledger self-balancing. All transactions of income and expenditure, which originate in financial accounts, are entered in this account for eventual transfer to some control account. If a transaction is of internal nature affecting cost accounts only, i.e., transfer from stores ledger control account to work-in-progress control account, then no entry is necessary in general ledger adjustment account, because double entry is possible without recourse to this balancing account. Main purpose of this account is to complete entry in cost ledger. No entry should be made direct from financial books to cost books. All entries pass through general ledger adjustment account. The balance of this account at the end of a particular period represents the total of all balances of impersonal account.

(2) Stores Ledger Control Account:

This account is debited for the purchase of material and credited for issue of materials from stores. The balance of this account indicates total balance of stores, which should agree with aggregate of balance

of individual account in the stores ledger. Abnormal losses or gains are transferred to profit and loss account. Entries are made on the basis of goods received notes and stores requisition etc.

(3) Work-in Progress Ledger Control Account:

This account is debited with cost of production i.e., direct material, direct labour, direct Expenses, if any, and production overhead recovered. This account is credited with the value of finished goods completed. The balance of this account will show total balance of jobs/works, which are in progress as per various individual job accounts.

(4) Finished Goods Ledger Control Account:

This account is debited with the value of goods transferred from work-in-progress account. Administration overhead recovered is also debited to this account. This account is credited with cost of sales account. The balance of this account will represent the value of finished goods lying at hand.

(5) Wages Control Account:

Total wages (direct and indirect) paid are debited to this account. Direct wages are transferred to work-in progress control account and indirect wages are transferred to respective overhead control account in production-administration or selling. It is not strictly a control account, because it does not have subsidiary ledger.

(6) Production Overhead Control Account:

This account is debited with indirect manufacturing expenses like indirect material cost, indirect wages and indirect expenses. The entry is made on the basis of particulars available from material issue analysis sheet; wages analysis sheet, standing order numbers and cost account numbers, the account of manufacturing overhead recovered is credited to this account and debited to work-in-progress ledger control account. Any balance of this account represents balance of, under/over absorbed overhead, which is transferred to profit and loss account.

(7) Administration Overhead Control Account:

This account is debited with administration overhead incurred. Administration overhead recovered is credited to this account and debited to finished goods ledger control account. Any balance in this account represents over/under absorbed administration overhead which is transferred to profit and loss account.

(8) Selling and distribution Overhead Control Account:

This account is debited with selling and distribution overhead incurred. For selling and distribution overhead recovered, this account is credited and cost of sales account is debited.

(9) Cost of Sales account:

This account is credited with cost of goods sold and selling and distribution overhead recovered. This account is closed by transferring it to profit and loss account.

(10) Costing Profit and Loss Account:

This account is debited with cost of goods sold, under-absorbed overhead and abnormal losses. This account is credited with sales value, over-absorbed overhead and abnormal gains. The balance of this account shows profit or loss as per cost books, which is reconciled with financial profit and loss account. If there is profit, costing profit and loss account is debited and general ledger adjustment account is credited. If there is loss, costing profit and loss account is credited and general ledger adjustment account is debited.

Accounting Entries under Non-Integrated System

The table given below summarises the journal entries to be passed for various transactions in cost ledger:

Transactions	Entry in Cost Ledger
1. Material Purchased	
(a) For Stock	Dr. Stores Ledger Control A/C Cr. General Ledger Adjustment A/C
(b) For Special jobs	Dr. WIP ledger Control A/C Cr. General Ledger Adjustment A/C
2. Material Issued	
(a) Direct material	Dr. WIP ledger Control A/C Dr. Stores Ledger Control A/C

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(b) Indirect material	Dr. Respective Overhead A/C Dr. Stores Ledger Control A/C
(c) Returns to Supplier	Cr. General Ledger Adjustment A/C Dr. Stores Ledger Control A/C
3. Material returned from shop floor	Dr. Stores Ledger Control A/C Dr. WIP ledger Control A/C
4. Material transferred from one job to another	No Entry in Control A/C
In Work-in-Progress Ledger	Dr. Transferee Job A/C Cr. Transferor Job A/C
5. Labour	
(a) Total salary and wages paid	Dr. Wages Control A/C Cr. General Ledger Adjustment A/C
(b) Allocation	
For Direct Labour	Dr. WIP ledger Control A/C Cr. Wages Control A/C
For Indirect Labour	Dr. Respective Overhead Control A/C Cr. Wages Control A/C
6. Direct Expenses	Dr. WIP ledger Control A/C Cr. General Ledger Adjustment A/C
7. Overheads	
(a) Incurred	Dr. Respective Overhead A/C Cr. General Ledger Adjustment A/C
(b) Recovered	Dr. WIP ledger Control A/C

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	Dr. Finished Goods Ledger Control A/C Dr. Cost of Sales A/C Cr. Respective Overhead Control A/C
8. Finished Stock	
(a) Produced	Dr. Finished Goods Ledger Control A/C Cr. WIP ledger Control A/C
(b) Sold (at cost)	Dr. Cost of Sales A/C Cr. Finished Goods Ledger Control A/C
(c) Sales	Dr. General Ledger Adjustment A/C Cr. Costing Profit and Loss A/C
(d) Sales Return	Dr. Costing Profit and Loss A/C Cr. General Ledger Adjustment A/C
9. For transferring cost of goods sold to P&L A/C	Dr. Costing Profit and Loss A/C Cr. Cost of Sales A/C
10. Under-absorption of overhead	Dr. Costing Profit and Loss A/C Cr. Respective Overhead A/C
11. Over-absorption of overhead	Dr. Respective Overhead A/C Cr. Costing Profit and Loss A/C
12. For Profit in Costing P&L A/C	Dr. Costing Profit and Loss A/C Cr. General Ledger Adjustment A/C
13. For Loss in Costing P&L A/C	Dr. General Ledger Adjustment A/C Cr. Costing Profit and Loss A/C
14. Miscellaneous	

(a) Transportation of incoming material	Dr. Stores Ledger Control A/C Cr. General Ledger Adjustment A/C
(b) Administration Overhead allocated to production	Dr. Work-in-Progress A/C Cr. Administration Overhead A/C
(c) Administration Overhead allocated to Sales	Dr. Cost of Sales A/C Cr. Administration Overhead A/C

4. Integrated Accounting Systems

Integrated accounting is the name given to a system of accounting whereby cost and financial accounts are kept in the same set of books. The term 'Integrated Accounting' means integration or merger of financial and cost accounts and maintenance of a single set of accounts to record both financial and cost transactions.

