Semester -V

		L	T	P	C
16PAU503A	**SEC 3 - APPLIED COST ACCOUNTING**	**5**	**1**	**-**	**4**

SCOPE

Applied Cost Accounting represents the concepts on Costing, Material Control, Overhead Costing, Job Costing and Contract Costing. This paper gives the basic aspects of tools and techniques of Inventory Control, Batch Costing, Process Costing and Job Costing.

OBJECTIVES

- To familiarize students with the various concepts in Costing.
- To make the students to understand the elements of Cost.
- To enhance the students knowledge on Overhead Costing.

UNIT I

Introduction - Meaning - Objectives and Advantages of Cost Accounting - Difference between Cost Accounting and Financial Accounting - Cost Concepts and Classifications - Elements of Cost - Installation of a Costing System - Role of a Cost Accountant in an Organisation - Preparation of Cost Sheet in Lien with Cost Accounting Standards.

UNIT II

Elements of Cost: Material and Labour - Materials - Material/Inventory Control Techniques - Accounting and Control of Purchases - Storage and Issue of Materials - Methods of Pricing of Materials Issues - FIFO – LIFO - Simple Average - Weighted Average - Replacement - Standard Cost - Treatment of Material Losses - Labour - Accounting and Control of Labour Cost - Time Keeping and Time Booking - Concept and Treatment of Idle Time - Over Time - Labour Turnover and Fringe Benefits - Methods of Wage Payment and the Incentive Scheme - Halsey, Rowan, Taylor's Differential Piece Wage.

UNIT III

Elements of Cost - Overheads - Classification - Allocation - Apportionment and Absorption of Overheads - Under and Over absorption - Capacity Levels and Costs - Treatments of Certain Items in Costing like Interest on Capital - Packing expenses - Bad debts - Research and Development Expenses - Activity Based Cost Allocation.

UNIT IV

Methods of Costing - Unit costing - Job costing - Contract costing - Process costing (process losses, valuation of work in progress - Joint and by-products) - Service costing (only transport).

UNIT V

Book Keeping in Cost Accounting - Integral and Non-Integral Systems - Reconciliation of Cost and Financial Accounts

Note: - Distribution of Marks: Theory- 20% and Problems -80% respectively.

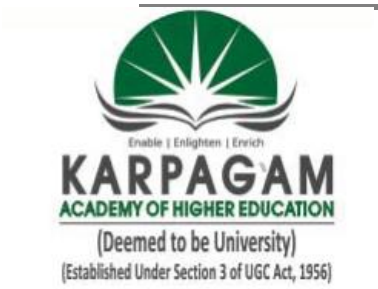
SUGGESTED READINGS:

TEXT BOOKS

1. Jain, S.P., & Narang, K.L. (2014). *Cost Accounting: Principles and Methods* (12th ed.). Ludhiana: Kalyani Publishers.

REFERENCES

1. Charles T. Horngren, Srikant M. Datar, & Madhav V. Rajan. (2010). *Cost Accounting, A Managerial Emphasis* (13th ed.). New Delhi: Pearson Education.
2. Drury, & Colin. (2012). *Management and Cost Accounting* (8th R.ed.). New Delhi: Cengage Learning.
3. Jawahar Lal. (2013). *Cost Accounting* (5th ed.). New Delhi: McGraw Hill Education.
4. Nigam, B.M. Lall., & Jain, I.C. (2009). *Cost Accounting Principles and Practice* (1st ed.). New Delhi: PHI Learning.
5. Rajiv Goel. (2013). *Cost Accounting* (1st ed.). Mumbai: International Book House.
6. Singh, & Surender. (2014). *Cost Accounting* New Delhi: Scholar Tech Press.
7. Arora, M.N. (2013). *Cost Accounting – Principles and Practice* (12th ed.)., New Delhi: Vikas Publishing House.
8. Maheshwari, S.N., & Mittal, S.N. (2012). *Cost Accounting: Theory and Problems*. New Delhi: Shri Mahavir Book Depot.
9. Iyengar, S.P, (2005). *Cost Accounting* (10th ed.). New Delhi: Sultan Chand and Sons.
10. Jhamb, H.V. (2011). *Fundamentals of Cost Accounting*. New Delhi: Ane Books Pvt. Ltd.



KARPAGAM ACADEMY OF HIGHER EDUCATION

(Deemed to be University Established Under Section 3 of UGC Act 1956)

Coimbatore – 641 021.

LECTURE PLAN
DEPARTMENT OF COMMERCE

STAFF NAME: Dr. B. SEETHA DEVI
SUBJECT NAME: APPLIED COST ACCOUNTING SUB.CODE:16PAU503A
SEMESTER: V CLASS: III B.COM (PA)

UNIT I

S.No	Lecture Duration	Topics to be Covered	Support Material
1	1	Cost Accounting Meaning and objectives	R1 P.12
2	1	Advantages of cost accounting	R1 P.P.10-12
3	1	Difference between Financial and Cost, Management Accounting	R1 P.P.8-9
4	1	Elements of Cost and Classification of Cost	R1 P.30
5	1	Installation of costing system and Role of cost Accountant in an organisation	T P.P.9.1-9.36
6	1	Preparation of cost sheet	T P.P.9.1-9.36
7	1	Comparison of production cost and cost sheet	T P.P.9.1-9.36
8	1	Problems in cost sheet	T P.P.9.1-9.36
9	1	Tender or Quotation preparation	T P.P.9.1-9.36
10	1	Problems in Tender	T P.P.9.1-9.36
11	1	Problems in Tender	T P.P.9.1-9.36
12	1	Preparation of cost sheet	T P.P.9.1-9.36
13	1	Problems in Tender	
14	1	Problems in Tender	
15	1	Recapitulation and important questions discussion	
16	1	Recapitulation of previous questions	
17	1	Recapitulation of previous questions	

UNIT II

S.No	Lecture Duration	Topics to be Covered	Support Material
1	1	Material inventory control technique	T. P.P.3.11-3.25
2	1	Accounting and Control of Purchases	T. P.P.3.4-3.10
3	1	Methods of Pricing Issue FIFO, LIFO	T. P.P.3.21-3.25
4	1	Simple Average and Weighted Average Method	T. P.P.3.21-3.25

5	1	Replacement cost and standard cost Method	T. P.P.3.21-3.25
6	1	Treatment of Material Losses	R1P.P.161-164
7	1	Time Keeping and Time Booking	R1P.P.161-164
8	1	Concept and Treatment of Idle Time	R1P.P.161-164
9	1	Overtime, Labour Turnover and Fringe benefits	R1P.P.161-164
10	1	Methods of Wage Payment- Halsey and Rowan Plan	R1P.P.161-164
11	1	Taylors differential piece wage system	R1P.P.161-164
12	1	Recapitulation and important questions discussion	
13	1	Recapitulation and important questions discussion	

UNIT III

S. No.	Lecture Duration	Topics to be Covered	Support Material
1	1	Overhead meaning and classification	R2P.P.4.1-4.59
2	1	Allocation and apportionment of Overhead	R2P.P.4.1-4.59
3	1	Absorption of Overhead	R2P.P.4.1-4.59
4	1	Under and Over absorption of Overhead	R2P.P.4.1-4.59
5	1	Capacity level and costs	R2P.P.4.1-4.59
6	1	Treatment of expenses of apportionment	R2P.P.4.1-4.59
7	1	Problems in Allocation and Apportionment of Overhead	R1P.P.2.39-2.63
8	1	Primary and secondary overhead distribution summary	R1P.P.2.39-2.63
9	1	Reciprocal service Method	R1P.P.2.39-2.63
10	1	Activity based cost allocation	R1P.P.2.39-2.63
11	1	Problems in overhead distribution	R1P.P.2.39-2.63
12	1	Recapitulation and important questions discussion	

UNIT IV

S.No	Lecture Duration	Topics to be Covered	Support Material
1	1	Unit Costing and its objectives	T.P.P.9.12-9.27
2	1	Preparation of unit cost account	T.P.P.9.12-9.27
3	1	Job costing and job cost sheet	T.P.P.7.1-7.13
4	1	Accounting for completed Jobs	T.P.P.7.1-7.13
5	1	Contract costing meaning, profit determination of incomplete contract	T.P.P.7.15-7.35
6	1	Problems in Contract Account	T.P.P.7.15-7.35
7	1	Process Costing Methods	T.P.P.8.1-8.66

8	1	Normal and abnormal losses treatment	T.P.P.8.1-8.66
9	1	Joint product and by product costing	T.P.P.8.1-8.66
10	1	Problems in allocation of joint cost	T.P.P.8.1-8.66
11	1	Problems in Transport costing	R.P.P.42.1-42.13
12	1	Solve problems in Transport costing	T.P.P.8.1-8.66
13	1	Solve problems in contract costing	T.P.P.8.1-8.66
14	1	Solve problems in process costing	T.P.P.8.1-8.66
15	1	Problems in Joint Product and by product costing	T.P.P.8.1-8.66
16	1	Revision- Methods of Costing	
17	1	Recapitulation and discussion of important questions	

UNIT V

S.No.	Lecture Duration	Topics to be Covered	Support Material
1	1	Reconciliation of Financial and Cost Accounting	T.P.P.12.1-12.36
2	1	Procedure for Reconciliation	T.P.P.12.1-12.36
3	1	Installation of Integrated Accounting System	T.P.P.12.1-12.36
4	1	Non integral Accounts, Ledger n Financial Books	R1O.P.349-370
5	1	Ledger in Cost Accounting Books	R1O.P.349-370
6	1	Reason for variation and procedure of Reconciliation	R1O.P.349-370
7	1	Problems in Reconciliation	R1O.P.349-370
8	1	Memorandum Reconciliation Account	R1O.P.349-370
9	1	Integral Accounting Meaning and Advantages	R1O.P.349-370
10	1	Integral Accounting Features	R1O.P.349-370
11	1	Journal and problems	R1O.P.349-370
12	1	Problems in integral accounting	R1O.P.349-370
13	1	Recapitulation and important questions discussion	

SUGGESTED READINGS

Text Book

Jain S.P &Narand K.L. (2014) Cost Accounting**,** Principles and Methods, 12th edition, Ludhiana Kalyani Publishers.

References

R.S.N. Pillai & Bhavathi (2012), Cost Accounting, S Chand Publication, New Delhi.

Jawahar Lal (2013) Cost Accounting 5th ed. MC Graw Hill education, New Delhi.

Dr. P.C. Tulsian, 2012, Practical Costing, S. Chand Publication, New Delhi

Website : en.wikipedia.org/wiki/Mutual fund

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TEXT BOOK

1. Donald Hearn and M. Pauline Baker. 2007. *Computer Graphics-C Version*, Pearson Education, New Delhi, 2nd Edition.
   (Page Nos. : 24-54, 56-77, 80-92, 103-118, 204-215, 236-256, 427-443, 458-463, 490-495, 502-505)

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1. Amarendra N. Sinha. 2008. *Computer Graphics*, Tata McGraw Hill, New Delhi, 1st Edition.
2. Foley, Vandam, Feiner and Hughes. 1999. *Computer Graphics Principles and Practices*, Addison Wesley, Singapore, 2nd Edition.

3. Evangeline, D., Anita, S. 2016. *Computer Graphics And Multimedia Insights, Mathematical Models And Programming Paradigms*. PHI Learning Pvt. Ltd.,

4. Rae Earnshaw.2014.*Computer Graphics: Developments in Virtual Environments*, academic Press, New Delhi, 2nd Edition.

WEBSITES

W1: www.openlearning.intercol.edu/Computer graphics

W2: http://www.cgtutorials.com

W3: https://www.touchsystems.com/opticaltouch

Introduction : Meaning – objectives and Advantages of Cost Accounting – Difference between Cost Accounting and Management, Financial Accounting – Cost Concepts and classifications – Elements of Cost – Installation of a costing system- Role of a cost Accountant in an organization – Preparation of Cost Sheet.

Cost Accounting

Meaning

Cost Accounting is the technique and process of ascertainment of costs, cost accounting is the process of accounting for costs, which begins with recording of expenses or the bases on which they are calculated and ends with preparation of statistical data. The IMCA defines "The process of accounting for cost from the pint at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centers and cost units. In its widest usage it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned"

Objectives of Cost Accounting

1. Ascertainment of Cost

   It enables the management to ascertain the cost product, job, contract, service or unit of production so as to develop cost standard. Cost may be ascertained, under different circumstances, using one or more types of costing principles like standard costing, marginal costing etc.

2. Fixation of selling price

   Cost data are useful in the determination of selling price or quotations. A part from cost ascertainment, the cost account analyses the total cost into fixed and variable costs. This will help the management to fix the selling price; sometimes, bellow the total cost but above the variable cost. This will increase the value of sales-more sales than previously, thus leading to maximum profit. The scientific way to reducing the prices is possible in an industry only where a sound costing system exists. In other words the cost reduction, in the absence of a costing system, may cause to shut down the industries.

3. Cost Control

   The object is to minimize the cost of manufacturing comparison of actual cost with standards reveals the discrepancies variances.

4. Matching cost with revenue

   The determination of profitability of each product, process, departments etc. is the important object of costing.

5. Special cost studies and investigations

   It undertakes special cost studies and investigations and these are the basis for the management in decision making or polices. This will also include pricing of new products, contraction or expansion programmes, closing down or continuing a department, product mix, price reduction in depression etc.

Advantages of Cost Accounting:

The deficiencies of financial accounting the cost account is developed and it offers a number of advantages to the management and the following are the main advantages

To the Management

1. Action against unprofitable activities

   It reveals unprofitable activities, inefficiencies such as wastage of materials spoilage, leakage, pilferage, scrap etc. and wastage of resources inadequate utilization etc. the management is able to concentrate on profitable jobs and consider change or closure of the unprofitable jobs.

2. Facilitates decision making

   It provides necessary data along with information to the management to take decision on any matter, relating to the business

3. Assistant in fixing prices

   The various types of cost accounting are much helpful in fixing the cost and selling price of a product. Thus the desired volume of production is secured at the minimum possible cost.

4. Improves efficiency

   Through the standard cost and budgetary control, remedial action can be chosen in order to improve the efficiency and supplement new principles.

5. Facilitates cost control

   It facilitates cost control possible by comparison.

6. Establishes standard cost

   It enables the management to find out the cost of each job and to know what it should have cost.it indicates where the losses ad wastes occur before the work is finished, standard cost is a pre determined cost and offers a number of advantages to management.

To the employees

1. Sound wage policy

   Cost accounting introduces incentive wage scheme, bonus plan etc. which bring better reward to sincere and efficient workers.

2. Higher bonus plans

   Cost accounting leads to an increase in productivity, lowering of costs and increase in profitability. Workers get then share in profits in the form of bonus.

3. Distinction between efficient and inefficient workers.

   Cost accounting provides standards for the measurement of efficiency of workers. Efficient workers can be distinguished and their efficiency recognized and rewarded.

4. Security of job

   Employees get better remuneration, security of job etc. due to the increasing prosperity of the industries. Monetary appreciation of the efficiency of a worker is a good tonic which leads to higher rate of productivity.

To the creditors

Bankers, creditors, investors etc. can have a better understanding of the firm, as regards the progress and prosperity, before they offer financial landings.

To the Government

1. The proper systems of cost accounting are of great use in the preparation of national plans, economic developments etc.
2. By studying the trend of cost, the government can make policies like taxation, import, export, price ceiling, granting subsidy etc.
3. Costing system has stability and cost reduction in industries. Cost audit is important and industries have to keep books of accounts to show the utilization of materials, labour and other costs.

Cost Accounting Vs Financial Accounting

Financial Accounting	**Cost Accounting**
1. Transactions are recorded for a definite period	Transactions are identified with cost units
2. It covers transactions of the whole firm pertaining to business	It aims to guide the management for proper planning, control and decision making
3. It is prepared to show the final results during a particular period to owners, outsiders etc.	It aims to guide the management for proper planning, control and decision making.
4. It analyses the expenditure under different types of expenses	It analyses the expenditure under different heads of performance as distinct from types of expenses
5. The overall results of the business can be revealed by profit and loss account.	It reveal the profitability and unprofitability of each department.
6. It does not tell us the inefficiencies of material handling, as the figures are available in aggregate.	It provides a system of good inventory control through a prescribed procedure for purchase storage, issue etc.
7. It makes no distinction between controllable and uncontrollable or fixed and variable	It makes clear distinction between controllable and uncontrollable

Cost Accounting Vs. Management Accounting

Cost Accounting	Management Accounting
1. The cost accountant is primarily concerned with the ascertainment of cost and profitability and with the control of costs through budgetary control, standard costing etc.	The management accountant is concerned with all such matters in a wider perspective which go to assist the management in the formulation of policies, improvement of productivity, profitability etc.
2. Cost accounting evolved out of financial accounting	Management accounting evolved out of cost accounting
3. Cost accountant suggests to the management the best of the alternatives by use of differential cost method	Management accountant takes into consideration the other non cost factors also while deciding upon alternatives.
4. Cost accounting provides just cost information for managerial purpose.	Management accounting provides all accounting information. It utilizes the principles and practice of cost accounting and financial accounting in the best interests of the business.

Classification of costs

Classification of cost means, the grouping of costs according to their common characteristics. The important ways of classification of costs are:

1. By Nature or Traceability: Direct Costs and indirect cost. Direct Costs are Directly attributable/traceable to cost object. Direct costs are assigned to Cost Object. Indirect Costs are not directly attributable/traceable to Cost Object. Indirect costs are allocated or apportioned to cost objects.

2. By Functions: production,administration, selling and distribution, R&D.

3. By Behavior: fixed, variable, semi-variable. Costs are classified according to their behavior in relation to change in relation to production volume within given period of time. Fixed Costs remain fixed irrespective of changes in the production volume in given period of time. Variable costs change according to volume of production. Semi-variable costs are partly fixed and partly variable.

4. By control ability: controllable, uncontrollable costs. Controllable costs are those which can be controlled or influenced by a conscious management action. Uncontrollable costs cannot be controlled or influenced by a conscious management action.

5. By normality: normal costs and abnormal costs. Normal costs arise during routine day-to-day business operations. Abnormal costs arise because of any abnormal activity or event not part of routine business operations. E.g. costs arising of floods, riots, accidents etc.

6. By Time: Historical Cost and predetermined costs. Historical costs are costs incurred in the past. Predetermined costs are computed in advance on basis of factors affecting cost elements. Example: Standard Costs.

7. By Decision making Costs: These costs are used for managerial decision making.And these are :-

- Marginal cost: Marginal cost is the change in the aggregate costs due to change in the volume of output by one unit.
- Differential costs: This cost is the difference in total cost that will arise from the selection of one alternative to the other.
- Opportunity costs: It is the value of benefit sacrificed in favor of an alternative course of action.
- Relevant cost: The relevant cost is a cost which is relevant in various decisions of management.
- Replacement cost: This cost is the cost at which existing items of material or fixed assets can be replaced. Thus this is the cost of replacing existing assets at present or at a future date.
- Shutdown cost:These costs are the costs which are incurred if the operations are shut down and they will disappear if the operations are continued.
- Capacity cost: These costs are normally fixed costs. The cost incurred by a company for providing production, administration and selling and distribution capabilities in order to perform various functions.
- Sunken cost: cost already incurred
- Other costs

Elements of cost accounting

Basic cost elements are:

- Material
    - Direct material
    - Indirect material
- Labor

    Direct labor

- Indirect labor

- Overhead
  - Production or works overhead including factory staff
  - Administration overhead including office staff
  - Sales overhead including production and maintenance of cataloges, advertising (development and purchases), exhibitions, sales staff, cost of money
  - Distribution overhead
  - Maintenance and repair including office equipment and factory machinery
  - Supplies
  - Utilities including gas, electric, water, sewer, and municipal assessments
  - Other variable expenses
  - Salaries/payroll including wages, pensions, and paycheck deductions (e.g., NI and PAYE in the UK, FICA in the US)
  - Occupacy (rent, mortgage, property taxes)
  - Depreciation (durable goods including machinery and office equipment)
  - Other fixed expenses

These categories are flexible and sometimes overlapping. For example, in some companies, machine cost is segregated from overhead and reported as a separate element altogether, and payroll costs are sometimes separated form other production costs.

Installation of a Costing System

It is different to prepare a uniform method of costing applicable to each and every kind of industry. The basic principles are fairly definite, but practical application varies from industry to industry because of the nature of industries. The installation of a costing system requires careful consideration of the following aspects

1. Objectives of costing system
2. Product and the business
3. The organization
4. Technical aspects
5. Standardization
6. Communication

7. Accounting system
8. Elasticity and economy
9. Regularity
10. Cost records

Cost Sheet

All expenses relating to product are extracted from financial accounts and analysed under expense heads in the form of statement. This tabulated statement is called cost sheet.

Preparation of cost sheet

*. It gives the break up figures of the to tall cost under different elements.

* it gives total cost as well as cost per unit.

* it facilitates comparisons.

* It helps in the preparation of cost estimates.

* it helps in fixing the selling price.

* It facilitates cost control by disclosing the inefficiencies by comparing with the previous years figures.

Cost Sheet of ------ for the Month of July 2018

Particulars	Total cost	Cost per unit
Opening Stock of Raw Material		
Add: Purchases		
Less : Closing stock		
Raw Material Consumed	****	
Direct Labour	****	
Direct Expenses	****	
Prime Cost	****	
Add: Factory cost	****	
Add ; Opening work in progress	****	
Less : closing work in progress	****	
Work cost	*****	
Add: Office and Administration Cost	***	
Office Cost	***	
Add: Opening stock of Finished good	***	
Less: Closing stock of Finished Goods	***	
Cost of Production	***	
	***	
Add : Selling and distribution cost	***	

Cost of Goods sold	***	
Add: Profit	****	
Sales		

Possible Questions;

1. What is cost Accounting? What are its objectives?
2. What are the advantages of cost accounting?
3. What is tender ?
4. Describe briefly the different methods of costing, and state the particular industries to which they can be specified.
5. Define (a) Direct expenditure (b) Indirect expenditure
6. Define Unit costing? Mention two enterprises that use unit costing
7. What do you mean by elements of cost? Explain
8. Compare the cost accounting with financial accounting
9. What are the difference between cost accounting and management accounting?
10. What are the types of costing?

