15PAU502 CORE – APPLIED COST ACCOUNTING

COURSE OBJECTIVE

- Applied Cost Accounting represents the concepts on costing, material control, overhead costing, job costing and contract costing.
- This paper gives the basic concepts of tools and techniques of inventory control, batch costing, process costing and job costing.

LEARNING OUTCOME

- > To familiarize students with the various concepts in costing.
- > To make the students to understand the elements of cost.
- > To enhance the student knowledge on overhead costing.

Unit I

Meaning of Cost – Costing – Cost Accounting and Cost Accountancy – Cost Units – Cost Centre – Classification of Costs – Methods of Costing – Techniques – Cost Sheet Preparation - Advantages and Disadvantages of Cost Sheet, Installation of New Costing Techniques.

Unit II

Material Control – Procurement Procedure – Issue of Inventories under Various Methods – computation of stock levels – EOQ – Perpetual Inventory System – Labour Costing - Time Rate, Piece Rate System, Methods of Payment by Result – Determination of Labour Turn over Under Various Methods

Unit III

Overhead Costing – Methods of Allocation – Determination of Overhead Rates – Functional Analysis – Factory, Administration, Selling and Distribution Over Heads Book Keeping – Non Integrate Accounts – Integrate Accounts.

Unit IV

Job costing – Batch Costing – Application of Job Costing – Reconciliation of Cost and Financial Accounts – Operating Costing.

Unit V

Contract Costing – Progress Payment – Retention Money – Escalation Claim – Contract Account – Process Account – Normal Loss – Abnormal Loss – Equivalent Units – Inter Process Profit – Joint Product – By Product. Note: Distribution of marks for theory and problems shall be 20% and 80% respectively.

TEXT BOOKS

1. Jain and Narang. (2015), Cost Accounting, Kalyani Publisher, Ludhiana.

REFERENCES

1. Iyengar S.P, (2013), Cost Accounting, Sultan Chand & Co., New Delhi.

- 2. Shukla .M.C. and T.S.Grewal, Gupta, (2016), *Cost Accounting*, Sultan Chand & Sons, New Delhi.
- 3. Thukaram Rao M.E, (2012), Cost Accounting, New Age international Pvt, New Delhi.
- 4. Das Gupta M.E, (2014), Studies in Cost Accounting, Premier Book Company, New Delhi.
- 5. Pillai and Bagavathi R.S.N, (2016), Cost Accounting, S.Chand & Co., New Delhi.



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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: A.MUTHUSAMY SUBJECT NAME: APPLIED COST ACCOUNTING SEMESTER: V

SUB.CODE:15PAU502 CLASS: III B.COM (PA)

S. No	Lecture Duratio n Period	Topics to be Covered	Support Material/Page Nos.
		UNIT-I	
1.	1	Introduction to Materials, Meaning of material control	T: II 3-4.
2.	1	Procedure involved in material procurement	T: II 43-48.
3.	1	Inventories issues under various methods	T: II 62-67.
4.	1	Problems to be worked out in FIFO and LIFO method.	T: II 62-67.
5.	1	Fixation of stock levels	T: II 11.
6.	1	Economic Ordering Quantity (EOQ).	T: II 12.
7.	1	ABC analysis and	T: II 21-23.
8.	1	Perpetual inventory system.	T: II -23.
9.	1	Introduction of labour costing and	T: II 153-154.
10.	1	Payment of wages under time rate	T: II 153-156.
11.	2	Methods of payment by result and	T: II 154-159.
12.	1	Problems to be worked out in piece rate system.	T: II 154-159.
13.	1	Determination of labour turnover under various methods	T: II 109.
14.	1	Recapitulation and discussion of important questions	

	То	tal No of Hours Planned For Unit 1=15	
		UNIT-II	
1.	1	Introduction to Materials, Meaning of material	T: II 3-4.
		control	
2.	1	Procedure involved in material procurement	T: II 43-48.
3.	1	Inventories issues under various methods	T: II 62-67.
4.	1	Problems to be worked out in FIFO and LIFO	T: II 62-67.
		method.	
5.	1	Fixation of stock levels	T: II 11.
6.	1	Economic Ordering Quantity (EOQ).	T: II 12.
7.	1	ABC analysis and	T: II 21-23.
8.	1	Perpetual inventory system.	T: II -23.
9.	1	Introduction of labour costing and	T: II 153-154.
10.	1	Payment of wages under time rate	T: II 153-156.
11.	2	Methods of payment by result	T: II 154-159.
12.	1	Problems to be worked out in piece rate system.	T: II 154-159.
13.	1	Determination of labour turnover under various	T: II 109.
		methods	
14.	1	Recapitulation and discussion of important	
		questions	
	To	tal No of Hours Planned For Unit II=15	
		UNIT-III	
1.	1	Overhead : Meaning, definition	T: II 193-196
2.	1	Classification of overheads	T: II 193-196
3.	1	Allocation and apportionment of overheads	T: II 210-212
4.	1	Elements of overhead	T: II 210-212
5.	1	Problems to be worked out on primary	T: II 249-259
		distribution	

6.	1	Problems to be worked out on Secondary distribution	T: II 249-259
7.	1	Determination of Overhead rates	T: II 210
8.	1	Functional analysis	T: II 280
9.	1	Treatment of factory overheads	T: II 280
10.	1	Treatment of administration overheads	T: II 281.
11.	1	Treatment of selling and distribution overheads	T: II 289-290
12.	1	Problems to be worked out on selling and distribution overheads	T: II 289-290
13.	1	Book keeping and non-integrate accounts	T: III 58
14.	1	Integrate accounts	T: III 57
15.	1	Recapitulation and discussion of important	
		questions	
	Tot	al No of Hours Planned For Unit III=15	
		UNIT-IV	
1.	2	Meaning of Job costing and features of job costing	T: IV 3-5.
2.	2	Problems to be worked out on Job costing	T: IV 6-8.
3.	1	Determination of Economic Batch Quantity (EBQ).	R5: 449-450
4.	2	Problems to be worked out on batch costing and economic batch quantity	R5: 450-451
5.	2	Reconciliation of cost and financial accounts	T: III 29.
6.	2	Meaning and features of operating costing	T: IV 90-91.
7.	1	Recapitulation and discussion of important	
		questions	
	Tot	al No of Hours Planned For Unit IV=12	
		UNIT-V	

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1.	2	Contract costing : meaning and features	T: IV-19
2.	1	Meaning of progress payment, retention money	W1
		and escalation claim.	
3.	2	Computation of profit on incomplete contracts	T: IV-23
4.	1	Preparation of contract accounts	T: IV 23-26
5.	2	Meaning and features of process costing and	T: IV 130-133
		preparation of process accounts	
6.	2	Calculation of normal loss and abnormal loss	T: IV 134-136.
7.	1	Meaning and calculation of Equivalent units	T: IV 144-146.
8.	2	Computation of inter process profits	T: IV 139-143.
9.	1	Meaning of Joint products and By-products	T: IV 188-196.
10.	1	Recapitulation and discussion of important	
		questions	
11.	1	Revision:	
		Discussion of Previous ESE Question papers	
12.	1	Discussion of Previous ESE Question papers	
13.	1	Discussion of Previous ESE Question papers	
	Т	otal No of Hours Planned for Unit V=18	
Total	75		
Planned			
Hours			

TEXT BOOK

1. Jain.S.P and K.L Narang (2011) Cost Accounting, Kalyani Publishers, Chennai.

REFERENCES

 R.S.N. Pillai and V. Bagavathi (2010), *Cost Accounting*, New Age International (P) ltd, New Delhi.

WEBSITES

W1: www.investopedia.com

<u>UNIT-I</u>

SYLLABUS

Meaning of Cost – Costing – Cost Accounting and Cost Accountancy – Cost Units – Cost Centre – Classification of Costs – Methods of Costing – Techniques – Cost Sheet Preparation – Advantages and Disadvantages of Cost Sheet, Installation of New Costing Techniques.

INTRODUCTION

Cost Accounting is a branch of accounting and has been developed due to limitations of financial accounting. Financial accounting is primarily concerned with record keeping directed towards the preparation of Profit and Loss Account and Balance Sheet. It provides information regarding the profit and loss that the business enterprise is making and also its financial position on a particular date. The financial accounting reports help the management to control in a general way the various functions of the business but it fails to give detailed reports on the efficiency of various divisions. The limitations of Financial Accounting which led to the development of cost accounting are as follows.

Limitations of Financial Accounting

- No clear idea of operating efficiency: Sometimes profits in an organization may be less or more because of inflation or trade depression and not due to efficiency or inefficiency. But financial accounting does not give a clear reason for profit or loss.
- 2. Weakness not spotted out by collective results: Financial Accounting shows the net result of an organization. When the profit and loss account of an organization, shows less profit or a loss, it does not give the reason for it or it does not show where the weakness lies.
- 3. **Does not help in fixing the price**: In Financial Accounting, we get the total cost of production but it does not aid in determining prices of the products, services, production order and lines of products.
- 4. **No classification of expenses and accounts**: In Financial Accounting, we don't get data relating to costs incurred by departments, processes separately or per unit cost of product lines, or cost incurred in various sales territories. Further expenses are not classified as

direct or indirect, controllable and uncontrollable overheads and the value added in each process is not reported.

- 5. No data for comparison and decision making: It does not supply useful data to management for comparison with previous period and for taking various financial decisions as introduction of new products, replacement of labour by machines, price in normal or special circumstances, producing a part in the factory or buying it from outside market, production of a product to be continued or given up, priority accorded to different products, investment to be made in new products or not etc.
- 6. **No control on cost**: Financial Accounting does not help to control materials, supplies, wages, labour and overhead costs.
- 7. Does not provide standards to assess the performance: Financial Accounting does not help in developing standards to assess the performance of various persons or departments. It also does not help in checking that costs do not exceed a reasonable limit for a given quantum of work of the requisite quality.
- 8. **Provides only historical information**: Financial Accounting records only the historical costs incurred. It does not provide day-to-day cost information to the management for making effective plans for the future.
- 9. No analysis of losses: It does not provide complete analysis of losses due to defective material, idle time, idle plant and equipment etc.. In other words, no distinction is made between avoidable and unavoidable wastage.
- 10. **Inadequate information for reports**: It does not provide adequate information for reports to outside agencies such as banks, government, insurance companies and trade associations.
- 11. No answer for certain questions: Financial Accounting will not help to answer questions like:-
 - (a) Should an attempt be made to sell more products or is the factory operating to capacity?
 - (b) if an order or contract is accepted, is the price obtainable sufficient to show a profit?
 - (c) if the manufacture or sale of product A were discontinued and efforts make to increase the sale of B, what would be the effect on the net profit? (d) Why the profit of last year is of such a small amount despite the fact that output was increased substantially? Etc.

Costing and Cost Accounting

The costing terminology of C.I.M.A ., London defines costing as the "the techniques and processes of ascertaining costs". These techniques consist of principles and rules which govern the procedure of ascertaining cost of products or services. The techniques to be followed for the analysis of expenses and the processes by which such an analysis should be related to different products or services differ from industry to industry. These techniques are also dynamic and they change with time.

The main object of traditional cost accounts is the analysis of financial records, so as to subdivide expenditure and to allocate it carefully to selected cost centers, and hence to build up a total cost for the departments, processes or jobs or contracts of the undertaking. The extent to which the analysis of expenditure should be carried will depend upon the nature of business and degree of accuracy desired. The other important objective of costing are cost control and cost reduction.

Cost Accounting may be regarded as "a specialized branch of accounting which involves classification, accumulation, assignment and control of costs." The costing terminology of C.I.M.A, London defines cost accounting as "the process of accounting for costs from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units. In its widest usage, it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of profitability of activities carried out or planned".

Wheldon defines cost accounting as "classifying, recording and appropriate allocation of expenditure for determination of costs of products or services and for the presentation of suitably arranged data purposes of control and guidance of management". It is thus a formal mechanism by means of which costs of products or services are ascertained and controlled.

Objectives of Cost Accounting

Cost accounting aims at systematic recording of expenses and analysis of the same so as to ascertain the cost of each product manufactured or service rendered by an organization. Information regarding cost of each product or service would enable the management to know where to economize on costs, how to fix prices, how to maximize profits and so on. Thus, the main objectives of cost accounting are the following.

1. To analyse and classify all expenditure with reference to the cost of products and

operations.

- 2. To arrive at the cost of production of every unit, job, operation, process, department or service and to develop cost standard.
- 3. To indicate to the management any inefficiencies and the extent of various forms of waste, whether of materials, time, expenses or in the use of machinery, equipment and tools. Analysis of the causes of unsatisfactory results may indicate remedial measures.
- 4. To provide data for periodical profit and loss accounts and balance sheets at such intervals, e.g. weekly, monthly or quarterly as may be desired by the management during the financial year, not only for the whole business but also by departments or individual products. Also, to explain in detail the exact reasons for profit or loss revealed in total in the profit and loss accounts.
- 5. To reveal sources of economies in production having regard to methods, types of equipment, design, output and layout. Daily, Weekly, Monthly or Quarterly information may be necessary to ensure prompt constructive action.
- 6. To provide actual figures of costs for comparison with estimates and to serve as a guide for future estimates or quotations and to assist the management in their price fixing policy.
- 7. To show, where Standard Costs are prepared, what the cost of production ought to be and with which the actual costs which are eventually recorded may be compared.
- 8. To present comparative cost data for different periods and various volume of output and to provide guidance in the development of business. This is also helpful in budgetary control.
- 9. To record the relative production results of each unit of plant and machinery in use as a basis for examining its efficiency. A comparison with the performance of other types of machines may suggest the necessity for replacement.
- 10. To provide a perpetual inventory of stores and other materials so that interim Profit and Loss Account and Balance Sheet can be prepared without stock taking and checks on stores and adjustments are made at frequent intervals. Also to provide the basis for production planning and for avoiding unnecessary wastages or losses of materials and stores.

Last but not the least, to provide information to enable management to make short term decisions of various types, such as quotation of price to special customers or during a slump, make or buy decision, assigning priorities to various products, etc.