In other words, it refers to the unified system of accounting which serves the purpose of both financial and cost accounting. The accounts are maintained on double entry system.

Basic Features of Integrated System

(i) Stores Ledger	It contains separate accounts for each item of store.
(ii) Work-in-Progress Ledger	It contains separate accounts for each job, work/product in progress.
(iii) Finished Goods Ledger	It contains separate accounts for each job/work/product finished.
(iv) Sales Ledger	It contains separate personal accounts for each customer.

(v) Purchase Ledger	It contains separate personal accounts for each supplier.
(vi) Overhead Ledger	It contains separate accounts for factory, administration and selling and distribution overheads.

Control Accounts
1. Stores Ledger Control Account
2. Work-in-Progress Control Account
3. Finished Stock Control Account
4. Sales Control Account
5. Purchase Control Account
6. Production Overheads Control Account
7. Administration Overheads Control Account
8. Selling and Distribution Overheads Control Account
9. Wages Control Account

(e) Balances of Overheads Control Accounts: The balances of overheads control accounts which represent under/over absorption of overheads are transferred to Profit and Loss Account.

(f) Profit as per Profit and Loss Account: The profit as per Profit and Loss account is transferred to Profit and Loss Appropriation Account.

Advantages of Integrated System

The advantages of integrated accounting system are summarised below:

(i) No need for Reconciliation:

This system requires maintenance of single set of accounts and discloses only one profit figure therefore, there is no need for reconciliation.

(ii) Simple and Economical:

This system is simple and economical. It avoids maintenance of different set of books and hence duplicate recording of transactions is avoided.

(iii) Centralisation of Accounting Work:

Maintenance of one set of accounts leads to centralisation of accounting work under one department. This leads to improved efficiency and better control in accounting function.

(iv) Provides prompt cost information:

As the system also requires maintenance of almost all cost records kept under non- integrated system, therefore necessary cost information can also be promptly provided under this system.

(v) Suitable for Computerised Accounting: The integrated system of accounting is more suitable for computerisation of accounts and hence reduces paper work, cost and time.

Limitations of Integrated Accounting System

The system has the following limitations:

(i) Non Suitable for Large Firms:

Large firms require cost and financial information on continuous basis. One system cannot handle the accounting work and full benefits of keeping separate set of accounts cannot be realised under integrated system.

(ii) Complex System:

The integrated system sometimes becomes very complex and cannot meet the requirements of providing timely and prompt cost information.

Essential Pre-requisites of Integrated Accounting System

The essential pre-requisites of integrated accounting system include the following:

(a) Decision as to Extent of Integration:

The management must decide about the extent of integration of the two sets of books. Some concerns find it useful to integrate up to the stage of prime cost or factory cost while other prefers full integration

of the entire accounting records.

(b) Suitable Coding System:

A suitable coding system must be made available so as to serve the accounting purposes of financial and cost accounts.

(c) Accounting Policy:

An accounting policy with regard to the treatment of provision for accruals, prepaid expenses, other adjustment necessary for preparation of interim accounts, must be laid down in advance.

(d) Co-ordination:

Perfect coordination should exist between the staff responsible for the financial and cost aspects of the accounts and an efficient processing of accounting documents should be ensured.

Transaction	Journal Entries under Integral System
1. Material Purchased on Credit	
(a) For stock	Dr. Stores Control A/C Cr. Sundry Creditors A/C
(b) For jobs	Dr. Work-in-Progress A/C Cr. Sundry Creditors A/C
2. Material Issued	
(a) Direct material	Dr. Work-in-Progress A/C Cr. Stores Control A/C
(b) Indirect Material	Dr. Relevant Overhead A/C Cr. Stores Control A/C
3. Material returned from Shop Floors	Dr. Stores Control A/C

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	Cr. Work-in-Progress A/C
4. Material returned to supplier	Dr. Creditors A/C Cr. Stores Control A/C
5. Material transferred from One Job to another Job	Dr. Transferee Job A/C Cr. Transferor Job A/C
6. Salary and Wages Paid- Direct and Indirect	Dr. Wages Control A/C Cr. Cash A/C
7. Direct Expenses	Dr. Work-in-Progress A/C Cr. Cash A/C
8. Overhead Incurred	Dr. Relevant Overhead A/C Cr. Cash A/C
9. Overhead Recovered	Dr. Work-in-Progress A/C Dr. Finished Stock A/C Dr. Cost of Sales A/C Cr. Relevant Overhead A/C
10. Overhead on Work-in-Progress	Dr. Work-in-Progress A/C Cr. Production Overhead A/c
11. Finished Goods Produced	Dr. Finished Goods A/C Cr. Work-in-Progress A/C
12. Goods sold (at cost)	Dr. Cost of Sales A/C Cr. Finished Goods A/C

13. For sales	Dr. Debtors A/C Cr. Sales A/C
14. Sales Returned	Dr. Sales A/C Cr. Debtors A/C
15. Capital Work	Dr. Sundry Assets A/c Cr. Work-in-Progress A/C
16. Repair Work	Dr. Relevant Overhead A/C Cr. Work-in-Progress A/C
17. Under Absorbed Overhead	Dr. Profit and Loss A/C Cr. Relevant Overhead A/C
18. Over Absorbed Overhead	Dr. Relevant Overhead A/C Cr. Profit and Loss A/C

Distinguish between Non-Integral System and Integral System		
Non-integral system differs from integral system in the following respects :		
Basis of Distinction	Non-Integral system	Integral System
1. No. Of Sets of Books	Two separate sets of books are maintained - one to record cost transactions and the other to record financial	Only one set of books is maintained to record both the cost transactions and financial

	transactions.	transactions.
2. Cost Ledger	Cost Ledger is maintained.	Cost Ledger is not maintained.
3. Control Accounts	Control accounts are opened in the Cost ledger.	Control accounts are opened in the General ledger.
4. Figure of Profit/Loss	There are two figures of profit/loss - one as per cost books and another as per financial books.	There is only one figure of profit/loss because only one set of books is maintained.
5. Need for Reconciliation	There is need for reconciliation of cost accounts and financial accounts because there are two figures of profit/loss as there are two sets of books.	There is no need for reconciliation because there is only one figure of profit/loss as there is only one set of books.
6. Balances of Overheads Control Accounts	Balances of Overhead Control Accounts which represents under/over absorption of overheads are transferred to Costing Profit and Loss Account.	Balances of Overhead Control Accounts which represents under/over absorption of overheads are transferred to Profit and Loss Account.
7. Economical	It is expensive because of duplication of recording the transactions in two sets of books.	It is economical because it avoids the duplication of recording the transactions in two sets of books.