KARPAGAM ACADEMY OF HIGHER EDUCATION
COIMBATORE-21
APPLIED COST ACCOUNTING (16PAU503A)

QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
UNIT - I					
Cost accounting has become an essential tool of _____	Accounts	Managem ent	Purchase	Sales	**Manageme nt**
Cost accounting facilitates cost Reduction and	Cost	Contol	Cost Control	Overheads	**Cost Control**
Direct Cost are known as	Work Cost	Prime Cost	Cost of Production	Cost of Sales	**Prime Cost**
Factory Cost=	Direct Material	Factory cost+ administr ative Over head	Cost of production+ selling and distributive over head	prime cost+ factory over head	**Factory cost+ administra tive Over head**
Cost which can be minimized by the executive action are known as ---------- cost	Controllable	Un controllab le	Fixed Cost	Variable Cost	**Controllab le**
Cost which cannot be minimized by the executive action are known as----------cost	Controllable	Un controllab le	Fixed Cost	Variable Cost	**Un controllabl e**
_____cost are those cost which are incurred to maintain the earning capacity of the business	Capital Cost	Revenue Cost	Fixed Cost	Variable Cost	**Capital Cost**
Cost which are ascertained after they have been incurred are known as ---------- cost	Predetermin ed Cost	Historical Cost	Marginal Cost	Differential Cost	**Historical Cost**
_____ _cost are those cost which can be allowed by discontinuation of a product	Unavoidable cost	Avoidable Cost	Capital Cost	Revenue Cost	**Avoidable Cost**

_____Cost which continue to occur even if there is temporary stoppage of production activities	Unavoidable cost	Avoidable Cost	Capital Cost	Revenue Cost	**Unavoidable cost**
_____is also called as specific order costing	job costing	process costing	unit costing	contract costing	**job costing**
_____i s also known as terminal costing	job costing	process costing	unit costing	contract costing	**contract costing**
_____ is also called as continuous costing	job costing	process costing	unit costing	contract costing	**process costing**
_____is refered as single or output costing	job costing	process costing	unit costing	contract costing	**unit costing**
_____are those cost which are not directly associated with the product	capital cost	product cost	period cost	revenue cost	**capital cost**
_____are those cost which are incurred in purchasing some asset	capital cost	product cost	period cost	revenue cost	**capital cost**
_____cost refers to converting of row material into partly finished books	conversion cost	product cost	period cost	revenue cost	**conversion cost**
_____cost which is incurred a given level of output	normal	abnormal	fixed	variable	**normal**
_____cost are those cost which are incurred to maintain the earning capacity of business	capital cost	product cost	period cost	revenue cost	**capital cost**
_____is followed by industries which render services	batch costing	process costing	unit costing	operating costing	**operating costing**
_____costing refers to same costing principles and methods	historcial costing	direct costing	indirect costing	uniform costing	**uniform costing**
_____is also known as composite costing	historcial costing	direct costing	indirect costing	multiple costing	**multiple costing**

_____is referred as estimated cost	predetermined cost	historcial costing	direct costing	indirect costing	**predetermined cost**
cost accounting involves---------- of cost data to the managemenr	summarising	analysing	reporting	recording	**reporting**
The costing system should provide for periodic---------- of cost accounts and financial accounts	summarising	analysing	reconciliation	recording	**reconciliation**
operating costing is adopted by -------- industries like transport	profit making	service industry	public	private	**service industry**
A cost centre in which ------ is carried on as production cost centre	service	sales	production	marketing	**production**
Expenses may be	direct	indirect	both	only in direct	**both**
incurred for running the adminstrative office	adminstrative	selling	work overhead	direct overhead	**adminstrative**
_____Expenses incurred with the packing and delivery of goods	adminstrative	selling	work overhead	direct overhead	**selling**
_____Cost is partly fixed and partly variable	fixed	variable	semivariable	Keep on changing	**semivariable**
_____varies with the volume of output	fixed	variable	semivariable	avarge	**variable**
_____remains fixed irrespective of the level of output	fixed	variable	semivariable	partly fixed	**semivariable**
_____cost are those cost which can be avoided by discontinuation of a product department	avoidable	unavoidable	variable	fixed	**avoidable**
Extension of job costing is known as	contract	batch	process	unit	**process**
Direct costing is the ---------- of direct cost in respect of a product	ascertainment	analysing	reporting	recording	**ascertainment**

_____cost is a predetermined cost	direct cost	standard cost	uniform cost	marginal cost	**standard cost**
_____are those cost which are not directly associated with the product	capital cost	product cost	period cost	revenue cost	**capital cost**
_____are those cost which are incurred in purchasing some asset	capital cost	product cost	period cost	revenue cost	**capital cost**
_____cost refers to converting of row material into partly finished books	conversion cost	product cost	period cost	revenue cost	**conversion cost**
_____cost which is incurred a given level of output	normal	abnormal	fixed	variable	**normal**
_____cost are those cost which are incurred to maintain the earning capacity of business	capital cost	product cost	period cost	revenue cost	**capital cost**
_____is followed by industries which render services	batch costing	process costing	unit costing	operating costing	**operating costing**
_____costing refers to same costing principles and methods	historcial costing	direct costing	indirect costing	uniform costing	**uniform costing**
_____is also known as composite costing	historcial costing	direct costing	indirect costing	multiple costing	**multiple costing**
The costing system should provide for periodic---------- of cost accounts and financial accounts	summarising	analysing	reconciliation	recording	**reconciliation**
operating costing is adopted by -------- industries like transport	profit making	service industry	public	private	**service industry**
A cost centre in which ----- is carried on as production cost centre	service	sales	production	marketing	**production**
Expenses may be	direct	indirect	both	only in direct	**both**
incurred for running the adminstrative office	adminstrative	selling	work overhead	direct overhead	**adminstrative**

_____Expenses incurred with the packing and delivery of goods	adminstrative	selling	work overhead	direct overhead	**selling**
_____Cost is partly fixed and partly variable	fixed	variable	semivariable	Keep on changing	**semivariable**
_____varies with the volume of output	fixed	variable	semivariable	avarge	**variable**
_____ _cost are those cost which can be allowed by discontinuation of a product	unavoidable cost	avoidable cost	capital cost	revenue cost	**avoidable cost**
_____Cost which continue to occur even if there is temporary stoppage of production activities	unavoidable cost	avoidable cost	capital cost	revenue cost	**unavoidable cost**
_____is also called as specific order costing	job costing	process costing	unit costing	contract costing	**job costing**
_____i s also known as terminal costing	job costing	process costing	unit costing	contract costing	**contract costing**
_____ is also called as continuous costing	job costing	process costing	unit costing	contract costing	**process costing**
_____is refered as single or output costing	job costing	process costing	unit costing	contract costing	**unit costing**
_____are those cost which are not directly associated with the product	capital cost	product cost	period cost	revenue cost	**capital cost**

QUESTION	OPTION1
UNIT - II	
_____cost is one of the most important elements of the cost of production	Labour
Inventory means	Stock
BIN card is maintained by	Storekeeper
EOQ =	√AO/C
_____level below which stock level should not be allowed to fall at any time	Minimum
Market price method is also called as---------- method	Standard price Method
_____scarp is arises due to bad workmanship	legimate scrap
_____Spoilage is uncontrollable or unavoidable	Normal
_____card is attached to each bin	Material control
_____Document which records transfer of surplus from one job to another	Material control
_____ensures effective utilisation of material	control
_____avoids over investment in inventories	control
_____ensures upto date maintance of stock records	control
_____taking is an essential future of the prepetual inventory system	bin card
storce ledger is kept in the ---------- department	production
ABC means	always better control
under -------- method a standard are fixed price is used for pricing issues	actual
scrap refers to	damage
_____refers to a units of output which failed to reach the require standard of quality or specification	scrap
_____is the portion of raw material lost in processing having no recovery value	scrap
_____gives the complete list of materials required for a particular job or work order	job costing
_____is attached to each bin to show the position of stock in the bin	bin card
_____is known as atomatic inventory system	perputal inventory
An _____ system of material control will lead to a significant reduction in total cost of production	Poor
_____ helps to prevent over stocking of materials	Material control
_____ prevents loss during storage of raw materials	Material control
Inventory means	Stock
_____ card helps the store keeper to control the stock	Material control

By seeing the _____ the storekeeper can send the material requstion for purchase of material in time	Material control
_____ contains the accounts for each class of material	Material control
_____ is maintained in loose leaf form	Material control
A _____ gives a complete list of materials required for a particular job or work order	Material control
_____ serve as a purchase requsition to the purchase department	Material control
_____ Method in which materials are issued inorderin which they are received in the store	FIFO
_____ metjod materials received last are issued first	FIFO
The minimum quanity is known as _____	Base stock method
_____ method is determined by adding different prices of materials in stock	Base stock method
_____ method takes into account both quanity and price for arriving at the average price	Base stock method
_____ method is also called replacement method	Base stock method
_____ method a stsndard or a fixed price is used for pricingf the issues	Standard price Method
Anything which has no value is considered to be _____	wastage
_____ may be normal or abnormal	wastage
_____ is sold without further treatement are used as raw material for another process	wastage
_____ is a document which authorises and records the issues of materials for use	Material Requstion Note
Goods received note is prepared by the department receiving the goods from the _____	Supplier
scrap refers to	damage
_____level below which stock level should not be allowed to fall at any time	Minimum
Market price method is also called as---------- method	Standard price Method
_____scarp is arises due to bad workmanship	legimate scrap
_____Spoilage is uncontrollable or unavoidable	Normal
_____card is attached to each bin	Material control
_____Document which records transfer of surplus from one job to another	Material control
_____ensures effective utilisation of material	control
_____avoids over investment in inventories	control
_____ensures upto date maintance of stock records	control

_____taking is an essential future of the prepetual inventory system	bin card
storce ledger is kept in the ---------- department	production
ABC means	always better control
under -------- method a standard are fixed price is used for pricing issues	actual
storce ledger is kept in the ---------- department	production

OPTION2	OPTION3	OPTION4	
material	Selling Overhaead	Adminstrative Overhead	
Material	Stores	Sales	
Accountant	Auditor	Supervisor	
√AC/O	√2AO/C	√2CA/C	
Maximum	Re- Order level	Average	
Replcement method	Average Method	Base stock Method	
Administrative scarp	Defective Scarp	Average Stock	
Abnormal	Defective	Average	
material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Stores ledger	
usage	material control	wastage	
usage	material control	wastage	
usage	material control	wastege	
stores ledger	continuous stock taking	Material transfer note	
sales	stores	costing	
always best cost	analysis of best cost	always best cost	
fixed	standard	costing	
wastage	reused	valueless	
spoilage	wastage	damage	
spoilage	wastage	damage	
process costing	unit costing	contract costing	
stores ledger	bill of material	stock transfer note	
stores ledger	bill of material	stock transfer note	
Better	Efficient	good	
material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Stores ledger	
Material	Cost	Sales	
material transfer note	BIN card	Stores ledger	

material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Bill of material	
material transfer note	BIN card	Bill of material	
LIFO	FFFO	LFIO	
LIFO	FFFO	LFIO	
Simple Avarage Method	weighted avearge method	Market price method	
Simple Avarage Method	weighted avearge method	Market price method	
Simple Avarage Method	weighted avearge method	Market price method	
Simple Avarage Method	weighted avearge method	Market price method	
Simple Avarage Method	weighted avearge method	Market price method	
Scarp	Spoliage	materials	
Scarp	Spoliage	materials	
Scarp	Spoliage	materials	
material transfer note	BIN card	Bill of material	
Customer	Producer	Distributor	
wastage	reused	valueless	
maximum	reorder level	zero level	
Replcement method	Average Method	Base stock Method	
Administrative scarp	Defective Scarp	Average Stock	
Abnormal	Defective	Average	
material transfer note	BIN card	Stores ledger	
material transfer note	BIN card	Stores ledger	
usage	material control	wastage	
usage	material control	wastage	
usage	material control	wastege	

stores ledger	continuous stock taking	Material transfer note	
sales	stores	costing	
always best cost	analysis of best cost	always best cost	
fixed	standard	costing	
sales	stores	costing	

ANSWER

Material
Stock
Store keeper
√2AO/C
Minimum
Base stock Method
legimate scrap
Normal
BIN Card
material transfer note
material control
material control
material control
continuous stock taking
costing
always better control
actual
damage
spoilage
spoilage
job costing
bin card
perputal inventory
Efficient
Material Control
Material Control
Stock
BIN Card

BIN Card
Stores Ledger
Stores Ledger
Bill of material
Bill of material
FIFO
LIFO
Base stock method
Simple Avarage Method
weighted avearge method
Market price method
Standard price Method
wastage
wastage
Scarp
Material Requstion Note
Supplier
damage
minimum
Base stock Method
legimate scrap
Normal
BIN Card
material transfer note
material control
material control
material control

continuous stock taking
costing
always better control
actual
costing

QUESTION
UNIT - III
overhead means
classification of overhead is important inorder to identify cost with _____ centre
_____ materials are those materials which do not form a part of the finished goods
_____ of indirect materials cannot be identified with and allocated but can be apportioned to apportioned to a particular product
_____ labours which is not directly engaged in production of goods or services
the wages paid for indirect labour is known as _____
_____ labours helps the direct labour engaged in production
_____ expenses tht are not directly charged to production
factory expenses is also known as
_____ overhead covers all expenses incurred from stage to raw materials to finished goods
_____ expenses incurred for running the adminstrative office
_____ expenses incurred for actual sales and promotion of sales
_____ expenses incurred for with packing and delivery of goods to customers
_____ don not vary with the volume of products
_____are partly fixed and partly variable
_____ oveheads refers to such overhead which are expected to be incurred in attaining a given output
_____ oveheads refers to such overhead which are not expected to be incurred in attaining a given output
_____ cost are variable cost which can be controlled
_____ cost are fixed cost which cannot be controlled
_____ materials are those materials which do not form a part of the finished goods
_____ is the process of grouping of cost according to their common characterstics
_____ is defined as the allotment of whole amount of cost centre or cost units
_____ is defined as the allomen proportions of cost to cost centre or cost units
_____ means allotment of overheads to jobs
Expenses which can be directly identified with a particular department or cost centre is called
allocation and apportionment of overheads expenses to various production and service department is known as
_____ department are those department which enable other department tp work

_____ ensures accuracy in cost ascertainment
_____ facilitates work and supervision
_____ esssential for budgetary control
_____ is obtained by dividing the amount of overheads by direct material cost
_____ is obtained by dividing the amount of overheads by the direct wages
_____ is obtained by dividing the amount of overhead by the prime cost
_____ is obtained by dividing the amount of overheads by the labour hours
_____ is obtained by dividing the amount of overheads by the macchine hours
Overheads in cost accounts are usually the basis of
_____ report help the management in decision making
_____ method helps to compare the efficiencies and cost of operating different machines
Under absorption means that the overheads absorbed in production less than the _____ overhead
_____ absorbtion means that the overhead absorbed in production are more than that of actual overhead
_____ rate is the cost of running a machine per hour
Each machine or group of machine is treated as a cost centre in order to identify the _____ expenses
Standing charge is also known as
Machine expenses is also known as_____
State the bases od Apportionment for rent
State the bases of apportionment for lighting
State the bases for apportionment of depriciation of plant and macinery
State the bases of apportionment for insurance of stock
State the bases of apportionment for material handling charges
State the bases of apportionment of supervision
State the bases of apportionment of repairs to plant
Each machine or group of machine is treated as a cost centre in order to identify the _____ expenses
Canteen expenses is apportionmet based on
State the bases for apportionment of indirect materials
State the bases for apportionment of indirect wages
State the bases for apportionment of municipal taxes
State the bases for advertising
_____ is the process of distribution of overheads to various departments
_____ method depends upon the type and size of the business
_____ is process of charging the full amount of overhead without division

OPTION1	OPTION2
Indirect expenses	Direct expenses
Process	sales
direct	indirect
cost	expenses
Direct	indirect
direct	indirect
direct	indirect
Indirect expenses	Direct expenses
production overhead	manufacturing overhead
production overhead	factory overhead
adminstaration overhead	factory overhead
administration overhead	factory overhead
administration overhead	factory overhead
Fixed overhead	variable overhead
Fixed overhead	variable overhead
Normal	Abnormal
Normal	Abnormal
Normal	Abnormal
Normal	Abnormal
direct	indirect
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation
Departmentalisation	Cost Allocation
Service	Production

Departmentalisation	Cost Allocation
Departmentalisation	Cost Allocation
Departmentalisation	Cost Allocation
Direct material cost percentage	direct labour cost percentage
Direct material cost percentage	direct labour cost percentage
Direct material cost percentage	direct labour cost percentage
Direct material cost percentage	direct labour cost percentage
Direct material cost percentage	direct labour cost percentage
Estimate Rates	Fixed rates
Audit	cost
Direct material cost percentage	direct labour cost percentage
Actual	work
under	Over
Labour per hour	Machine Hour
Fixed overhead	Direct overhead
Fixed overhead	Direct overhead
Variable expenses	Fixed Expenses
Floor area	value of plant
Light points	value of plant
Light points	value of plant
Light points	value of plant
Light points	value of plant
No.of, Employees	value of plant
No.of, Employees	value of plant
Fixed overhead	Direct overhead
No.of, Employees	value of plant
Direct Materials	value of plant
Direct Materials	Direct wages
Floor area	value of plant
Actual Expenses	value of plant
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation
Cost Classification	Cost Allocation

OPTION3	OPTION4	
Work expenses	Fcatory expenses	
Cost	production	
Raw material	cost of material	
labour	sales	
semi- skilled	Skilled	
bonus	penalty	
bonus	penalty	
overhead expenses	selling expenses	
selling overhead	distribution overhead	
selling overhead	distribution overhead	
selling overhead	distribution overhead	
selling overhead	distribution overhead	
selling overhead	distribution overhead	
selling overhead	semivariable overhead	
selling overhead	semivariable overhead	
Controllable	Un controllable	
Controllable	Un controllable	
Controllable	Un controllable	
Controllable	Un controllable	
Raw material	cost of material	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Sales	Purchase	

Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
prime cost percentage	work cost percentage	
prime cost percentage	work cost percentage	
prime cost percentage	work cost percentage	
prime cost percentage	Direct labour hour percentage	
machine Hour rate	Direct labour hour percentage	
Variable rates	semivariable rates	
estimated	historical cost	
machine Hour rate	Direct labour hour percentage	
selling overhead	distribution overhead	
Fixed	Variable	
wage hour	indirect labour hour	
Variable overhead	Semi variable overhead	
Variable overhead	Semi variable overhead	
Semi variable Expenses	Direct expenses	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
Variable overhead	Semi variable overhead	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
value of stock	value of materials	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	
Cost Apportionment	Cost absorption	

ANSWER

Indirect Expenses
Cost
Indirect material
Cost
Indirect
Indirect
Indirect
indirect expenses
manufacturing overhead
factory overhead
Adminstration overhead
Selling overhead
distribution overhead
fixed overhead
semivariable overheads
Normal
abnormal
controllable
un controllable
Indirect material
Cost classification
Cost allocation
Cost apportionment
cost absorption
Cost Allocation
Departmentalisation
Service

Departmentalisation
Departmentalisation
Departmentalisation
direct material cost percentage
Direct labour cost percentage
prime cost percentage
Direct labour hour percentage
machine hour rate
Estimated rates
Audit
machine hour rate
Actual
Over
machine Hour
fixed overhead
fixed overhead
Variable Expenses
Floor area
Light points
Value of plant
value of stock
Value of materials
No.of, Employees
Valueof plant
fixed overhead
No.of, Employees
Direct materials
Direct wages
Floor area
Actual Expenses
Cost Apportionment
Cost Classification
Cost allocation

QUESTION
UNIT - IV
_____ is a method of costing to findout the cost of a product at a each stage or process of production
there are certain industries where the _____ passes through the different stages of a product
process cosing is used to find out _____ of the product at the end of each stage
_____ are collected for each process and debited to the process account
_____ is arrived by dividing the total process cost by the number of units produced
_____ cost of the finished product is the sum of all costs incurred in all the process
_____ costing the production is carried on in anticipation of demand
_____ costing the costs arecomputed periodcally for each process
_____ are transferred from one process to another process
_____costing the paper work is compartively less
_____ loss refers to the loss which is unavoidble in a manufacturing process
_____ value of normal loss units in credited to process account
The cost of normal loss is treted as a part of
_____ loss refers to the avoidabe loss
_____ can be estimated in advance
Abnormal loss arises when the actual loss is more thanthe _____ losss
The cost abnormal loss is not included in the _____
_____ gain arises when the actual output is higher than the expected normal output
abnormal gain is treated on _____ of cost of production
inter process profit is the difference betweentransfer price and _____
_____ is the production carried on against specific orders from customers
_____ accumulated for each job
cost are not transferred except when there is _____ production
process costing facilitates correct
process costing is based on _____ cost
job costing is a method of _____ cost of an individual job
each job is treated as a cost unit for which costs are
job costing shows the cost and_____ of each job
_____ method of costing adopted in printing press
job costing is also known as
Specific order costing is also known as
In_____ costing the production is always against the customer order
the cost data provided by job costing helps in _____
cost reordered under job costing help in preparation of
Each_____ treated as a cost unit
Contracts are generally of a _____ duration
_____ costing is mainly adopted in construction of bridges
the number of contract undertaken are usually _____
the _____ price is paid in installments depending on the process of work
Contract costing is a form of_____ costing

a seprate _____ account is prepared for each contract
_____ cost usually constitute a major portion of the total cost of the contract
_____ cost usually constitue a small portion of the total cost of contract
The direct labour cost incurred on the contract is _____ to the contract account
the direct expenses incurred for the contract is also _____ to the contract account
_____ which cannot be directly charged to contract
_____ contracts take a long time for completion and require huge investments
_____ money is paid to the contractor after the expiry of a stipulate time
_____ is treated as a reserve
the _____ price is paid in installments depending on the process of work
_____ contract is a contract in which the contractee agrees to pay the cost of work done plus a percenatge of it towards profit
in which contract _____ contracts is assure a fixed percentage of profit
_____ is clause in contract agreement
_____ product refers to the secondary product obtained during the course of manufacturing the main product
value of closing stock of_____ is considerd as zero for the purpose of balance sheet
_____ expenses are incurrd for setting the by products
_____ method by products are valued at the current market price
_____ method by products are valued at standard cost
_____ products refers two or more prodcucts of equal importance which are prodcuced from same raw material
_____ has its own price and market utility

OPTION1	OPTION2	OPTION3
Process costing	Job costing	Unit costing
Goods	Product	Raw material
Cost	Expenses	Unit costing
Overhead	Direct wages	Direct labour
Taotal cost	Product expenses	Cost per unit
Taotal cost	Product expenses	Cost per unit
Process costing	Job costing	Unit costing
Process costing	Job costing	Unit costing
Process costing	Job costing	Unit costing
Process costing	Job costing	Unit costing
Normal	Abnormal	Controllable
Usable	Realisble	Unusable
Sales value	Cost of production	Cost of sales
Abnormal Loss	Normal Loss	Avoidable Loss
Abnormal Loss	Normal Loss	Avoidable Loss
Abnormal Loss	Normal Loss	Avoidable Loss
Sales value	Cost of production	Cost of sales
Normal Gain	Abnormal Gain	Expected Gain
usable	recovery	wastage
unit price	cost price	abnormal price
Process costing	Job costing	Unit costing
cost	price	unit
low	high	surplus
value of stock	high	surplus
Future cost	historical cost	estimate cost
Cost allotment	ascertainment of cost	allocation of cost
ascertined	accumulated	collected
profit& losss	profit	loss
Process costing	Job costing	Unit costing
terminal costing	Job costing	Unit costing
Process costing	Job costing	Unit costing
Process costing	Job costing	Unit costing
Decision making	Planning	Cost control
Report	Budget	Cost Data
unit price	process	Contract
Long	Short	medium
Process costing	Job costing	Unit costing
High	Small	Medium
Process costing	Job costing	Unit costing
Specific order costing	Job costing	Unit costing

Contract	Unit	Job
Direct	Indirect	Fixed
Direct	Indirect	Fixed
Debited	Credited	Enetered
Debited	Credited	Enetered
Dircet expenses	Indirect Expenses	Fixed Expenses
Large	Small	Medium
usable	recovery	wastage
Notional profit	recovery	wastage
Process costing	Job costing	Unit costing
Cost + contract	Esclation clause	Retention money
Cost + contract	Esclation clause	Retention money
Cost + contract	Esclation clause	Retention money
Substitute	Joint	By product
Substitute	Joint	By product
Selling& distribution	Production	purchase
Replacement method	Standard Cost method	Apportionment Method
Replacement method	Standard Cost method	Apportionment Method
Substitute	Joint	By product
Substitute	Joint	By product