Importance of Cost Accounting

The limitations of financial accounting have made the management to realize the importance of cost accounting. Whatever may be the type of business, it involves expenditure on labour, materials and other items required for manufacturing and disposing of the product. The management has to avoid the possibility of waste at each stage. It has to ensure that no machine remains idle, efficient labour gets due incentive, by-products are properly utilized and costs are properly ascertained. Besides the management, the creditors and employees are also benefited in numerous ways by installation of a good costing system. Cost accounting increases the overall productivity of an organization and serves as an important tool, in bringing prosperity to the nation, thus, the importance of cost accounting can be discussed under the following headings:

- a) <u>Costing as an aid to management:</u>- Cost accounting provides invaluable aid to management. It provides detailed costing information to the management to enable them to maintain effective control over stores and inventory, to increase efficiency of the organization and to check wastage and losses. It facilitates delegation of responsibility for important tasks and rating of employees. For all these the management should be capable of using the information provided by cost accounts in a proper way. The various advantages derived by the management from a good system of costing are as follows:
 - i) Cost accounting helps in periods of trade depression and trade competition. In periods of trade depression, the organization cannot afford to have wastages which pass unchecked. The management must know areas where economies may be sought, waste eliminated and efficiency increased. The organization must wage a war not only for its survival but also continued growth. The management should know the actual cost of their products before embarking on any scheme of price reduction. Adequate system of costing facilitates this.
 - **ii) Cost accounting aids price fixation**. Although the law of supply and demand determines the price of the product, cost to the producer does play an important role. The producer can take necessary guidance from his costing records in case he is in a position

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to fix or change the price charged.

- **iii) Cost accounting helps in making estimates**. Adequate costing records provide a reliable basis for making estimates and quoting tenders.
- iv) Cost accounting helps in channelizing production on right lines. Proper costing information makes it possible for the management to distinguish between profitable and non-profitable activities; profits can be maximized by concentrating on profitable operations and eliminating non-profitable ones.
- v) Cost accounting eliminates wastages. As cost accounting is concerned with detailed breakup of costs, it is possible to check various forms of wastages or losses.
- vi) Cost accounting makes comparisons possible. Proper maintenance of costing records provides various costing data for comparisons which in turn helps the management in formulating future lines of action.
- vii) Cost accounting provides data for periodical Profit and Loss Account. Adequate costing records provide the management with such data as may be necessary for preparation of Profit and Loss Account and Balance Sheet at such intervals as may be desired by the management.
- viii) Cost accounting helps in determining and enhancing efficiency. Losses due to wastage of materials, idle time of workers, poor supervision etc will be disclosed if the various operations involved in the production are studied carefully. Efficiency can be measured, cost controlled and various steps can be taken to increase the efficiency.
- ix) Cost accounting helps in inventory control. Cost accounting furnishes control which management requires, in respect of stock of materials, work in progress and finished goods.

b) Costing as an aid to Creditors.

Investors, banks and other money lending institutions have a stake in the success of the business concern are therefore benefitted immensely by the installation of an efficient system of costing. They can base their judgment about the profitability and future prospects of the enterprise on the costing records.

c) <u>Costing as an aid to employees</u>.

Employees have a vital interest in their employer's enterprise in which they are

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employed. They are benefited by a number of ways by the installation of an efficient system of costing. They are benefited, through continuous employment and higher remuneration by way of incentives, bonus plans, etc.

d) Costing as an aid to National Economy

An efficient system of costing brings prosperity to the business enterprise which in turn brings prosperity to the business enterprise which in turn results in stepping up of the government revenue. The overall economic development of a country takes place as a consequence of increase in efficiency of production. Control of costs, elimination of wastages and inefficiencies led to the progress of the industry and, in consequence of the nation as a whole.

COST UNITS - The Chartered Institute of Management Accountants, London, defines a unit of cost as "a unit of quantity of product, service or time in relation to which costs may be ascertained or expressed".

The forms of measurement used as cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.

Industry/product	Cost unit basis
Automobile	Numbers
Brick works	per 1000 bricks
Cement	per Tonne
Chemicals	Litre, gallon, kilogram, ton
Steel	Tonne
Sugar	Tonne
Transport	Passenger-kilometre, tonne kilometer

<u>COST CENTRE</u> – According to Chartered Institute of Management Accountants, London, cost centre means "a location, person or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of cost control". Cost centre is the smallest organizational sub-unit for which separate cost collection is attempted. Thus cost centre refers to one of the convenient unit into which the whole factory organization has been appropriately divided for

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costing purposes. Each such unit consists of a department or a sub-department or item of equipment or , machinery or a person or a group of persons.

For example, although an assembly department may be supervised by one foreman, it may contain several assembly lines. Some times each assembly line is regarded as a separate cost centre with its own assistant foreman.

The selection of suitable cost centres or cost units for which costs are to be ascertained in an undertaking depends upon a number of factors which are listed as follows.

- 1. Organization of the factory
- 2. Conditions of incidence of cost
- 3. Requirements of the costing system ie. Suitability of the units or centres for cost purposes.
- 4. Availability of information.
- 5. Management policy regarding making a particular choice from several alternatives.

PROFIT CENTRE – A profit centre is that segment of activity of a business which is responsible for both revenue and expenses and discloses the profit of a particular segment of activity. Profit centres are created to delegate responsibility to individuals and measure their performance.

COST CLASSIFICATION

Costs can be classified or grouped according to their common characteristics. Proper classification of costs is very important for identifying the costs with the cost centers or cost units. The same costs are classified according to different ways of costing depending upon the purpose to be achieved and requirements of a particular concern. The important ways of classification are:

- 1. <u>By Nature or Elements</u>. According to this classification the costs are classified into three categories i.e., Materials, Labour and Expenses. Materials can further be sub-classified as raw materials components, spare parts, consumable stores, packing materials etc. This helps in finding the total cost of production and the percentage of materials (labour or other expenses) constituted in the total cost. It also helps in valuation of work-in-progress.
- 2. <u>By Functions</u>: This classification is on the basis of costs incurred in various functions of an organization ie. Production, administration, selling and distribution. According to this

classification, costs are divided into Manufacturing and Production Costs and Commercial costs.

Manufacturing and Production Costs are costs involved in manufacture, construction and fabrication of products.

Commercial Costs are (a) administration costs (b) selling and distribution costs.

- 3. <u>By Degree of Traceability to the Product :</u> According to this, costs are divided indirect costs and indirect costs. **Direct Costs** are those costs which are incurred for a particular product and can be identified with a particular cost centre or cost unit. Eg:- Materials, Labour. **Indirect Costs** are those costs which are incurred for the benefit of a number of cost centre or cost units and cannot be conveniently identified with a particular cost centre or cost unit. Eg:- Rent of Building, electricity charges, salary of staff etc.
- 4. By Changes in Activity or Volume: According to this costs are classified according to their behavior in relation to changes in the level of activity or volume of production. They are fixed, variable and semi-variable. Fixed Costs are those costs which remain fixed in total amount with increase or decrease in the volume of the output or productive activity for a given period of time. Fixed Costs per unit decreases as production increases and vice versa. Eg:- rent, insurance of factory building, factory manager's salary etc. Variable Costs are those costs which vary in direct proportion to the volume of output. These costs fluctuate in total but remain constant per unit as production activity changes. Eg:- direct material costs, direct labour costs, power, repairs etc. Semi-variable Costs are those which are partly fixed and partly variable. For example; Depreciation, for two shifts working the total depreciation may be only 50% more than that for single shift working. They may change with comparatively small changes in output but not in the same proportion.
 - 5. <u>Association with the Product:</u> Cost can be classified as product costs and period costs. Product costs are those which are traceable to the product and included in inventory cost, thus product cost is full factory cost. Period costs are incurred on the basis of time such as rent, salaries etc. thus it includes all selling and administration costs. These costs are incurred for a period and are treated as expenses.
 - 6. <u>By Controllability</u>: The CIMA defines controllable cost as "a cost which can be influenced by the action of a specified member of an undertaking" and a non-controllable

cost as "a cost which cannot be influenced by the action of a specified member of an undertaking".

- 7. <u>By Normality:</u> There are normal costs and abnormal costs. Normal costs are the costs which are normally incurred at a given level of output under normal conditions. Abnormal costs are costs incurred under abnormal conditions which are not normally incurred in the normal course of production.Eg:- damaged goods due to machine break down, extra expenses due to disruption of electricity, inefficiency of workers etc.
- 8. <u>By Relationship with Accounting Period</u>: There are capital and revenue expenses depending on the length of the period for which it is incurred. The cost which is incurred in purchasing an asset either to earn income or increasing the earning capacity of the business is called capital cost, for example, the cost of a machine in a factory. Such cost is incurred at one point of time but the benefits accruing from it are spread over a number of accounting years. The cost which is incurred for maintaining an asset or running a business is revenue expenditure. Eg:- cost of materials, salary and wages paid, depreciation, repairs and maintenance, selling and distribution.
- **9.** <u>By Time..</u>Costs can be classified as 1) Historical cost and 2) Predetermined Costs. The costs which are ascertained and recorded after it has been incurred are called historical costs. They are based on recorded facts hence they can be verified and are always supported by evidences. Predetermined costs are also known as estimated costs as they are computed in advance of production taking into consideration the previous periods' costs and the factors affecting such costs. Predetermined costs when calculated scientifically become standard costs. Standard costs are used to prepare budgets and then the actual cost incurred is later-on compared with such predetermined cost and the variance is studied for future correction.

TYPES, METHODS AND TECHNIQUES OF COSTING

The general fundamental principles of ascertaining costs are the same in every system of cost accounting, but the methods of analysis and presenting the costs vary from industry to industry. Different methods are used because business enterprises vary in their nature and in the type of products or services they produce or render. Basically, there are two principal methods of costing, namely (i) Job Costing, and (ii) Process costing.

- Job costing: It refers to a system of costing in which costs are ascertained in terms of specific jobs or orders which are not comparable with each other. Industries where this method of costing is generally applied are Printing Process, Automobile Garages, Repair Shops, Ship-building, House building, Engine and Machine construction, etc. Job Costing includes the following methods of costing:
- (a) <u>Contract Costing</u>: Although contract costing does not differ in principle from job costing, it is convenient to treat contract cost accounts separately. The term is usually applied to the costing method adopted where large scale contracts at different sites are carried out, as in the case of building construction.
- (b) <u>Bach Costing</u>: This method is also a type of job costing. A batch of similar products is regarded as one job and the cost of this complete batch is ascertained. It is then used to determine the unit cost of the articles produced. It should, however, be noted that the articles produced should not lose their identity in manufacturing operations.
- (c) <u>Terminal Costing</u>: This method is also a type of job costing. This method emphasizes the essential nature of job costing, ie, the cost can be properly terminated at some point and related to a particular job.
- (d) <u>Operation Costing</u>: This method is adopted when it is desired to ascertain the cost of carrying out an operation in a department, for example, welding. For large undertaking, it is frequently necessary to ascertain the cost of various operations.
- 2. **Process Costing**: Where a product passes through distinct stages or processes, the output of one process being the input of the subsequent process, it is frequently desired to ascertain the cost of each stage or process of production. This is known as process costing. This method is used where it is difficult to trace the item of prime cost to a particular order because its identity is lost in volume of continuous production. Process costing is generally adopted in textile industries, chemical industries, oil refineries, soap manufacturing, paper manufacturing, tanneries, etc.
- 3. <u>Unit or single or output or single output costing</u>: This method is used where a single article is produced or service is rendered by continuous manufacturing activity. The cost of the whole production cycle is ascertained as a process or series of processes and the cost per unit is arrived at by dividing the total cost by the number of units produced. The unit of

costing is chosen according to the nature of the product. Cost statements or cost sheets are prepared under which various items of expenses are classified and the total expenditure is divided by total quantity produced in order to arrive at unit cost of production. This method is suitable in industries like brick-making, collieries, flour mills, cement manufacturing, etc. this method is useful for the assembly department in a factory producing a mechanical article eg. Bicycle.

- 4. **Operating Costing**: This method is applicable where services are rendered rather than goods produced. The procedure is same as in the case of single output costing. The total expenses of the operation are divided by the units and cost per unit of services is arrived at. This method is employed in Railways, Road Transport, Water supply undertakings, Telephone services, Electricity companies, Hospital services, Municipal services, etc.
- 5. <u>Multiple or Complete Costing</u>: Some products are so complex that no single system of costing is applicable. It is used where there are a variety of components separately produced and subsequently assembled in a complex production. Total cost is ascertained by computing component costs which are collected by job or process costing and then aggregating the costs through use of the single or output costing system. This method is applicable to manufacturing concerns producing Motor Cars, Aeroplanes, Machine tools, Type-writers, Radios, Cycles, Sewing Machines, etc.
- 6. <u>Uniform Costing</u>: It is not a distinct method of costing by itself. It is the name given to a common system of costing followed by a number of firms in the same industry. This helps in comparing performance of one firm with that of another.
- 7. <u>Departmental Costing</u>: When costs are ascertained department by department, the method is called "Departmental Costing". Usually, for ascertaining the cost of various goods or services produced by the department, the total costs will have to be analysed, say, by the use of job costing or unit costing.

In addition to the above methods of costing, mention can be made of the following techniques of costing which can be applied to any one of the above method of costing for special purposes of cost control and policy making:

- a) Standard or Predetermined Costs.
- b) Marginal Costs

ELEMENTS OF COST

The management of an organization needs necessary data to analyze and classify costs for proper control and for taking decisions for future course of action. Hence the total cost is analyzed by elements of costs ie by the nature of expenses. The elements of costs are three and they are materials, labour and other expenses. These can be further analyzed as follows.



These terms can be explained as follows

1. **Direct Materials** are those materials which can be identified in the product and can be conveniently measured and directly charged to the product. For example, bricks in houses, wood in furniture etc. Hence all raw materials, materials purchased specifically for a job or process like glue for book making, parts or components purchased or produced like batteries for radios and tyres for cycles, and primary packing materials are direct materials.