5. Reconciliation of Cost and Financial Accounts

Need for Reconciliation of Cost and Financial Accounts

Under non-integrated accounting system, separate set of books is maintained for financial accounting and cost accounting. Since, financial accounts and cost accounts are kept independent of each other and adopt different approaches; hence profit disclosed under one set of accounts may differ from the profit shown under other set of accounts. Hence, the need for reconciliation of cost and financial accounts arises:

1. To identify the reasons for the difference between the results shown by the cost accounts and financial accounts.
2. To check the arithmetic accuracy and reliability of both the sets of books.

The difference in profit figures shown in two sets of accounts necessitates the need to reconcile their operating results. Since, financial accounts are the audited financial records; hence reconciliation of the two sets of accounts will certainly establish the accuracy of cost accounts.

Reasons for the Difference between the Results Shown by the Cost Accounts and Financial Accounts

The various reasons for the difference between the results shown by the cost accounts and financial accounts are given below:

(1) Under or Over-absorption of Overhead

The overheads absorbed at a pre-determined rate in Cost Accounts may be different from the actual overheads recorded in financial accounts. Over absorption of overheads arises when the overheads absorbed in Cost Accounts are more than the actual overheads recorded in Financial Accounts. Under absorption of overhead arises when the overheads absorbed in Cost Accounts are less than the actual overheads recorded in Financial Accounts. Both over and under absorption lead to difference in profit figures if the amount of over or under absorbed overheads has been carried forward to the next period.

The effect of over/under absorption of overheads on profits is shown below:

Particulars	Effect on Profits as per	
	Cost Accounts	Financial Accounts

1. Over absorption of overheads in Cost Accounts	Less Profits	More Profits
2. Under absorption of overheads in Cost Accounts	More Profits	Less Profits

(2) Different Bases of Stock Valuation

Using different bases for valuation of stocks in cost accounts and financial accounts may lead to differences in profit figures. In financial accounts, Stock of work-in-Progress is generally valued at prime cost but in cost accounts it is usually valued at factory cost.

In financial accounts, Stock of Finished Goods is valued at cost or market price whichever is lower but in cost accounts, it is valued at cost. The effect of over/under valuation of stock on profits is shown below:

Particulars	Effect on Profits as per	
	Cost Accounts	Financial Accounts
1. Over valuation of Opening Stock in Cost Accounts	Less Profits	More Profits
2. Under valuation of Closing Stock in Cost Accounts	Less Profits	More Profits
3. Under valuation of Opening Stock in Cost Accounts	More Profits	Less Profits

4. Over valuation of Closing Stock in Cost Accounts	More Profits	Less Profits
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(3) Different Methods of Charging Depreciation

Using different methods of depreciation in cost accounts and financial accounts may lead to differences in profit figures. In financial accounts, the straight line method or written down method may be used but in cost accounts machine hour rate method of depreciation may be used.

(4) Items included in Financial Accounts Only

The following items of income and expenditure are normally included in financial accounts and not in cost accounts. Their inclusions in cost accounts might lead to unwise managerial decisions. These items are:

A. Incomes

- (a) Profit on sale of Fixed Assets
- (b) Profit on sale of Investments
- (c) Interest Income
- (d) Dividend Income
- (e) Rental Income
- (f) Transfer Fees
- (g) Insurance Compensation
- (h) Cash Discount Received

B. Expenditures

- (a) Loss on sale of Fixed Assets
- (b) Loss on sale of Investments
- (c) Interest on mortgage and loans
- (d) Preliminary expenses written off
- (e) Goodwill written off

(5)

(f) Underwriting Commission written off

(g) Debenture Discount written off

(h) Fines and Penalties

C. Appropriations

(a) Income Tax

(b) Dividend Distribution Tax

(c) Transfer to General Reserves

(d) Transfer to Special Reserves

Items Included in Cost accounts only

There are some items which are included in cost accounts but not in financial accounts. These are:

(a) Notional interest on capital.

(b) Notional rent on premise owned.

(c) Notional salary of the proprietor/partner.

A specimen Performa of Reconciliation Statement

Proforma of Reconciliation Statement		
	Rs.	Rs.
Profit as per Cost Accounts		*****
<i>Add :</i> (1) Over-absorption of overheads in cost accounts	*****	
(2) Financial incomes not recorded in cost accounts	*****	
(3) Under-valuation of Closing Stock in cost accounts	*****	
(4) Over-valuation of Opening Stock in cost accounts	*****	
(5) Items charged only in cost accounts (i.e., Notional rent and interest on capital etc.)	*****	*****
<i>Less :</i> (1) Under-absorption of overheads in cost accounts	*****	*****
(2) Financial charges not considered in cost accounts (e.g. Bad debts written off, preliminary expenses, goodwill and discount on issue of shares written off)	*****	
(3) Under-valuation of Opening Stock in cost accounts	*****	
(4) Over-valuation of Closing Stock in cost accounts	*****	*****
Profit as per Financial Accounts		*****

Memorandum Reconciliation Account

Memorandum reconciliation account is basically presentation of reconciliation statement in 'T' account form. It is not part of double entry system because all the items posted in this account do not have their corresponding debits/credits in the books of accounts.

The procedure is simple and same as discussed under the head 'preparation of reconciliation statement'. Start writing the profit disclosed in cost accounts on the credit side of the account (write on the debit side if it is a loss). The amount of items which are to be added to the cost accounts profit will be credited while the amounts of items to be deducted are debited to this account. The balancing figure will disclose the profit as per financial account. Similarly, memorandum reconciliation account can also be prepared by taking profit as per financial books as starting point and finding profit as per cost accounts as finishing point.

A specimen Performa of Memorandum Reconciliation Account

MEMORANDUM RECONCILIATION ACCOUNT	
To Financial expenses : Discount Fines and penalties Bank interest Underwriter's commission Donations Goodwill written off " Under-absorption of overheads " Under-valuation of opening stock in cost accounts " Over-valuation of closing stock in cost accounts " Under charge of depreciation in cost accounts " Profit as per Financial Accounts	By Profit as per Cost Accounts " Financial income : Rent Interest Dividend Profit on sales of assets " Items charged in cost accounts : Interest on own capital Rent on own building " Over-absorption of overheads " Over-valuation of opening stock in cost accounts " Under-valuation of closing stock in cost accounts " Over charge of depreciation in cost accounts.