OPTION4		ANSWER
Contract costing		**Process costing**
Sales		**Raw material**
Income		**Cost**
Indirect wages		**Overheads**
sales cost		**Cost per unit**
sales cost		**Total Cost**
Contract costing		**Process costing**
Contract costing		**Process costing**
Contract costing		**Process costing**
Contract costing		**Process costing**
Un controllable		**Normal**
controllable		**Realisble**
cost per unit		**Cost of production**
Unavoidable loss		**Abnormal Loss**
Unavoidable loss		**Abnormal Loss**
Expected Loss		**Expected Loss**
cost per unit		**Cost of production**
Less Gain		**Abnormal Gain**
useful		**recovery**
normal price		**Unit price**
Contract costing		**job costing**
sales		**Cost**
defecit		**surplus**
defecit		**value of stock**
prime cost		**historical cost**
classification of cost		**ascertainment of cost**
changed		**accumulated**
revenue cost		**profit**
Contract costing		**job costing**
Contract costing		**terminal costing**
Contract costing		**job costing**
Contract costing		**job costing**
cost Reduction		**Planning**
Selling Price		**Budget**
Unit		**Contract**
very long		**Long**
Contract costing		**process costing**
Very Low		**Small**
Contract costing		**Contract Costing**
Contract costing		**Specific order costing**

Specific Order		**Contract**
Variable		**Direct**
Variable		**In direct**
Fixed		**Debited**
Fixed		**Debited**
Variable Expenses		**Indirect Expenses**
Very High		**Large**
useful		**recovery**
useful		**Notional Profit**
Contract costing		**Contract Costing**
Unit Contract		**Cost + contract**
Unit Contract		**Cost + contract**
Unit Contract		**Esclation clause**
Related product		**By product**
Related product		**By product**
Raw material expenses		**Selling& distribution**
Allocation Method		**Replacemant Method**
Allocation Method		**Standard cost**
Related product		**Joint Product**
Related product		**Joint Product**

QUESTION	OPTION1
UNIT - V	
Each_____ treated as a cost unit	unit price
Contracts are generally of a _____ duration	Long
_____ costing is mainly adopted in construction of bridges	Process costing
the number of contract undertaken are usually _____	High
the _____ price is paid in installments depending on the process of work	Process costing
Contract costing is a form of_____ costing	Specific order costing
a seprate _____ account is prepared for each contract	Contract
_____ cost usually constitute a major portion of the total cost of the contract	Direct
_____ cost usually constitue a small portion of the total cost of contract	Direct
The direct labour cost incurred on the contract is _____ to the contract account	Debited
the direct expenses incurred for the contract is also _____ to the contract account	Debited
_____ which cannot be directly charged to contract	Dircet expenses
_____ contracts take a long time for completion and require huge investments	Large
_____ money is paid to the contractor after the expiry of a stipulate time	usable
_____ is treated as a reserve	Notional profit
the _____ price is paid in installments depending on the process of work	Process costing
_____ contract is a contract in which the contractee agrees to pay the cost of work done plus a percenatge of it towards profit	Cost + contract
In which contract _____ contracts is assure a fixed percentage of profit	Cost + contract
_____ is clause in contract agreement	Cost + contract
If work completed _____ of the contract price is taken to profit and loss account	one fourth
_____ contracts such as constuctions of bridgs, theatres and hospitals takes a long time to complete	Large
operating costing is also called _____	Process

_____ is a method of costing applied to ascertain the cost of providing a service	Operating Costing
_____ type of costing used in transport services	Operating Costing
Service rendered in the same oraganisation is known as _____	Internal Service
_____ percent is calculated by dividing the toatl cost by number of service units produced or renderd	Operating Costing
A proper cost unit must be selected in oredr to ascertain the _____ unit of services	Cost
other name of service costing	Operating Costing
industries using _____ costing do not produce goods but render service	Operating Costing
service rendered to the customers is known as	Internal Service
Example sof external services_____	Hospital
In _____ case only one variable is taken	Simple cost unit
In _____ case more than one variabke is combined	Composite costing
the basic problem in _____ costing is the selection of cost unit	Composite costing
_____ changes are incurred weather the vechicle is running or not	Standing Charges
in Standing charges variables are _____ in nature	Fixed
_____ is one of the example of standing charge	Rent
_____ expenses variable in nature	Standing Charges
_____ is an example of operating charge	Pertol/ diesel
_____ charges are semi variable in nature	Standing Charges
_____ is an example of maintenance charge	Repairs
Garrage rent will occur in _____	Fixed cost
Tax and insurance will occur in _____	Fixed cost
general supervision will occur in _____	Fixed cost
tyres and tube cost will appear in _____	Fixed cost
repair cost will appear in _____	Fixed cost
Painting Cost will appear in _____	Fixed cost
Pertol, oil, grease Cost will incurr in	Fixed cost
Wages of operators will incurr in _____ cost	Fixed cost
Depriciation will incur in _____ cost	Fixed cost
_____ costing is generally for long duartion	Job costing

the contract price is paid in _____ depending on the process of work	monthly
Each contract is treated as a _____ unit	Cost
All cost are accumulated and ascertained for _____ contract	All
A _____ contract accounts are prepared for each contract	Multiple
_____ on contract is usually excecuted at the size of the contract	Work
_____ usaually constitute a major portion	Direct cost
_____ expenses which cannot be directly changed to contracts	Direct expenses
_____ can be ascertained only on completion of the contract	Profit
In Standing charges variables are _____ in nature	Fixed

OPTION2	OPTION3	OPTION4	
process	Contract	Unit	
Short	medium	very long	
Job costing	Unit costing	Contract costing	
Small	Medium	Very Low	
Job costing	Unit costing	Contract costing	
Job costing	Unit costing	Contract costing	
Unit	Job	Specific Order	
Indirect	Fixed	Variable	
Indirect	Fixed	Variable	
Credited	Enetered	Fixed	
Credited	Enetered	Fixed	
Indirect Expenses	Fixed Expenses	Variable Expenses	
Small	Medium	Very High	
recovery	wastage	useful	
recovery	wastage	useful	
Job costing	Unit costing	Contract costing	
Esclation clause	Retention money	Unit Contract	
Esclation clause	Retention money	Unit Contract	
Esclation clause	Retention money	Unit Contract	
two fourth	three fourth	one fifth	
small	medium	Very small	
Job costing	Contract costing	Service costing	

Job costing	Contract costing	Service costing	
Job costing	Contract costing	Service costing	
External Service	Both	Costing Service	
Job costing	Contract costing	Service costing	
Demand	Sales	Supply	
Job costing	Contract costing	Service costing	
Job costing	Contract costing	Service costing	
External Service	Both	Costing Service	
Manufacttuting industry	service outlet	distributors	
composite cost unit	Multiple cost unit	single cost unit	
multiple costing	single unit costing	opertaing costing	
multiple costing	single unit costing	opertaing costing	
operating charges	maintenance charges	variable charges	
Variable	Semivariable	Changed	
Salary	Fuel	Power	
operating charges	maintenance charges	variable charges	
annual tax	Insurance	Rent	
operating charges	maintenance charges	variable charges	
Depreciation	Wages	Annual Tax	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Variable Cost	Maintenance Cost	Operating Cost	
Process costing	unit costing	Contract Costing	

annually	installments	quaterly	
Sales	Purchase	Supply	
Each	Single	Multiple	
seprate	Single	All	
Process	Account	Sales	
Indirect cost	total cost	Fixed Cost	
Indirect Expenses	variable expenses	Fixed Expenses	
Loss	Sales	Demand	
Variable	Semivariable	Changed	

ANSWER

Contract
Long
process costing
Small
Contract Costing
Specific order costing
Contract
Direct
In direct
Debited
Debited
Indirect Expenses
Large
recovery
Notionla Profit
Contract Costing
Cost + contract
Cost + contract
Esclation clause
one fourth
Large
Service Costing

Operating Costing
Operating Costing
Internal Service
Operating Costing
Cost
Operating Costing
Operating Costing
external service
Hospitals
simple cost unit
composite costing
Operating Costing
standing charges
Fixed
Rent
operting charges
Petrol/Diesel
maintenance charges
Repairs
Fixed Cost
Fixed Cost
Fixed Cost
Maintenance cost
Maintenance cost
Maintenance cost
Operating Cost
Operating Cost
Operating Cost
contract costing

Installments
Cost
All
Seprate
Work
Direct Cost
Direct Expenses
Profit
Fixed

Elements of Cost : Material/Inventory Control Techniques. Accounting and Control of purchases, Storage and Issue of Materials. Methods of Pricing of Materials Issues – FIFO, LIFO, Simple Average, Weighted Average, Replacement, Standard Cost, Treatment of Material Losses. Labour – Accounting and Control of labour cost, Time Keeping and Time Booking. Concept and Treatment of Idle time. Overtime, Labour Turnover and Fringe Benefits – Methods of Wage Payment and the Incentive Schemes – Halsey, Rowan, Taylors Differential Piiece Wage.

Material Control

The materials are a major part of the total cost of producing a product and are one of the most important assets in majority of the business enterprises. Hence the total cost of a product can be controlled and reduced by efficiently using materials.

The materials are of two types, namely:

(i) Direct materials: The materials which can be easily identified and attributable to the individual units being manufactured are known as direct materials. These materials also form part of finished products. All costs which are incurred to obtain direct materials are known as direct material costs.

(ii) Indirect materials: Indirect materials, on the other hand, are those materials which are of small value such as nuts, pins, screws, etc. and do not physically form part of the finished product. Costs associated with indirect materials are known as indirect material costs.

Factory supplies, office supplies and selling supplies are generally termed as stores.

PURCHASING CONTROL AND PROCEDURE

Purchasing is an art. Wrong purchases increase the cost of materials, store equipments and the finished goods. Hence it is imperative that purchases should be effectively, efficiently and economically performed.

Methods of Purchasing

Purchasing can be broadly classified as centralized and localized purchasing.

(a) ***Centralized Purchasing***: In a large organization, manufacturing units are many. In such cases centralized purchasing is beneficial. The advantages of centralized purchasing are:

1. Specialized and expert knowledge is available.
2. Advantages arise due to bulk purchases.
3. The cost of purchasing can be reduced and selling price can be lowered.
4. As there is good knowledge of market conditions, greater control can be exercised.
5. When materials have to be imported, it is advantageous to centralize the buying.
6. Economy and ease in compilation and consultation of results.
7. It can take advantage of market changes.
8. Investment in inventories can be reduced.
9. Other advantages include undivided responsibility, consistent buying policies.
10. Factors to be considered when decision regarding centralization has to be taken are geographical separation of plants, homogeneity of products, type of material bought, location of supplies etc.

(b) ***Decentralization of Purchases:*** The advantages of localized purchasing or decentralization of purchases are:-

1. Each plant may have its own particular need. This can be given special attention.
2. Direct contact can be established with suppliers.
3. The time lag between indenting and receiving materials can be reduced.
4. Technical requirements of each plant can be ascertained.

PURCHASE PROCEDURE / PROCUREMENT PROCEDURE: The steps usually followed for purchase of materials may be enumerated as follows:-

1. **Indenting for materials :** The stores department prepares indents for the purchase of materials for replenishment of stocks (regular indents) or for a special job(special indents) and sends it to the purchase department. Regular indents are prepared periodically and placed when the ordering level for different items of stocks are reached. The quantity indented is equal to the ordering quantity fixed for each item. The special indents are based on the demands received either from the planning or production department.

2. **Issue of tenders to suppliers**: The purchase department issue tenders to suppliers or

publish them in papers. The suppliers quote their terms of price and delivery/payment. After the last date for receipt of quotations is over, the tenders are opened and a comparative statement is prepared. Tenders are prepared in triplicate. Of them, two are sent to the suppliers and one is retained with the purchase department. The supplier mentions his terms in the original.

While considering the tenders, the reliability of the supplier has to be taken into account. The quality of goods and time taken to deliver the goods on previous occasions should be checked. The financial stability and capacity to deliver goods should be ensured. Sometimes purchases may be made without inviting quotations. The circumstances are when prices are controlled, or purchases are made under long term contracts, or catalogue prices are available or when there is a cost plus contract. If purchase is made under cost plus profit basis, the cost composition and reasonableness of price should be checked.

3. **Placing of purchase orders**: Normally six copies of purchase order are made. The supplier, stores, inspection department, store accounting section, purchase department and progress department are sent one copy each.

The purchase order has legal and accounting significance. From legal point of view, it binds both the parties to the terms of the contract. Form the accounting point of view; it signifies the amount which has to be spent. It signifies the stores department to accept the goods and the accounts department to accept the bill.

4. **Inspection**: The supplier delivers goods at the place specified. Two delivery challans are prepared by the supplier one of which is returned. It is a proof of delivery. After receiving the goods, the inspection department or production department or maintenance department (as the case may be) is intimated.

The inspector checks that the materials are in accordance with the quality required, standard expected, tolerances allowed etc. After inspection an inspection note is prepared in triplicate, one copy is sent to the supplier, one to the stores, and one to the inspection department.

5. **Receiving Stores:** The stores department prepares a Stores Receipt Note for the quantity

of stock accepted in inspection. After issuing of the stores receipt, the storekeeper is responsible for the stocks. The stores receipt is the document for the posting of receipts in Bin Card and the Stores Ledger. It is prepared in quadruplicate and sent to the supplier; stores accounting section and purchase department and one copy are retained with the stores. The supplier encloses this copy along with his bill. The stores accounting section compares the note with the purchase order.

6. Checking and passing of bills for payment: Bills received by the purchase department are forwarded to the stores accounting section to check the authenticity regarding quantity and price and the arithmetical accuracy. Special items included in the bills eg:- freight, packing charges are verified with the purchase order. The bill is later passed for payment.

STOREKEEPING

Store keeping is a service function. The storekeeper is a custodian of all the items kept in the store. The stores should be maintained properly and cost minimized. The main objectives of store keeping are:-

i)To protect stores against losses

ii)To keep goods ready for delivery/issue

iii)To provide maximum service at minimum cost.

The duties and functions of Store-keeper can be summarized as follows:

i) Materials should be received, unloaded, inspected and then moved to stores. The materials have to be stored in appropriate places and records the receipts in proper books.

ii) The stores records should be maintained in an efficient and orderly manner so that materials can be easily located and information can be obtained for various departments.

iii) The stores should provide maximum protection and safety and accessibility and utilize minimum space. Suitable storage devices should be installed.

iv) The materials should be given special covering to prevent damage due to atmospheric conditions.

v) All issues should be properly recorded, efficiently, promptly and accurately. All issues should be duly authorized and procedures laid down should be duly followed.

vi) The storekeeper is responsible for co-ordination with materials control according to the type of production, size of the company, the organization structure etc.

vii) Ensure that all transactions are posted in the Bin Card see that the Bin Card is up-to-date.
viii)All items should be in its proper place.
ix) Maintenance of stores at required levels.
x) Neatness in stores to facilitate physical verification.
xi) Co-ordination and supervision of staff in the stores department.
xii) Periodical review of various scales, measuring instruments, conversion ratios etc.
xiii) Protect stores from fires, rust, erosion, dust, theft, weather, heat, cold, moisture and deterioration etc.

COMPUTATION OF STOCK LEVELS

One of the duties of the storekeeper is to send requisitions for materials for replenishment in time so that the production is not held up due to shortage of materials. The storekeeper should also see that there is no unnecessary blocking of capital due to overstocking of materials. For this he keeps a check on the re-order level, economic ordering quantity, and the maximum and minimum quantity which he is authorized to store in respect of each kind of material.

(a) Re-ordering Level

Re-ordering level is that point of level of stock of a material where the storekeeper starts the process of initiating purchase requisition for fresh supplies of that materials. This level is fixed somewhere between the maximum and minimum levels in such a way that the difference of quantity of the material between the re-ordering level and minimum level will be sufficient to meet the requirements of production until the fresh supply of the materials is received.

(b) Economic Ordering Quantity

The quantity of material to be ordered at one time is known as economic ordering quantity. This quantity is fixed in such a manner as to minimize the cost of ordering and carrying the stock. The total costs of a material usually consist of:

Total acquisition cost + total ordering cost + total carrying cost.

Since the acquisition cost per unit of material is same whatever is the quantity purchased, it is usually excluded when deciding the quantity of a material to be ordered at one time. The only costs to be taken care of are the ordering costs and carrying costs which vary with the quantity ordered.

(c) Minimum Level or Safety Stock level

The minimum level is the minimum quantity of the material which must be maintained in hand at all times. The quantity is fixed so that the production is not held up due to shortage of the materials.

(d) Maximum Level

It is the maximum of stock which should be held in stock at any time during the year. The quantity is fixed so as to avoid overstocking as it leads to the following disadvantages.

1. Overstocking leads to increase in working capital requirement which could be profitable used somewhere else.
2. Overstocking will need more godown space, so more rent will have to be paid.
3. It may also lead to obsolescence on account of overstocking.
4. There are chances that the quality of materials will deteriorate because large stock will require more time before they are consumed.
5. There may be fear of depreciation in market values of the overstocked materials.

(e) Danger Level

This level means that level of stock at which normal issues of the material are stopped and issues are made only under specific instructions. The purchase officer will make special arrangements to get the materials which reach at their danger levels so that the production may not stop due to shortage of materials.

STORES (OR MATERIALS) RECORDS

In the stores the most important two records kept are bin cards and stores ledger.

(a) Bin Card. A bin card is a record of the receipt and issue of material and is prepared by the store keeper for each item of stores. A bin card is also known as bin tag or stock card and is usually kept in the rack where the material is kept. In a bin card not only the receipt and issue of material is recorded, minimum quantity, maximum quantity and ordering quantity are stated on the card. This helps the store keeper to send the material requisition for the purchase of material in time.

(b) Stores Ledger: This ledger is kept in the costing department and is identical with the bin card except that receipts, issues and balances are shown along with their money values. This provides the information for the pricing of materials issued and the money value at any time of each item of stores.

PERPETUAL INVENTORY SYSTEM

The Chartered Institute of Management Accountants, London, defines the perpetual inventory as "a system of records maintained by the controlling department, which reflects the physical movements of stocks and their current balance". Thus this is a system in which, with the help of Bin Cards and Stores Ledger, the balance of stock is ascertained after every receipt and issue of materials. This is helps in avoiding closing down of firm for physical verification.

Advantages of the Perpetual Inventory System

The following are the advantages of the perpetual inventory system:

1. It avoids the disruption of production for physical checking of all items of stores at the end of the year.
2. The preparation of Profit and Loss Account and Balance Sheet is possible without physical verification of stock.
3. A detailed and more reliable control on the materials in store is obtained.
4. As the work of recording and continuous stocktaking is carried out systematically and without undue haste, the figures are more reliable.
5. Continuous stocktaking will make the storekeeper and the stores accountant more vigilant in their work and they will try to keep the records accurate and up-to-date.
6. Planning of production can be done without any fear of shortage as the management is constantly informed of the stores position.
7. An inbuilt system of internal check will be in operation as bin cards and the stores ledger

keep a check on each other.

8. Errors and shortage of stock are readily discovered and efforts are made to avoid the shortage of stock in future.

9. The capital invested in the stores can be kept under control and efficiently used as stock can be compared with the minimum and maximum levels.

10. It makes available correct stock figures for claim to be lodged with the insurance company for loss on account of stock destroyed by fire.

ABC ANALYSIS

Under ABC Analysis, the materials in stock are divided into three categories for the purpose of control. Generally it is seen that the materials which constitute the least percentage of items in stock may contribute to a large percentage of value and a large percentage of items may represent a smaller percentage of value of items consumed. Between these two items are those items, the percentage of which is more or less equal to their value in consumption. Items falling in the first category are treated as 'A' items, of the second category as 'B' items and items of the third category are taken as 'C' items. Such an analysis of material is known as ABC analysis. This technique of stock control is also known as stock control according to value method or Always Better Control method or Proportional Parts Value Analysis method. Thus, under this technique of material control, materials are listed in 'A', 'B' and 'C' categories in descending order based on money value of consumption.

ABC analysis measures the cost significance of each item of material. It concentrates on important items, so it is also known as 'Control by Importance and Exception" (CIE).

The report of the Indian Productivity Team on "Stores and Inventory Control in U.S.A., Japan and West Germany" gives the following example of ABC Analysis:

Group	*Percentage of Items*	*Percentage of Costs*
A	8%	75%
B	25%	20%
C	67%	5%

The significance of this analysis is that a very close control is exercised over the items of 'A' group which account for a high percentage of costs while less stringent control is adequate for category 'B' and very little control would suffice for category 'C' items.

ISSUE OF MATERIALS

Materials issued from stores are debited to the jobs or work orders which received them and credited to the materials account. These jobs are debited with the value of materials issued to them.

But what is the value of materials? Theoretically the value includes the invoice price less trade discount, the freight, cartage, octroi and insurance on incoming materials, expenses of purchase, receiving, storing and record keeping and carriage from the stores up to the process plant. However, in practice, it involves minute calculations for including all these expenses and is a big task compared to the benefit derived from it.

Moreover the price changes according to the market conditions and at any given time there will be stock of materials purchased at different times at different prices. Hence the problem as to at what price the materials should be issued?

The important methods followed in pricing of issue of materials are:-

1. Actual Cost Method
2. First-In First-Out (FIFO) Method
3. Last-In First-Out (LIFO) Method
4. Highest-in First-Out (HIFO) Method
5. Simple Average Cost Method
6. Weighted Average Cost Method
7. Periodic Average Cost Method
8. Standard Cost Method
9. Replacement Cost Method
10. Next in First Out (NIFO) Method
11. Base Stock Method.

1. Actual Cost Method:

Where materials are purchased specially for a specific job, actual cost of materials is charged to that job. Such materials will normally be stored separately and issued only to that particular job.

2. First-In First-Out (FIFO) Method:

CIMA defines FIFO as **"a method of pricing the issue of material using, the purchase price of the oldest unit in the stock".** Under this method materials are issued out of stock in the order in which they were first received into stock. It is assumed that the first material to come into stores will be the first material to be used.

Advantages:

(a) It is easy to understand and simple to price the issues.

(b) It is a good store keeping practice which ensures that raw material leave the stores in a chronological order based on their age.

(c) It is a straight forward method which involves less clerical cost than other methods of pricing.

(d) This method of inventory valuation is acceptable under standard accounting practice.

(e) It is a consistent and realistic practice in valuation of inventory and finished stock.

(f) The inventory is valued at the most recent market prices and it is near to the valuation based on replacement cost.

Disadvantages:

(a) There is no certainty that materials which have been in stock longest will be used, if they are mixed up with other materials purchased at a later date at different price.

(b) If the price of the materials purchased fluctuates considerably, it involves more clerical work and there is possibility of errors.

(c) In a situation of rising prices, production cost is understated.

(d) In inflationary market, there is a tendency to under-price material issues. In deflationary market, there is a tendency to overprice such issues.

(e) Usually more than one price has to be adopted for a single issue of materials.

(f) The method makes cost comparison difficult of different jobs when they are charged with varying prices for the same materials.

This method is more suitable where the size of the raw materials is large and bulky and its price

is high and can be easily identified in the stores separately. This method is useful when the frequency of material receipts is less and the market price of the material are stable and steady.

3. Last-In First-Out (LIFO) Method:

Under this method most recent purchase will be the first to be issued. The issues are priced out at the most recent batch received and continue to be charged until a new batch received is arrived into stock. It is a method of pricing the issue of material using the purchase price of the latest unit in the stock.

Advantages:

(a) Stocks issued at more recent price represent the current market value based on the replacement cost.

(b) It is simple to understand and easy to apply.

(c) Product cost will tend to be more realistic since material cost is charged at more recent price.

(d) In times of rising prices, the pricing of issues will be at a more recent current market price.

(e) It minimizes unrealized inventory gains and tends to show the conservative profit figure by valuation of inventory at value before price rise and provides a hedge against inflation.

Disadvantages:

(a) Valuation of inventory under this method is not acceptable in preparation of financial accounts.

(b) It is an assumption of a cash flow pattern and is not intended to represent the true physical flow of materials from the stores.

(c) More than one price may have to be adopted for an issue.

(d) It renders cost comparison between jobs difficult.

(e) It involves more clerical work and sometimes valuation may go wrong.

(f) In times of inflation, valuation of inventory under this method will not represent the current market prices.