- 2. **Indirect Materials** are those materials which cannot be classified as direct materials. Examples are consumables like cotton waste, lubricants, brooms, rags, cleaning materials, materials for repairs and maintenance of fixed assets, high speed diesel used in power generators etc.
- 3. **Direct Labour** is all labour expended in altering the construction, composition, confirmation or condition of the product. Thus direct wages means the wages of labour which can be conveniently identified or attributed wholly to a particular job, product or process or expended in converting raw materials into finished goods. Thus payment made to groups of labourers engaged in actual production, or carrying out of an operation or process, or supervision, maintenance, tools setting, transportation of materials, inspection, analysis etc is direct labour.
- 4. **Direct Expenses** are expenses directly identified to a particular cost centre. Hence expenses incurred for a particular product, job, department etc are direct expenses. Example royalty, excise duty, hire charges of a specific plant and equipment, cost of any experimental work carried out especially for a particular job, travelling expenses incurred in connection with a particular contract or job etc.
- 5. Overheads may be defined as the aggregate of the cost of indirect materials, indirect labour and such other expenses including services as cannot conveniently be charged direct ot specific cost units. Overheads may be sub-divided into (i) Manufacturing Overheads; (ii) Administration Overheads; (iii) Selling Overheads; (iv) Distribution Overheads; (v) Research and Development

By grouping the above elements of cost, the following divisions of cost are obtained.

- 1. Prime cost = Direct Materials + Direct Labour+ Direct Expenses
- 2. Works or Factory Cost = Prime Cost + Works or Factory Overheads
- 3. Cost of Production = Works Cost + Administration Overheads
- 4. Total Cost or Cost of Sales = Cost of Production + Selling and Distribution Overheads

5. Profit or Loss = the difference between the cost of sales and selling price represents Profit or loss.

COST SHEET OR STATEMENT OF COST

When costing information is set out in the form of a statement, it is called "Cost Sheet".

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It is usually adopted when there is only one main product and all costs almost are incurred for that product only. The information incorporated in a cost sheet would depend upon the requirement of management for the purpose of control.

Specimen of Cost Sheet or Statement of Cost

	Total Cost	Cost per Unit
	Rs.	Rs.
Direct Materials	XXX	XXX
Direct Labour	xxx	XXX
Prime cost	XXX	XXX
Add: Works Overheads	XXX	XXX
Works Cost	XXX	XXX
Add: Administrative Overheads	xxx	XXX
Cost of Production	XXX	XXX
Add: Selling and Distribution Overheads	XXX	XXX
Total Cost or Cost of Sales	XXX	XXX

Meaning of Cost Sheet:

Cost sheet is a document which provides for the assembly of the estimated detailed cost in respect of a cost centre or a cost unit. It is a detailed statement of the elements of cost arranged in a logical order under different heads. It is prepared to show the detailed cost of the total output for a certain period.

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It is only a memorandum statement and does not form part of the double entry system. Additional columns can be provided to indicate cost per unit at different stages of production or to enable comparison to be made of the current costs with that of historical costs.

Advantages of Cost Sheet:

The main advantages of a cost sheet are:

(i) It indicates the break-up of the total cost by elements, i.e. material, labour, overheads, etc.

(ii) It discloses the total cost and cost per unit of the units produced.

(iii) It facilitates comparison.

(iv) It helps the management in fixing selling prices.

(v) It acts as a guide to the management and helps in formulating production policy.

(vi) It enables to keep control over cost of production.

(vii) It helps the management in submitting quotations or preparing estimates for tenders.

(viii) It is a simple and useful medium of communication of costs to various levels of management.

Specimen of a Cost Sheet

Cost Sheet for the period (Production Units).

		Total Cost	Cost per Unit
(1)	Direct Materials :	2	
	Add : Purchases of raw materials		
000230	Less : Closing stock of raw materials		
(2)	Direct Labour	1	
(3)	Direct Expenses	1	
(A)	Prime Cost		
(4)	Add : Works overheads or factory overheads		
(B)	Works or Factory Cost		
(5)	Add : Office and Administration overheads		
(C)	Cost of Production		
(6)	Add : Selling and Distribution overheads		
(D)	Total Cost or Cost of Sales		<u>81</u>

Items Required for Preparation of the Cost Sheet:

i. Stock of Raw Materials:

While preparing a cost sheet, it is necessary to determine the cost of raw material consumed.

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If the opening stock of raw materials, purchase of raw materials during the period and closing stock of raw material at the end of the period are given, then the cost of raw materials consumed is calculated as follows:

Calculation of Raw Materials Consumed		
	?	
Opening stock of raw materials	***	
Add : Purchases of raw materials	×××	
	×××	
Less : Closing stock of raw materials	×××	
Cost of raw materials consumed	×××	

ii. Stock of Work-in-Progress:

Work-in-progress refers to the semi-finished goods on which some work has been done but which are not yet complete at the end of the period. As such these goods are not yet available for state. The stock of work-in-progress may be valued at prime cost or factory/work cost basis, but generally, it is valued on the basis of work cost.

The adjustment for the stock of work-in-progress valued at works cost should be made as follows:

Adjustment of the Stock of Work-in-Progress		
		7
Prime cost		×××
Add : Factory overhead		XXX
Add : Opening stock of work-in-progress	50 •	xxx
		XXX
Less : Closing stock of work-in-progress		XXX
Factory or works cost		xxx

iii. Stock of Finished Goods:

Stock of finished goods refers to the stock of products on which all factory work has been completed. Thus, it is valued at the cost of completed production.

If opening and closing stocks of finished goods are given, then the following adjustment should be made while calculating cost of goods sold:

Adjustment of the Stock of Finished Goods

	₹
Cost of production	× × ×
Add : Opening stock of finished goods	 ×××
	×××
Less : Closing stock of finished goods	×××
Cost of goods sold	×××

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iv. Carriage Inward or Carriage on Raw Materials Purchased:

Carriage inward which is incurred on bringing the raw material purchased should be added while calculating the cost of raw materials consumed as below:

	2
Opening stock of raw materials	***
Add : Purchases of raw materials	×××
Add : Carriage inward	×××
Less : Closing stock of raw materials	×××
Cost of raw materials consumed	<u>×××</u>

v. Scrap of Materials:

Scrap is discarded material having some value which is usually either disposed off without further treatment or is introduced into the production process in the place of raw materials. If the value of scrap is negligible, then it is credited to profit and loss account as an income.

The cost of production bears the cost of scrap because total cost is not reduced by the amount of scrap. However, in case the value of scrap is significant, then it is deducted from the cost of material consumed or factory overhead/cost depending upon the stage of scrap.

If the scrap materials occur in raw condition stage, then the net amount realised from the sale of scrap should be deducted from the cost of materials used. But, if the scrap is obtained in the course of manufacturing process, then the net amount realised from the sale of scrap should be deducted from the factory overhead or factory cost.

vi. Items Excluded from Costs:

The items of expenses, losses or incomes which are related to capital assets, appropriation of profits, amortization of fictitious or intangible assets, abnormal gains and losses or items of purely financial nature do not form part of the costs and these are excluded from cost accounts.

The examples of such items include loss on sale of building or machinery, interest on capital, discount on issue or redemption of shares or debentures, expenses relating to previous period, cash discounts, bad debts, damages payable, penalties and fines, interest or dividend received on investments, transfer fees received, profit on sale of fixed assets, appropriation of profits such as income-tax, dividend paid, transfer of profits to reserves or funds, donations and charities, excess provision for depreciation on fixed assets, amortization of fictitious or intangible assets such as

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goodwill written off, preliminary expenses written off, patents, trademarks and copyrights written off, capital issue expenses, underwriting commission, loss on issue of shares and debentures written off, etc. Thus, it should be noted that such items-are not taken into consideration (excluded) while preparing a cost sheet.

Illustration 1. From the following particulars of a manufacturing firm, prepare a statement of cost :

1 m 1 m 1 m 1		2
Stock of materials on January 1, 2011	•	20,000
Purchases of raw materials in January, 2011		5,50,000
Stock of finished goods on January, 1, 2011		25,000
Productive wages		2,50,000
Finished goods sold		12,00,000
Works overhead charges		75,000
Office and general expenses		50,000
Stock of materials on 31st January, 2011		70,000
Stock of finished goods on 31st January, 2011		30,000
Selling and distribution expenses		3,00,000
Sales		12,00,000

Solution:

Statement of C (For the period ending on 31st	ost 1 January, 2011)	
Opening stock of raw materials Add: Purchases of raw materials Less: Closing Stock of raw materials Cost of raw materials used Add: Productive wages (a) Prime cost Add: Works overhead charges (b) Works Cost or Factory Cost Add: Office and general expenses (c) Cost of Production Add: Opening stock of finished goods	20,000 <u>5,50,000</u> 5,70,000 <u>-70,000</u>	5,00,000 <u>2,50,000</u> 7,50,000 <u>75,000</u> 8,25,000 <u>50,000</u> 8,75,000 <u>25,000</u> 9,00,000
Less : Closing stock of finished goods (d) Cost of goods sold Add : Selling and Distribution expenses (e) Cost of Sales Profit Sales		<u>30,000</u> 8,70,000 <u>3,00,000</u> 11,70,000 <u>30,000</u> 12,00,000

Illustration 2:

The following extract of costing information related to commodity X for the half year ended 30th June, 2011:

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Stock on 1st January, 2011 :		22,000
Raw materials		17,600
Finished products (1,600 tonnes)		
Stock on 30th June, 2011 :		
Raw materials		24,464
Finished products (3,200 tonnes)		35,200
Purchase of raw materials		1,32,000
Direct wages		1,10,000
Rent, rates, insurance and works on cost		44,000
Carriage inward		1,584
Work-in-progress as on 1st January, 2011		5,280
Work-in-progress as on 30th June, 2011		17,600
Cost of factory supervision		8,800
Sales-Finished products		3,30,000

Advertising, discount allowed and selling cost 75 paise per ton sold. 25,600 tonnes of commodity was produced during the period.

You are required to ascertain:

(a) The value of raw materials used

- (b) Cost of output for the period
- (c) Cost of turnover for the period
- (d) Net profit for the period
- (e) Net profit per tonne of the commodity sold.

Solution:

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Statement	of Cost	
(Period : Six months ended 30th June, 2011)	(Output : 25,600 tons)	
	2	
Cost of raw materials consumed :		
Opening stock of raw materials	22,000	
Add : Purchase of raw materials	1.32.000	
Add : Carriage inward	1.584	
	1,55,584	
Less : Closing stock of raw-materials	24,464	
(a) Value of raw materials used		1.31.12
Direct Wages		1,10,00
Prime Cost		2.41.12
Factory overheads :		
Rent rates insurance and works on cost	44 000	
Cost of factory supervision	* 8800	52.80
cost of factory supervision	00000	2 93 93
Add + Work-in-progress as on 1st January 2011		5 25
Aut . Work-in-progress as on 1st January, 2011		2 00 20
Lass - Work in program as on 20th June 2011		17.60
(b) Work Cost (Cost of Output)		2 81 60
(b) Work Cost (Cost of Output)		2,01,00
Cost of output per tonne = $\frac{2,81,000}{25,660} = ₹ 11$ per tonne.		
25,600 Statementof	Profit	
Statementon	Quantity (Tonnes)	Amount (
Wala Cat (Cat - Easter)	25 600	2 91 60
works Cost (Cost of output)	25,600	2,81,00
Add : Opening stock of finished products	1,000	2 00 20
I work and the Children to the	27,200	2,99,20
Less : Closing stock of finished products	3,200	264.04
Cost of Goods Sold	24,000	2,04,00
Selling and distribution overheads :		
Advertising, discount allowed and selling cost @ 75		18.00
paise per tonne of output sold for 24,000 tonnes.		18,00
(10 × 10) (7 × 1)		2,82,00
(c) Cost of Sales (Turnover)		2 20 00
Sales		3,30,00
(d) Net Profit for the period		48,00
(e) Net Profit per tonne of the commodity sold	· · · · · · · · · · · · · · · · · · ·	
48 000		
$=\frac{10,000}{21,000}$ = Rs. 2 per tonne		
24 000		

Illustration 3:

The directors of a manufacturing business require a statement showing the production results of the business for the month of March, 2011.

The cost accounts reveal the following information:

20	2
Stock on hand 1st March, 2011 Raw material Finished goods	25,000 17,360
Stock on hand, 31st March, 2011 Raw materials Finished goods	26,250 15,750
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Burchass of row materials		21,900
Work in progress 1st March 2011		8,220
Work-in-progress, 1st March 2011		9,100
Sale of finished goods		72,310
Direct wages		17,150
Non-productive wages		830
Works expenses		8,340
Office and administrative expenses		3,160
Selling and distributive expenses		4,210

You are required to construct the statement so as to show:

- (a) The value of materials consumed;
- (b) The total cost of production;
- (c) The cost of goods sold;
- (d) The gross profit on goods sold and
- (e) The net profit for the month.