Illustration 1

7. Comprehensive Illustrations

From the following figures prepare a reconciliation statement:

	Rs.
Net loss as per costing records	1,72,400
Works overhead under recovered in costing	3,120
Administrative overhead recovered in excess	1,700
Depreciation charged in financial records	11,200
Depreciation recovered in costing	12,500
Interest received not included in costing	8,000
Obsolescence charged (loss) in financial records	5,700
Income tax provided in financial books	40,300
Bank interest credited in financial books	750
Stores adjustment (credit) in financial books	475
Value of opening stock in cost accounts	52,600
Value of opening stock in financial accounts	54,000
Value of closing stock in cost accounts	52,000
Value of closing stock in financial accounts	49,600
Interest charged in cost accounts but not in financial accounts	6,000
Preliminary expenses written off in financial accounts	800
Provision for doubtful debts in financial accounts	150

Particulars	Rs.
Net Loss as per Cost Accounts	-1,72,400
Less: Under recovered works overhead	3,120
Add: Over recovered administrative overhead	1,700
Add: Over charged depreciation in cost accounts	1,300
Add: Interest received	8,000
Less : Loss due to obsolescence	5,700
Less: Income tax	40,300
Add: Bank Interest	750
Add: Stores adjustment	475
Less: Undervalued opening stock	1,400
Less: Overvalued closing stock	2,400
Add: Interest charged in cost accounts	6,000
Less : Preliminary expenses	800
Less: Provision for doubtful debts	150
Net Loss as per Financial Accounts	-2,08,045

Illustration 2

From the following figures prepare Reconciliation Statement:

	Rs.
Profit as per costing records	5,000
Factory overheads under recovered in costing	3,000
Selling and Administration overheads over recovered in	

costing	2,000
Discount credited in financial books	500
Preliminary expenses written off in financial books	6,500
Opening Stock value:	
in Cost Books	5,000
in Financial Books	4,000
Closing Stock value :	
in Cost Books	12,000
in Financial Books	10,000
Interest charged by the bank not considered in financial accounts and cost accounts	1,500

Particulars	Rs.
Profit as per Costing Records	5,000
Add: Selling & Administration overheads over recovered in costing	
Discount credited in financial books	2,000
Opening Stock under valued in financial books	500
Less: Factory overheads under recovered in costing	1,000
Preliminary expenses written off in financial books	3,000
Closing stock under valued in financial books	6,500
Loss as per financial Records	2,000
	3,000

Profit and Loss Account

For the year ending 31-3-2015

Particulars	Rs.	Particulars	Rs.
To Direct Materials	10,000	By Sales	50,000
To Direct Labour	20,000	By Work-in-Progress in hand	
To Factory Expenses	9,500	Direct Labour 600	
To Administration Expenses	5,200	Direct Material 400	
To Selling and Distribution	3,800	Factory Expenses 300	1,300

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Expenses			
To Interest on Capital	1,000	By Finished Stock in hand	2,700
To Goodwill written off	1,500		
To Net Profit	3,000		
	54,000		54,000

Cost Accounts manual states that the factory overheads are to be recovered at 50% of direct wages, administration overheads at 10% of works cost and selling and distribution overheads @ Re. 1 per unit sold.

Particulars	Rs
Direct Material	10,000
Direct Labour	20,000
Prime Cost	30,000
Add: Factory Overheads (50% of Direct Labour)	10,000
Gross Works Cost	40,000
Less: Work-in-Progress	1,300
	38,700
Add: Administration Overheads @ 10% of Works Cost	3,870
Cost of Goods produced (Output 4,257 units)	42,570
Less: Closing Stock of Finished Goods (257 @ 10)	2,570
Cost of Goods Sold	40,000
Add: Selling and Distribution Overheads	4,000

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Cost of Sales	44,000
Profit	6,000
Sales	50,000

Particulars	Rs.
Profit as per Financial Accounts	3,000
Add: Interest on capital not charged in cost accounts	1,000
Goodwill not written off in cost accounts	1,500
Under recovery of administration overheads in cost accounts	1,330
Less: Over recovery of Factory overheads in cost accounts	500
Under valuation of closing stock in cost accounts	130
Over recovery of selling & Dist. Overheads in cost accounts	200
Profit as per Cost Accounts	6,000

Illustration 3

A manufacturing company has disclosed a net loss of Rs. 8,75,000 as per their cost accounting records for the year ended 31st March, 2016. However, their financial accounting records disclosed a net loss of Rs. 7,19,250 for the same period. A scrutiny of the data of both the sets of books of accounts revealed the following information:

	Rs.
Factory overheads over absorbed	47,500
Administrative overheads under absorbed	32,750
Depreciation charged in financial accounts	2,25,000
Depreciation charged in cost accounts	2,42,250
Interest on investments not included in cost accounts	62,750
Income tax provided in financial accounts	7,250
Transfer fees credited in financial accounts	12,500
Preliminary expenses written off	27,500
Under valuation of opening stock in cost accounts	6,250
Under valuation of closing stock in cost accounts	17,500

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Particulars	Rs.	Particulars	Rs.
To Net Loss as per Cost Accounts	8,75,000	By Factory overheads absorbed	47,500
To Administrative overheads under absorbed	32,750	By Excess charge of depreciation in cost accounts	17,250
To Income tax provided in Financial accounts	7,250	By Transfer fees	12,500
To Preliminary Expenses written off	27,500	By Interest on investment not included in cost accounts	62,750
To Under valuation of Opening stock in cost accounts	6,250	By Under valuation of Closing stock in cost accounts	17,500
		By Net Loss as per Financial accounts	7,91,250
	9,48,750		9,48,750

POSSIBLE QUESTIONS

Part A

One Mark

Online Examination

Part B

Two Marks

1. Write a short note on "Cost Ledger Control Account".
2. List the financial expenses which are not included in cost.
3. What are Cost Control Accounts? Describe their advantages.
4. Explain briefly Integrated Accounting System.
5. When is the reconciliation statement of cost and financial accounts not required?
6. What are the advantages of 'Integrated Accounts'?
7. What is Memorandum Reconciliation Account? How is it prepared? Give its specimen.