4. Highest-in First-Out (HIFO) Method:

Under this method, the materials with highest prices are issued first, irrespective of the date upon which they were purchased. The basic assumption is that in fluctuating and inflationary market, the cost of material are quickly absorbed into product cost to hedge against risk of inflation. This

method is used when the material is in short supply and in execution of cost plus contracts. This method is not popular and not acceptable under standard accounting practices.

5. Simple Average Cost Method:

Under this method all the materials received are merged into existing stock of materials, their identity being lost. The simple average price is calculated without any regard to the quantities involved. The simple average cost is arrived at by adding the different prices paid during the period for the batches purchased by dividing the number of batches. For example, three batches of materials received at Rs. 10, Rs. 12 and Rs. 14 per unit respectively.

The simple average price is calculated as follows:

Rs. 10 + Rs. 12 + Rs. 14/3 batches = Rs. 36/3 batches = Rs 12 per unit

This method is not popular because it takes into consideration the prices of different batches but not the quantities purchased in different batches. This method is used when prices do not fluctuate very much and the stock values are small in value.

6. Weighted Average Cost Method:

It is a perpetual weighted average system where the issue price is recalculated every time after each receipt taking into consideration both the total quantities and total cost while calculating weighted average price. For example, three batches of material received in quantities of 1,000 units @ Rs. 15, 1,300 units @ Rs. 16 and 800 units @ Rs. 14.

The weighted average price is calculated as follows:

(1,000 units x Rs. 15) + (1,300 units x Rs. 16) + (800 units x Rs. 14)/1,000 units + 1,300 units + 800 units

= Rs. 15,000 + Rs. 20,800 + Rs. 11,200/3,100 units = Rs. 47,000/3,100 units = Rs. 15.16 per unit

This method tends to smooth out the fluctuations in price and reduces the number of calculations to be made, as each issue is charged at the same price until a fresh batch of material is received. This method is easier as compared to FIFO and LIFO, as there is no necessity to identify each batch separately. But this method increases the clerical work in calculation of new average price every time a new batch is received. The issue price calculated rarely represents the actual purchase price.

7. Periodic Average Cost Method:

Under this method, instead or recalculating the simple or weighted average cost every time there is a receipt, an average for the accounting period as a whole is computed.

8. Standard Cost Method:

Under this method, material issues are priced at a predetermined standard issue price. Any variance between the actual purchase price and standard issue price is written off to the Profit and Loss Account. Standard cost is a predetermined cost set by the management prior to the actual material costs being known and the standard issue price is used for all issues to production and for valuation of closing stock.

If initially the standard price is set carefully then it reduces all the clerical work and errors tremendously and the stock recording procedure is simplified. The realistic production cost comparisons can be made easier by eliminating fluctuations in cost due to material price variance. In a situation of fluctuating prices, this method is not suitable.

9. Replacement Cost Method:

This method is also called as 'market price method'. The replacement cost is a cost at which material identical to that can be replaced by purchasing at the date of pricing material issues; as distinct from the actual cost price at the date of purchase. The replacement price is the price of replacing the material at the time of issue of materials or on the date of valuation of closing stock.

This method is not acceptable for standard accounting practice, since it reflects a cost which has not really been paid. If stocks are held at replacement cost, for balance sheet purposes when they have been bought at a lower price, an element of profit which has not yet been realized will be built into the Profit and Loss Account.

This method is advocated by charging the market price of material to the job or process, make it easier to determine the profitability of the job or process. This method is suitable particularly in the inflationary tendency of market prices of materials. Where there is no precise market for particular materials, it would be difficult in ascertainments of replacement prices for the material issues.

10. Next in First Out (NIFO) Method:

This method is a variant of replacement cost method. Under this method the price quoted on the

latest purchase order or contract is used for all issues until a new order is placed.

11. Base Stock Method:

Under this method, a specified quantity of material is always held in stock and is priced at its original cost as buffer or base stock; and any issue of materials above the base stock quantity is priced under any one of the methods discussed above.

This method indicates how prices are moving over a longer period of time. But this method is not popular and also not accepted under standard accounting practice since it would result in stock valuation totally unrealistic.

LABOUR COSTING

Labour cost is a second major element of cost. The control of labour cost and its accounting is very difficult as it deals with human element. Labour is the most perishable commodity and as such should be effectively utilized immediately.

Importance of Labour Cost Control

Labour is of two types ***(a) direct labour, (b) indirect labour***. Direct Labour is that labour which is directly engaged in the production of goods or services and which can be conveniently allocated to the job, process or commodity or process. For example labour engaged in spinning department can be conveniently allocated to the spinning process.

Indirect Labour is that labour which is not directly engaged in the production of goods and services but which indirectly helps the direct labour engaged in production. The examples of indirect labour are supervisors, sweepers, cleaners, time-keepers, watchmen etc. The cost of indirect labour cannot be conveniently allocated to a particular job, order, process or article.

The distinction between direct and indirect labour must be observed carefully because payment of direct labour is a direct expenditure and is a part of prime cost labour is an item of indirect expenditure and is shown as works, office, selling and distribution expenditure according to the nature of the time spent by the indirect worker.

Time Wage System

Under this method of wage payment, the worker is paid at an hourly, daily, weekly or monthly rate. This payment is made according to the time worked irrespective of the work done.

This method is highly suitable for following types of work:

1. Where highly skilled and apprentices are working.
2. Where quality of goods produced is of extreme importance eg., artistic goods
3. Where the speed of work is beyond the control of the workers.
4. Where close supervision of work is possible.
5. Where output cannot be measured.

The disadvantages of this method are:

1. Workers are not motivated.
2. Workers will get payment for idle time.
3. Efficient workers will become inefficient in the long run as all of them get same wages.
4. Employer finds it difficult to calculate labour cost per unit as it varies as production increases and decreases.
5. Strict supervision is necessary to get the work done.
6. Inefficiency results in upsetting the production schedule and increases the cost per unit.
7. It will encourage a tendency among workers to go slow so as to earn overtime wages.

Thus this method does not establish a proportionate relationship between effort and reward and the result is that it is not helpful in increasing production and lowering labour cost per unit.

Piece Rate System (payment by result)

The piece rate system is that system of wage payment in which the workers are paid on the basis of the units of output produced. Piece rate system does not consider the time spent by the workers. Piece rate system is the method of remunerating the workers according to the number of unit produced or job completed. It is also known as payment by result or output. Piece rate system pays wages at a fixed piece rate for each unit of output produced. The total wages earned by a worker is calculated by using the following formula.

Total Wages Earned= Total units of outputs produced x Wage rate per unit of output.

OR,

Total Wages Earned= Output x Piece Rate

Advantages of Piece Rate System

I. The following are some important advantages of piece rate system of wage payment.

Piece rate system pays wages according to the output produced by the workers. It encourages efficient workers.

II. Piece rate system helps to **reduce idle time**.

III. Piece rate system gives incentives to the workers to adopt a better method of production for increasing their production and earning.

IV. Piece rate system helps the management to determine the exact labour cost per unit for submitting quotation.

V. Piece rate system reduces per unit cost of production due to increased volume of production.

Piece rate system requires less supervision cost.

Disadvantages of Piece Rate System

I. The following are the notable disadvantages of piece rate system

Piece rate system does not help in producing quality output as the workers are concentrated more on quantity instead of quality.

II. Piece rate system does not help for a uniform flow of production and makes difficult to regulate the production schedule.

III. It is very difficult to fix an acceptable and reasonable piece rate for each item of output or job.

Piece rate system adversely affects the workers' health as well.

IV. It requires extra supervision cost for quality output and effective use of materials, tools and equipment.

There are four variants of this system.

a) Straight piece rate system

b) Taylor's differential piece rate system

c) Merrick's multiple piece rate system

d) Gant's task and bonus plan

(a) Straight piece rate system

Payment is made as per the number of units produced at a fixed rate per unit. Another method is piece rate with guaranteed time rate in which the worker is given time rate wages if his piece rate wages is less than the time rate.

(b) Taylor's Differential Piece Rate system

Differential Piece Rate System was introduced by Taylor, the father of scientific

management. The underlying principle of this system is to penalise a slow worker by paying him a low piece rate for low production and to reward an efficient worker by giving him a higher piece rate for a higher production. Taylor was of the view that an inefficient worker should have no place in the organisation and he should be compelled to leave the organisation by paying him a low piece rate for low production.

Taylor proceeded on the assumption that through time and motion study it is possible to fix a standard time for doing a particular task. To encourage the workers to complete the work within the standard time, Taylor advocated two piece rates, so that if a worker performs the work within or less than the standard time, he is pad a higher piece rate, and if he does not complete the work within the standard time, he is given a lower piece rate.

Thus, if the standard production has been fixed at 8 units per day of 8 hours (taking normal piece rate as Re 1), the higher piece rate for 8 units or beyond may be Rs 1.20 per unit and the lower rate for an output of less than 8 units per day, may be 80 P. per unit.

Hence, Taylor decided to give a large reward to those who would complete the work within or less than the standard time and much less wages to those who would not complete the job within the standard time. The system is very harsh to the inefficient workers because they earn much less wages on account of lower output and lower rate.

Moreover, minimum wages are not guaranteed under this method. Another drawback of the system is that if a worker just fails to complete the work within the standard time earns much less wages than a worker who just completes the job within the standard time. Therefore, the system is now almost out of use.

Illustration :

Calculate the earnings of workers A and B under Straight Piece-rate System and Taylor's Differential Piece-rate System from the following particulars:

Normal rate per hour = Rs 1.80

Standard time per unit = 20 seconds

Differentials to be applied:

80% of piece rate below standard

120% of piece rate at or above standard.

Worker A produces 1,300 units per day and worker B produces 1,500 units per day.

c) **Merrick's Multiple Piece Rate System**

This method seeks to make an improvement in the Taylor's differential piece rate system. Under this method, three piece rates are applied for workers with different levels of performance. Wages are paid at ordinary piece rate to those workers whose performance is less than 83% of the standard output, 110% of the ordinary piece rate is given to workers whose level of performance is between 83% and 100% of the standard and 120% of the ordinary piece rate is given to workers who produce more than 100% of the standard output.

This method is not as harsh as Taylor's piece rate because penalty for slow workers is relatively lower.

Advantages

Efficient workers are rewarded handsomely.

Disadvantages

(i)Wide gap in slabs of differential wage rate

(ii)Over emphasis in high production rate

d. Gant's task and bonus plan

Gant's task and bonus plan is based on careful time and motion study. A standard time is fixed for doing a particular task, worker's actual performance is compared with the standard time and his efficiency is determined. If a worker takes more time than the standard time to complete the task (i.e., his efficiency is below 100%), he is given wages for the time taken by him and if a worker takes the standard time to perform the task (i.e., efficiency is 100%), he is given wages for the standard time and a bonus of 20% on the wages earned.

If the worker completes the task in less than the standard time he is given wages for the standard time plus a bonus of 20% of the wages for the standard time. In other words, if a worker's performance is more than 100% he is given piece wages plus bonus at 20% of piece wages. Thus, with every reduction in time, the plan ensures progressive increase in total wages. For this reason, the plan is also known as "Progressive Rate System".

Advantages:

1. The plan is not as harsh as the Taylor's differential piece rate is. Therefore, it is more acceptable to the workers.

2. It is simple to understand.

3. It ensures guaranteed time wages to the worker who is below average workers.

4. It makes distinction between efficient and inefficient workers because the system ensures time wages for sub-standard workers and piece wages plus 20% bonus for standard and super-standard workers. Increasing rate of bonus is very satisfying to the efficient workers, so every worker tries to become more efficient.

5. Fixed cost per unit decreases with increase in production due to incentive for efficiency given under this scheme of wage payment.

Disadvantages:

1. Like Taylor's differential piece rate method, it divides the workers into competing categories—one who earns the bonus and the other who does not earn the bonus. This brings disunity among workers and becomes unacceptable to the labour union.

2. The guaranteed time wages may not encourage efficiency if workers feel satisfied with the time wages.

Premium and Bonus Plan

The object of a premium plan is to increase the production by giving an inducement to the workers in the form of higher wages for less time worked.

Under a premium plan, a standard time is fixed for the completion of a specific job or operation at an hourly rate plus wages for a certain fraction of the time saved by way of a bonus. The plan is also known as incentive plan because a worker has the incentive to earn more wages by completing the work in less time.

This system of wage payment is in between the time wage system and piece work system. In time wage system, worker does not get any reward for the time saved and in piece work system, the worker gets full payment for time saved whereas in a premium plan both the worker and the employer share the labour cost of the time saved.

The following are some of the important premium plans.

(i) **Halsey Premium Plan**: Under this method, the worker is given wages for the actual time taken and a bonus equal to half of wages for time saved. The standard time for doing each job or operation is fixed. In practice the bonus may vary from 33⅓ % to 66⅔ % of the wages of the time saved.

Thus if S is the standard time, T the time taken, R the labour rate per hour, and % the

percentage of the wages of time saved to be given as bonus, total earnings of the worker will be:

T x R + % (S-T) R

Under Halsey-Weir plan, the premium is set at 30% of the time saved.

(ii)**Rowan Plan:** The difference between Halsey plan and Rowan Plan is the calculation of the bonus. Under this method also the workers are guaranteed the time wages but the bonus is that proportion of the wages of the time taken which the time saved bears to the standard time allowed.

Total Earnings = T x R + S-T x T x R

LABOUR TURNOVER

Labour turnover denotes the percentage change in the labour force of an organisation. High percentage of labour turnover denotes that labour is not stable and there are frequent changes in the labour force because of new workers engaged and workers who have left the organisation. A high labour turnover is not desirable.

The definitions of labour turnover are given below:

(1) Labour turnover according to separation method:

This definition does not take into consideration the fact of surplus labour. This definition will give incorrect result when the surplus workers are discharged because labour turnover calculated in this way will be high.

(2) Labour turnover according to flux method:

This definition will not be applicable when the organisation is expanding. In such a case, many new workers are engaged and there may be no separation; even then labour turnover calculated will be high.

This definition will misguide when an organisation has reached its optimum size and does not require expansion at all. In such a case, labour turnover, as per this definition, will show half the actual percentage of labour turnover.

(3) Labour turnover according to replacement method:

This definition takes into account the surplus labour. This definition will also give correct labour turnover when the factory is expanding because all additions are not to be taken only workers replaced due to leavers are to be taken. Therefore, this definition can be taken to be the most

reliable definition out of all the definitions given above.

POSSIBLE QUESTIONS

1. The 'received' side of the stores ledger account shows the following particulars:

Jan 1 Opening balance: 500 units @ Rs. 4

Jan 5 Received from vendor: 200 units @ Rs. 4.25

Jan 12 Received from vendor:150 units @ Rs. 4.10

Jan 20 Received from vendor:300 units @ Rs. 4.50

Jan 25 Received from vendor:400 units @ Rs. 4

Issues of materials were as follows:

Jan. 4 – 200 units; Jan. 10 – 400 units; Jan. 15 – 100 units; Jan. 19 – 100 units; Jan. 26 – 200 units; Jan. 30 – 250 units;

Issues are to be priced on the principle of 'First in First out'. Write out the Stores ledger Account in respect of the materials for the month of January.

2. What is EOQ and calculate the EOQ from the following information. Also state the No. of orders to be placed in a year.

Consumption of materials per annum 10,000 Kgs.

Order placing costs per order Rs.50

Cost per Kg. of raw materials Rs.2

Storage costs 8% on average in inventory.

3. From the following particulars calculate:

a) Re-order level b) Minimum level and c) Maximum level

Normal usage 100 units per day

Minimum usage 60 units per day

Maximum usage 130 units per day

Economic order quantity 5000 units

Re-order period 25 to 30 days

4. From the following particulars supplied by the personal department of a company,

calculate labour turnover:

Total number of employees at the beginning of the month 2010

Number of employees who are recruited during the month 30

Number of employees who left during the month 50

Total number of employees at the end of the month 1990

5. What is EOQ?

6. What is perpetual inventory system?

7. What is ABC Analysis?

8. Describe the Methods of Pricing Issue of Materials?

QUESTION	OPTION1	OPTION2	OPTION3	OPTION4
UNIT - II				
_____cost is one of the most important elements of the cost of production	Labour	material	Selling Overhaead	Adminstrative Overhead
Inventory means	Stock	Material	Stores	Sales
BIN card is maintained by	Storekeeper	Accountant	Auditor	Supervisor
EOQ =	√AO/C	√AC/O	√2AO/C	√2CA/C
_____level below which stock level should not be allowed to fall at any time	Minimum	Maximum	Re- Order level	Average
Market price method is also called as---------- method	Standard price Method	Replcement method	Average Method	Base stock Method
_____scarp is arises due to bad workmanship	legimate scrap	Administrative scarp	Defective Scarp	Average Stock
_____Spoilage is uncontrollable or unavoidable	Normal	Abnormal	Defective	Average
_____card is attached to each bin	Material control	material transfer note	BIN card	Stores ledger
_____Document which records transfer of surplus from one job to another	Material control	material transfer note	BIN card	Stores ledger
_____ensures effective utilisation of material	control	usage	material control	wastage
_____avoids over investment in inventories	control	usage	material control	wastage
_____ensures upto date maintance of stock records	control	usage	material control	wastege
_____taking is an essential future of the prepetual inventory system	bin card	stores ledger	continuous stock taking	Material transfer note
storce ledger is kept in the ---------- department	production	sales	stores	costing

ABC means	always better control	always best cost	analysis of best cost	always best cost
under -------- method a standard are fixed price is used for pricing issues	actual	fixed	standard	costing
scrap refers to	damage	wastage	reused	valueless
_____refers to a units of output which failed to reach the require standard of quality or specification	scrap	spoilage	wastage	damage
_____is the portion of raw material lost in processing having no recovery value	scrap	spoilage	wastage	damage
_____gives the complete list of materials required for a particular job or work order	job costing	process costing	unit costing	contract costing
_____is attached to each bin to show the position of stock in the bin	bin card	stores ledger	bill of material	stock transfer note
_____is known as atomatic inventory system	perputal inventory	stores ledger	bill of material	stock transfer note
An _____ system of material control will lead to a significant reduction in total cost of production	Poor	Better	Efficient	good
_____ helps to prevent over stocking of materials	Material control	material transfer note	BIN card	Stores ledger
_____ prevents loss during storage of raw materials	Material control	material transfer note	BIN card	Stores ledger
Inventory means	Stock	Material	Cost	Sales
_____ card helps the store keeper to control the stock	Material control	material transfer note	BIN card	Stores ledger
By seeing the _____ the storekeeper can send the material requstion for purchase of material in time	Material control	material transfer note	BIN card	Stores ledger

_____ contains the accounts for each class of material	Material control	material transfer note	BIN card	Stores ledger
_____ is maintained in loose leaf form	Material control	material transfer note	BIN card	Stores ledger
A _____ gives a complete list of materials required for a particular job or work order	Material control	material transfer note	BIN card	Bill of material
_____ serve as a purchase requsition to the purchase department	Material control	material transfer note	BIN card	Bill of material
_____ Method in which materials are issued inorderin which they are received in the store	FIFO	LIFO	FFFO	LFIO
_____ metjod materials received last are issued first	FIFO	LIFO	FFFO	LFIO
The minimum quanity is known as _____	Base stock method	Simple Avarage Method	weighted avearge method	Market price method
_____ method is determined by adding different prices of materials in stock	Base stock method	Simple Avarage Method	weighted avearge method	Market price method
_____ method takes into account both quanity and price for arriving at the average price	Base stock method	Simple Avarage Method	weighted avearge method	Market price method
_____ method is also called replacement method	Base stock method	Simple Avarage Method	weighted avearge method	Market price method
_____ method a stsndard or a fixed price is used for pricingf the issues	Standard price Method	Simple Avarage Method	weighted avearge method	Market price method
Anything which has no value is considered to be _____	wastage	Scarp	Spoliage	materials

_____ may be normal or abnormal	wastage	Scarp	Spoliage	materials
_____ is sold without further treatement are used as raw material for another process	wastage	Scarp	Spoliage	materials
_____ is a document which authorises and records the issues of materials for use	Material Requstion Note	material transfer note	BIN card	Bill of material
Goods received note is prepared by the department receiving the goods from the _____	Supplier	Customer	Producer	Distributor
scrap refers to	damage	wastage	reused	valueless
_____level below which stock level should not be allowed to fall at any time	Minimum	maximum	reorder level	zero level
Market price method is also called as---------- method	Standard price Method	Replcement method	Average Method	Base stock Method
_____scarp is arises due to bad workmanship	legimate scrap	Administrative scarp	Defective Scarp	Average Stock
_____Spoilage is uncontrollable or unavoidable	Normal	Abnormal	Defective	Average
_____card is attached to each bin	Material control	material transfer note	BIN card	Stores ledger
_____Document which records transfer of surplus from one job to another	Material control	material transfer note	BIN card	Stores ledger
_____ensures effective utilisation of material	control	usage	material control	wastage
_____avoids over investment in inventories	control	usage	material control	wastage
_____ensures upto date maintance of stock records	control	usage	material control	wastege
_____taking is an essential future of the prepetual inventory system	bin card	stores ledger	continuous stock taking	Material transfer note

storce ledger is kept in the ---------- department	production	sales	stores	costing
ABC means	always better control	always best cost	analysis of best cost	always best cost
under -------- method a standard are fixed price is used for pricing issues	actual	fixed	standard	costing
storce ledger is kept in the ---------- department	production	sales	stores	costing

ANSWER

Material
Stock
Store keeper
√2AO/C
Minimum
Base stock Method
legimate scrap
Normal
BIN Card
material transfer note
material control
material control
material control
continuous stock taking
costing

always better control
actual
damage
spoilage
spoilage
job costing
bin card
perputal inventory
Efficient
Material Control
Material Control
Stock
BIN Card
BIN Card

Stores Ledger
Stores Ledger
Bill of material
Bill of material
FIFO
LIFO
Base stock method
Simple Avarage Method
weighted avearge method
Market price method
Standard price Method
wastage

wastage
Scarp
Material Requstion Note
Supplier
damage
minimum
Base stock Method
legimate scrap
Normal
BIN Card
material transfer note
material control
material control
material control
continuous stock taking

costing
always better control
actual
costing

SYLLABUS

Elements of Cost : Ovrheads – classification, Allocation, Apportionment and absorption of Overheads – Under and over Absorption – Capacity Levels and costs – Treatment of certain items in costing like interest on capital – packing expenses, bad debts, Research and Development expenses – Activity based cost Allocation.

OVERHEAD COSTING

Cost related to a cost center or cost unit may be divided into two i.e. Direct and Indirect cost. The Indirect cost is the overhead cost and is the total of indirect material cost, indirect labour cost, indirect expenses. CIMA defines indirect cost as "expenditure on labour, materials or services which cannot be economically identified with a specific saleable cost per unit". Indirect costs are those costs which are incurred for the benefit of a number of cost centres or cost units. So any expenditure over and above prime cost is known as overhead. It is also called 'burden', 'supplementary costs', 'on costs', 'indirect expenses'.

Overheads can be classified on the following basis:

i) **Function-wise classification**: Overheads can be divided into the following categories on functional basis.

(a) Manufacturing or production overheads e.g.:- indirect materials like lubricants, cotton wastes, indirect labour like salaries and wages of supervisors, inspectors, storekeepers, indirect expenses like rent, rates and insurance of factory, power, lighting of factory, welfare expenses like canteen, medical etc.

(b) Administration overheads e.g.:- indirect materials like office stationery and printing, indirect labour salaries of office clerks, secretaries, accountants, indirect expenses rent, rates and insurance of office, lighting heating and cleaning of office, etc.