Solution:

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Statement of Cost (for the month of March, 201	1)	
	7	2
Value of materials consumed :	2012/02/2012	1
Stock of raw materials in hand on 1st March, 2011	25,000	
Add : Purchase of raw materials	21,900	
	46,900	
Less : Stock of raw materials in hand on 31st March, 2011	26,250	
(a) Value of Materials Consumed		20,650
Direct wages		
Prime Cost		37,800
Factory overheads :		
Non-productive wages	830	0000000
Works expenses	<u>8,340</u>	9,170
Add : Opening work-in-progress (1st March, 2011)		8,220
Less : Closing work-in-progress (31st March, 2011)		9,100
Works Cost		46,090
Office and administrative expenses		3,160
(b) Total Cost of Production		49,250
Add : Opening stock of finished goods	1 N	<u>17,360</u> 66,610
Less : Closing stock of finished goods		15,750
(c) Cost of Goods Sold		50,860
Sales		72,310
(d) Gross Profit on Goods Sold		21,450
(e) Net Profit on Goods Sold :		
Cost of goods sold	50,860	
Add : Selling and distribution expenses	4,210	
Cost of Sales	55,070	
Sales	72,310	
Net Profit (for the month)	17,240	1.0

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POSSIBLE QUESTIONS

Part – B

11. Define costing and discuss briefly its objectives and advantages.

12. From the following information, prepare a cost sheet for the month of March, 2016:

Particulars		Rs.
Stock on hand-1 sty March, 20	16: Raw materials	25,000
Finis	shed goods	17,300
Stock on hand-31 sty March, 2	016: Raw materials	26,200
Finished goods		15,700
Purchase of raw materials		21,900
Carriage on purchases		1,100
Working in-progress: 1.3.201	6 at works cost	8,200
Working in-progress: 31.3.20	16 at works cost	9,100
Sale of finished goods		72,300
Direct wages		17,200
Non-productive wages		800
Direct expenses		1200
Factory overhead		8,300
Administrative overhead		3,200
Selling and Distribution overhe	ead	4,200

13. Define and explain with suitable example of the terms;

i) Cost Units ii) Cost centers

14. Draw a statement of cost from the following particulars:

		Rs.
Opening stock:	1. Materials	2,00,000
	2. Work-in Progress	60,000
	3. Finished goods	5,000
Closing stock:	1. Materials	1,80,000
	2. Work-in Progress	50,000
	3. Finished goods	15,000

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Materials purchased	5,00,000	
Direct wages	1,50,000	
Manufacturing expenses	1,00,000	
Sales	8,00,000	
Selling and distribution ex	penses 20,000	

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<u>UNIT-II</u>

SYLLABUS

Material Control – Procurement Procedure – Issue of Inventories under Various Methods – computation of stock levels – EOQ – Perpetual Inventory System – Labour Costing - Time Rate, Piece Rate System, Methods of Payment by Result – Determination of Labour Turn over Under Various Methods

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) <u>Direct materials</u>: 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) <u>Indirect materials</u>: 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) <u>*Centralized Purchasing*</u>: 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.

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- 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) <u>Decentralization of Purchases:</u> 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

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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.

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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.

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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

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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

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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
А	8%	75%
В	25%	20%
С	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?

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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.

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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.

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(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.

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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.

The average price for all the materials issued during the period is computed as follows:

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Cost of opening stock	+	Total cost of all receipts during the period		
Units in		Total units received		

during the period

8. Standard Cost Method:

opening stock

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 Prepared by A.Muthusamy, Assistant Professor, Department of Commerce, KAHE Page 13/26

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 whereas payment of indirect

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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

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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

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- 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.

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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.

SOLUTION

Standard production per 20 seconds = 1 unit $=\frac{60}{20}=3$ units Standard production per minute Standard production per hour $= 3 \times 60 = 180$ units. Standard production per day of 8 hours (assumed) = 180 × 8 = 1,440 units =₹ 1.80 Normal rate per hour ₹ 1.80 180 units = 1 paisa ... Normal piece rate Low piece rate below standard production $\frac{1 P. \times 80}{100} = 0.8$ paisa 100 $\frac{1 \text{ P.} \times 120}{1 \text{ P.}} = 1.2 \text{ paise}$ High piece rate at or above standard 100 Earnings of Worker A : Under Straight Piece-rate System 1,300 units @ 1 P. = $\frac{1,300 \times 1}{100}$ = ₹ 13 100 Under Taylor's Differential Piece-rate System 1,300 units @ 0.8 P. = $\frac{1,300 \times 8}{10} \times \frac{1}{100} = ₹ 10.40$ Low piece-rate has been applied because worker A's daily production of 1,300 units is less than the standard daily production of 1,440 units. Earnings of Worker B : Under Straight Piece-rate System

1,500 units @ 1 P. = $\frac{1,500 \times 1}{100}$ = ₹ 15 100 Under Taylor's Differential Piece-rate System 1,500 units @ 1.2 P. = $\frac{1,500 \times 12}{10} \times \frac{1}{100} = ₹ 18$

High piece-rate has been applied because worker B's daily production of 1,500 units is more than the standard daily production of 1,440 units.

c) Merrick's Multiple Piece Rate System

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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 33 % to 66 %

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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 = $T \times R + \underline{S-T} \times T \times R$

S

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:

- Number of employees left during a period
- $= \frac{1}{\text{Average number of employees during a period}} \times 100$

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:

Number of additions + Separations during a period $\times 100$ Average number of employees during a period

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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.

(3) Labour Turnover = Number of additions + Separations during a period 2 Average number of employees during a period × 100

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.

(4) Labour turnover according to replacement method:

 $= \frac{\text{Number of workers replaced during a period}}{\text{Average number of workers during the period}} \times 100.$

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.

Illustration 1:

From the following information, calculate the labour turnover rate and labour flux rate:

Number of workers at the beginning of the year	3,800
Number of workers at the end of the year	4,200
During the year 40 workers leave while 160 workers a during the year, of these 150 workers are recruited becau accordance with an expansion scheme.	are discharged. 600 workers are required se of leavers and the rest are engaged in
SULUTION	
Average number of workers during the year = $\frac{3,800 + 4,200}{2}$	$\frac{0}{2} = 4,000$
Labour Turnover Rate = Number of workers replaced du Average number of workers du	$\frac{100}{1000} = \frac{150}{4,000} \times 100 = 3.75\%$
Labour Flux Rate $= \frac{\text{Numer of additions + separation}}{\text{Average number of workers}}$ $= \frac{600 + 200}{4,000} \times 100 = 20\%$	ns during the year × 100 during the year
Labour flux rate denotes total change in the composition of l	abour force due to additions and separations of

Labour flux rate denotes total change in the composition of labour force due to additions and separations o workers.

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ILLUSTRATION 2. From the following data provided to you find out the Labour Turnover Rate by applying :

- (a) Flux Method
- (b) Replacement Method
- (c) Separation Method
 - No. of workers on the payroll -At the beginning of the month

At the end of the month

500 600

During the month, 5 workers left, 20 persons were discharged and 75 workers were recruited. Of these, 10 workers were recruited in the vacancies of those leaving, while the rest were engaged for an expansion scheme.

SOLUTION

(a) Labour Turnover Rate by Applying Flux Method

No. of additions + No. of separations = Average number of workers during a period × 100 $=\frac{75+5+20}{\frac{1}{2}(500+600)}\times100=\frac{100}{550}\times100=18.2\%$

(b) Labour Turnover Rate by Applying Replacement Method

 $= \frac{\text{Number of workers replaced}}{\text{Average number of workers}} \times 100 = \frac{10}{\frac{1}{2}(500 + 600)} \times 100 = 1.8\%$

(c) Labour Turnover Rate by Separation Method

= No. of separations Average number of workers × 100 $=\frac{5+20}{\frac{1}{2}(500+600)}\times100=\frac{25}{550}\times100=4.5\%.$

ILLUSTRATION 3. The cost accountant of Y Ltd. has computed labour turnover rates for the quarter ended 31st March, 2010 as 10%, 5% and 3% respectively under Flux Method, Replacement Method and Separation Method. If the number of workers replaced during the quarter is 30, find out the number of (1) workers recruited and joined and (2) workers left and discharged.

SOLUTION

Calculation of Average Number of Workers on Roll

Labour Turnover Rate No. of Replacements (under Replacement Method) = Average No. of Workers 5% = 30 Average No. of Workers 30 Average No. of Workers = $\frac{30 \times 100}{5} = 600$

(1) Calculation of Number of Workers Recruited and Joined

Lale ::: Turnover Rate (Ur.ier Flux Method) = No. of Separations + No. of Accessions Average No. of Workers



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POSSIBLE QUESTIONS

Part – B

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

Opening balance:	500 units @ Rs. 4
Received from vendor:	200 units @ Rs. 4.25
Received from vendor:	150 units @ Rs. 4.10
Received from vendor:	300 units @ Rs. 4.50
Received from vendor:	400 units @ Rs. 4
	Opening balance: Received from vendor: Received from vendor: Received from vendor: Received from vendor:

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. 26 – 250 units;

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.

12. 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.

13. 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

14. 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

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Number of employees wh	a left during the month	50
Total number of amployees who	o set the and of the month	1000

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<u>UNIT-III</u>

SYLLABUS

Overhead Costing – Methods of Allocation – Determination of Overhead Rates – Functional Analysis – Factory, Administration, Selling and Distribution Over Heads Book Keeping –Non Integrate Accounts – Integrate Accounts.

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.

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- 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 :

- 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)

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 centres are also utilized by other service cost centres. In reciprocal secondary distribution, the cost of service cost centres are apportioned to production cost centres as well as other service cost centres. 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 :

- 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 :

- 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 :

- 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 overabsorption 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

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The selling overheads and dis	stribution 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 promotio	n
(vii) Sales incentive		
(viii) Bad debt etc		
Distribution Overheads :		
(i) Secondary Packaging		
(ii) Freight & forwarding		
(iii) Warehousing & storage		
(iv) Insurance etc.		
		A

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. 2.	Maintenance Department Payroll or time-keeping department	-Hours worked for each department
3.	Store keeping department	-Total labour or Machine hours or number of employees in each department

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4. Employment or Personnel department.	
	- no. of requisitions or value of materials of
5. Purchase Department	each department.
6. Welfare, ambulance, canteen serv	ice,
recreation room expenses.	- Rate of labour turnover or number of
7. Building service department	employees in each department
	no of purchase orders or value of
9 Internal transport corrige or	mod metaricle. No of amployace in sech
8. Internal transport service of overn	iead materials -No. of employees in each
crane service	departmentRelative are in each
9. Transport Department	department
10. Power House (Electric power cost)	
<i>w</i> 1	
	-Weight, value graded product handled,
	weight and distance travelled.
	-crane hours truck hours truck mileage
	truck tonnage truck tonne-hours tonnage
	handlad number of packages
	handled, humber of packages.
	-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 <u>Work in Process Inventory</u> and <u>Finished Goods Inventory</u> 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.

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Usually the	e following basis is to be followed	
I	tems	Basis of Apportionment
Office R	ent & Rates	Floor area occupied
Deprecia	ation on office building	Floor area or value of building
Legal ex	penses/Personnel Dept. Expenses	No. of employees
Filing	51	No. of files handled
Typing		No. of letters typed
Invoicing		No. of invoices raised
Correspondence		No. of letters drafted
Entries j	for Administration Overhead	
(a)	For administration overhead inc Administration Overhead A/c To General Ledger Adjust	Dr. Dr.
(b)	For apportionment of Adm. Ove	rhead to factory/selling distribution
	Factory Overhead A/c	Dr.
	Selling and Distribution Overho	ad A/c Dr.

To Administration Overhead A/c

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/sales

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etc.) and should be charged to products which are completed and sold although it is very difficult to find out a suitable basis for absorption. The reason is that administration overhead relates to formulate policy to direct organisation, to control operation, to motivate employees etc.

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.

It is calculated as:

 $Rate = \frac{Administration Overhead}{Basis selected (e.g. factory cost)}$

Control of Administration Overhead:

It has already been pointed out above that administration overheads are fixed in nature and, as such, they are primarily uncontrollable.

However, these overheads can be controlled with the help of any one of the following:

(i) Comparing with past performances/results;

(ii) By Budgetary control techniques; and

(iii) By the application of Standard Costing.

SELLING AND DISTRIBUTION OVERHEAD

Selling expenses are those expenses which are incurred to promote sales and service to customers. Thus, selling overhead includes Salesmen's Salaries, Commission, Travelling expenses, Cost of advertisement, Posters, Cost of price list and catalogue, Debt collection charges, Bad debts, Free gift, Showrooms expenses, After-sale service, Legal expenses for recovering debt, etc.

Distribution expenses, on the other hand, are those which are incurred for warehousing and storage, packing for goods sent and making the goods available for delivery to customers. So, in broader sense of the item, distributions expenses include- Cost of storing, Cost of warehousing, Cost of packing, Cost of delivery, and Cost of preparation of challan.

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Thus, from the above discussion, it becomes clear that there are two types of expenses for two types of functions. The earlier expenses are incurred for promoting sales whereas the latter expenses are incurred from receiving an order to despatch of goods.

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.

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Items	Basis of Apportionment	
Advertisement	Value of sales or space used	
Showrooms expenses	Floor space	
Warehousing	Direct allocation/Sales Volume	
Insurance	Value of Stock	
Collection of overdue accounts	No. of order or Sales Value	
Rent	Floor space	
Depreciation	Value of assets	
Transport	No. of packages/Distance	
Materials, freight	Direct allocation	
Remuneration to Salesmen	Direct allocation	
Catalogue	Direct allocation, space used.	