PART C

SIX MARKS

1. Explain the system of non-integrated accounting and state the principal ledgers that are to be maintained.
2. Non-integrated accounting is one of the systems of cost control accounting to keep cost books". Discuss.
3. What do you understand by reconciliation of cost and financial accounts? Why is

reconciliation of cost and financial accounts of an organisation necessary?

4. Explain the reasons for the disagreement of profit between cost books and financial books.

5. What is the difference between integrated and non-integrated system of accounting?

6. Prepare Cost Sheet from the following data provided by R Ltd. for the year ending 31st March, 2015:

Raw Materials	Rs. 15000
Direct labour	Rs. 9000
Machine Hours	Rs. 900
Machine Hour Rate	Rs. 5
Production	Rs. 17100
	16,000
Sales	units
Selling Price per unit	Rs. 4
Selling Overhead per unit	50 paise

Office overheads are 20% of Works cost.

Also prepare a reconciliation statement, if Factory, Office and selling expenses are Rs.5,000, Rs. 5,000 and Rs. 10,000 respectively, while closing stock is valued at Rs. 2,500 in financial books.

Answer: Profit as per Cost Accounts Rs. 24,000, as per Financial Accounts Rs. 22,500

7. The following is the Trading and Profit and Loss account of ABC Electronics for the year ended 31st March, 2015:

Particulars	Rs.	Particulars	Rs.
To Direct Materials	12,000	By Sales (350 units)	70,000
To Direct Labour	4,000	By Finished Stock (50 units)	3,500

To Works Expenses	12,000	By Interest received	1,500
To Administration Expenses	12,000		
To Goodwill written off	4,000		
To Discount on Debentures written off	3,000		
To Net Profit	28,000		
	75,000		75,000

Particulars	Rs.	Particulars	Rs.
To Direct Materials	45,000	By Sales (4,800 units)	96,000
To Direct Labour	33,000	By Closing Stock (1,200)	20,400
To Works Expenses	24,000		
To Administration Expenses	6,000		
To Net Profit	8,400		
	1,16,400		1,16,400

The Company's Cost Accounts show that:

- (i) Works Overheads have been absorbed at Rs. 3 per unit produced.
- (ii) Administrative Overheads have been absorbed at Rs. 1.50 per unit produced. Prepare: (a) A statement of cost indicating net profit.
- (b) A Reconciliation statement. Answer: Profit as per Cost Accounts Rs. 1,200

8. The following information is available from the financial books of a company having anormal production capacity of 60,000 units for the year ended 31st March, 2014: (i) Sales Rs. 10,00,000 (50,000 units)

(ii) There was no opening or closing stock of finished goods.

(iii) Direct material and direct wages cost were Rs. 5,00,000 and Rs. 2,50,000

respectively.

- (iv) Actual factory expenses were Rs. 1,50,000 of which 60% are fixed.
- (v) Actual administration expenses were Rs. 45,000 which are completely fixed.
- (vi) Actual selling and distribution expenses were Rs. 30,000 of which 40% are fixed.
- (vii) Interest and dividend received Rs. 15,000. You are required to:
 - (a) Find out the profit as per financial books for the year ended 31st March, 2014.
 - (b) Prepare a Statement of Cost and Profit to ascertain the profit as per cost accounts for the year ended 31st March, 2014 assuming that the indirect expenses are absorbed on the basis of normal production capacity.
 - (c) Prepare a Reconciliation Statement.

Answer: Profit as per Financial Accounts Rs. 40,000; Profit as per Cost Accounts Rs. 49,500

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Coimbatore – 641 021.

Applied Cost Accounting (19CMP203)
Unit –IV

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
1.	In integrated accounting one set of books is maintained for financial transactions and ____	Accounting transactions	Material transactions	Costing transactions	Inventory transactions	Costing transactions
2.	Integration is done through____	Control accounts	Inventory accounts	Work-in-progress	Contribution	Control accounts
3.	For purchase of material, cost ledger control account should be ____	Debited	Credited	Added	Deducted	Credited
4.	Balance in overhead suspense account is transferred to ____	Balance sheet	Overhead control account	Cost sheet	Profit and loss account	Profit and loss account
5.	Cost of sales account is debited in____	Sales account	Purchase account	Wages account	Administration overhead account	Sales account
6.	Work-in-progress account is debited in ____	Sales account	Purchase account	Finished goods account	Cost of sales account	Finished goods account
7.	Administration overhead account is debited in ____	Cost of sales account	Sales account	Factory overhead account	Finished good account	Finished good account

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
8.	Over-absorption of overhead in cost account is a ____	Profit	Gross Profit	Profit or Loss	Cost of Sales	Profit
9.	Under absorption of overhead in cost account is a ____	Profit or loss	Loss	Cost of Sales	Prime cost	Loss
10.	Profit on sale of fixed assets is a ____	Costing transaction	Financial and Costing transaction	Financial transaction	Personal transaction	Financial transaction
11.	In reconciliation statement, over-valuation of opening stock in cost account is added with ____	Financial profit	Gross Profit	Net Profit	Costing Profit	Costing Profit
12.	In reconciliation statement, over-valuation of closing stock in cost account is added with ____	Costing Profit	Financial profit	Gross Profit	Net Profit	Financial profit
13.	For reconciliation, interest received is deducted with ____	Financial profit	Costing profit	Gross profit	Net loss	Financial profit
14.	In reconciliation, goodwill written off is deducted with ____	Fixed Cost	Variable cost	Financial profit	Costing profit	Costing profit
15.	If work completed _____ of the contract price is taken to profit and loss account	one fourth	two fourth	three fourth	one fifth	one fourth
16.	_____ contracts such as constructions of bridges, theatres and hospitals takes a long time to complete	Large	small	medium	Very small	Large
17.	operating costing is also called _____	Process	Job costing	Contract costing	Service costing	Service Costing
18.	_____ is a method of costing applied to ascertain the cost of providing a service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
19.	_____type of costing used in transport services	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
20.	Service rendered in the same organization is known as _____	Internal Service	External Service	Both	Costing Service	Internal Service
21.	_____percent is calculated by dividing the total cost by number of service units produced or rendered	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
22.	A proper cost unit must be selected in order to ascertain the _____ unit of services	Cost	Demand	Sales	Supply	Cost
23.	other name of service costing	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
24.	industries using _____costing do not produce goods but render service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
25.	service rendered to the customers is known as	Internal Service	External Service	Both	Costing Service	external service
26.	Examples of external services_____	Hospital	Manufacturing industry	service outlet	distributors	Hospitals
27.	In _____case only one variable is taken	Simple cost unit	composite cost unit	Multiple cost unit	single cost unit	simple cost unit
28.	In _____case more than one variable is combined	Composite costing	multiple costing	single unit costing	operating costing	composite costing