(c) Selling and Distribution overheads e.g.:- indirect materials like catalogues, printing, stationery, price list, indirect salary of salesmen, agents, travellers, sales managers, indirect expenses like rent, rates and insurance of showroom, finished goods, godown etc., advertising expenses, after sales service, discounts, bad debts etc.

ii) **Behavior-wise classification**: Overheads can be classified into the following categories as per behavior pattern.

(a) Fixed overheads like managerial remuneration, rent of building, insurance of building, plant etc.

(b) Variable overheads like direct material and direct labour.

(c) Semi-variable overheads like depreciation, telephone charges, repair and maintenance of buildings, machines and equipment etc.

iii) **Element-wise classification**: Overheads can be classified into the following categories as per element.

(a) Indirect materials

(b) Indirect labour

(c) Indirect expenses

Allocation of overheads

Allocation of overheads is assigning a whole item of cost directly to a cost centre. An item of expense which can be directly related to a cost centre is to be allocated to the cost centre. For example, depreciation of a particular machine should be allocated to a particular cost centre if the machine is directly attached to the cost centre.

Apportionment of overhead

Apportionment of overhead is distribution of overheads to more than one cost centre on some equitable basis. When the indirect costs are common to different cost centers, these are to be apportioned to the cost centers on an equitable basis. For example, the expenditure on general repair and maintenance pertaining to a department can be allocated to that department but has to be apportioned to various machines (Cost Centers) in the department. If the department is involved in the production of a single product, the whole repair & maintenance of the department may be allocated to the product.

Primary and Secondary Distribution of Overheads

In case of multi-product environment, there are common service cost centres which are providing services to the various production cost centres and other service cost centres. The costs of services are required to be apportioned to the relevant cost centres. First step to be followed is

to apportion the overheads to different cost centres and then second step is to apportion the costs of service cost centres to production cost centres on an equitable basis. The first step is termed as primary distribution and the second step is termed as secondary distribution of overheads.

Absorption of overheads

Absorption of overheads is charging of overheads from cost centres to products or services by means of absorption rates for each cost center which is calculated as follows :

Overhead absorption Rate = Total overheads of the cost centre / Total quantum of base

The base (denominator) is selected on the basis of type of the cost centre and its contribution to the products or services, for example, machine hours, labour hours, quantity produced etc.

Overhead absorbed = Overhead absorption rate x units of base in product or service

APPORTIONMENT AND ABSORPTION OF PRODUCTION OVERHEADS

Overheads are to be apportioned to different cost centres based on following two principles :

i)Cause and Effect - Cause is the process or operation or activity and effect is the incurrence of cost. Apportionment of overheads based on this criterion ensures better rationality as it is guided by the relationship between cost object and cost.

ii) Benefits received – overheads are to be apportioned to the various cost centres in proportion to the benefits received by them.

Primary Distribution of overheads :

Basis of primary apportionment of items of production overheads is to be selected to distribute them among the cost centres following the above two principles. Basis of apportionment must be rational to distribute overheads. Once the base is selected, the same is to be followed consistently and uniformly. However, change in basis for apportionment can be adopted only when it is considered necessary due to change in circumstances like change in technology, degree of mechanization, product mix, etc. In case of such changes, proper disclosure in cost records is essential.

Secondary Distribution of Overheads :

Secondary distribution of overheads may be done by following either Reciprocal basis or

Non-Reciprocal Basis. While reciprocal basis considers the exchange of service among the

service departments, non-reciprocal basis considers only one directional service flow from a service cost centre to other production cost centre(s).

Secondary Apportionment of Overheads on Reciprocal Basis

The services rendered by certain service cost centers are also utilized by other service cost centers. In reciprocal secondary distribution, the cost of service cost centers are apportioned to production cost centers as well as other service cost centers. In such case, any one of the following three methods may be followed :

I. Repeated Distribution Method

II. Trial & Error Method

III. Simultaneous Equation Method

Repeated Distribution Method

Steps to be followed under this method are :

i)The proportion at which the costs of a service cost centres are to be distributed to production cost centres and other service cost centres are determined.

ii)Costs of first service cost centres are to be apportioned to production cost centres and service cost centres in the proportion as determined in step (i).

iii)Similarly, the cost of other service cost centres are to be apportioned.

iv)This process as stated in (ii) and (iii) are to be continued till the figures remaining undistributed in the service cost centres are negligibly small. The negligible small amount left with service centre may be distributed to production cost centres.

Trial and Error Method

This method is to be followed when the question of distribution of costs of service cost centres which are interlocked among themselves arises. In the first stage, gross costs of services of service cost centres are determined and then in the second stage, costs of service centres are apportioned to production cost centres. Steps to be followed :

i) The proportion at which the costs of a service cost centre to be distributed to production cost centres and other service cost centres is determined.

ii) Cost of first service cost centre is distributed to the other service centres in the

proportion of service they received from the first as assessed in step (i).

iii) In the next step, total cost of second service cost centre so arrived has to be distributed to the other service centres in the proportion of service they received from the second as assessed in step (i).

iv) Similarly, the cost of other service cost centres are to be apportioned to the service cost centres.

v) This process as described in (iii) and (iv) is to be continued till the figures remaining undistributed in the service cost centres are negligibly small.

vi) At the last, total cost of service cost centres to be distributed to production cost centres.

Simultaneous Equation Method

The simultaneous equation method is to be adopted to take care of secondary distribution of cost of service cost centres to production cost centres with the help of mathematical formulation and solution. Steps to be followed :

i) Proportion of service benefits received by different cost centres from a cost centre are assessed on the basis of records

ii) The same ratios are used as coefficients in the equations framed for apportionment of cost of service cost centres to production cost centres.

iii) Solution of the equations gives the cost of service cost centres.

iv) Cost of service cost centres to be distributed to production cost centres

Secondary Apportionment of Overheads on Non-Reciprocal basis

In non-reciprocal secondary distribution, the costs of service cost centres are apportioned to the production cost centres. Steps involved are :

i) The cost of first service cost centre is apportioned on a suitable basis to production cost centres.

ii) The next step is to apportion the cost of second service centre to the production cost centres as indicated in stage (i).

iii) The process is to be continued till the costs of all service cost centres are apportioned.

Absorption of Production Overheads and production capacity

Overheads shall be analysed into variable overheads and fixed overheads. The variable production overheads shall be absorbed to products or services based on actual capacity utilisation.

The fixed production overheads and other similar item of fixed costs such as quality control cost shall be absorbed in the production cost on the basis of the normal capacity or actual capacity utilization of the plant, whichever is higher.

In case of less production than normal, under-absorption of overheads shall be adjusted with Costing Profit & Loss Account. In case of higher production than normal, the over-absorption of overheads shall also be adjusted with Costing Profit & Loss Account.

Apportionment and absorption of Administrative Overheads

Administrative overheads include the following items of cost :

Printing and stationery, other office supplies Employees cost – salaries of administrative staff Establishment expenses – Office rent & rates, insurance, depreciation of office building and other assets, legal expenses, audit fees, bank charges etc.

Administrative overheads are to be collected in different cost pools such as :

- General Office
- Personnel department
- Accounts department
- Legal department
- Secretarial department etc

Administrative overheads are to be further analysed into two – one for production activities and other for sales and distribution activities. Costs collected under the cost pools indicated above are to be distributed to administrative overheads relating to production activities and administrative overheads relating to selling and distribution activities on rational basis for each cost pool.

Administrative overheads relating to production activities are to be apportioned to different production cost centres on the basis conversion costs of production cost centres. The apportioned overheads are absorbed to products on the basis of the normal capacity or actual capacity, whichever is higher.

In case of under-absorption or over-absorption of administrative overheads relating to

production, the same shall also be adjusted with Costing Profit & Loss Account.

Apportionment and absorption of Selling overheads and Distribution overheads

The selling overheads and distribution overheads are collected under different cost pools such as :

Selling Overheads :

(i) Sales Employees cost

(ii) Rent

(iii) Travelling expenses

(iv) Warranty claim

(v) Brokerage & Commission

(vi) Advertisement relating to sales and sales promotion

(vii) Sales incentive

(viii) Bad debt etc

Distribution Overheads :

(i) Secondary Packaging

(ii) Freight & forwarding

(iii) Warehousing & storage

(iv) Insurance etc.

Re-apportionment of Service Department Costs to Production Departments

Service department costs are to be reapportioned to the production departments or the cost centres where production is going on. This process of re-apportionment of overhead expenses is known as '**Service Distribution**'. The following is a list of the bases of apportionment which may be accepted for the service departments noted against.

Service Department Cost

Basis of Apportionment

1. Maintenance Department

2. Payroll or time-keeping department

3. Store keeping department -Hours worked for each department

-Total labour or Machine hours or number ofemployees in each department

4. Employment or Personnel department.

5. Purchase Department

6. Welfare, ambulance, canteen service,recreation room expenses.

7. Building service department

8. Internal transport service or overhead crane service

9. Transport Department - crane hours, truck hours, truck mileage, truck tonnage, truck tonne-hours, tonnage handled, number of packages.

10. Power House (Electric power cost) - wattage, horse power, horse power machine hours, number of electric points etc.

FACTORY OVERHEAD COSTS

On financial statements, each product must include the costs of the following:

1. Direct material

2. Direct labour

3. Manufacturing (or factory) overhead

According to generally accepted accounting principles (GAAP), manufacturing overhead must be included in the cost of Work in Process Inventory and Finished Goods Inventory on a manufacturer's balance sheet, as well as in the Cost of Goods Sold on its income statement. As their names indicate, direct material and direct labour costs are *directly* traceable to the products being manufactured. Manufacturing overhead, however, consists of *indirect* factory-related costs and as such must be divided up and allocated to each unit produced. For example, the property tax on a factory building is part of manufacturing overhead. Although the property tax covers an entire year and appears as one large amount on just one tax bill, GAAP requires that a portion of this amount be allocated or assigned to each product manufactured during that year.

Some of the costs that would typically be included in manufacturing overhead include:

1. Material handlers (forklift operators who move materials and units).

2. People who set up the manufacturing equipment to the required specifications.

3. People who inspect products as they are being produced.

4. People who perform maintenance on the equipment.

5. People who clean the manufacturing area.

6. People who perform record keeping for the manufacturing processes.

7. Factory management team.

8. Electricity, natural gas, water, and sewer for operating the manufacturing facilities and equipment.

9. Computer and communication systems for the manufacturing function.

10. Repair parts for the manufacturing equipment and facilities.

11. Supplies for operating the manufacturing process.

12. Depreciation on the manufacturing equipment and facilities.

13. Insurance and property taxes on the manufacturing equipment and facilities.

14. Safety and environmental costs.

Note that all of the items in the list above pertain to the manufacturing function of the business. Since the costs and expenses relating to a company's administrative, selling, and financing functions are not considered to be part of manufacturing overhead, they are not reported as part of the final product cost on financial statements. Rather, nonmanufacturing expenses are reported separately (as SG&A and interest expense) on the income statement during the accounting period in which they are incurred.

ADMINISTRATION OVERHEAD

Administration overhead is the indirect expenditure incurred for performing administrative functions. It includes expenses for formulating the policy, directing the organisation, controlling the operations of an undertaking and motivating the staff in order to attain the goals of the enterprise. Naturally, these expenses are not associated with production on sales or distributions or research and development.

Examples of administration overheads are- Office Rent, Office Salaries, Office Lighting, Insurance, Establishment charges, Postage, Repairs, Legal expenses, Audit fees, Depreciation of furniture, Stationery, Travelling expenses, Conveyance, General administrations/management expenses, Directors' fee, Directors' remuneration, Bank charges, etc. These expenses are, usually, fixed in nature and are not affected by the quantity of production or sales.

Accounting Treatment of Administration Overhead:

There are three methods that are used for the treatment of administration overhead viz.,

(a) Apportionment between production and Selling and Distributions Departments.

(b) Transfer to Costing Profit and Loss Account; and

(c) Inclusion as a separate item of Cost.

(a) Apportionment between Production, Selling and Distribution Department:

Under this method, administration overheads are incurred only for two important departments i.e., (i) Production and (ii) Selling and Distribution. As the administration overheads are incurred for the above two departments, the same should be apportioned between them on a suitable basis considering the nature and type of expenses although it is not an easy task to find out a suitable basis of apportionment.

Usually the following basis is to be followed:

It may be mentioned here that the apportionment of administration overhead to production is treated in the same manner as other items of overhead, (i.e. apportionment to production department and service department).

(b) Transfer to Costing Profit and Loss Account:

Under this method, it is assumed that administration overheads do not have any direct relationship with production and sales, rather they are treated as fixed/period cost and, hence, these overheads should be transferred to Costing Profit and Loss Account. Moreover, this administration overhead is not concerned with day-to-day activities and does not pay much attention to production or sales, rather they are related to other important factors like formulating policy, relation with the labour and Govt., etc., That is why, the entire amount of administrations expenses are charged to Costing Profit and Loss Account.

(c) Inclusion as a Separate item of Cost:

Under this method, administration overhead is treated as a separate item of cost on the assumption that administration is a separate function like other functions(e.g.,production/salesetc.) and should be charged to products to find out a suitable basis for absorption.

However, the bases of absorption are:

(i) Factory Cost;

(ii) Net Sales Value or Quantity;

(iii) Gross Profit on Sales

(iv) No. of units sold and manufactured;

(v) Conversion Cost;

(vi) Selling Cost.

Examples of selling and distribution expenses are:

Selling Overhead:

Fixed:

Showroom expenses, Sales office expenses, Cost of market research, Cost of samples etc.

Variable:

Commission on Sales, Travelling Salesmen' Salary, Carriage Outwards, Discount Allowed, Bad Debts etc.

Distribution Overhead:

Fixed:

Storage, Godown Rent, Rates and Insurance, Distributors' Commission, etc.

Variable:

Insurance on goods-in-transit, Packing charges, etc.

Accounting Treatment of Selling and Distribution Overheads:

Selling and Distribution expenses are apportioned as per different functions viz., Transportation, Advertisement and Sale Promotion, Storage and Warehousing, Direct selling, Credit and Collection etc. Again, each of them can be sub-divided into various territories like, South, North, West etc.

It must be remembered here that all identifiable expenses (e.g., commission on sales, travelling expenses of salesmen etc.) can directly be allocated to the respective territories. But identifiable expenses are apportioned on a suitable basis. However, we are highlighting here the basis of apportionment of Selling and Distribution expenses.

It is needless to say that all expenses are to be added to cost of products sold. We have already shown the classification of a Selling and Distribution overheads into fixed and variable

types. This classification is absolutely required for effective control.

However, fixed overheads are allocated/ apportioned among the products sold under any one of the following basis:

(a) Works Cost;

(b) Gross Profit on Sales;

(c) No. of Units Sold;

(d) Percentage on Selling Price.

(a) Works Cost:

Under this method, percentage of selling overheads to works cost is to be found out in order to absorb selling and distribution overheads.

For example, if works cost amounts to Rs. 40,000 and Selling and Distribution overhead amounts to Rs. 10,000, absorption of Selling and Distribution cost will be

(b) Gross Profit on Sales:

This method takes a larger share of selling and distribution overhead than are applied to goods presenting a wide margin of profit, and vice versa.

(c) No. of Units Sold:

Under this method, in order to ascertain the per unit rate, total selling and distribution overheads are divided by the total number of units. This method is particularly applicable where the company sales a particular or single kind of product.

For example, say, company X Ltd. produces only one type of T. V. sets. In a year the company produces 1,000 T. V. sets and total selling and distribution overheads are Rs. 1, 00,000 then absorption of selling and distribution p.u. will be Rs. 100 (i.e. Rs. 1, 00,000/1,000)

(d) Percentage of Selling Price:

Under this method, the total fixed selling and distribution overheads are absorbed on the basis of percentage on selling price. The rate is calculated in advance on normal fixed selling and distribution expenses and on normal selling price. For example, if fixed selling and distribution expenses amount to Rs. 25,000 and the expected sales are Rs. 20,00,000, the percentage will be 12.5% (i.e., Rs. 25,000/ 20,00,000 x 100) on sales.

Control of Selling and Distribution Overhead:

It is very difficult to control the selling and distribution overhead as most of them are

fixed in nature. Only variable portion may be controlled.

as well.

POSSIBLE QUESTIONS

Part – B

11. Amit Company has five departments; P, N, R, S are producing departments and T is a Service department. The actual costs for a period are as follows:

	Rs.
Repairs	2,000
Rent	2,500
Depreciation	1,200
Supervision	4,000
Insurance	1,500
Employer's liability of employee'sInsurance	600
Light	1,800

The following data are also available in respect of the five departments:

	Dept. P	Dept. N	Dept. R	Dept. S	Dept. T
Area Sq. ft	140	120	110	90	40
No. of workers	25	20	10	10	5
Total wages (Rs.)	10,000	8,000	5,000	5,000	2,000
Value of plant (Rs.)	20,000	18,000	16,000	10,000	6,000
Value of Stock (Rs.)	15,000	10,000	5,000	2,000	

-

Apportion the costs to the various departments on the equitable basis.

12. A company is producing 3 types of products A, B and C. The sales territory of the company is divided into 3 areas X,Y and Z.

The estimated sales of the year 2017 are as under:

Product	Territory					
	X	Y	Z	A	B	C
	50,000	20,00 0	30,000	80.000	70,000	40.000

–

The budgeted advertising cost is as under:

Territory	X (Rs	Y (Rs.)	Z (Rs.)	Total
Local cost	3,200	4,500	4,200	11,900
General cost	-	-	-	5,800

You are required to find the advertising cost percent on sales for each product and territory showing how you will present the statement to the management.

13. How would you apportion the following expenses between departments A and B?

	Rs.
Rent and Rates	360
Insurance	130
Stores expenses	742
Fire insurance	260
General factory labour	1,284
Depreciation	906
Holiday pay	520
Plant repairs	450

Information regarding the departments available:

	A	B
Floor space	60 x 115	45 x 100
No. of employees	18	42
Annual direct wages	Rs. 5,000	Rs. 6,000
Annual direct labour hours	36,000	92,500
Plant value	Rs. 10,000	Rs. 2,500

14. In a factory, there are two service departments S1 and S2 and three production departments

P1,P2 ad P3. In April 2010, the departmental expenses were:

Departments :	P1	P2	P3	S1	S2
	Rs.				
	:6,50,000	6,00,000	5,00,000	1,20,000	1,00,000

The service department expenses are allocated on a percentage basis as follows:

Service Departments	Production Departments			Service Departments	
	P1	P2	P3	S1	S2
S1	30%	40%	15%	-	15%
S2	40%	30%	25%	5%	-

Prepare a statement showing the distribution of two service departments' expenses to these departments by Simultaneous Equation Method.

QUESTION	OPTION1	OPTION2	OPTION3
UNIT - III			
overhead means	Indirect expenses	Direct expenses	Work expenses
classification of overhead is important inorder to identify cost with _____ centre	Process	sales	Cost
_____ materials are those materials which do not form a part of the finished goods	direct	indirect	Raw material
identified with and allocated but can be apportioned to apportioned to a particular	cost	expenses	labour
_____ labours which is not directly engaged in production of goods or services	Direct	indirect	semi- skilled
_____	direct	indirect	bonus
engaged in production	direct	indirect	bonus
charged to production	Indirect expenses	Direct expenses	expenses
factory expenses is also known as	overhead	overhead	selling overhead
incurred from stage to raw materials to finished goods	production overhead	factory overhead	selling overhead
the adminstrative office	overhead	overhead	selling overhead
sales and promotion of sales	overhead	overhead	selling overhead
_____ expenses incurred for with packing and delivery of goods to customers	administration overhead	factory overhead	selling overhead
products	Fixed overhead	overhead	selling overhead
variable	Fixed overhead	overhead	selling overhead
overhead which are expected to be incurred in attaining a given output	Normal	Abnormal	Controllable
overhead which are not expected to be incurred in attaining a given output	Normal	Abnormal	Controllable
can be controlled	Normal	Abnormal	Controllable
cannot be controlled	Normal	Abnormal	Controllable
_____ materials are those materials which do not form a part of the finished goods	direct	indirect	Raw material
_____ is the process of grouping of cost according to their common characterstics	Cost Classification	Cost Allocation	Cost Apportionment
_____ is defined as the allotment of whole amount of cost centre or cost units	Cost Classification	Cost Allocation	Cost Apportionment
_____ is defined as the allomen proportions of cost to cost centre or cost units	Cost Classification	Cost Allocation	Cost Apportionment
to jobs	Cost Classification	Cost Allocation	Apportionment
Expenses which can be directly identified with a particular department or cost centre is called	Cost Classification	Cost Allocation	Cost Apportionment
expenses to various production and service department is known as	Departmentalisation	Cost Allocation	Cost Apportionment

department which enable other department tp work	Service	Production	Sales
ascertainment	n	Cost Allocation	Apportionment
supervision	n	Cost Allocation	Apportionment
_____ esssential for budgetary control	n	Cost Allocation	Apportionment
_____ is obtained by dividing the amount of overheads by direct material cost	Direct material cost percentage	direct labour cost percentage	prime cost percentage
_____ is obtained by dividing the amount of overheads by the direct wages	Direct material cost percentage	direct labour cost percentage	prime cost percentage
_____ is obtained by dividing the amount of overhead by the prime cost	Direct material cost percentage	direct labour cost percentage	prime cost percentage
_____ is obtained by dividing the amount of overheads by the labour hours	Direct material cost percentage	direct labour cost percentage	prime cost percentage
_____ is obtained by dividing the amount of overheads by the macchine hours	Direct material cost percentage	direct labour cost percentage	machine Hour rate
basis of	Estimate Rates	Fixed rates	Variable rates
decision making	Audit	cost	estimated
efficiencies and cost of operating different machines	Direct material cost percentage	direct labour cost percentage	machine Hour rate
absorbed in production less than the _____ overhead	Actual	work	selling overhead
overhead absorbed in production are more than that of actual overhead	under	Over	Fixed
machine per hour	Labour per hour	Machine Hour	wage hour
a cost centre in order to identify the _____ expenses	Fixed overhead	Direct overhead	Variable overhead
Standing charge is also known as	Fixed overhead	Direct overhead	overhead
as_____	Variable expenses	Fixed Expenses	Expenses
State the bases od Apportionment for rent	Floor area	value of plant	value of stock
State the bases of apportionment for lighting	Light points	value of plant	value of stock
depriciation of plant and macinery	Light points	value of plant	value of stock
of stock	Light points	value of plant	value of stock
handling charges	Light points	value of plant	value of stock
State the bases of apportionment of supervision	No.of, Employees	value of plant	value of stock
plant	No.of, Employees	value of plant	value of stock
a cost centre in order to identify the _____ expenses	Fixed overhead	Direct overhead	Variable overhead
Canteen expenses is apportionmet based on	No.of, Employees	value of plant	value of stock
materials	Direct Materials	value of plant	value of stock
wages	Direct Materials	Direct wages	value of stock
taxes	Floor area	value of plant	value of stock
State the bases for advertising	Actual Expenses	value of plant	value of stock
_____ is the process of distribution of overheads to various departments	Cost Classification	Cost Allocation	Cost Apportionment

and size of the business	Cost Classification	Cost Allocation	Apportionment
_____ is process of charging the full amount of overhead without division	Cost Classification	Cost Allocation	Cost Apportionment

OPTION4	ANSWER
expenses	**Expenses**
production	**Cost**
cost of material	**Indirect material**
sales	**Cost**
Skilled	**Indirect**
penalty	**Indirect**
penalty	**Indirect**
expenses	**indirect expenses**
overhead	**overhead**
distribution overhead	**factory overhead**
overhead	**overhead**
overhead	**Selling overhead**
distribution overhead	**distribution overhead**
overhead	**fixed overhead**
overhead	**overheads**
Un controllable	**Normal**
Un controllable	**abnormal**
controllable	**controllable**
controllable	**un controllable**
cost of material	**Indirect material**
Cost absorption	**Cost classification**
Cost absorption	**Cost allocation**
Cost absorption	**Cost apportionment**
absorption	**cost absorption**
Cost absorption	**Cost Allocation**
Cost absorption	**Departmentalisation**

Purchase	**Service**
absorption	**tion**
absorption	**tion**
absorption	**tion**
work cost percentage	**direct material cost percentage**
work cost percentage	**Direct labour cost percentage**
work cost percentage	**prime cost percentage**
hour percentage	**Direct labour hour percentage**
hour percentage	**machine hour rate**
rates	**Estimated rates**
cost	**Audit**
hour percentage	**machine hour rate**
distribution overhead	**Actual**
Variable	**Over**
labour hour	**machine Hour**
variable overhead	**fixed overhead**
variable	**fixed overhead**
expenses	**Expenses**
materials	**Floor area**
materials	**Light points**
materials	**Value of plant**
materials	**value of stock**
materials	**materials**
materials	**Employees**
materials	**Valueof plant**
variable overhead	**fixed overhead**
materials	**Employees**
materials	**Direct materials**
materials	**Direct wages**
materials	**Floor area**
materials	**Actual Expenses**
Cost absorption	**Cost Apportionment**

absorption	**Classification**
Cost absorption	**Cost allocation**

SYLLABUS

Methods of Costing : Job Costing – Contract Costing – Process Costing – Process Losses, Valuation of Work in progress, Joint and By products – Service Costing (only Transport)

JOB COSTING

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.