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

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= \frac{\text{Selling \& Distribution Overhead}}{\text{Works Cost}} \times 100= \frac{\text{Rs. 10,000}}{\text{Rs. 40,000}} \times 100
```

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= 25%
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(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.

NON-INTEGRATED AND INTEGRATED ACCOUNTING

Soft Accounting Applications are mostly Integrated Accounting Applications except for Soft Accounting – Standard which is Non-Integrated Accounting Application. Therefore here it is necessary to explain the difference between Non-Integrated and Integrated Accounting.

Financial Accounting is basically **Non-Integrated** Accounting which accounts for **only the monetary aspects** of every business transaction. You purchase hundreds of inventory items but to record purchase, you only debit one "Purchase" Account with purchase value **without any**
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mention of quantities involved. Similarly you sell different trade items and record them by giving credit to only "Sales" Account. Consequently your Financial Accounts fail to tell you the complete story of your business affairs. You get a Trial Balance and Final Accounts. You know your Gross Profit and Net Profit. You also know financial worth of your business on the Balance Sheet date. The things you don't know in this way are the details of your inventory items purchased/ sold, inventory stocks, inventory costs taken up in every sales transactions (Trading Businesses) or ongoing production activities (Manufacturing Businesses).

To overcome these limitations of Financial Accounting, large businesses usually adopt and implement another difficult and expensive Accounting System which is known as Cost and Management Accounting. **This is also non-integrated accounting method** because it functions parallel to the Financial Accounting. Small businesses end up in the maintenance of only some "Stock Registers", in addition to the usual Financial Accounting. **It means that under nonintegrated accounting systems, Financial Accounting and Inventory/Cost Accounting books/ledgers are separately maintained.**

To explain an Integrated Accounting System, we here assume that reader already knows the usual procedure of recording transactions where entries are basically recorded in Cash Book and General Journal, then posted to Ledger, then summarized in the form of Trial Balance and then results are taken in the form of Final Accounts.

An Integrated Accounting System would be one where only a single set of books would contain all the information of Financial Accounting as well as Inventory/ Cost Accounting. Such a system would be very difficult to maintain if accounts are maintained manually. But most available Computerized Accounting Systems are Integrated Systems. Here we take the example of an Integrated Accounting System (our own product by the name: "Soft Accounting System") and explain how it's functionality differs with Non-Integrated manual Accounting system.

Whereas in manual Financial Accounting, you enter Cash/Bank transactions in Cash Book and enter all other transactions in General Journal; in Soft Accounting System, you record Sale/Purchase transactions in Sale Invoice or Purchase Invoice. In the case of cash purchase/sale, that entry shall automatically be recorded in Cash Book. And in the case of credit purchase/sale, there will be no need to record it in General Journal. With a simple entry in sale or purchase

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invoice, you will not only get all the Financial Accounting Ledgers and Trial Balance, you will also automatically get your inventory and cost registers. If yours is a trading Business, then with a simple entry in sales invoice form, you will also automatically get Cost of that particular Sale calculated on the basis of both Weighted Average Costing and LIFO Costing methods.

If yours is a manufacturing business, then there is another simple Production Entry Form. You will enter in it only the basic ongoing production data but as a result, not only you will get detailed Production Reports, you will also get updated inventory registers of raw-materials and semi-finished items with a proper breakup of location/process where those semi-finished items have reached so far. When final production process on semi-finished items have been performed, then automatically those semi-finished items are removed from semi-finished inventory registers and go to Finished Goods Inventory Register. And when you will enter new sale invoice, then finished goods stock shall be automatically reduced from the Finished Goods Inventory Register. Not only this, you will also get detailed automated Direct Labor Payroll Reports. In addition, you will also get automated costing reports like Batch Cost Report and like etc. And since Soft Accounting System is an Integrated System, so you will also get automatically updated information in your Financial Accounting Ledgers and Trial Balance as well.

KARPAGAM ACADEMY OF HIGHER EDUCATION **COURSE NAME: APPLIED COST ACCOUNTING** CLASS: III B.Com (PA) COURSE CODE: 15PAU502 UNIT: III BATCH-2015-2018 **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 1,500 Insurance Employer's liability of employee's Insurance 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 5 10 Total wages (Rs.) 10,000 8,000 5,000 5,000 2,000

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

18,000

10,000

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.

16,000

5.000

10,000

2,000

6,000

_

Product Territory						
	X (Rs.)	Y (Rs.)	Z (Rs.)			
А	50,000	20,000	_			
В	30,000	_	80,000			
С	_	70,000	40,000			
The budgeted advertising cost is as under:						

The estimated sales of the year 2017 are as under:

20,000

Value of plant (Rs.)

Value of Stock (Rs.) 15,000

KARPAGAM ACADEMY OF HIGHER EDUCATION COURSE NAME: APPLIED COST ACCOUNTING CLASS: III B.Com (PA) BATCH-2015-2018 COURSE CODE: 15PAU502 UNIT: III 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.		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
Stores expenses General factory labour Holiday pay	742 1,284 520	Fire insurance Depreciation Plant repairs	260 906 450

Information regarding the departments available:

	А	В
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	S 1	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 Depar	tments	Production De	epartments	Service Depar	tments			
	P1	P2	P3	S1	S2			
S1	30%	40%	15%	-	15%			
S2	40%	30%	25%	5%	-			

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

Prepared by A.Muthusamy, Assistant Professor, Department of Commerce, KAHE

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COURSE CODE: 15PAU502

COURSE NAME: APPLIED COST ACCOUNTINGUNIT: IVBATCH-2015-2018

<u>UNIT-IV</u>

SYLLABUS

Job costing – Batch Costing – Application of Job Costing – Reconciliation of Cost and Financial Accounts – Operating Costing.

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.

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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.

BATCH COSTING

Batch costing is a form of specific order costing. Job costing refers to costing of jobs that are executed against specific orders whereas in batch costing items are manufactured for stock. A finished product may require different components for assembly and may be manufactured in economical batch lots.

When orders are received from different customers, there are common products among orders; then production orders may be issued for batches, consisting of a predetermined quantity of each type of product. Batch costing method is adopted in such cases to calculate the cost of each such batch.

Cost per unit is ascertained by dividing the total cost of a batch by number of items produced in that batch. In order to do that a Batch Cost Sheet is prepared. The preparation of Batch Cost Sheet is similar to that of Job Cost Sheet. This method is mainly applied in biscuits

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manufacture, garments manufacture, spare parts and component manufacture, pharmaceutical enterprises etc.

Illustration 1:

Batch No. A-110 incurred the following costs:

Direct Materials Rs 10, 000

ADVERTISEMENTS:

Department: A 800 labour hours @ Rs 5 per hour

B 1400 labour hours @ Rs 6 per hour

Factory overheads are absorbed on labour hour's basis and the rates are Rs 7 per hour for Department A and Rs 4 per hour for Department B. The firm uses a cost plus system for selling prices and expects a 25% gross profit (sales value minus factory cost). Administrative overheads are absorbed at 10% of selling price. Assuming that A-110 units were produced in Batch A-110, calculate the selling price per unit.

SOLUTION

COST SHEET OF BATCH N	O. A-110	
Materials	₹	10 000
Labour :		10,000
Department A : 800 x ₹ 5	4 000	
Department B: 1.400 × ₹ 6	8 400	
		12,400
Factory Overheads :		
Department A: 800 × ₹ 7	5,600	
Department B: 1,400 × ₹ 4	5,600	
		11,200
Factory Cost	100	33,600
Administration Overheads (10% of Selling Price)		4,480
Cost of Production		38,080
Profit (15% of Selling Price)		6,720
Selling Price		44,800
Working Note : Calculation of Selling Price	*	
Selling Price $\left(\neq 23,600 \times \frac{100}{75} \right)$	= 44,800	
Less : Factory Cost	= 33,600	
	11,200	,
Less : Administration Overheads	4,480	
Profit	6,720	

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Production is usually done in batches and each batch can have any number of units of Component in it. The optimum quantity for a batch is that quantity for which the setting up and carrying costs are minimum, such an optimum quantity is known as Economic Batch Quantity or Economic lot size.

Determination of the economic lot size is important in industries where batch costing is employed.

Need for Determining Economic Lot Size:

The need for determining economic lot size arises as:

(i) Every time a component/product is to be made, setting up of the tool is involved. Because of this some loss in production time will be there. Therefore, maximum number of units are produced once the machine is set in order to reduce the cost per unit,

(ii) Such large production at one run will lead to accumulation of inventory and the costs related thereto,

(iii) Thus there is a quantity for which reduced cost of production is just offset by costs of carrying the quantity inventory. The determination of most economical batch quantity requires consideration of many related factors of costs and economies.

The factors that influence the decision in this respect are:

- (a) Set up cost,
- (b) Manufacturing cost,
- (c) Interest on capital,
- (iv) Storage cost, and
- (v) Rate of consumption.

Types of Costs in Batch Costing:

There are two types of costs involved in Batch Costing:

- (i) Set up costs
- (ii) Carrying costs.

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If the batch size is increased, set up cost per unit will come down and the carrying cost will increase. If the batch size is reduced, set up cost per unit will increase and the carrying cost will come down. Economic Batch quantity will balance both these opponent costs.

The formula to be used for calculation of economic lot size is Q =Q = Qty. or units of products in the economic batch. S = Set-up cost per batch Where

C = Carrying cost per unit of production p.a. U = Annual units of production.

Illustration 2:

Compute the economic batch quantity for a company using batch costing with the following information:

Annual demand for	the component	2	24,000
Set-up cost per batc	h	₹	120
Carrying cost per un	nit of production	₹	0.36
SOLUTION			
Economic Batch Quantity	$=\sqrt{\frac{2US}{C}}=\sqrt{\frac{2\times24,000\times7120}{70.26}}$) = 4,000 1	units.

Illustration 3:

The annual demand of a product is 24,000 units. It is produced in batches and the largest size of a single batch is 6,000 units. After each batch is complete, the set up cost is Rs. 750. The annual carrying cost is Rs. 2.25 per unit.

Assume average inventory as one-half of the number of units made in each batch . Selecting 4, 6, 8, 12 and 24 batches per annum, determine annual costs of each and state the optimum number of batches to minimize the total costs.

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COURSE CODE: 15PAU502	UNIT: IV		BATCH-2015-2018		5-2018
SOLUTION					
No. of batches	4	6	8	12	24
Size of batch units	6,000	4,000	3,000	2,000	1,000
Average Stock	3,000	2,000	1,500	1,000	500
	₹	₹	₹	7	₹
Costs					10.000
Costs Set up Costs	3,000	4,500	6,000	9,000	18,000
Costs Set up Costs Carrying Cost	3,000 6,750	4,500 4,500	6,000 3,375	9,000 2,250	1,125

Optimum number is 6 batches per annum.

Q = $\sqrt{\frac{2 \text{ US}}{\text{C}}} = \sqrt{\frac{2 \times 24,000 \times 750}{72.25}} = 4,000 \text{ units.}$

Illustration 4:

The demand of an item is uniform at a rate of 25 units p.m. The set up cost is Rs. 30 each time a production is made. The production cost is Rs. 3 per item and the inventory carrying cost is 50 paise per unit p.m. If the shortage cist is Rs. 3 per item p.m. determine how often to make a production run and of what size? Also calculate re-order level.

SOLUTION

(i)	Q	=	$\sqrt{\frac{2\mathrm{US}}{\mathrm{C}}} = \sqrt{\frac{2 \times 300 \times \overline{\mathrm{C}} 30}{\overline{\mathrm{C}} .50 \times 12}} = 55 \text{ units.}$	
(ii)	Duration	=	$\frac{\text{Production run size}}{\text{Mothly demand}} \times 30 = \frac{55}{25} \times 30 = 66 \text{ days Or}$	$\frac{55}{25} \times 25 = 55$ working days.
(iii)	Re-order Level	=	$(E.B.Q.) \times \frac{Shortage cost}{Carrying cost per unit + Shortage cost}$	- Monthly demand
		-	$\left(55 \times \frac{3}{.50+3}\right) - 25 = 47 - 25 = 22$ units.	

Difference between Job Costing and Batch Costing:

In case of job costing, work is undertaken as an identifiable unit and cost of each job is ascertained separately. Such a method of costing is suitable in case of motor workshop, printing press and where manufacture of products is according to customers' specific requirements.

Batch costing is extension of job costing. Job costing refers to costing of jobs that are executed against specific orders whereas in batch costing items are manufactured for stock. In batch costing a batch may represent a number of small orders passed through the factory in batches. Each batch is treated as a unit of cost and is separately costed. Cost per unit is ascertained by dividing the total cost of the batch by number of items produced in that batch.

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RECONCILIATION OF COST AND FINANCIAL ACCOUNTS