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
29.	the basic problem in _____ costing is the selection of cost unit	Composite costing	multiple costing	single unit costing	opertaing costing	Operating Costing
30.	_____ changes are incurred whether the vehicle is running or not	Standing Charges	operating charges	maintenance charges	variable charges	standing charges
31.	in Standing charges variables are _____ in nature	Fixed	Variable	Semi variable	Changed	Fixed
32.	_____ is one of the example of standing charge	Rent	Salary	Fuel	Power	Rent
33.	_____ expenses variable in nature	Standing Charges	operating charges	maintenance charges	variable charges	operating charges
34.	_____ is an example of operating charge	Petrol/ diesel	annual tax	Insurance	Rent	Petrol/Diesel
35.	_____ charges are semi variable in nature	Standing Charges	operating charges	maintenance charges	variable charges	maintenance charges
36.	_____ is an example of maintenance charge	Repairs	Depreciation	Wages	Annual Tax	Repairs
37.	Garrage rent will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost
38.	Tax and insurance will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost
39.	general supervision will occur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Fixed Cost

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
40.	tyres and tube cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
41.	repair cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
42.	Painting Cost will appear in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
43.	Petrol, oil, grease Cost will incur in _____	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
44.	Wages of operators will incur in _____ cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
45.	Depreciation will incur in _____ cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
46.	_____ costing is generally for long duration	Job costing	Process costing	unit costing	Contract Costing	contract costing
47.	the contract price is paid in _____ depending on the process of work	monthly	annually	installments	quaterly	Installments
48.	Each contract is treated as a _____ unit	Cost	Sales	Purchase	Supply	Cost
49.	All cost are accumulated and ascertained for _____ contract	All	Each	Single	Multiple	All
50.	A _____ contract accounts are prepared for each contract	Multiple	seprate	Single	All	Separate
51.	_____ on contract is usually executed at the size of the contract	Work	Process	Account	Sales	Work

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
52.	_____ usually constitute a major portion	Direct cost	Indirect cost	total cost	Fixed Cost	Direct Cost
53.	_____ expenses which cannot be directly charged to contracts	Direct expenses	Indirect Expenses	variable expenses	Fixed Expenses	Direct Expenses
54.	_____ can be ascertained only on completion of the contract	Profit	Loss	Sales	Demand	Profit
55.	In Standing charges variables are _____ in nature	Fixed	Variable	Semi variable	Changed	Fixed
56.	the direct expenses incurred for the contract is also _____ to the contract account	Debited	Credited	Entered	Fixed	Debited
57.	_____ which cannot be directly charged to contract	Direct expenses	Indirect Expenses	Fixed Expenses	Variable Expenses	Indirect Expenses
58.	_____ contracts take a long time for completion and require huge investments	Large	Small	Medium	Very High	Large
59.	_____ money is paid to the contractor after the expiry of a stipulate time	usable	recovery	wastage	useful	recovery
60.	_____ is treated as a reserve	Notional profit	recovery	wastage	useful	Notional Profit
61.	the _____ price is paid in installments depending on the process of work	Process costing	Job costing	Unit costing	Contract costing	Contract Costing
62.	_____ contract is a contract in which the contractee agrees to pay the cost of work done plus a percentage of it towards	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract

S.No.	Questions	Option A	Option B	Option C	Option D	Answer
	profit					
63.	In which contract _____ contracts is assure a fixed percentage of profit	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract
64.	_____ is clause in contract agreement	Cost + contract	Escalation clause	Retention money	Unit Contract	Escalation clause

UNIT V
SYLLABUS

Cost Control and Cost Reduction - Meaning, Elements, Scheme and techniques of Cost control, Essentials for success of cost control, meaning of cost reduction, areas of cost reduction, tools and techniques of cost reduction, distinction between cost control and Cost reduction

INTRODUCTION

Cost control is the practice of identifying and reducing business expenses to increase profits, and it starts with the budgeting process. A business owner compares actual results with the budgeted expectations and if actual costs are higher than planned, management takes action. As an example, a company can obtain bids from other vendors that provide the same product or service, which can lower costs. Cost control is an important factor in maintaining and growing profitability.

MEANING OF COST CONTROL

The basic objective of accounting is to provide information which is useful for persons inside the organisation (i.e. owners, management and employees) and for persons or groups outside the organisation (i.e. investors, creditors, government, consumers etc.)

According to Slavin and Reynolds Professors of Accounting, "Conceptually, accounting is the discipline that provides information on which external and internal users of the information may base decisions that result in the allocation of economic resources in society."

The needs of the majority of the users of accounting information can be satisfied by financial accounting. Financial statements are concerned with the past whereas management's main interest lies not in past but in future. It is mainly concerned with planning and controlling.

Preparation of various budgets, such as sales budget, production budget, cash budget, capital expenditure budget etc. is an important part of planning and preparing various budgets is an important aspect of Cost Accountancy. Controlling is the function of seeing that programmes laid down in various budgets are being actually achieved i.e. actual performance is compared with the budgeted performance, enabling the management to exercise control in case of weak performance.

Now-a-days managements are facing problems of survival because of acute competition. Only those organisations can meet the competition effectively and have a hold on the market which are in a position to keep their cost minimum. Cost accounting can be instrumental in this regard by eliminating all inefficiencies and wastages by exercising cost control.

ELEMENTS OF A COST CONTROL SCHEME

1. Set down a norm or standard or target.
2. Select a yardstick for measuring the standard or target.
3. Ascertain the actual performance by applying the yardstick which was used for measuring the standard or target.
4. Compare the actual performance with the standard or target and compute the variances.
5. Analyse the variances by causes and fix responsibility for variances.
6. Take corrective action to eliminate the causes of variances so that future performance conforms to standards or targets laid down and cost may be controlled to achieve the maximum efficiency.
7. Periodically review the standards or targets and revise them in the light of changed circumstances.

TECHNIQUES OF COST CONTROL

1. Material Control,
2. Labour Control,
3. Overhead Control,
4. Budgetary Control,
5. Standard Costing,
6. Control of Capital Expenditure,
7. Responsibility Accounting,
8. Productivity and Accounting Ratios.