Features:

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

Advantages of Job costing:

1. It helps to distinguish profitable jobs from unprofitable jobs

2. It helps to identify defective work and spoilage with a department or person

3. Selling price of special orders can easily be fixed.

4. It helps to prepare estimates of cost for submitting quotations and tender for similar jobs

5. It helps to control future cost.

Requisites of Job costing system:

1. A sound system of production control

2. An effective time booking system

3. Clearly defined cost centre

4. Appropriate overhead absorption rate, and

5. Proper material issue pricing method.

Procedure for Job order costing system:

The Procedure for job order costing system may be summarized as follows:-

1. Receiving an enquiry from the customer regarding price, quality etc

2. Make an estimation of the price of the job after considering the cost incurred for the execution of similar job in the previous year

3. Receiving an order, if the customer is satisfied with the quotation price and other terms of execution.

4. If the job is accepted, a production order is made by the Planning department.

5. The costs are collected and recorded for each job under separate production order Number, and a Job Cost Sheet is maintained for that purpose.

6. On completion of job, a completion report is sent to costing department.

CONTRACT COSTING

It is a special form of job costing and it is the most appropriate method to be adopted in such industries as building and construction work, civil engineering, mechanical fabrication and ship building. In other words, it is a form of specific order costing which applies where the work is undertaken to customer's requirements and each order of long duration as compared to job costing. It is also known as terminal costing.

The official CIMA terminology defines contract costing as " a form of specific order costing in which costs are attributed to individual contracts."

Basic features:

1. Each contract itself a cost unit.

2. Work is executed at customers site

3. The existence of sub contract

4. Most of the expenses incurred upon the contracts are direct.

5. Cost control is very difficult in contract costing.

Types of contracts

Generally there are three types of contracts:

1. Fixed price contracts: Under these contracts both parties agree to a fixed contract price.

2. Fixed price contract with Escalation clause

3. Cost plus contract: Under this contract no fixed price could be settled for a contract.

Contract Account

A contract account is a nominal account in nature. It is prepared to find out the cost of contract and to know profit or loss made on the contract. A contractor may undertake a number of contracts at a time. For each contract a separate account is opened. In the contract account all direct cost such as material, labour and other direct expenses incurred during an accounting period are debited and the indirect expenses are apportioned on an equitable basis. The differences between the two sides are known as Notional profit or notional loss.

SPECIAL TERMS IN CONTRACT ACCOUNT

1. **Work in Progress:** It is the unfinished contract at the end of the accounting period and it includes amount of work certified and amount of work uncertified. Work in progress is an asset, shown in the balance sheet by deducting there from any advance received from the contractee.

2. **Work certified:** The sales value of work completed as certified by the architect is known as 'work certified'. In the case of contracts of long duration, the amount payable by the customer to the contractor is based on the sales value of work done as certified by the architect. At the end of the financial year, the total sales value of work done and certified by the architect is credited to the contract account.

3. **Work Uncertified:** It means work which has been carried out by the contractor but has not been certified by the architect. Sometimes, work which is complete remains uncertified at the end of the financial year. The reasons for the same may be

a. Work not sufficient enough to be certified

b. Work has not reached the stipulated stage to qualify for certification

It is always valued at cost and credited to the contract account.

4. **Retention money: -** Regardless of the amount of work certified, the contractor is paid a specified percentage of the same and the balance is held or retained by the contractee. This is because of the fact that the contractee has to safe guard himself against any contingency arising from the non fulfilment of the terms of the contract by the contractor. The unpaid balance of work certified or the amount held back or retained by the contractee is known as 'retention money'.

5. **Sub contract:** Sometimes the contractor enters into contracts with another contractor to give a portion of work undertaken by him. In such cases the work performed by the subcontractor s forms a direct charge to the contract concerned. Sub contract cost will be shown on the debit side of the contract account.

6. **Escalation clause**: This is clause which is provided in the contract to cover up any increase in the price of the contract due to increase in the prices of raw material or labour or in the utilization of any other factors of production. If material and labour utilization exceeds a particular limit, the customer agrees to bear the additional cost occasioned by excessive utilization. Here, the contractor has to satisfy the customer that excessive utilization is not the result of decreased efficiency.

Treatment of Plant and Machinery:

One of the distinguishing features of a contract is the use of special plant and machinery. The cost of these is capital expenditure, but yet, the usage of these should be reflected in the form of depreciation. There are two distinct methods of charging depreciation.

1. At the time of issue of plant to contract the contract account is debited with the full value of the plant. At the end of the period contract account is credited with the depreciated value. This method is used when plant and machinery is used at the contract site for a long period.

2. In the second method, contract account is debited with an hourly rate of depreciation for The number of hours the plant is used on the contract. A cost centre is set up for each machine. An estimate is made is made of the cost such as maintenance, depreciation, driver's wage etc to be incurred. The total of this cost is divided by the number of hours that the machine is expected to be used.

Profit on Incomplete Contract:

In the case of a small contract extending over the financial period, profit or loss on the same may be ascertained by crediting it with the contract price due by the contractee. This procedure cannot be adopted in the case of contracts extending beyond the accounting period, and taking a long time for completion. If there is any profit upon the incomplete contract, it cannot be taken as actual profit. The profit upon the incomplete contract is called notional profit.

For the purpose of determining the amount of profit to be transferred to profit and loss account and making provision for future contingencies, the following guidelines may be kept in mind.

1. **When the work has not reasonably advanced (1/4 or less than ¼)** : - No profit should be taken to the credit of p/L account in the case of contracts which have just commenced and a small portion of the work is complete.

2. **Where the work is complete more than ¼ but less than ½ of contract price:** In this case 1/3 of the notional profit as reduced by the percentage of cash received may be credited to profit and loss account. The usual formula is

Work Certified = Notional profit x1/3 xCash received

The balance of notional profit shall be kept as reserve till the completion

3. **If the contract completed is more than 1/2 but less than 90%**: Here 2/3 rd of the notional profit should be taken to profit and loss account.

Work Certified = Notional profit x2/3 x Cashreceived

The balance of notional profit shall be transferred to work in progress as reserve. It is to be noted that in order to find out how much portion of contract is completed, work certified should be compared with contract price.

4. **If the contract is nearing completion:** Here, estimated profit may be ascertained by deducting the total cost of contract to date plus estimated additional expenses to complete the contract , from the contract price. It is calculated by using the following formula

Estimated profit x Cash received

Contract price

RETENTION MONEY

A contractor does not receive the full payment of the work certified by the surveyor. Contractee retains some amount to be paid after some time, when it is ensured that there is not default in the work done by the contractor. If any deficiency or defect is noticed, it is to be rectified by the contractor before the release of the retention money. Thus, the retention money provides a safeguard against the default risk in the contracts.

Meaning of Escalation clause :

Escalation clause in a contract provides that if during the period of execution of a contract, the prices of materials, rates of labour etc. rise beyond a specific limit, the contract price will be increased by specified rate or amount. Escalation clause does not cover that part of increase in costs which is caused due to inefficiency or wrong estimation.

Circumstances prompting insertion of escalation clause in the contract are :

(i) Contract is for a long period where input cost can change significantly.

(ii) Raw material cost are expected to increase.

(iii) Labour rates are subject to frequent upward revisions by the regulatory authorities.

(iv) Certain other important inputs, such as power, fuel, etc. are subject to frequent price hikes.

(v) Total quantity of materials and labour to be used for the contract cannot be anticipated with reasonable accuracy and are likely to surpass the projections.

Escalation clause aims at safe guarding the interest of the contractor against unforeseen rise in cost. On the other hand, de-escalation clause provides for a decrease in the contract price due to decrease in the price of inputs so that the benefits of price decreases is passed on the contractee.

PROCESS COSTING

Process costing is the method of costing applied in the industries engaged in continuous or mass production. Process costing is a method of costing used to ascertain the cost of a product at each process or stage of manufacturing.

According to ICMA terminology, "Process Costing is that form of operation costing which applies where standardized goods are produced".

So it is a basic method to ascertain the cost at each stage of manufacturing. Separate

accounts are maintained at each process to which expenditure incurred. At the end of each process the cost per unit is determined by dividing the total cost by the number of units produced at each stage. Hence, this costing is also called as "Average Costing" or "Continuous Costing". Process Costing is used in the industries like manufacturing industries, chemical industries, mining works and public utility undertakings.

Characteristics of Process Costing

1. Production is continuous
2. Products pass through two or more distinct processes of completion.
3. Products are standardized and homogeneous.
4. Products are not distinguishable in processing stage.
5. The finished product of one process becomes the raw material of the subsequent process.
6. Cost of material, labour and overheads are collected for each process and charged accordingly.

Advantages of Process Costing

1. It is easy to compute average cot because the products are homogeneous in Process Costing.
2. It is possible to ascertain the process costs at short intervals.
3. Process Costing is simple and less expensive in relation o job costing.
4. By evaluating the performance of each process effective managerial control is possible.

Disadvantages of Process Costing

1. Valuation of work in progress is difficult.
2. It is not easy to value losses, wastes, scraps etc.
3. The apportionment of total cost among joint products and by-products is difficult.
4. Process cost are not accurate, they are only average costs
5. Process costs are only historical.

Principles of Process Costing

The following points are considered while determining the cost under Process Costing.

1. Production activity should be divided into different processes or departments.
2. A separate account is opened for each process.

3. Both direct and indirect costs are collected for each process.

4. The quantity of output and costs are recorded in the respective process accounts.

5. The cost per unit is determined by dividing the total cost at the end of each process by the number of output of each process.

6. Normal loss and abnormal loss are credited in the process account

7. The accumulated cost of each process is transferred to subsequent process along with output. The output of the last process along with cost is transferred to the finished goods account.

8. In case of by-products and joint products their share in joint cost should be estimated and credited to the min process.

9. When there is work in progress at the end of the period the computation of inventory is made I terms of complete units.

Preparation of Process Accounts

The preparation of Process Account depends upon the following situations

1. Simple Process Account
2. Process costing with normal process loss
3. Process costing with abnormal process loss
4. Process costing with abnormal process gains
5. Inter – process profits.

Simple Process Account

Under this case it is very easy to prepare process account. A separate account is opened for each process. All costs are debited to the process account. The total cost of the process is transferred to the next process. At the end of each process the cost per unit is obtained by dividing the total cost by the number of units.

Process losses

The process loss is classified into two- normal process loss and abnormal process loss.

Normal process loss

This is the loss which is unavoidable on account of inherent nature of production process. It arises under normal conditions. It is usually calculated as a certain percentage of input. Normal

process los includes either waste or scrap r both. Waste is unsalable and has no value. Loss in weight is an example of waste. Loss in weight should be credited to the concerned process account. It should be recorded only in terms of quantity.

Loss in weight = Opening Stock + output from the preceding process – (output of the Concerned process + closing stock)

Illustration 2: From the following figures, show the cost of three processes of manufacture. The production of each process is passed on to the next process immediately on completion.

Abnormal Process Loss

Any loss caused by unexpected or abnormal conditions such as plant break don, substandard materials, carelessness, accident etc. or loss in exceeds of the margin anticipated for normal process loss can be called as abnormal process loss. It is controllable and avoidable. When actual loss in the process is greater than the estimated normal loss, it is a case of abnormal loss. It may also be determined by comparing actual output with expected or normal output. If actual output is les than the normal output, the difference is abnormal loss.

Value of Abnormal loss = Normal cost of normal output x Units of Abnormal loss
Normal output

Normal cost of normal output = Total expenditure (i.e., total debit of process A/c) – Sale Proceeds of scrap (i.e. Value of normal loss)

Normal output = Input – Units of normal loss

Abnormal Gain (or Abnormal Effective)

Sometimes actual loss or wastage in a process is less than expected normal loss. In this case the difference between actual loss and expected loss is known as abnormal gain or abnormal effective. It is the excess of actual production over normal output.

Abnormal gain is valued in the same manner as abnormal loss. The value of abnormal gain is debited to process A/c and credited to abnormal gain A/c. the value of scrap is debited to abnormal gain A/.c and credited to normal loss A/c. finally abnormal loss A/c is closed by transferring the credit balance to Costing P&L A/c.

Value of Abnormal Gain = Normal cost of normal output x Units of Abnormal gain
Normal output

Normal cost of normal output = Total expenditure– Sale Proceeds of scrap

Normal output = Input – Units of normal loss

Units of Abnormal gain = Normal loss- Actual loss

Or

= Actual output - Normal output

Equivalent Production

Equivalent production represents the production of a process in terms of completed units. In other words, it means converting the incomplete units into its equivalent of completed units. It is also known as effective production. For calculating equivalent production, work-in-progress needs to be inspected. Then an estimate is made of the degree of completion, usually on a percentage basis.

Steps and procedure of computation of Equivalent Production

1. Ascertain Equivalent Production in respect of opening work-in-progress, if any. In this case the

Equivalent Production is computed by taking into consideration the percentage of work required to finish now in the process. The following formula is used.

Opening WIP (Units) x % of work needed to complete.

2. Find the units introduced and completed and add this to (1). It is calculated as follows:

Units completed and transferred – Opening work-in-progress.

3. Convert the equivalent production of closing work-in-progress and add to the above. The formula is:

Closing work-in-progress (units) x% of work completed.

4. Obtain the total Equivalent Production terms of materials, labour and overhead separately (if degree of completion is different). For this, 'Statement of Equivalent Production' is prepared.

5. Find out the net process costs, element wise- materials, labour and overheads.

6. Ascertain the cost per unit of Equivalent Production for each element of cost separately.

Material cost per unit= Material cost

Equivalent Production in respect of materials

Labour cost per unit =Labour cost

Equivalent Production in respect of labour

Overhead cost per unit =Overhead cost

Equivalent Production in respect of overhead

For this purpose 'Statement of Cost is prepared'

7. Find out the value of opening work-in-progress, finished units and closing work-in-progress. The formula is:

Equivalent Production in respect of materials x Material cost per unit

Equivalent Production in respect of labour x Labour cost per unit

Equivalent Production in respect of overhead x Overhead cost per unit

Inter Process Profits:

In process costing, the usual practice is to transfer the output of one process to another and finally to finished stock at cost price. In this method of transfer, process accounts will not reveal any profit or loss. But sometimes, the transfer is made at transfer price or market price.

This method is adopted in order to measure the efficiency or inefficiency of individual's process. When market price cannot be ascertained, certain percentage of profit margin is added to the cost of processing in order to arrive at the transfer price. Consequently, each process account reveals a profit and this profit is known as 'inter process profit'.

Advantages of Accounting for Inter Process Profits:

(a) Inter process profits enable to measure the efficiency of each process.

(b) Comparison of costs with market price at each stage assist management to take 'make or buy' decisions.

(c) The efficiency of or inefficiency of one process. In other words, each process can be assessed separately on that account.

Adjustment for Inter Process Profits:

When the output of one process is transferred to another and finally to finished stock account at transfer price (cost plus estimated profit margin), the closing inventories if any will be valued at transfer price. Such inventories will include unrealized profits. Such profits should be adjusted for purposes of year-end financial reporting.

Otherwise, it will amount to earning profit by trading within the organization. Hence, necessary adjustments are made in the values of closing inventories by means of creating reserves or provision for unrealized profits. Total profit less provision for unrealized profits would amount to profits earned on sale of finished stock. The closing inventories will be shown in the balance sheet at cost

i.e., values of inventory at transfer price less provision for unrealized profits.

Computation of provision for unrealized profits:

Formula Cost of inventory = cost/total X Closing inventory

Provision for unrealized profits = Value of closing inventory – Cost

Illustration 1:

A product passes through two processes A and B. Output of A is transferred to B at cost plus 25% profit and from B to finished stock at cost plus 25% profit. There were no work in progress in both processes and opening stock of finished goods at the end of the period.

Additional information available is as follows:

Closing stock of finished goods was valued at Rs.45,000 and the balance was sold for Rs. 1,50,000. Prepare Process Accounts and Finished Stock Account.

JOINT PRODUCTS

When two or more products are produced simultaneously from the use of a single raw material which is equally important. Such a product can be a joint product which is more important if produced from the same raw material. This product is also called as Main Product. On the other hand, if the products are not of the same importance called as "By-Products." For example, crude oil is the main product which can be processed in to petrol, kerosene, oil tar etc. as by-products.

Features of Joint Products

The following are the important features of joint products:

(1) Joint products are produced from the sample raw materials.

(2) They are produced from the common features of manufacturing process.

(3) Joint products are of equal importance and value.

(4) They may require further processing after their split off or point of separation.

Objectives of Joint Product Costing

The following are the important objectives of joint product costing:

(1) To facilitate product costing of inventory valuation and income determination.

(2) To ascertain the profitability of each product.

(3) To facilitate to make or buy decisions.

(4) To provide information to fix the prices of product.

(5) To evaluate the change of product mix and output variations.

(6) To determine cost per unit, cost allocation and cost ascertainment.

(7) To ensure effective cost control.

Methods of Apportionment of Joint Products

The following are the important methods commonly used for apportionment of joint costs upto the point of separation.

(1) Average Unit Cost Method

(2) Physical Unit Method

(3) Survey Method

(4) Contribution Margin Method

(5) Standard Cost Method

(6) Market Value Method

(1) Average Unit Cost Method: Under this method, average cost per unit of the finished product is calculated by the total joint costs up to the point of separation is divided by the total production of all the products or outputs. This method is very simple and conveniently applicable where the resultant products can be expressed in common units.

(2) Physical Unit Method: Under this method, the joint costs are allocated or apportioned to joint products on the basis of relative physical units of output of each joint product till split-off occurs. These physical units refer to weight or measure such as pounds, tonnes, gallons, bales, volume etc. This method is suitable where the joint products will be measurable in the same units. This method cannot be applied when joint products consist of different types of units like liquids and solids.

(3) Survey Method: Survey Method is also termed as "Points Value Method." In this method, joint costs are allocated on the basis of percentage or points value is assigned to each products according to their relative importance. This method is also taken into various relevant factors such as volume, mixtures, selling price, technical engineering and marketing processes. The ratio of joint costs can be calculated by physical quantities of each products use multiplied with the weightage points.

(4) Contribution Margin Method: This method is also called as "Gross Margin Method." According to this method joint costs are allocated or apportioned as fixed cost and variable cost incurred at the point of separation. Joint fixed costs are apportioned on the basis of contribution of each product whereas variable portion of joint costs are apportioned according to the volume of units produced.

(5) Standard Cost Method: Under this method, joint costs are apportioned on the basis of standard costs. For this, standard costs are determined in advance for a joint products based on past experience, technical aspects, operational efficiency and cost factors of each products etc.

(6) Market Value Method: This method is also termed as "Relative Sales Value Method." According to this method, the number of units of each product manufactured is multiplied by the product's selling price to obtain the sales value of production.

BY -PRODUCTS

The term by-product is also known as "Minor Product." It refers to any product of comparatively less value that is incidentally manufactured along with the main products. In other words, if the products produced are not as of equal importance, then the products of significantly low value are known as "by-products." Accordingly, they are jointly produced with other main products and remain inseparable up to the point of split off or point of separation.

Accounting Treatment or Method of Valuation of By-products The object of valuation of by-products cost accounting is to assign a portion of the total costs to each by-products. This is important to calculate the unit product cost and prepare the profit and loss account and balance sheet. Following are the important methods employed in this connection :

(1) Non-Cost Methods or Sales Value Methods:

(a) Other Income Method.

(b) Adding Sales Value to Total Cost Method.

(c) Crediting to Sales Value Less Selling and Distribution Expenses Method.

(d) Expenses Cost Method.

(2) Cost Methods:

(a) Replacement Cost Method or Opportunity Cost Method

(b) Standard Cost Method

(c) Apportionment on Suitable Basis

(1) Non-Cost Method

This method is also known as "Sales Value Method." While in valuation of the by-products only sales value of by-products is taken in to account in accounting treatment of by-products they use anyone of the following non-cost methods : (a) Other Income Method: Under this method, when the

sales value of the by-products is very low or negligible, it is treated as other income and same is credited to the profit and loss account. (b) Adding Sales Value to Total Cost Method: Under this method all the cost of joint products deducted from the combined sales proceeds of both joint products and main products. (c) Crediting to Sales Value Loss Selling and Distribution Expenses: Under this method, costs incurred relating to selling and distribution expenses of by-products are deducted from the sales value of by-product and the net sales value credited to the process account. (d) Reverse Cost Method: In this method. cost of by-product is determined by sales of the by-product deducted from the estimated profit and all costs incurred on by-products after split off point. This method also known as "crediting sales value less profit."

(2) Cost Methods

Cost methods are useful to determine the cost of by-products when the apportion of the portion of joint costs incurred to by-products. The following are the important methods included under this categories. (a) Replacement Cost Method: This method is also called as "Opportunity Cost Method."

OPERATING COSTING (SERVICE COSTING)

It is the costing procedure used for determining the cost of per unit of service rendered. It is a method of costing applied to undertaking which provides service rather than production of commodities. The services may be in the form of transport, supply service, welfare service, etc. There is a difference between operating costing and operation costing. Operating costing is a method of costing designed to find out the cost of operating or rendering a service. On the other hand, operation costing is a method of costing applied to determine the total cost and unit cost of each operation. Though service undertakings are of different types, but here we discuss only transport operating costing.

Transport costing:

Transport industries include Air, Water, Rail and Road. They render services to the community at large. We have to give utmost care while selecting the cost unit. The cost unit of other forms operation costing is quite different from that of a service undertaking. The cost unit of a service organization is a composite unit. The important factors to be considered includes the number of passengers, tonnage carried, distance covered etc.

Classification of Costs:

Operating costs of a transport undertaking comprising different items, which are classified under the following three groups.

1. **Standing or fixed charges**: These charges are incurred in spite of the kilometers run. It is fixed in nature. E.g. Insurance, Motor vehicle tax, license fee, rent, salary of operating manager etc.

2. **Maintenance charges**: It includes semi variable expenses Eg. Tyres and tubes, repairs and paintings etc.

3. **Operating and running charges**: These charges vary more or less in direct proportion to kilometres. All the variable charges of running vehicles are included in this group. Generally it includes, petrol, oil,, grease etc., wages of driver, attendant if payment is related

to time or distance of trip etc.

In the place of the above classification, all expenses can be divided into two – fixed cost and variable costs. Here, both maintenance charges and running charges are considered as variable charges.

Selection of Unit:

In transport costing, a composite unit such as passenger mile or passenger kilometre or tone kilometre is often selected. Such unit takes into account both the number of passengers or weight of goods carried and distance run.