Meaning of Reconciliation:

Where cost accounts and financial accounts are separately maintained in two different sets of books, the profit or loss shown by one may not agree with that shown by other. Therefore, it becomes necessary that periodically the profit or loss shown by the two sets of accounts is reconciled.

A memorandum of reconciliation is prepared showing the reasons for difference between the results disclosed by each system. It is done to check the arithmetical accuracy of both sets of accounts as well as to detect mistakes committed in the accounts.

2. Need for Reconciliation:

(a) It reveals the reasons for difference in profit or loss between cost and financial accounts.

(b) It ensures that no income or expenditure item has been omitted to record and there is no under- or over-recovery of overheads.

(c) It helps in checking the arithmetical accuracy of both the sets of accounts.

(d) It ensures the reliability of cost accounts in order to correct ascertainment of cost of production.

(e) It facilities internal control by highlighting the variations causing increase or decrease in profit.

(f) It promotes co-ordination and co-operation between cost and financial accounting departments in order to generate correct and reliable accounting data.

(g) It enables management to formulate policies regarding overheads, depreciation and stock valuation.

(h) It ensures managerial decision-making.

3. Reconciliation Procedure:

The cost and financial accounts are reconciled by preparing a Reconciliation Statement or a Memorandum Reconciliation Account.

(a) Reconciliation Statement:

The same principles of bank reconciliation will apply here. One may start with the profit shown by one set of accounts (usually cost accounts) as base profit and items which do not tally

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are either added to it or deducted from it to get the profit shown by other set of accounts (i.e., financial accounts).

The treatment of items will be reversed if the starting point in the reconciliation statement is the profit as per financial accounts.

A Proforma of reconciliation statement is shown below:

Proforma of Reconciliation Statement

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

Note: In case of Loss, the amount shall appear as a minus item.

(b) Memorandum Reconciliation Account:

Here the reconciliation procedure is in the form of an account. The profit as per cost accounts is the starting point and is shown on the credit side of this account. All items which are added to costing profit for reconciliation are also shown on credit side.

The items to be deducted from costing profit for reconciliation are shown on the debit side. The balancing figure gives the profit as per financial accounts. It is only a memorandum account and does not form part of double entry system of book-keeping.

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4. Proforma of Memorandum Reconciliation Account:

Dr.	Memora	ndum Rec	onciliation Account	Cr.
To Financial E in financial Discount Fines and P Loss on Sal Bank Intere Donations Preliminary Goodwill v	xpenses debited accounts : enalties e of Assets est expenses & vritten off	Rs.	By Profit as per Cost Accounts Financial Incomes not recorded in Cost Accounts Rent received *** Interest received *** Dividend/Profit on Sale of Assets Items charged only in cost accounts Over-absorption of overheads Over-valuation of opening stock (in cost)	Rs.
To Under-abs " Under-val stock in co " Over-valu stock in co " Net profit Financial	sorption of overheads uation of opening ost accounts lation of closing ost accounts as per Accounts	Rs	 By Under-valuation of closing stock (in cost) " Depreciation over charged in Cost Accounts 	Rs.

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5. Practical Problems on Reconciliation of Cost and Final Accounts:

1. From the following data, prepare a Reconciliation Statement to find out profit as per Financial Accounts:

n

	KS.
Profit as per Cost Accounts	2,50,000
Works overheads over-absorbed	20,000
Administration overheads under-absorbed	45,000
Under valuation of opening Stock in Cost Accounts	15,000
Bad Debt written off during the year	14,000
Preliminary expenses written off during the year	10,000
	[C.U. B.Com. (Hons.) 2005]

Solution :

Reconciliation Statement	diana ang ing ing ing ing ing ing ing ing ing i	
	Rs.	Rs.
Profit as per Cost Accounts		2,50,000
Add : Over-absorbed works overhead in Cost Accounts		20,000
		2,70,000
Less : Under-absorbed Administration Overheads in Cost Accounts	45,000	
Under-valuation of Opening Stock in Cost Accounts	15,000	
Items not charged in Cost Accounts		
 Bad debts written off 	14,000	
 Preliminary expenses written off 	10,000	84,000
Profit as per Financial Accounts		1,86,000

2. From the following data, prepare a Reconciliation Statement:

	Rs.
Profit as per Cost Accounts	1,45,500
Works Overhead under-recovered	9,500
Administration Overheads under-recovered	22,750
Selling Overheads over-recovered	19,500

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		Ks.
Over-valuation of Opening Stock	k in Cost Accounts	15,000
Over-valuation of Closing Stock	in Cost Accounts	7,500
Interest earned during the year		3,750
Rent received during the year		27,000
Bad debts written off during the	e year	9,000
Preliminary expenses written of	f during the year	18,000
		[I.C.W.A. (Inter) June 1998]

Solution :

Reconciliation Statement

		Rs.	Rs.
Pr	ofit as per Cost Accounts		1,45,500
Add :	Over-recovery of selling overheads in Cost Accounts	19,500	
	Over-valuation of Opening Stock in Cost Accounts	15,000	
	Interest earned excluded in Cost Accounts	3,750	
	Rent received excluded in Cost Accounts	27,000	65,250
			2,10,750
Less :	Under-recovery of Works Overheads in Cost Accounts	9,500	
	Under recovery of Administration Overheads	22,750	
	Over-valuation of Closing Stock in Cost Accounts	7,500	
	Items not charged in Cost Accounts		
	- Bad debts written off	9,000	
	 Preliminary expenses written off 	18,000	66,750
Pr	ofit as per Financial Accounts		1,44,000

3. Prepare a Reconciliation Statement from the following data:

	Rs.
Net loss as per Cost Accounts	3,44,800
Works overhead under-recovered in Cost Accounts	6,240
Depreciation over charged in Cost Accounts	2,600
Administration overheads under changed in Financial Accounts	3,400
Interest on Investment	17,500
Goodwill written off in Financial books	11,400
Income tax paid	80,600
Stores Adjustment (credit in financial books)	950
Depreciation of Stock charged in Financial books	13,500

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COURSE CODE: 15PAU502	UNIT: IV	BATCH-201	5-2018
Solution :			
	Reconciliation Statement		
45		Rs.	Rs.
Net Loss as per Cost Accounts	(3,44,800
		The second se	

_

	Goodwill written off in Financial Accounts	11,400	
	Income tax provided in Financial Accounts	80,600	
	Depreciation of stock charged in Financial Accounts	13,500	1,11,740
			4,56,540
Less :	Administration overhead over recovered in Cost Accounts	3,400	
	Depreciation over charged in Cost Accounts	2,600	
	Interest on investment not included in Cost Accounts	17,500	
	Stores Adjustment credited in Financial Accounts	950	24,450
Ne	et Loss as per Financial Accounts		4,32,090

4. Gain More Ltd. showed a net loss of Rs. 6,30,000 as per Financial Accounts for the year ended 31 March 2011.

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The Cost Accounts, however, disclosed a loss of Rs. 5,00,000 for the same period. On scrutiny of the two accounts the following are available:

	Rs.
Factory overhead under-recovered	70,000
Administration overhead over-recovered	30,000
Depreciation charged in Financial Accounts	1,50,000
Depreciation charged in Cost Accounts	1,20,000
Interest on investment not included in Cost Accounts	30,000
Income tax provided in Financial Accounts	1,00,000
Stores Adjustments (credit in Financial Accounts)	10,000
Prepare a Memorandum Reconciliation Account	

.

Solution :

[I.C.W.A. (Inter) June 2004]

Dr		orandum Re e year ende	econ ed 3	ciliation Account 1st March, 2011	Cr.
		Rs.			Rs.
То	Net loss as per Financial		By	Factory overheads under-recovered	70,000
	Accounts	6,30,000	"	Depreciation under-charged in	1
"	Adm. Overhead over-recovered	30,000		Cost Accounts	
	Interest on investment not			Rs. (1,50,000 - 1,20,000)	30,000
	included in Cost Accounts	30,000		Provision for Income Tax not	
	Stores Adjustment (credit			considered in Cost Accounts	1,00,000
	in Financial Accounts)	10,000	"	Balance c/d	
		1		(Net loss in Cost Accounts)	5,00,000
		7,00,000			7,00,000

CLAS	S: III B.Com (PA)	COURSE NAME: A	PPLIED COST	ACCOUNTING		
COUR	SE CODE: 15PAU502	UNIT: IV	BATCH-2	BATCH-2015-2018		
5. Fror	n the following informati	on, prepare a Reconciliation	Statement:			
		Financial Accounts	Cost Accourt	nts		
		Rs.	Rs.			
Clo	osing stock	8,160	8,560			
Fa	ctory expenses	24,260	21,000			
Of	fice expenses	10,680	10,000			
Sel	lling expenses	14,200	15,000			
De	preciation	2,200	1,600			
Re	nt received	5,200				
Ne	et profit	40,600	39,540			
		1	C.U. B.Com. (Ho	ns.) 2007]		
Solutio	on :					
	R	econciliation Statement				
			Rs.	Rs.		
	Profit as per Cost Accounts			39,540		
Add :	Selling expenses over-abso	rbed Rs. (15,000 - 14,200)	800			
	Rent received not shown in	Cost Accounts	5,200	6,000		
				45,540		
Less :	Factory expenses under-ab	sorbed Rs. (24,260 – 21,000)	3,260			
	Office expenses under-abso	orbed Rs. (10,680 - 10,000)	680			
	Closing stock over-valued	Rs. (8,560 - 8,160)	400			
	Depreciation under charged	l in Cost Accounts	600	4,940		
	Profit as per Financial Acc	aunte		40 600		

6. Prepare a Memorandum Reconciliation Account from the following details:

Profit as per cost accounts were of Rs. 60,000 while the profits as per financial accounts were of Rs. 59,700.

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The value of opening and closing stock as shown in cost accounts and financial accounts were as under:

Work-in-Progress :	20073-0207	12-12-12-12-12-12-12-12-12-12-12-12-12-1
Opening	16,000	15,500
Closing	20,000 [B.(19,900 Com. (Hons.) Delhi 2003]
Solution :	22-0	
Dr.	Memorandum Reconciliation Account	Cr.
	Rs	Rs

		Rs.		Rs.
To	Under valuation of opening		By Profit as per Cost A/cs	60,000
	stock of raw materials	300	" Under valuation of closing stock	
"	Under valuation of opening		of raw materials in Cost A/cs	400
	stock of WIP in Cost A/cs	500	" Under valuation of closing stock	
"	Profit as per Financial A/cs	59,700	of WIP in Cost A/cs	100
		60,500		60,500

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7. In a factory works overhead are absorbed @ 60% of labour and office expenses @ 20%

of works cost. The total expenditure is as follows:

	Rs.
Materials	2,00,000
Labour	1,50,000
Factory expenses	98,000
Office expenses	85,000
Total	5,33,000

10% of the output is in the stock and sales total up to Rs. 5,10,000. Prepare a cost sheet and a reconciliation statement. [B.Com. (Hons.) Delhi, C.A. (Inter)]

Rs. By Sales 2,00,000 By Sales 1,50,000 ,, Closing Stock 98,000 10% of works cost or 10% of 85,000 Rs. (2,00,000 + 1,50,000 + 98,000 21,800 5,54,800	Rs. 5,10,000 10) 44,800
	0,04,000
sheet for the year ended	New York and the second
с. Т	Rs. 2,00,000 1,50,000
<i>Prime Cost</i> our or 60% of Rs. 1,50,000	3,50,000 90,000
Works Cost ks or 20% of Rs. 4,40,000	4,40,000 88,000
st of Production 5,28,000)	5,28,000 52,800
st of Goods Sold • Profit	4,75,200 34,800
Sales	5,10,000
	Prime Cost bur or 60% of Rs. 1,50,000 Works Cost ks or 20% of Rs. 4,40,000 st of Production 5,28,000) st of Goods Sold Profit Sales

		Rs.	Rs.
	Profit as per Cost Accounts	1	34,800
Add :	Office overhead over absorbed (88,000 - 85,000)		3,000
	N 21		37,800
Less :	Works overhead under-absorbed Rs. (98,000 - 90,000)	8,000	
	Over-valuation of Closing Stock Rs. (52,800 - 44,800)	8,000	16,000
	Profit as per Financial Accounts		21,800

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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

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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		

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Interest on capital			
Supervision			
Office establishment			
Administrative overheads Salary			
of foreman, manager etc			
	Total		
B. Maintenance charges:			
Repairs and renewals Tyres a	nd 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			

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Calculation of Depreciation:

If the rate of depreciation is not given, depreciation is calculated as

follows: Depreciation = <u>Cost- scrap</u>

Life in years

Depreciation per mile, or $km = \underline{Depreciation}$

<u>p.a</u> Kms/miles run p.a

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POSSIBLE QUESTIONS

Part - B

11. The profit shown in the financial accounts was Rs. 1,12,870 and for the same period the cost accounts showed a profit of Rs. 27,040.

Examination of the accounts showed the following difference:

	Cost Accounts	Financial Accounts
	(Rs.)	(Rs.)
Depreciation	98,260	1,05,200
Stock Valuation:		
Opening stocks	2,75,100	2,55,000
Closing stocks	1,82,180	1,87,500
Profit on sale of assets		8,500
Dividend received	-	26,350
Imputed rent charge	32,500	
Reconcile the profit figures.		

12. Mr. Rajesh owns a fleet of taxis and the following information is available from the records maintain by him:

Number of taxis	10
Cost of each taxi	Rs. 54,600
Salary of manager	Rs. 700 p.m
Salary of accountant	Rs. 500 p.m
Salary of cleaner	Rs. 200 p.m
Salary of mechanics	Rs. 400 p.m
Garage rent	Rs. 600 p.m
Insurance premium	5% p.a
Annual tax	Rs. 900 per taxi
Driver's salary	Rs. 350 p.m per taxi
Annual repairs	Rs. 1000 per taxi

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Total life of a taxi is about 2,00,000 kms. A taxi runs, in all 3,000 kms in a month and 30% of this distance has to be run without any passenger. Petrol consumption is one litre for every 10 kms. @ Rs. 4.41 per litre. Oil and other sundries are Rs. 10.50 per 100 kms.

Calculate the cost of running a taxi per km.

13. Global transports owns Buses and the following information is available from the records maintain by them:

Number of Buses	5
Cost of each Bus	Rs. 2,50,000
Driver's salary	Rs. 10,000 p.m per bus
Salary of manager	Rs. 7000 p.m
Salary of accountant	Rs. 5000 p.m
Salary of cleaner	Rs. 2000 p.m
Salary of mechanics	Rs. 4000 p.m
Insurance premium	8% p.a
Annual tax	Rs. 9000 per bus
Annual repairs	Rs. 10000 per bus

Total life of a bus is about 2,00,000 kms. A bus runs, in all 3,000 kms in a month and 30% of this distance has to be run without any passenger. Petrol consumption is one litre for every 5 kms. @ Rs. 45 per litre. Oil and other sundries are Rs. 22 per 100 kms.

Calculate the cost of running a bus per km.