ESSENTIALS FOR SUCCESS OF COST CONTROL

1. For an effective system of cost control, the firm should have a definite plan of organisation. Authority and responsibility of each executive should be clearly defined. Targets for performance of work as well as the cost to be incurred for the purpose should be laid down for each area of responsibility so that responsibility may be fixed for the deviation of actual cost from the predetermined cost.

2. Costs should be collected for each area of responsibility. One of the recent developments in the field of managerial accounting is the responsibility accounting which is helpful in exercising cost control. It tries to control cost in terms of the persons responsible for their incurrence.

It is a method of accounting in which costs are identified with persons responsible for their control rather than with products or functions. Reporting of efficiency or inefficiency displayed by each person should be prompt. Information delayed is information denied.

If a considerable time elapses between happening of events and reporting, opportunity for taking appropriate action may be lost or some wrong decisions may be taken by management in the absence of information.

3. The report should draw management's attention to exceptionally good or bad performance so that management by exception may be carried out effectively. The aim should be to bring to light the factors leading to increase in cost rather than to punish people to take the remedial action to improve the performance in future.

4. Good performance should be handsomely rewarded so that workers may be motivated towards better performance.

5. For an effective system of cost control, there should be effective budgetary control and there should be proper setting of standards. Budgets and standards should be fixed with realism. Cooperation of all persons who are to achieve the budgeted results or standards should be secured in preparing budgets or setting up standards to get their willing involvement in achieving the desired results.

COST REDUCTION

“Cost reduction is to be understood as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended or diminution in the quality of the product.”

The definition given above brings to light the following characteristics of cost reduction:

1. The reduction must be a real one in the course of manufacture or services rendered. Real cost reduction comes through greater productivity. Greater productivity may be through (1) obtaining a large quantity of production from the same facilities; (2) using materials of lower price and of different quality without, however, sacrificing the quality of the finished product, i.e., reducing cost through the process of substitution; (3) simplifying the process of manufacture without sacrificing the quality of the finished product; (4) changing features of the product suitably without sacrificing the quality of the product etc.
2. The reduction must be a permanent one. It is short-lived if it comes through reduction in the prices of inputs, such as materials, labour etc. The reduction should be through improvements in methods of production from research work.
3. The reduction should not be at the cost of essential characteristics, such as quality of the products or services rendered.

Thus, cost reduction must be a genuine one and should aim at the elimination of wasteful elements in methods of doing things. It should not be at the cost of quality. Cost reduction is a continuous process of critically examining various elements of cost and each aspect of the business (i.e. procedures, methods, products, management including market and finance etc.) is critically examined with a view to improving the efficiency for reducing costs.

Every plan of cost reduction proceeds with this assumption that there is always scope for cost reduction. A continuous research is made into various areas for finding out the best possible methods of performance for ensuring minimum possible costs.

The reduction in costs should be real and permanent. Reduction due to wind falls, changes in government policy like a reduction in taxes (or duties or due to temporary) and measures taken for tiding over financial difficulties do not strictly come under the purview of cost reduction.

Broadly speaking reduction in cost per unit of production may be effected in two ways:

1. By reducing expenditure but the volume of output remains constant.
2. By increasing production viz. increasing the out turn, but the level of expenditure remains unchanged.

TOOLS AND TECHNIQUES OF COST REDUCTION:

1. Budgetary control,
2. Standard costing,
3. Standardisation of products and tools and equipment's,
4. Simplification and variety reduction,
5. Improvement in design,
6. Material control,
7. Labour control,
8. Overhead control,
9. Production planning and control,
10. Automation,
11. Operation research,
12. Market research,
13. Planning and control of finance,
14. Value analysis,
15. Quality measurement and research,
16. Cost benefit analysis.
17. Contribution Analysis
18. PERT
19. Job Evaluation and Merit Rating.

DIFFERENCE BETWEEN COST CONTROL AND COST REDUCTION

BASIS FOR COMPARISON	COST CONTROL	COST REDUCTION
Meaning	A technique used for maintaining the costs as per the set standards is known as Cost Control.	A technique used to economize the unit cost without lowering the quality of the product is known as Cost Reduction.
Savings in	Total Cost	Cost Per Unit
Retention of Quality	Not Guaranteed	Guaranteed
Nature	Temporary	Permanent
Emphasis on	Past and Present Cost	Present and Future Cost
Ends when	The pre-determined target is achieved.	No end
Type of Function	Preventive	Corrective

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Applied Cost Accounting (19CMP203)
Unit –V

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
1.	Costing is a technique of _____	Ascertainment of cost	analyzing of cost	utilization of cost	cost reduction	Ascertainment of cost
2.	Cost accounting provide data for managerial _____	Planning	Organizing	Decision making	Decision Making and cost controlling	Decision Making and cost controlling
3.	Cost accounting is a separate _____ of accounting.	No branch	Branch	Batch	No Batch	Branch
4.	Cost accounting serves the information needs of _____	Management	Financial	Marketing	Owners	Management
5.	Cost accounting has been developed because of _____ of financial accounting	Advantages	Limitations	Importance	Cost	Limitations
6.	Management accounting is concerned with accounting information that is useful to --	Financial	Cost	Management	Auditing	Management

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer

7.	_____ accounting deals with monetary as well as non-monetary information	Cost	Financial	Management	Auditing	Management
8.	Historical costing is also known as _____	Uniform costing	Standard costing	Traditional costing	Job costing	Traditional costing
9.	_____ is a technique / process of ascertaining cost	Costing	Cost	Cost accounting	Management accounting	Costing
10.	_____ is ascertainment of cost after they have been incurred.	Marginal costing	Historical costing	Direct costing	Indirect costing	Historical costing
11.	_____ is used of same costing principle or practices by several undertaking for common control or comparison of costs	Uniform costing	Marginal costing	Standard costing	Job Costing	Uniform costing
12.	_____ methods has been dropped from the latest CIMA terminology	Multiple costing	Farm costing	Operating costing	Job Costing	Farm costing