Absolute passenger or commercial passenger/ tone km:

It is calculated by multiplying every part of distance travelled/covered with either weight carried or passenger carried.. After getting the product of each journey we add all the products. The total is absolute ton/quintal km

In the case of goods transport the equation is

Distance of each part of journey x weight carried In the case of passenger transport, the following formula is used

Distance of each part of journey x No. of passengers taken for the same distance

Commercial method:

The following steps are used to find out the commercial tone km

a. Find out average trip load

b. Find out total distance of journey

c. Multiply a and b , the resultant figure is commercial tone km

OPERATING COST SHEET

Particulars

Total cost

Cost per unit

A. Fixed or standing charges

Garage rent

License fee

Insurance

Motor vehicle tax

Interest on capital

Supervision

Office establishment

Administrative overheads Salary

of foreman , manager etc

Total

B. Maintenance charges:

Repairs and renewals Tyres and tubes

Paintings

Overhauling

Cleaning

Gas and electric charges

Spare parts and accessories

Total

C. Operating charges:

Petrol

Engine oil

Lubricating oil, grease etc

Wages of operators

Depreciation

Salaries of running staff

Water

Total

Calculation of Depreciation:

If the rate of depreciation is not given, depreciation is calculated as follows: Depreciation =Cost- scrap/ Life in years

POSSIBLE QUESTIONS

Part - B

11. The following was the expenditure on a contract for Rs. 12,00,000 commenced in January.

	Rs.
Material	2,40,000
Wages	3,28,000
Plant	40,000
Overheads	17,200

Cash received on account of the contract upto 31stDecember was Rs. 4,80,000 being 80% of the work certified. The value of materials in hand was Rs. 20,000. The plant had undergone 20% depreciation. Prepare contract Account.

12. Explain Normal Loss, Abnormal loss and abnormal gain and state how they should be dealt with in process cost accounts.

13. A product passes through two distinct processes, A and B, and thereafter to finished stock. From the following information, you are required to prepare Process Cost Accounts.

	Process A	Process B
Materials consumed	(Rs.)12,000	6,000
Direct labour	(Rs.)14,000	8,000

Manufacturing expenses		(Rs.)4,000	4,000
Input in Process 'A'	(Units)	10,000	
–			
Input in Process 'A' (Value)	Rs. 10,000		
–			
Output		9,400 Units	8,300 Units
Normal wastage		5%	10%
Value of normal wastage (per 100 units)		Rs.8	Rs.10

14. Input 3,800 units; output 3,000 units; closing work in progress 800 units.

	Degree of completion	Process Costs
Materials	80%	Rs. 7,280
Labour	70%	Rs. 7,120
Overheads	70%	Rs. 7,120

Find out (a) Equivalent production (b) Cost per unit of equivalent production and (c) Prepare the process A account assuming that there is no opening work in progress and process loss.

QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
UNIT - IV					
costing to findout the cost of a product at a each stage or process	Process costing	Job costing	Unit costing	Contract costing	**Process costing**
the _____ passes through the different stages of a	Goods	Product	Raw material	Sales	**Raw material**
_____ of the product at	Cost	Expenses	Unit costing	Income	**Cost**
each process and debited to the	Overhead	Direct wages	Direct labour	wages	**Overheads**
dividing the total process cost by	Taotal cost	expenses	Cost per unit	sales cost	**Cost per unit**
product is the sum of all costs	Taotal cost	expenses	Cost per unit	sales cost	**Total Cost**
production is carried on in	costing	Job costing	Unit costing	costing	**costing**
arecomputed periodcally for each	costing	Job costing	Unit costing	costing	**costing**
from one process to another	costing	Job costing	Unit costing	costing	**costing**
work is compartively less	costing	Job costing	Unit costing	costing	**costing**
loss which is unavoidble in a	Normal	Abnormal	Controllable	controllable	**Normal**
loss units in credited to process	Usable	Realisble	Unusable	controllable	**Realisble**
a part of	Sales value	production	Cost of sales	unit	**production**
avoidabe loss	Loss	Normal Loss	Loss	e loss	**Loss**
advance	Loss	Normal Loss	Loss	e loss	**Loss**
actual loss is more thanthe	Loss	Normal Loss	Loss	Loss	**Loss**
included in the _____	Sales value	production	Cost of sales	unit	**production**
actual output is higher than the	Gain	Gain	Gain	Less Gain	**Gain**
_____ of cost of	usable	recovery	wastage	useful	**recovery**
difference betweentransfer price	unit price	cost price	price	price	**Unit price**
carried on against specific orders	costing	Job costing	Unit costing	costing	**job costing**
each job	cost	price	unit	sales	**Cost**
when there is _____	low	high	surplus	defecit	**surplus**
process costing facilitates correct	stock	high	surplus	defecit	**stock**
_____ cost	Future cost	historical cost	estimate cost	prime cost	**cost**
_____ cost of an	allotment	of cost	cost	n of cost	**t of cost**
for which costs are	ascertined	accumulated	collected	changed	**accumulated**
and_____ of each job	losss	profit	loss	cost	**profit**
adopted in printing press	costing	Job costing	Unit costing	costing	**job costing**
job costing is also known as	costing	Job costing	Unit costing	costing	**costing**
known as	costing	Job costing	Unit costing	costing	**job costing**
production is always against the	costing	Job costing	Unit costing	costing	**job costing**
costing helps in	making	Planning	Cost control	Reduction	**Planning**
help in preparation of	Report	Budget	Cost Data	Price	**Budget**
cost unit	unit price	process	Contract	Unit	**Contract**
_____ duration	Long	Short	medium	very long	**Long**
adopted in construction of bridges	costing	Job costing	Unit costing	costing	**costing**
are usually _____	High	Small	Medium	Very Low	**Small**
installments depending on the	costing	Job costing	Unit costing	costing	**Costing**

of_____ costing	order	Job costing	Unit costing	costing	**order costing**
prepared for each contract	Contract	Unit	Job	Order	**Contract**
constitute a major portion of the	Direct	Indirect	Fixed	Variable	**Direct**
constitue a small portion of the	Direct	Indirect	Fixed	Variable	**In direct**
the contract is _____ to	Debited	Credited	Enetered	Fixed	**Debited**
contract is also _____ to the	Debited	Credited	Enetered	Fixed	**Debited**
directly charged to contract	expenses	Expenses	Expenses	Expenses	**Expenses**
long time for completion and	Large	Small	Medium	Very High	**Large**
contractor after the expiry of a	usable	recovery	wastage	useful	**recovery**
reserve	profit	recovery	wastage	useful	**Profit**
installments depending on the	costing	Job costing	Unit costing	costing	**Costing**
contract in which the contractee agrees to pay the cost of work	Cost + contract	Esclation clause	Retention money	Unit Contract	**Cost + contract**
contracts is assure a fixed	contract	clause	money	Contract	**contract**
agreement	contract	clause	money	Contract	**clause**
secondary product obtained during the course of manufacturing the	Substitute	Joint	By product	Related product	**By product**
of_____ is considerd as zero for the purpose of balance	Substitute	Joint	By product	Related product	**By product**
incurrd for setting the by products	distribution	Production	purchase	material	**distribution**
products are valued at the current	nt method	method	ent Method	Method	**Method**
products are valued at standard	nt method	method	ent Method	Method	**cost**
or more prodcucts of equal importance which are prodcuced	Substitute	Joint	By product	Related product	**Joint Product**
and market utility	Substitute	Joint	By product	product	**Product**

Unit V

Book Keeping in Cost Accounting – Integral and Non Integral Systems – Reconciliation of cost and Financial Accounting.

Meaning of Integral System:

Integral or Integrated system is a system of accounting under which only one set of account books is maintained to record both the Cost and Financial transactions. The system implies the merger of both cost and financial accounts in one set of books.

The two sets of account books merge into a composite system. CIMA, London defines Integral system as a system in which the financial and cost accounts are interlocked to ensure that all relevant expenditure is absorbed into the cost accounts.

Advantages of Integral Accounting:

Following are the main advantages of integral accounting:

1.There is no need to reconcile the profit ascertained by the cost accounts with that of financial accounts since only one profit and loss account is prepared from the information recorded in the cost accounts.

2. There is no duplication of recording and effort as in non-integral system and as such this system is simple and economical.

3. This system tends to co-ordinate the functions of different sections of the Accounts Department since all efforts are integrated and directed towards achievement of one aim that is providing a high level of efficiency.

4. The accounting procedures can be simplified and the system can be centralised with the object of achieving a greater control over the organisation.

5. The system creates conditions which are eminently suitable for the introduction of mechanised accounting.

6. There is no possibility of overlooking any expense under the system.

7. As cost accounts are posted straight from the books of original entry, there is no delay in obtaining the data.

8. There is automatic check on the correctness of the cost data. It ensures that all legitimate expenditure is included in Cost Accounts and reliable and proved data is provided to the management for its decisions.

9. Integrated accounting widens the outlook of the accountant and his staff and they can take broader view of things.

10. From psychological point of view, it shows the complimentary status of cost and financial accountant which need to be considered as separate watertight compartments.

Principles of an Integral Accounting System

1. The degree of integration must be determined. Some undertakings find it satisfactory merely to integrate upto the stage of prime cost or factory cost while other concerns integrate the whole of the records in which cost and financial accounts cannot be distinguished.

2. The degree of integration will determine the classification of expenditure. The expenditure is classified here according to function as office expenses, selling expenses etc. and not according to nature. However, control accounts are maintained for each element of cost. A suitable coding system should be available to serve the accounting purposes of financial and cost accounts.

3. Full details of items posted to the control accounts are supplied to the cost office at convenient intervals. This information is then dealt with by the cost office in accordance with the system of costing in force.

4. The amount of detail recorded in the ledger is usually kept to a minimum, full information regarding each department or process being contained in tabulators prepared by the cost office. These tabulations are sometimes referred to as third entries to emphasise that they are not part of double entry system.

5. For preparation of interim accounts, there must be an agreed routine for treatment for accruals, prepaid expenses and other necessary adjustments.

6. There should be perfect co-ordination between the staff responsible for the financial and cost aspects to ensure an efficient processing of accounting documents.

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

Journal Entries:

Following journal entries are passed for important transactions under integral accounting system:

Transactions	*Entry*
1. Materials purchased for stock	*Debit* Stores Ledger Control A/c *Credit* Sundry Creditors or Cash A/c
Materials purchased for jobs	*Debit* Work-in-Progress Control A/c *Credit* Sundry Creditors or Cash A/c
2. Materials issued—Direct Materials	*Debit* Work-in-Progress Control A/c *Credit* Store Ledger Control A/c
Materials issued—Indirect Materials	*Debit* Overhead Control A/c *Credit* Stores Ledger Control A/c
3. Material returned from shop floor	*Debit* Stores Ledger Control A/c *Credit* Work-in-Progress Control A/c
4. Material returned to supplier	*Debit* Sundry Creditors A/c *Credit* Stores Ledger Control A/c
5. Material transferred from job to job	No entry
6. Salary and wages to be paid	*Debit* Wages Control A/c *Credit* Wages Payable A/c
7. Salary and wages allocated—Direct	*Debit* Work-in-Progress Control A/c *Credit* Wages Control A/c
Indirect	*Debit* Overhead Control A/c *Credit* Wages Control A/c
8. Direct Expenses	*Debit* Work-in-Progress Control A/c *Credit* Sundry Creditors or Cash A/c
9. Overheads incurred	*Debit* Overhead Control A/c *Credit* Sundry Creditors or Cash A/c
10. Overheads recovered—Production	*Debit* Work-in-Progress Control A/c *Debit* Finished Goods Control A/c *Debit* Cost of Sales A/c *Credit* Overhead Control A/c
Administration	*Debit* Work-in-Progress Control A/c *Credit* Overhead Control A/c
Selling and Distribution	*Debit* Finished Stock Ledger Control A/c *Credit* Work-in-Progress Control A/c
11. Overheads on Work-in-Progress	
12. Finished Goods	
13. Finished Goods Sold : (*i*) Factory Cost	*Debit* Cost of Sales A/c *Credit* Finished Stock Ledger Control A/c
(*ii*) Sales Value	*Debit* Sundry Debtors A/c *Credit* Cost of Sales A/c
14. Sales returns	*Debit* Cost of Sales A/c *Credit* Sundry Debtors A/c
15. Capital Work	*Debit* Sundry Assets A/c *Credit* Work-in-Progress Control A/c
16. Repair work	*Debit* Overhead Control A/c *Credit* Work-in-Progress Control A/c
17. Special jobs completed and billed at : (*i*) Factory Cost	*Debit* Cost of Sales A/c *Credit* Work-in-Progress Control A/c
(*ii*) Selling Price	*Debit* Sundry Debtors A/c *Credit* Cost of Sales A/c
18. Under-absorption of Overheads	*Debit* Profit and Loss A/c *Credit* Overhead Control A/c
19. Over-absorption of Overheads	*Debit* Overhead Control A/c *Credit* Profit and Loss A/c
20. Profit	No entry

Non Integrated Accounting

In a non-integrated accounting system two different sets of accounting records are maintained for Financial Accounting and Cost Accounting purposes. This system is also called as 'cost ledger accounting system'. The Cost Accounts are also maintained in double entry bookkeeping as in the case of Financial Accounts.

The non-integrated system of accounting is followed in the following situations when:

(a) Principal ledgers are to be maintained in Costing Department,

(b) Principal accounts are to be maintained, and

(c) Journal entries are to be passed in Cost Accounts.

The main object of Cost Accounting is to analyze costs by functions i.e., jobs, processes, services and specific overhead categories such as administration, selling or distribution. The special ledger accounts necessary for this purpose depend upon the extent to which analysis is to be made. The maintenance of Cost Accounts under non-integrated system show the importance of Cost Accounting in the concern.

When a separate set of Cost Accounts are maintained, it must be ensured that it is properly linked to the Financial Accounts so as to facilitate easy reconciliation.

It is the responsibility of Cost Accountant in maintenance of Cost Accounting records in non-integrated accounting system, and the Financial Accountant will maintain the Financial Accounting records. In Cost Accounts no personal accounts are kept but the transactions affecting the nominal accounts are recorded in both accounts.

Principal Ledgers and Control Accounts:

The principal ledgers and control accounts maintained by Costing Department under non- integrated accounting system are explained below:

Principal Ledgers:

(1) Cost Ledger:

This ledger consists of all impersonal accounts and is made self-balancing by maintaining a control account for each of the other three ledgers explained below.

(2) Stores Ledger:

This ledger consists all stores accounts. Individual accounts are maintained for each item of store.

(3) Work-in-Progress Ledger:

In this ledger cost of materials, wages and overheads of each job undertaken is posted irrespective of job account maintained in this ledger.

(4) Finished Goods Ledger:

In this ledger accounts of completely finished products, jobs are contained. Individual accounts are maintained for each type of finished job, product etc.

Principal Control Account:

(1) General Ledger Adjustment (Control) A/c:

This account is essential to make the Cost Ledger 'self-balancing'. All transactions of income and expenditure which originate in the Financial Accounts must be entered in the ledger for eventual transfer to Cost Accounts. The balance in this account will always be equal to the total of all the balances of the impersonal accounts.

(2) Stores Ledger Control A/c:

This account is debited with all purchases of materials for the stores and credited with all issues of materials.

(3) Work-in-Progress Ledger Control A/c:

It consists of all direct materials, direct wages, direct expenses, special purchases and expenses. Production overhead are debited to this account regarding total work-in-progress of different jobs at any time.

(4) Finished Goods Ledger Control A/c:

The total value of finished goods in stock is represented in this account. On sale of goods, the cost of such goods is credited to this account and debited to Cost of Sales Account.

Reconciliation of Cost and Financial Accounts

Reconciliation of Cost and Financial Accounts is process to find all the reasons behind disagreement in profit which is calculated as per cost accounts and as per financial accounts. There are lots of items which are shown in the profit and loss account only when we make it as per financial accounting rules. There are lots of items which are shown in costing profit and loss account only when we calculate profit as per cost accounting.

Suppose, we have taken the profit or loss as per financial accounts, we adjust it as per cost accounts. In the end of adjustments, we see same profit as per cost accounts. If we have taken profit as per cost account, we have to adjust items as per financial accounts. For this purpose, we make reconciliation Statement.

(a) Items included only in financial accounts

There are number of items which appear only in financial accounts, and not in cost accounts, since they neither do nor relate to the manufacturing activities, such as,

- Purely financial charges, reducing financial profit
  - Losses on capital assets
  - Stamp duty and expenses on issue and transfer of stock, shares and bonds
  - Loss on investments.
  - Discount on debentures, bonds, etc.
  - Fines and penalties,
  - Interest on bank loans.
- Purely financial income, increasing financial profit
  - Rent received
  - Profit on sale of assets
  - Share transfer fee
  - Share premium
  - Interest on investment, bank deposits.
  - Dividends received.
- Appropriation of profit – donations and charities.

(b) Items included only in the cost accounts

There are very few items which appear in cost accounts, but not in financial accounts. Because, all expenditure incurred, whether for cash or credit, passes though the financial accounts, and only relevant expenses are incorporated in cost accounts. Hence, only item which can appear in cost accounts but not in financial accounts is a notional charge, such as, (i) interest on capital, which is not paid but included in cost accounts to show the notional cost of employing capital, or (ii) rent i.e. charging a notional rent of premises owned by the proprietor.

(c) Items accounted for differently in cost accounting and financial accounting

- **Overhead –** In cost accounts, overheads are applied to cost units at predetermined rates based on estimates, and the amount recovered may differ from actual expenses incurred. If such under-or over-recovery of overheads are not charged off to costing profit and loss account, the profits on two sets of books will differ.
- **Stock valuation** – In financial accounts, stock is valued at lower of cost or market value. In cost accounts, stock is valued at cost adoption one of the methods, such as FIFO, LIFO, average etc., which is suitable to the unit. Thus, there may be difference in stock valuation, which will reflect difference in profit between the two sets of books.
- **Depreciation** – If different basis is adopted for charging depreciation in cost accounts as compared to financial accounts, the profits will vary.

Reconciliation of profit and it methods

Reconciliation Statement

		₹.
Profit as per Cost Books:		
Add:	1. Overheads and expenses overcharged in cost books (or undercharged in financial books).	
	2. Incomes shown only in financial books.	
	3. Opening stock over-valued in cost books.	
	4. Closing stock under-valued in cost books.	
	5. Depreciation overcharged in cost books.	
Less:	1. Expenses undercharged in cost books.	
	2. Expenses shown in financial books only.	
	3. Undervaluation of opening stock in cost books.	
	4. Overvaluation of closing stock in cost books.	
	5. Depreciation undercharged in cost books.	
Profit as per Financial Books.		

Memorandum Reconciliation Account

To	Overhead undercharged in cost books	By	*Profit as per cost books*
"	Exps. shown in financial books only	"	Overheads overcharged in cost books
"	Undervaluation of opening stock in cost in cost books	"	Income shown only in Financial books
"	Overvaluation of opening stock in cost books	"	Opening stock over valued in cost
"	Dep. undercharged in cost books	"	Closing stock under valued in cost
"	*Profit as per financial books.*	"	Dep. overcharged in cost

Possible Questions:

Illustration 1: From the following particulars prepare: (1) A Statement of cost of manufacturing for the year 2003. (2) A statement of profit as per Cost Account. (3) Profit and Loss Account in the financial books and (4) A Statement Reconciling the profits shown by above (2) and (3).

	₹.
Opening Stock of Raw Materials	1,40,000
Opening Stock of Finished Articles	2,80,000
Purchase of Raw Materials	8,50,000
Stock of Raw Materials at end	2,00,000
Stock of finished Articles at end	50,000
Wages	3,50,000

Calculate Factory on cost at 20% on Wages and Office on cost at 75% on Factory on cost. Actual Factory expenses amounted to ₹. 72,000 and actual Office Expenses amounted to ₹. 50,000. The Selling Price was fixed at 20% above Cost Price.

Solution:

(1) Statement of Cost

	Dr. ₹.	Cr. ₹.
Raw Materials Consumed:		
Opening Stock of Raw Materials	1,40,000	
Add: Purchases of Raw Materials	8,50,000	
	9,90,000	
Less: Closing Stock of Raw Materials	2,20,000	
		7,90,000
Wages		3,50,000
Prime Cost		11,40,000
Factory On Cost (20% of Wages)		70,000
Factory Cost		12,10,000
Office On Cost (75% of Factory on cost)		52,500
Total Cost		12,62,500

(2) Statement of Profit as per Cost Accounts

	₹.
Total Cost	12,62,500
Add: Opening Stock of Finished articles	2,80,000
	15,42,500
Less: Closing Stock of Finished articles	50,000
Cost of Articles Sold	14,92,500
Profit: 20% of Cost	2,98,500
Selling Price	17,91,000

(3) Profit Loss Account

	₹.		₹.
To Opening Stock:		By Sales	17,91,000
Raw Materials	1,40,000	" Closing Stocks:	
Finsihed Articles	2,80,000	Raw Materials	2,00,000
" Purchases	8,50,000	Finished Articles	50,000
" Wages	3,50,000		
" Factory Expenses	72,000		
" Office Expenses	50,000		
" Profit	2,99,000		
	20,41,000		20,41,000

Analysis: The difference between the two profits is due to (1) an undercharge in Cost Account of ₹. 2,000 in respect of Factory on cost and (2) an overcharge in Cost Account of ₹. 2,500 in respect of Office on cost.

Reconciliation Statement

	₹.
Profit as per Cost Account	2,98,500
Less: Factory on cost undercharged (72,000 – 70,000)	2,000
	2,96,500
Add: Office on cost overcharged (52,500 – 50,000)	2,500
Profit as per P & L: A/c	2,99,000

Illustration 2: The Profit and Loss Account of a company for the year ended 31st Dec., 2000 is as follows:

	₹.		₹.
To Materials Consumed	60,000	By Sales	1,50,000
" Carriage Inwards	1,000		
" Direct Wages	40,000		
" Works Expenses	10,000		
" Administration Exps.	5,000		
" Selling and Distribution Exps.	6,000		
" Debenture Interest	2,000		
" Profit	26,000		
	1,50,000		1,50,000

The profit shown by the Cost Accounts for the year is ₹. 28,600; upon a detailed comparison of the two sets of accounts, it is found that:

(*a*) The amount charged in the Cost Accounts in respect of overhead charges are as follows:

Works overhead charges	₹. 9,500
Office overhead charges	₹. 5,100
Selling and Distributing Exps.	₹. 5,800

(*b*) No charge has been made in the Cost Accounts in respect of debenture interest.

You are required to reconcile the profits shown by the two sets accounts.

Solution:

Reconciliation Statement

	₹.
Profit as per Cost Account	28,600
Less: Works overhead charges undercharged in Cost Accounts (10,000 – 9,500)	500
	28,100
Add: Office overheads overcharged in Cost Account (5,100 – 5,000)	100
	28,200
Less: Selling and Distributing Exps. undercharged in Cost Accounts (6,000 – 5,800)	200
	28,000
Less: Debenture interest not charged in Cost Accounts	2,000
Profit as per Profit Loss Account	26,000

Illustration 3: A cycle manufacturing company manufactures three types of cycles namely, Model *A*, Model *B*, and Model *C*. The practice followed by the company is to charge material and wages at actual cost works overhead at 75%, 80% and 90% of wages cost of Models *A*, *B* and *C* respectively and office on cost is charged at 20%, 25% and 30% of the works cost of these respective models. The company's accounts provide you with the following information:

	Model A ₹.	*Model B* ₹.	*Model C* ₹.
Materials per unit	300	410	600
Wages per unit	200	350	300
Selling price per unit	800	1,350	1,550

You are further provided an information that there is no cycle in the stock and number of cycles manufactured were of Model *A* 200, Model *B* 300 and Model *C* 100.