14. From the following information, prepare only an estimate for Job No. 150:

	Rs.
Direct material consumed	1,000
Direct wages paid	2,000
Factory expenses	60% on wages
Office expenses	20% on factory cost

The tender should include a profit of 20% on selling price.

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<u>UNIT-V</u>

SYLLABUS

Contract Costing – Progress Payment – Retention Money – Escalation Claim – Contract Account – Process Account – Normal Loss – Abnormal Loss – Equivalent Units – Inter Process Profit – Joint Product – By Product.

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

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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 certificationIt 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.

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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.

SPECIMEN FORM OF CONTRACT ACCOUNT (Unfinished contract)

To materials	Xxx	By work in progress:		
To Labour	Xxx	Work	Certified	
To Plant	Xxx	xxx		Xxx
To Overheads	Xxx	Work	uncertified	Xxx
To cost of sub contracts	Xxx	xxx		
To Notional Profit c/d(B/F)	Xxx	By material returned		Xxx
		By	plant	Xxx
	Xxx	xxx		Xxx
		Less: Depreciation	XX	
To Profit and Loss A/C		By material lying at sit	e	
	Xxx			Xxx
To WIP (B/F)				
	Xxx			
7	Xxx			Xxx
	======	By Notional profit B/d		=======

Contract A/C

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

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depreciation. There are two distinct methods of charging depreciation.

- 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 ¹/₄) : 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.
- 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 Notional profit x1/3 x <u>Cash received</u>

Work certified

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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.

Notional profit x2/3 x Cash

received

Work

certified

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.

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(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.

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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.

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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

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the normal output, the difference is abnormal loss.

Value of Abnormal loss = $\underline{Normal \ cost \ of \ normal \ output} \ x \ Units \ of \ Abnormal \ loss$

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 = <u>Normal cost of normal output</u> 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
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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.

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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:

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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:

	Process A	Process B
Particulars	Rs.	Rs.
Direct materials	20,000	60,000
Direct wages	30,000	40,000
Closing stock	10,000	30,000

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.

Solution:

Process A Account

KARPAGAM ACADEMY OF HIGHER EDUCATION.Com (PA)COURSE NAME: APPLIED COST ACCOUNTING

CLASS: III B.Com (PA) COURSE CODE: 15PAU502

UNIT: V

BATCH-2015-2018

Total Rs.	Cost Rs.	Profit Rs.	Particulars	Rs.	Rs.	Rs.
20,000	20,000	-	By Transfer to Process B	50,000	40,000	10,000
30,000	30,000					8
50,000	50,000					197.1
10,000	10,000	-	(H)			
40,000	40,000				1.1	- ×
10,000	-	10,000			~	
50,000	40,000	10,000	in the	50,000	40,000	10,000
	Total Rs. 20,000 30,000 50,000 10,000 10,000 50,000	Total Cost Rs. Rs. 20,000 20,000 30,000 30,000 50,000 50,000 10,000 10,000 40,000 40,000 10,000 - 50,000 40,000	Total Cost Profit Rs. Rs. Rs. Rs. 20,000 20,000 - 30,000 30,000 - 30,000 50,000 - 10,000 10,000 - 10,000 - 10,000 50,000 - 10,000 50,000 40,000 10,000	Total Cost Profit Particulars Rs. Rs. Rs. Rs. Profit Particulars 20,000 20,000 - By Transfer to Process B 30,000 30,000 - - 50,000 50,000 - - 10,000 10,000 - 10,000 10,000 - 10,000 - 50,000 40,000 - 10,000	Total Cost Profit Particulars Total Rs. Rs.	Total Cost Profit Particulars Total Cost Rs. Rs.

Process B Account

Particulars	Total Rs.	Cost Rs.	Profit Rs.	Particulars	Total Rs.	Cost Rs.	Profit Rs.
To Transfer from Process A	50,000	40,000	10,000	By Transfer to Finished Stock	1,50,000	1,12,000	38,000
To Materials	60,000	60,000		C500 1			
To Wages	40,000	40,000			1.1.1.1.1		
	1,50,000	1,40,000	10,000		80 L		

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Less: Closing stock					10	1
Doo - Demois	30,000	28,000	2,000		and a	·
local in to the	1,20,000	1,12,000	8,000			
To Profit (25% on			-		-	
cost)	30,000	-	30,000			
	1,50,000	1,12,000	38,000	1,50,000	1,12,000	38,000

Finished Stock Account

Particulars	Total Rs.	Cost Rs.	Profit Rs.	Particulars	Total Rs.	Cost Rs.	Profit Rs.
To Transfer from Process B Less: Closing Stock	1,50,000	1,12,000	38,000	By Sales	1,50,000	78,400	71,600
To Profit	95,000	78,400	26,600	1	1204	1	
	45,000	-	45,000		1000		
	1,50,000	78,400	71,600		1,50,000	78,400	71,600

Working Notes:

CLASS: III B.Com (PA)	COURSE NAME: APPLIED COST ACCOUN?				
COURSE CODE: 15PAU502	UNIT: V		BATCH-2015-2018		
Working Notes: The stock in Proce profit.	ess A is valued at cost a	and therefore	there is no unrealized		
Computation of cost stock		200.01			
Formula = Cost of stock $\frac{Cost}{Total}$	× Closing Stock	(00.04	a.		
I Unrealized Profit - Value of	stock - Cost of Stock				
Officanized From - Value of	SUCK - COST OF DIRCK				
Cost of stock in Process B = 1,40,000	$(1,50,000 \times 30,000 = \text{Rs}.)$	28,000			
Unrealized Profit = Rs. 30,0	00 - 28,000 = Rs. 2,000				
Cost of Finished Stock = 1,10,000	/1,50,000 × 45,000 = Rs	33,000	~		
Unrealized Profit = Rs. 45,000	- 33,000 = Rs. 12,000				
Total unrealized Profit = Rs. 2,000	+ 11,400 = Rs. 13,400				
In Balance sheet the Stocks	will be shown at cost a	as follows:			
Stock in Process A = Rs. 10,00	00				
Stock in B (Rs. 30,000 - 2,000	0) = 28,000	lease litte			
Finished stock (45,000 - 11400	0) = 33,600				
Tetel / 85 000 13 400	1-71 600				

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

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CLASS: III B.Com (PA)COURSE NAME: APPLIED COST ACCOUNTINGCOURSE CODE: 15PAU502UNIT: VBATCH-2015-2018

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

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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 byproducts 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

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(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."

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UNIT: V

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POSSIBLE QUESTIONS

Part - B

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

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

Cash received on account of the contract upto 31st December 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.

	Proces	ss 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 w	ork in progress 800 units.
	Degree of completion	n Process Costs
Materials	80%	Rs. 7,280

KARPAGAM ACADEMY OF HIGHER EDUCATIONCom (PA)COURSE NAME: APPLIED COST ACCOUNTING CLASS: III B.Com (PA) COURSE CODE: 15PAU502 UNIT: V BATCH-2015-2018 70% Labour Rs. 7,120 70% Overheads 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.

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KARPAGAM UNIVERSITY Karpagam Academy of Higher Education (Under Section 3 of UGC Act 1956) COIMBATORE – 641 021 (For the Candidates admitted from 2015) FIRST INTERNAL EXAMINATION APPLIED COST ACCOUNTING III B.Com (PA)

Time:2 Hours Date:

Max.Marks:50

PART – A (20X 1 = 20 Marks) Choose the Correct Answer

1. Cos	ting is a technic	que of			
	(a) Ascertainn	nent of cost	(b) Analysing of cost		
	(c) Utilization	of cost	(d) Cost reduction		
2. Cos	t accounting pr	ovide data for 1	nanagerial		
	(a) Planning	(b) Organizing	g(c) Decision making		
	(d) Decision M	Making and cos	t controlling		
3. Cos	t accounting ha	is become an es	ssential tool of		
	(a) Accounts	(b) Manageme	ent (c) Purchase	(d) Sales	
4. Cos	t accounting ha	as been develop	ed because of	of financ	cial accounting
	(a)Advantages	s (b) Lin	nitations (c) Im	portance	(d) Cost
5	is the	process and tec	chniques of ascertainin	g costs.	
	(a)Manageme	nt accounting	(b) Financial account	ing	
	(c) Cost accou	inting	(d) Budgeting		
6. Dire	ect Costs are kn	nown as			
	(a)Work Cost	(b) Prime Cos	t (c) Cost of Pr	oduction	(d) Cost of Sales
7. Cos	t accounting in	volves	of cost data	a to the manage	ement
	(a) Summarisi	ing (b) An	alysing (c) Reporting	(d) Recording	5
8. A co	ost centre in wh	nich	is carried on as	production cos	st centre
	(a) Service	(b) sales	(c) production (d) ma	urketing	
9	varies	with the volum	e of output		
	(a) fixed	(b) variable	(c) semi-variable	(d) average	
10		cost is one	of the most important	elements of the	cost of production
	(a)Labour	(b) material	(c) Selling Overhead	(d) Administr	ative Overhead

11. Inventory means

(a) Stock (b) Material (c) Stores (d) Sales 12. _____remains fixed irrespective of the level of output (b) variable (c) semi-variable (d) partly fixed (a) Fixed 13. EOQ = (c) 2AO/C(d) 2CA/C(a) AO/C(b) AC/O14. BIN card is maintained by (a) Storekeeper (b) Accountant (c) Auditor (d) Supervisor 15. _____level below which stock level should not be allowed to fall at any time (a) Minimum (b) Maximum (c) Re- Order level (d)Average 16. There are certain industries where the _____ passes through the different stages of a product (b) Product (c) Raw material (d) Sales (a) Goods 17. Stores ledger is kept in the _____ department (a) Production (b) sales (c) stores (d) costing 18. ABC analysis stands for _____ (a) Always best control (b) Always Better Control (c) Automated Better Control (d) Adjusted best control 19. EOQ is related to_____ (b) Ordering and carrying cost (a) Fixed cost (d) Total cost (c)Variable cost 20. Management accounting and cost accounting are _____ (a) Supplementary to each other (b) Complementary to each other (c) Independent to each other (d) Opposite to each other PART B (3x10=30 Marks) **Answer All the Questions** 21. a) Explain about: i) Cost ii) Costing iii) Cost Accounting iv) Cost Units v) Cost Centre (**Or**) b) Briefly explain various methods of costing. 22. a) The following data relate to the manufacture of a product during the month of January 2016. Raw materials consumed Rs. 80.000 Direct Wages Rs. 48,000

Machine Hours worked 8,000 Machine hour rate Rs.4 Office Overhead 10% of work cost Selling overhead Rs.1.50 per unit Units produced 4,000 Units sold 3,600 at Rs.50 each

Prepare a cost sheet and show (a) cost per unit and (b) profit for the period.

(Or)

b) Draw a statement of Cost from the following particulars:

Opening Stock:	i) Materials	2,00,000
	ii) Work-in-progress	60,000
	iii) Finished Goods	5,000
Closing Stock:	i) Materials	1,80,000
	ii) Work-in-progress	50,000
	iii) Finished Goods	15,000
Materials purchased		5,00,000
Direct wages		1,50,000
Manufacturing expen	ses	1,00,000
Sales		8,00,000
Selling and distribution	on expenses	20,000

23. a) Two materials, X and Y, are used as follows:

Minimum usage : 50 units per week each

Maximum usage : 150 units per week each

Normal usage : 100 units per week each

Ordering quantities: X - 600 units, and Y - 1,000 units

Delivery period: X - 4 to 6 weeks, Y - 2 to 4 weeks.

Calculate for each material (a) Minimum Level (b) Maximum level (c) Ordering level

(**O**r)

b) Calculate the Economic Order Quantity from the following information. Also state the number of orders to be placed in a year.

Consumption of materials per annum	10,000 kg.
Order placing costs per order	Rs. 50
Cost per kg. of raw materials	Rs. 2
Storage costs 8% on average in inventory.	

Register No.:______ 15PAU502 KARPAGAM UNIVERSITY Karpagam Academy of Higher Education (Under Section 3 of UGC Act 1956) COIMBATORE – 641 021 (For the Candidates admitted from 2016) SECOND INTERNAL EXAMINATION APPLIED COST ACCOUNTING III B.Com (PA)

Time:2 Hours Date:

Max.Marks:50

PART – A (20X 1 = 20 Marks) Choose the Correct Answer

1. Wa	ge sheets is prej	pared by				
	(a) Production	(b) Pur	chase	(c) Sale	es	(d) Pay roll
2. In 7	Taylor's differen	ntial piece rate s	system		piece ra	ates are set for each job.
	(a) Two	(b) Three	(c) Four	(d) Fiv	e	
3. Wh	at is considered	under Gantt ta	sk and bonus s	cheme?		
	(a) Time	(b) Piece rate	(c) Bonus	(d) Pie	ce rate	+ Bonus
4. Ove	erhead means					
	(a) Indirect ex	penses	(b) Di	rect expe	enses	
	(c) Work expe	enses	(d) Fa	ctory ex	penses	
5	incu	rred for running	g the office			
	(a) Administra	ation overhead	(b) Factory ov	verhead		
	(c) selling ove	erhead	(d) dis	stribution	n overhe	ead
6	co	st are variable of	cost which can	be cont	rolled	
	(a) Normal	(b) Abnormal	(c) Controllat	ole	(d) Un	controllable
7. Stat	te the bases for	apportionment	of depreciation	n of plan	t and m	achinery
	(a) Light poin	ts	(b) value of p	olant		
	(c) value of st	ock	(d) value of n	naterials		
8	incu	rred for actual s	ales and prom	otion of	sales	
	(a) Administra	ation overhead	(b) factory ov	rerhead		
	(c) Selling over	erhead	(d) distributio	on overhe	ead	
9	dep	artment are tho	se department	s which	enable (other department to work.
	(a) Service	(b) Pro	oduction	(c) Sale	es	(d) Purchase

10. State the bases for apportionmen	t of indirect materials
(a) Direct Materials	(b) value of plant
(c) value of stock	(d) value of materials
11. Fixed cost per unit increases who	en
(a) Production volume decrea	ases (b) Production volume increases
(c) Variable cost per unit dec	creases (d) Sales Increases
12 is the sales overhead	
(a) Office salaries (b) Ad	lvertisement expenses
(c) Factory rent (d) Inc	lirect material
13means below which s	tock level should not be allowed to fall at any time.
(a) Minimum Level	(b) Maximum Level
(c) Re- Order level	(d) Average Level
14 labours which is	not directly engaged in production of goods or services
(a) Direct (b) Indirect	(c) semi- skilled (d) Skilled
15 incurred for packing	ng and delivery of goods to customers
(a) administration overhead	(b) factory overhead
(c) selling overhead	(d) Distribution overhead
16 rate is the cost of	running a machine per hour
(a) Labour per hour	(b) Machine Hour
(c) wage hour	(d) indirect labour hour
17. The stores department is a	
(a) Service department	(b) Production department
(c) Sales	(d) Advertisement
18 expenses that are no	ot directly charged to production
(a) Indirect (b) Direct	(c) overhead (d) selling
19 do not vary with the	he volume of products