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
13.	Cost accounting can be used only by _____ concerns	Big	Small	Big and Small	Trading	Big and Small
14.	Many theories can be proved or disproved in the light of basic principles of _____	Cost accounting	Management accounting	Financial accounting.	Financial management	Financial accounting.
15.	_____ cost are those costs incurred to maintain the earning capacity of the firm	Capital	Revenue	Direct	Indirect	Capital
16.	The chief objective of management accounting is to serve -----	Public	Employees	Management	Government	Management
17.	The term management accounting was first coined by the British team of accountants they visited the -----	USA	China	India	Japan	USA
18.	Management accounting involves-----	Recording of costs	Recording of transaction	Preparation of accounts	Analysis and interpretation of data	Analysis and interpretation of data
19.	Management accounting is also known as ----	Cost accounting	Financial accounting	Corporate accounting	Decision accounting.	Decision accounting.
20.	Management accounting functions are -----	Complementary in nature	Contradictory in nature	Neutral effect	Opposite effect	Complementary in nature

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
21.	Management accounting provides valuable services to management in performing. - ----	Planning functions	Controlling functions	Co-ordinating functions	All managerial functions.	All managerial functions.
22.	Management accounting is ---- -----	An extension of financial accounting.	An extension of cost accounting.	An extension of auditing	An extension of cost accounting and Management accounting	An extension of cost accounting and Management accounting
23.	Management accounting is concerned with formulation of _____ to meet enterprise objectives.	Plans	Cost	Purchase	Sales	Plans
24.	Installation of management accounting is purely -----	Compulsory	Optional	Optimum	Fixed	Optional
25.	The term of appointment of financial controller may be fixed by the -----	Board of Directors	Articles of association	Memorandum of Association	Chairman	Board of Directors and Articles of Association
26.	Financial accounting deals with -----	Determination of costs	Determination of profits	Determination of prices	Determination of production	Determination of profits
27.	The term management accounting was first used in the year -----	1910	1939	1950	1970	1950
28.	Preparation of financial accounts is compulsory for ---- -----	Sole trader business	Partnership firm	Joint stock companies	Co-operative societies	Joint stock companies

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
29.	_____ is the oldest branch of accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting.	Financial accounting
30.	Management accounting also comprises the preparation of financial reports for non-management groups such as --- -----	Shareholders	Creditors	Tax authorities	Tax authorities, Shareholders and Creditors	Tax authorities, Shareholders and Creditors
31.	Management accounting and cost accounting are ----- ---	Supplementary to each other	Complementary to each other	Independent to each other	Opposite to each other	Complementary to each other
32.	_____ is also known as Management oriented accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management accounting
33.	_____ is concerned with accounting information which is useful to management in maximizing profits or minimizing losses.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management accounting
34.	_____ is the general accounting which relates to the recording of business transactions in the books of business transactions and in the books of prime entry.	Financial accounting	Cost accounting	Management accounting	Budgeting.	Financial accounting
35.	_____ is the process and techniques of ascertaining costs.	Management accounting	Financial accounting	Cost accounting	Budgeting	Cost accounting

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
36.	----- is important part of management accounting	Budgeting	Fixing standards	Inventory control	Interpretation of data	Interpretation of data
37.	The primary objective of----- is to enable the management to maximize or minimize losses	Cost accounting	Financial accounting	Management accounting	Auditing	Management accounting
38.	The main objective of management accounting is to present----- information to the management	Cost	Financial	Auditing	Sales	Financial
39.	Management accounting makes----- process more modern and scientific by providing significant information relating to various alternatives in terms of cost and Revenue	Forecasting	Planning	Decision making	Budgeting	Decision making
40.	Management accounting is a useful advice of managerial ---	Planning	Control	Motivation	Forecasting	Control
41.	Return on capital employed is one of the tools of -----	Financial accounting	Cost accounting	Corporate accounting	Management accounting	Management accounting
42.	_____ of data are considered as back bone of management accounting	Modification of data	Analysis and interpretation	Communication	Co-ordination	Analysis and interpretation

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
43.	Management accounting is an important medium of _____	Motivation	Co-ordination	Communication	Delegation	Communication
44.	_____ supplies analytical information regarding various alternatives and the choice of management is made easy.	Financial accounting	Management accounting	Cost accounting	Corporate accounting	Management accounting
45.	_____ is the essence of managerial activity	Co-ordination	Control	Motivation	Decision making	Co-ordination
46.	Incremental cost is a type of -- -----	Differential cost	Out-of-pocket cost	Conversion cost	Factory	Differential cost
47.	Fixed cost per unit increases when -----	Production volume decreases	Production volume increases	Variable cost per unit decreases	Sales Increases	Production volume decreases
48.	Opportunity cost helps in ----- -----	Ascertainment of cost	Controlling cost	Making managerial decisions	Sales Decisions	Making managerial decisions
49.	Closing stock are valued at cost price or market price whichever is less in -----	Financial accounting	Cost accounting	Management accounting	Corporate Accounting	Financial accounting
50.	Direct material+ Direct labour+ Direct expenses =	Fixed cost	Prime cost	Factory cost	Total cost	Prime cost
51.	Salary of general manager is generally treated as -----	Factory overhead	Administrative overhead	Selling overhead	Distribution overhead	Administrative overhead

S.No.	Question	Option - I	Option - II	Option - III	Option - IV	Answer
52.	_____ of any product comprises of all direct cost	Work cost	Prime cost	Total cost	Factory Cost	Prime cost
53.	_____ means _____ and represents the factory cost plus administrative expenses	Prime cost	Work cost	Cost of production	Cost of sales	Cost of production
54.	Indirect material + indirect labour + _____ = overhead	Indirect expenses	Direct labour	Direct expenses	Factory overhead	Indirect expenses
55.	_____ is the sales overhead	Office salaries	Advertisement expenses	Factory rent	Indirect material	Advertisement expenses
56.	Prime cost =	Direct material+direct labour+direct expenses	Direct material+labour direct expenses	Inmaterials +direct expenses	Inmaterials +Indirect expenses	Direct material+direct labour+direct expenses
57.	Works cost =	Prime cost+factory cost	Prime cost+Selling overhead	Prime cost+administrative overhead	Prime cost+Selling overhead	Prime cost+factory cost
58.	Cost of production =	Work cost + factory cost	Work cost + prime cost	Work cost x prime cost	Work cost + administrative overhead	Work cost + administrative overhead
59.	Which of the following is equal to total cost?	Cost of production + Selling and distribution expenses	Cost of sales+ distribution overhead	Cost of production + administrative overhead	Cost of sales	Cost of production+Selling and distribution expenses
60.	The work cost is also known -- -----	Factory cost	Prime Cost	cost of production	cost of sales	Factory cost