Prepare the relevant statement showing the profit per units, if actual works on cost happened to be ₹. 1,50,000 (on *A* ₹. 36,000, on *B* ₹. 90,000 on *C* ₹. 24,000) and office overheads ₹. 1,42,000 (on *A* ₹. 30,000, on *B* ₹. 70,000 and *C* ₹. 42,000).

Solution:

Cost Sheet Showing Cost and Profit

	Model A (200 units)		*Model B (300 units)*		*Model C (100 units)*		*Total*
	Per unit ₹.	*Total* ₹.	*Per unit* ₹.	*Total* ₹.	*Per unit* ₹.	*Total* ₹.	₹.
Materials	300	60,000	410	1,23,000	600	60,000	2,43,000
Wages	200	40,000	350	1,05,000	300	30,000	1,75,000
Prime Cost	500	1,00,000	760	2,28,000	900	90,000	4,18,000
Works on Cost as directed (75%, 80%, 90% of wages)	150	30,000	280	84,000	270	27,000	1,41,000
Works Cost	650	1,30,000	1,040	3,12,000	1,170	1,17,000	5,59,000
Office overhead as given (20%, 25% and 30% of works cost)	130	26,000	260	78,000	351	35,100	1,39,100
Total Cost	780	1,56,000	1,300	3,90,000	1,521	1,52,100	6,98,100
Profit	20	4,000	50	15,000	29	2,900	21,900
Selling Price	800	1,60,000	1,350	4,05,000	1,550	1,55,000	7,20,000

Trading and Profit and Loss Account

	₹.		₹.
To Materials	2,43,000	By Sales	7,20,000
To Wages	1,75,000		
To Work Exps.[1]	1,50,000		
To Office Exps.[2]	1,42,000		
To Net Profit	10,000		
	7,20,000		7,20,000

1. Given in the question (36,000 + 90,000 + 24,000)
2. Given in the question (30,000 + 70,000 + 42,000)

Reconciliation Statement

				₹.
Profits as per Cost Accounts				21,900
Add: Works on Cost over-recovered			27,000	
on model '*C*'			24,000	3,000
" Office on cost over-recovered			78,000	
on model '*B*'			70,000	8,000	11,000
					32,900
Less: Works overheads under-recovered on					
Models	*A*	*B*			
	30,000	90,000			
	30,000	84,000		12,000	
	6,000	6,000			
Less: Office overheads under-recovered on					
Models	*A*	*B*			
	30,000	42,000			
	26,000	35,100		10,900	22,900
	4,000	6,900			
Profit as per Profit and Loss A/c					10,000

Illustration 4: The net profit of the Kamta Manufacturing Co. Ltd. appeared at ₹. 64,377 as per the financial records for the year ended 31st March, 2003. The Cost Books, however, showed a net profit of ₹. 86,200 for the same period. A scrutiny of the figures from both the sets of accounts revealed the following facts:

	₹.
Works Overheads under-recovered in Costs	1,560
Administrative overheads recovered excess in Costs	850
Depreciation charged in Financial Accounts	5,600
Depreciation recovered in Costs	6,250
Interest on investments not included in cost	4,000
Loss due to obsolescence charged in Financial A/cs	2,850
Income-tax provided in Financial Accounts	20,150
Bank interest and transfer fee in Financial Books	375
Stores Adjustment credited in Financial Books	237
Loss due to depreciation in stock charged in Financial Account	3,375

Prepare a statement showing the reconciliation of profit between Cost Accounts and Financial Account.

Solution:

Statement Reconciling the Figures of Profits

	₹.	₹.
Profit as per Cost Books		86,200
Add: Administrative Overhead recovered excess in cost	850	
Depreciation recovered excess in costs	650	
Interest on investments not included in costs	4,000	
Bank Interest and Transfer Fees	375	
Stores Adjustment not credited in costs	237	6,112
		92,312
Less: Work Overheads under-recovered in cost	1,560	
Depreciation in stock not charged in Cost Accounts	3,375	
Loss due to obsolescence	2,850	
Income-tax	20,150	27,935
Profit as per Financial Accounts		64,377

Illustration 5: Shobha Co. maintains separate Cost Books which disclosed a profit of ₹. 60,228 for the year ended March 31, 2010. The net profits disclosed by financial accounts amounted to ₹. 39,520. Upon enquiry, following information were obtained:

(*a*) The company made a provision of ₹. 1,200 for bad debts;

(*b*) Overheads charged to production in Cost Books were ₹. 15,000 whereas actual overhead expenses amounted to ₹. 13,864;

(*c*) Directors were paid fees amounting to ₹. 1,500;

(*d*) Installation of a new plant involved an expenditure of ₹. 24,000 but it had not gone into production as yet; Depreciation @ 5% was provided on the cost of plant;

(*e*) The company received interest on bank deposit amounting to ₹. 56; and

(*f*) It paid Income-tax ₹. 18,000.

Prepare a Reconciliation Statement explaining the difference between the profits revealed by the Cost and Financial Books

Solution:

Reconciliation Statement

	₹.	₹.
Profit as per Cost Books		60,228
Less: Expenses included in Financial Accounts only		
Provision for bad debts	1,200	
Directors Fees	1,500	
Depreciation of new plant	1,200	
Income tax paid (appropriation of profits)	18,000	21,900
		38,328
Add: Interest of Bank deposits included in Financial A/c only.		56
		38,384
Add: Overhead charges overcharged in Cost A/c (15,000 – 13,864)		1,136
Profit as per Financial Accounts		39,520

Illustration 6: The profit as per Cost Accounts is ₹. 82,650. The following points are found out on comparison between Cost Accounts and Financial Accounts:

	Cost Accounts ₹.	*Financial Accounts* ₹.
(1) Opening Stock:		
Materials	16,300	16,500
Work-in-Progress	10,000	10,500
(2) Closing Stocks:		
Materials	18,000	17,200
Work-in-Progress	8,000	7,600

(3) Dividend and interest received ₹. 400
(4) Loss on sale of Motor Car ₹. 500.
(5) ₹. 3,000 interest charged, not considered in financial accounts.
(6) Goodwill ₹. 6,000 has been written off during the year.
(7) Overheads incurred ₹. 60,600; but overheads recovered amounted to ₹. 63,000.

Find out profit as per Financial Accounts through (*a*) Memorandum Reconciliation Account and (*b*) Reconciliation Statement.

Solution:

(*a*) Memorandum Reconciliation Account

		₹.		₹.
To Diffence in opening Stocks of Materials and W.I.P.			By Profit as per Cost Accounts	82,650
Financial	27,000		" Dividend and Interest	400
Costing	26,300	700	" Interest charged but not considered in	
" Difference in Closing Stock of Materials W.I.P.			Financial Accounts	3,000
Costing	26,000		" Over-recovery of Overheads in Cost Accounts	
Financial	24,800	1,200	(₹. 63,000 – 60,600)	2,400
" Loss on Sale of Motor Car		500		
" Goodwill written off		6,000		
" Profit as per Financial Accounts		80,050		
		88,450		88,450

Statement of Reconciliation

	₹.	₹.
Profit as per Cost Accounts		82,650
Add: Dividend and Interest credited in Financial Accounts	400	
" Interest charged in Cost Accounts (63,000 – 60,600)	3,000	
" Over-recovery of Overheads in Cost Accounts (63,000 – 60,600)	2,400	5,800
		88,450
Less: Under-valuation of Opening Stock of materials and Work-in-Progres in Cost Account (₹. 27,000 – 26,300)	700	
" Over valuation of Closing Stock of materials and Work-in-Progress in Cost Account (₹. 26,000 – 24,800)	1,200	
" Loss on sales of motor-car charged in Financial Accounts but not in Cost Accounts	500	
" Goodwill written off in Financial Accounts but ignored in Cost Accounts	6,000	8,400
Profit as per Financial Accounts		80,050

Illustration 7: Given following is the summarised Trading and Profit and Loss Account of M/s Zivago Manufacturing Co. Ltd., for the year ended 31st Dec. 2009.

Trading and Profit and Loss Account
(For the year ending 31st Dec. 2009)

	₹.				₹.
To Wages	75,500	By Sales (6,000 units)			3,00,000
" Materials used	1,37,000	" Finished stock (200 units)			8,000
" Factory expenses	41,500	" Work-in-Progress:			
" Expenses on administration	19,120	Materials	3,200		
" Selling expenses	22,500	Wages	1,800		
" Goodwill written off	1,000	Other Exps.			
" Preliminary-exps. written off	2,000	in factory	1,000		6,000
" Net Profit	16,280	" Dividends received.			900
	3,14,900				3,14,900

In the Cost Accounts:

(1) Factory expenses have been allocated to the production at 20% on prime cost.

(2) Expenses of administration at ₹. 3 per unit produced.

(3) ₹. 4 per unit sold for selling expenses.

Prepare Costing Profit and Loss Accounts of the Co. and reconcile the profits disclosed by Cost Account and those shown by Financial Account.

Solution:

Statement Showing Cost and Profit

	₹.	₹.
Materials	1,37,000	
Less: Work-in-Progress	3,200	1,33,800
Labour	75,500	
Less: Work-in-Progress	1,800	73,700
Prime Cost		2,07,500
Factory Expenses (20% of Prime Cost)		41,500
Factory Cost		2,49,000
Administrative Exps. @ ₹. 3 per unit (6,200 × 3)		18,600
Cost of Production		2,67,600
Less: Closing Stock 200 units valued at Cost of Production		8,632
Cost of Goods Sold		2,58,968
Selling Expenses @ ₹. 4 : (6,000 × 4)		24,000
Cost of Sales		2,82,968
Profit		17,032
Sales		3,00,000

Note: Closing stock is valued at cost of production

i.e., ₹. 2,67,600 × 200/6,200 = ₹. 8,632 (approx.)

Reconciliation Statement

	₹.	₹.
Profit as per costing books		17,032
Add		
Over recovery of selling exps. (24,000 – 22,500)		1,500
Over recovery of factory exps. (41,500 – 40,500)		1,000
Dividend received recorded in financial books		900
		20,432
Less:		
Under-recovery of adm. (19,120 – 18,600)	520	
Preliminary exps. written off in financial books	2,000	
Goodwill written off	1,000	
Closing stock adjustment (8,632 – 8,000)	632	4,152
Profit as per financial accounts		16,280

Illustration 8: A manufacturer produces patent fire extinguishers of a standard type. The following is the Trading and Profit and Loss Account for the year ended 31st December, 2004.

Trading and Profit and Loss Account
(For the year ended 31st Dec., 2004)

	₹.				₹.
To Materials used	29,150.00	By Sales			75,000.00
" Productive Wages	18,610.00	" Stock of Finished goods			1,812.50
" Factory Expenses	14,055.00	" Work-in-Progress:			
" Gross Profit c/d	20,527.50	Materials	2,800		
		Wages	1,560		
		Factory Expenses	1,170		5,530.00
	82,342.50				82,342.50
To Admin. Expenses	13,650.00	By Gross Profit b/d			20,527.50
" Net Profit c/d	6,877.50				
	20,527.50				20,527.50

1,550 Extinguishers were manufactured during the year and 1,500 were sold during the same period.

The cost records showed that factory expenses worked out at ₹. 8.25 and administrative expenses at ₹. 9.0625 per article produced. The Cost Accounts was showing an estimated total profit of ₹. 7,031.25 for the year. From the given information, you are required to prepare (*a*) Factory On cost Account (*b*) Administration On cost Account and (*c*) An account showing the reconciliation between the total net profit as per the Cost Account and the figure of net profit shown in the Financial Books.

Solution:

(*a*) Factory on Cost Account

	₹.		₹.
To Factory Expenses	14,055.00	By Finished Articles (1550 @ ₹. 8.25)	12,787.50
		By Work-in-Progress	1.170.00
		" Under-recovery	97.50
	14.055.00		14.055.00

(b) Administration Overheads Account

	₹.		₹.
To Administration Expenses	13,650.00	By Finished Articles	
" Over-recovery	396.87	(1550 @ ₹. 9.0625)	14,046.87
	14,046.87		14,046.87

(c) Reconcilliation Account

	₹.		₹.
To Under-recovery of		By Profit as per Cost Account	7,031.25
Factory overheads	97.50	" Over-recovery of	
" Administration		Administration overhead	396.87
Expenses on sold stock			
(50 @ ₹. 9.0625)	453.12		
" Profit as per Profit			
and Loss A/c	6,877.50		
	7.428.12		7,428.12

Illustration 9: The net profit shown by financial accounts of X Ltd. amounted to ₹. 37,100, while the profit disclosed by Cost Accounts were ₹. 57,320. On reconciliation of the figures, the following differences were noted:

(*i*) Director's fees not charged in Cost Account ₹. 1,300.

(*ii*) A provision for bad and doubtful debts not charged in Cost Accounts ₹. 1,140.

(*iii*) Income Tax paid shown only in Financial Accounts ₹. 16,600.

(*iv*) Overheads in Cost Accounts were estimated at ₹. 17,000. The charge shown by Financial books was ₹. 16,640.

(*v*) Work was started during the year on a new factory and expenditure of ₹. 16,000 was incurred. Depreciation of 10% was provided in Financial Accounts.

(*vi*) Bank interest received ₹. 60

Prepare Reconciliation Statement.

Solution:

Reconciliation Statement

	₹.	₹.
Profit as per Cost Account		57,320
Add:		
Overheads overcharged in Cost Accounts	360	
Bank Interest not shown in Cost Accounts	60	420
	16,600	57,740
Less: (*i*) Income Tax not charged to Cost A/c	1,300	
(*ii*) Directors fees not charged to Cost A/c	1,140	
(*iii*) Provision for b/d not charged	1,600	20,640
(*iv*) Depreciation on new factory not charged		37,100
Profit as per P/L A/c		

Illustration 10: The financial records of Modern Manufacturing reveal the following for the year ended ....

		₹. in Thousands
Sales (20,000 units)		4,000
Materials		1,600
Wages		800
Factory Overheads		720
Office and Administrative Overheads		416
Selling and Distribution Overheads		288
Finished goods (1,230 units)		240
Work-in-Progress		
Materials	48	
Labour	32	
Factory Overheads	32	112
Goodwill written off		320
Interest on Capital		32

In costing records, factory overhead is charged at 100% of wages, administrative overhead 10% of factory cost and selling and distribution overhead at the rate of ₹. 16 per unit sold.

Prepare a statement reconciling the profit as per cost records with the profit as per financial records of the company.

Solution:

Modern Manufactures Profit and Loss Account

(For the year ended ....) (*₹. in thousands*)

	₹.		₹.
To Materials	1,600	By Sales (20,000 units)	4,000
" Wages	800	" Costing Stock:	
" Factory Overheads	720	Finished Goods	
" Office and Admn. overheads	416	(1230 units)	240
" Selling and Distribution Overheads	288	Work-in-progress	112
" Goodwill written off	320		
" Interest on capital	32		
" Net profit	176		
	4,352		4,352

Statement of Cost (*In thousand rupees*)

		₹.
Materials		1,600.00
Wages		800.00
	Prime Cost	2,400.00
Factory Overhead (100% of Wages)		800.00
	Gross Factory Cost	3,200.00
Less: Closing work-in-progress		112.00
	Factory Cost (21,230 units)	3,088.00
Administrative Overhead (10% of factory Cost)		308.80
	Cost of Production (21,230 units)	3,396.80
Less: Closing Stock (1,230 units) (3396.80 × 1,230/21,230)		196,80
	Cost of Goods Sold (20,000 units)	3,200.00
Selling and Distribution Overheads (@ ₹. 16 per unit)		320.00
	Cost of Sales	3,520.00
	Profit	480.00
	Sales (20,000 units)	4,000.00

Reconciliation Statement *(In Thousand Rupees)*

	₹.	₹.
Profit as per Cost Accounts		480.00
Add: Factory Overheads over recovered (800 – 720)		80.00
Selling and Distribution Overhead		
Over absorbed (320–288)		32.00
Closing stock over valued in financial accounts (240 – 196.8)		43.20
		635.20
Less: Administrative Overhead under absorbed (416 – 308.80)	107.20	
Goodwill written off in financial accounts only	320.00	
Int. on capital charged in financial accounts only	32.00	459.20
Profit as per Financial Accounts		176.00

Illustration 11: From the following expenses given below, prepare (*a*) a statement showing costing profit and loss and (*b*) another statement reconciling the costing profits with those shown by financial accounts.

Trading and Profit and Loss Account

	₹.		₹.
Materials consumed	1,50,000	Sales (1,50,000 units)	3,00,000
Direct Wages	75,000		
Indirect Factory Exps.	45,000		
Office Expenses	13,500		
Selling and Distribution exps.	9,000		
Net Profit	7,500		
	3,00,000		3,00,000

The normal output of the factory is 2,25,000 units. Factory expenses of a fixed nature are ₹. 27,000. Office expenses are for all practical purposes constant. Selling and distribution expenses are constant to the extent of ₹. 3,000 and the balance varies with sales.

Solution:

Statement of Profit as per Cost Accounts

(*Units : 1,50,000*)

			₹.
Materials Consumed			1,50,000
Direct Wages			75,000
	Prime Cost		2,25,000
Works Overheads			
Variable (45,000 – 27,000)		18,000	
Fixed (27,000 × 1,50,000 / 2,25,000)		18,000	36,000
	Works Cost		2,61,000
Office Overhead (13,500 × 1,50,000 / 2,25,000)			9,000
	Cost of Production		2,70,000
Selling and Distribution Overhead			
Variable (9,000 – 3,000)		6,000	
Fixed (3,000 × 1,50,000 / 2,25,000)		2,000	8,000
			2,78,000
	Profit		22,000
	Sales (1,50,000 units)		2,00,000

Note: It has been assumed that fixed overhead must have been determined on the basis of normal output *i.e.* 2,25,000 units. Fixed Overheads recovered in cost would be:

Amount of fixed overhead × 1,50,000/2,25,000.

Reconciliation Statement

	₹.
Profit as per Financial Accounts	7,500
Add: Under recovery of Works Overhead in Cost Accounts (₹. 45,000 – 36,000)	9,000
Add: Under recovery of Office Overheads in Cost Accounts (₹. 13,500 – 9,000)	4,500
Add: Under recovery of Selling and Distribution Overheads in Cost Accounts (₹. 9,000 – 8,000)	1,000
Profit as per Cost Accounts	22,000

QUESTION	OPTION1	OPTION2	OPTION3	OPTION4
UNIT - V				
cost unit	unit price	process	Contract	Unit
Contracts are generally of a _____ duration	Long	Short	medium	very long
_____ costing is mainly adopted in construction of bridges	Process costing	Job costing	Unit costing	Contract costing
the number of contract undertaken are usually _____	High	Small	Medium	Very Low
installments depending on the process of work	Process costing	Job costing	Unit costing	Contract costing
of_____ costing	costing	Job costing	Unit costing	costing
a seprate _____ account is prepared for each contract	Contract	Unit	Job	Specific Order
constitute a major portion of the total cost of the contract	Direct	Indirect	Fixed	Variable
constitue a small portion of the total cost of contract	Direct	Indirect	Fixed	Variable
the contract is _____ to the contract account	Debited	Credited	Enetered	Fixed
the contract is also _____ to the contract account	Debited	Credited	Enetered	Fixed
_____ which cannot be directly charged to contract	Dircet expenses	Indirect Expenses	Fixed Expenses	Variable Expenses
long time for completion and require huge investments	Large	Small	Medium	Very High
contractor after the expiry of a stipulate time	usable	recovery	wastage	useful
reserve	profit	recovery	wastage	useful
installments depending on the process of work	Process costing	Job costing	Unit costing	Contract costing
contract in which the contractee agrees to pay the cost of work done plus a percenatge of it	Cost + contract	Esclation clause	Retention money	Unit Contract
contracts is assure a fixed percentage of profit	Cost + contract	Esclation clause	Retention money	Unit Contract
agreement	contract	Esclation clause	money	Unit Contract
_____ of the contract price is taken to profit and loss	one fourth	two fourth	three fourth	one fifth
as constuctions of bridgs, theatres and hospitals takes a long time to complete	Large	small	medium	Very small
_____	Process	Job costing	costing	costing

costing applied to ascertain the cost of providing a service	Operating Costing	Job costing	Contract costing	Service costing
_____ type of costing used in transport services	Operating Costing	Job costing	Contract costing	Service costing
oraganisation is known as _____	Internal Service	External Service	Both	Costing Service
calculated by dividing the toatl cost by number of service units produced or renderd	Operating Costing	Job costing	Contract costing	Service costing
selected in oredr to ascertain the _____ unit of services	Cost	Demand	Sales	Supply
other name of service costing	Costing	Job costing	costing	costing
costing do not produce goods but render service	Operating Costing	Job costing	Contract costing	Service costing
is known as	Service	Service	Both	Service
services_____	Hospital	industry	service outlet	distributors
variable is taken	unit	unit	unit	unit
In _____ case more than one variabke is combined	Composite costing	multiple costing	single unit costing	opertaing costing
_____ costing is the selection of cost unit	Composite costing	multiple costing	single unit costing	opertaing costing
incurred weather the vechicle is running or not	Standing Charges	operating charges	maintenance charges	variable charges
in Standing charges variables are _____ in nature	Fixed	Variable	Semivariable	Changed
_____ is one of the example of standing charge	Rent	Salary	Fuel	Power
variable in nature	Charges	charges	charges	charges
_____ is an example of operating charge	Pertol/ diesel	annual tax	Insurance	Rent
_____ charges are semi variable in nature	Standing Charges	operating charges	maintenance charges	variable charges
_____ is an example of maintenance charge	Repairs	Depreciation	Wages	Annual Tax
_____	Fixed cost	Variable Cost	Cost	Cost
_____	Fixed cost	Variable Cost	Cost	Cost
_____	Fixed cost	Variable Cost	Cost	Cost
_____	Fixed cost	Variable Cost	Cost	Cost
_____	Fixed cost	Variable Cost	Cost	Cost
_____	Fixed cost	Variable Cost	Cost	Cost
in	Fixed cost	Variable Cost	Cost	Cost
Wages of operators will incurr in _____ cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost
_____ cost	Fixed cost	Variable Cost	Cost	Cost

for long duartion	Job costing	Process costing	unit costing	Costing
_____ depending on the process of work	monthly	annually	installments	quaterly
_____ unit	Cost	Sales	Purchase	Supply
ascertained for _____ contract	All	Each	Single	Multiple
accounts are prepared for each contract	Multiple	seprate	Single	All
usually excecuted at the size of the contract	Work	Process	Account	Sales
a major portion	Direct cost	Indirect cost	total cost	Fixed Cost
cannot be directly changed to contracts	Direct expenses	Indirect Expenses	variable expenses	Fixed Expenses
_____ can be ascertained only on completion of the contract	Profit	Loss	Sales	Demand
In Standing charges variables are _____ in nature	Fixed	Variable	Semivariable	Changed

ANSWER

Contract
Long
process costing
Small
Contract Costing
costing
Contract
Direct
In direct
Debited
Debited
Indirect Expenses
Large
recovery
Notionla Profit
Contract Costing
Cost + contract
Cost + contract
Esclation clause
one fourth
Large
Service Costing

Operating Costing
Operating Costing
Internal Service
Operating Costing
Cost
Costing
Operating Costing
external service
Hospitals
simple cost unit
composite costing
Operating Costing
standing charges
Fixed
Rent
operting charges
Petrol/Diesel
maintenance charges
Repairs
Fixed Cost
Fixed Cost
Fixed Cost
Maintenance cost
Maintenance cost
Maintenance cost
Operating Cost
Operating Cost
Operating Cost

contract costing
Installments
Cost
All
Seprate
Work
Direct Cost
Direct Expenses
Profit
Fixed