(a) Fixed overhead (b) va	riable overhead
(c) selling overhead (d) ser	ni variable overhead
20. State the bases of apportionment	for rent
(a) Floor area	(b) value of plant
(c) value of stock	(d) value of materials

PART B (3x10=30 Marks)

Answer All the Questions

21. a) What do you understand by "Integrated Accounts"? State the advantages of "Integrated Accounts".

(**O**r)

b) 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's	
Insurance	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.

22. a) 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	Ter	ritory		
	X (Rs.)	Y (Rs.)	Z (Rs.)	
А	50,000	20,000	_	
В	30,000	_	80,000	
С	_	70,000	40,000	
The budgeted advertising cost	is as under			

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.

(**O**r)

b) Journalise the following transactions assuming cost and financial accounts are integrated.

	Rs.	
Raw materials purchased on credit		20,000
Direct materials issued to production		15,000
Wages paid (30% indirect)		12,000
Wages charged to production		9,500
Manufacturing expenses paid		8,400
Selling & distribution expenses		2,000
Finished product (at cost)		20,000
Receipts from Debtors		6,900

23. a). Standard time allotted for a job is 20 hours and the rate per hour is Rs.2 plus a dearness allowance @50 paise per hour worked.

The actual time taken by a worker is 15 hours. Calculate the earnings under (i) Time system, (ii) Piece wage system, (iii) Halsey plan, (iv) Rowan Scheme.

(**O**r)

b) 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

Register No.:_____

[15PAU502]

KARPAGAM UNIVERSITY Karpagam Academy of Higher Education (Established Under Section 3 of UGC Act 1956) COIMBATORE – 641 021 (For the candidates admitted from 2015 onwards) MODEL EXAMINATION B.COM (PA) - FIFTH SEMESTER APPLIED COST ACCOUNTING

Time: 3 Hours Date:

Maximum: 60 Marks

PART - A (20x1 = 20 Marks)**Choose the Correct Answer** 1. Cost accounting has become an essential tool of _____ (a) Accounts (b) Management (c) Purchase (d) Sales 2. Cost accounting is a separate ______ of accounting. (a) No branch (b) Branch (c) Batch (d) No Batch 3. remains fixed irrespective of the level of output (a) Fixed (b) variable (c) semi-variable (d) partly fixed 4. ABC analysis stands for _____ (a) Always best control (b) Always Better Control (d) Adjusted best control (c) Automated Better Control 5. Fixed cost per unit increases when _____ (a) Production volume decreases (b) Production volume increases (c) Variable cost per unit decreases (d) Sales Increases 6. Cost of production =(a) Work cost + factory cost(b) Work cost + prime cost(c) Work cost x prime cost (d) Work cost + administrative overhead 7. _____ means below which stock level should not be allowed to fall at any time (a) Minimum Level (b) Maximum Level (c) Re- Order level (d) Average Level 8. The stock register shall show the _____ (a) Receipt of materials (b) Issue of materials (c) The balance of materials (d) Receipt, Issue and Balance of material 9. _____ labours which is not directly engaged in production of goods or services (a) Direct (b) Indirect (c) semi- skilled (d) Skilled 10. ______ incurred for packing and delivery of goods to customers (a) administration overhead (b) factory overhead (d) Distribution overhead (c) selling overhead 11. _____ rate is the cost of running a machine per hour (a) Labour per hour (b) Machine Hour (c) wage hour (d) indirect labour hour

12. State the bases for apportionment of indirect wages				
(a) Direct Materials (b) Direct wages				
(c) value of stock (d) value of materials				
13 method o	f costing adopted in printin	ng press		
(a) Process costing	(b) Job costing (c)	Unit costing (d) Contract costing		
14 is an	example of operating char	·ge		
(a) Petrol/ diesel	(b) Annual tax (c) Insurar	ace (d) Rent		
15is an examp	ple for transport services			
(a) Railways (b) Ga	as supply (c) Water	supply (d) Hospitals		
16. In costing the	production is always again	ist the customer order		
(a) Process costing	(b) Job costing			
(c) Unit costing	(d) Contract costin	ng		
17. Process costing is used to	o find out o	f the product at the end of each stage		
(a) Cost (b) E	xpenses (c) Unit costing	(d) Income		
18. Abnormal loss arises whe	en the actual loss is more th	han the losses		
(a) Abnormal Loss	(b) Normal Loss			
(c) Avoidable Loss	(d) Expected Loss			
19 costing	is mainly adopted in constr	uction of bridges		
(a) Process costing	(b) Job costing			
(c) Unit costing	(d) Contract costin	ng		
20 expens	es are incurred for selling t	he by products		
(a) Selling and distribution (b) Production				
(c) purchase (d) Raw material expenses				
	PART B (5x8=40			
	Answer All the Quest	ions		
21. a) Describe briefly the di	fferent methods of Costing			
	(Or)			
b) Draw a statement of c	ost from the following part	iculars:		
	1 3 6 7 1 1	Rs.		
Opening stock:	1. Materials	2,00,000		
	2. Work-in Progress	60,000		
	3. Finished goods	5,000		
Closing stock:	1. Materials	1,80,000		
	2. Work-in Progress	50,000		
	3. Finished goods	15,000		
Materials purchased		5,00,000		
Direct wages		1,50,000		
Manufacturing exper	ISES	1,00,000		
Sales		8,00,000		
Selling and distributi	Setting and distribution expenses $20,000$			
22. a) From the following pa	Aniculars calculate:	imum loval		
a) Ke-order level b) I	vinimum level and c) Max	iniuni ievei		
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
	(Or)

b) 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

23. a) How would you apportion the following expenses between departments A and B?

	Rs.		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 de	epartments avai	lable:	
	А	В	
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	
	(Or)		

b) 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	S 1	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 I	Production Departments		Service Departments	
	P1	P2	P3	S 1	S2	
S1	30%	40%	15%	-	15%	
S 2	40%	30%	25%	5%	-	

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

24. a) Global transports owns Buses and the following information is available from the records maintain by them:

Number of Buses	5
Cost of each Bus	Rs. 2,50,000
Driver's salary	Rs. 10,000 p.m per bus
Salary of manager	Rs. 7000 p.m
Salary of accountant	Rs. 5000 p.m
Salary of cleaner	Rs. 2000 p.m
Salary of mechanics	Rs. 4000 p.m
Insurance premium	8% p.a
Annual tax	Rs. 9000 per bus
Annual repairs	Rs. 10000 per bus

Total life of a bus is about 2,00,000 kms. A bus runs, in all 3,000 kms in a month and 30% of this distance has to be run without any passenger. Petrol consumption is one litre for every 5 kms. @ Rs. 45 per litre. Oil and other sundries are Rs. 22 per 100 kms. Calculate the cost of running a bus per km.

(Or)

b) Write short notes on a) Retention Money b) Escalation claim c) Work-in-Progress d) Cost plus contracts

25. a) 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
12,000	6,000
14,000	8,000
4,000	4,000
10,000	_
Rs. 10,000	_
9,400 Units	8,300 Units
5%	10%
Rs.8	Rs.10
(O r)	
	Process A 12,000 14,000 4,000 10,000 Rs. 10,000 9,400 Units 5% Rs.8 (Or)

b) 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.

Reg. No.....

[11CMU502]

KARPAGAM UNIVERSITY (Under Section 3 of UGC Act 1956) COIMBATORE - 641 021 (For the candidates admitted from 2011 onwards)

B.Com. DEGREE EXAMINATION, NOVEMBER 2013

Fifth Semester COMMERCE

COST ACCOUNTING

Maximum : 100 marks

PART - A (15 x 2 = 30 Marks) Answer ALL the Questions

Define Costing.

ime: 3 hours

What are the types of cost centre?

From the following calculate work Cost. Ram material Rs.64,500; Direct wages Rs80,000; Factory Overheads Rs29,500; Opening stock of WIP Rs.13,000 and Closing Stock of WIP Rs,34,500.

Give any three methods of Stores Ledger.

- What do you mean by labour turnover? Calculate the Economic Order Quantity for material varun. The following details are furnished. Annual usage 90,000 Units; Buying cost per order Rs.10; Cost of carrying inventory 10% of cost. Cost per unit Rs.50. Define Overhead.
- 8. Give any three examples of factory overheads.
- Compute the direct material percentage rate for overhead absorption from the following:

Factory Overheads budgeted for 2012	- Rs.2,30,000	
Cost of direct material estimated to be		
Consumed during 2012	- Rs.4,60,000	

10. What is Job Costing?

11. Define Process Costing.

- 12. 100 units of Raw material are introduced into process A at cost of Rs.5 each. Normal wastage is 6% and each waste unit realized Rs.2. Actual output was 90 units other expenses in the process are: Wages Rs.120; Overheads Rs.238. Prepare process A account.
- 13. Compute the economic batch quantity for a company using batch costing with the following information annual demand for the Consumption 24,000 units, Set-up cost per batch Rs.120, Carrying Cost per unit of production Rs.0.36.

1

14. Ascertain the cost and selling price:

- Material consumed Rs.10,000; Wages Rs.8,000; Works on cost 25% on wages; Office on cost 20% on works cost; Selling on cost 10% on works cost; Profit 10% on cost.
- 15. Calculate Re-order level the following information is available in respect of a material maximum consumption 900 units per week normal consumption 600 units per unit Re-order period 3 to 5 weeks.

PART B (5 X 14= 70 Marks) Answer ALL the Questions

16. a. State the Differences between Financial accounting and Cost accounting. Or

b. The accounts of a machine manufacturing company disclose the following information for the six months ending 31st Dec.2011.

	KS.
Materials used	1,50,000
Direct Wages	1,20,000
Factory Overhead Expenses	24,000
Office Expenses	17.640

Prepare a Cost Sheet of the machines and calculate the price which the company should quote for the manufacture of a machine requiring materials valued at Rs.1,250 and expenditure in productive wages of Rs.750, so that the price may yield a profit of 20% on the selling price. For the purpose of price quotation, charge factory overhead as a percentage of direct wages and charge office overhead as a percentage of work cost.

The Callender to 17 antipus to dealers in success of a feature of item

2011		Receipt	Rate	Issue
		Quantity	Rs.	Quantity
Marc	:h,2	200 units	2.00	
55	10	300 units	2.40	
4.6	15			250 Units
44	18	250 units	2.60	
	20			200 Units
Prepa	are a Sto	ores Ledger Sheet,	pricing the iss	ues at –
8	a) Simpl	e average rate,		
t) Weig	hted average rate.		
		Or		
b. Fr	om the	following particula	rs prepare the	labour cost sheet per
		COL		

man - day of 8 hours: a) Basic Salary

b) Dearness allowance

... Rs.2 per day ... 25 Paise for every point over 100 cost of living

	index for working class-
c) Leave salary	Current Cost of Living
 d) Employer's contribution to 	Index 700 points.
Provident Fund	10% Of (a) and (b)
Employer's contribution	8% of (a), (b) and (c)
to State Insurance	2.5% of a+b+c
 e) Expenditure on amenities to labour 	Rs.20 per head
f) Number of working days in a month	per month 25 days of 8
	hours each.
8. a. The following is the budget of Superb E	Engineering Works for the year
2012.	
Factory overheads	Rs.62,000
Direct labour cost	Rs.98,000
Direct labour hours	1,55,000
Machine hours	50,000
i) From the above figures prepare the over	erhead application rates using
the following methods:	
(a) Direct Labour Hour R	late
(b) Direct Labour Cost	
(c) Machine Hour Rate	
ii) Prepare a Comparative statement of co	ost, showing the result of
application of each of the above rates t	o job no.555 from the under
mentioned data.	
Direct Material Cost	Rs.45
Direct Labour : Wages	Rs.40
Direct Labour : Hours	40
Machine Hours	30
Or	
b. Work out the machine hour rate for th	e following machine for the
month of January 2012:	
Cost of Machine	Rs.90,000
Other charges, e.g., freight and inst	tallation Rs.10,000
Working life	10 years
Working hours	2,000 pre year
19. a. Sri Govinda undertook a contract for co	onstructing a building for Sri
Dharan on 1st July 2011 the contract pri	ice being Rs.75.000. He
incurred the following expenses:	
Materials	Rs.26,000
Materials in hand at end	1,000
Wages	35,000
Direct expenses	20,000
Plant purchased	10,000

The contract was completed on 31st December 2011 and the contract price was duly received. Provide depreciation at 10% on plant and charge indirect expenses at 20% on wages. Prepare Contract Account in the books of Sri Govinda. Or

b. From the following particulars relating to four jobs of a manufacturer, ascertain the total cost of each job:

	Job 1	Job 2	Job 3	Job 4
	Rs.	Rs.	Rs.	Rs.
Direct materials	800	1,000	1,200	1,400
Direct Wages	400	500	600	700
Direct Expenses	80	100	120	140
Works overhead is 45% of	prime cost and	office over	head is 15	% on

works.

20. a. The following cost data is obtained from the books of a factory for the year ended 31st December 2011:

		Rs.
	Direct materials	90,000
	Direct Wages	75,000
	Profit	65,900
	Selling and distribution overheads	52,500
	Administration overheads	42,000
	Factory overheads	45,000
1	Prepare a cost sheet indicating prime cost,	work cost, production
0	cost, cost of sales and sales value.	

b. A product passes through three distinct process A, B and C. The normal loss units in each process is A - 5%, B - 10%, C - 15% which is sold at Rs.2, Rs4 and Rs.5 respectively, expenses for the month of Oct 2012 were as follows:

	Process		
A	В	С	
5,200	3,960	5,924	
4,000	6,000	8,000	
1,900	1,680	1,500	
	A 5,200 4,000 1,900	A B 5,200 3,960 4,000 6,000 1,900 1,680	A B C 5,200 3,960 5,924 4,000 6,000 8,000 1,900 1,680 1,500

10

2,000 units @ Rs.3 per unit were put into process 'A'. There were no open or closing stock. The total overheads are Rs.18,000 which are to be recover at 100% of wages. Prepare necessary Process Account.

Reg. No.....

KARPAGAM UNIVERSITY (Under Section 3 of UGC Act 1956) COIMBATORE - 641 021 (For the candidates admitted from 2013 onwards)

B.Com. DEGREE EXAMINATION, APRIL 2015 Fourth Semester

COMMERCE (COMPUTER APPLICATIONS)

COST ACCOUNTING

Maximum : 60 marks

[13CCU401]

PART - A (10 x 2 = 20 Marks) Answer any TEN Questions

I. Define cost.

Time: 3 hours

- 2. What do you mean by cost unit?
- State any two demerits of cost accounting 4. State any two merits of LIFO method.
- 5. What is E.O.Q?
- 6. Define perpetual inventory.7. What do you understand by labour turnover?
- 8. What is idle time? 9. Define overhead.
- 10. Write a note on scrap.
- 11. Name any four industries which apply process costing? 12. What do you understand by abnormal wastage?
- 13. What is work certified?
- 14. State any two reasons for differences in profits revealed by cost and financial Accounts.
- 15. What is operating costing?

PART B (5 X 8= 40 Marks) Answer ALL the Questions

16. a) The accounts of a machine manufacturing company disclose the following information for the six months ending 31st December 2013. Materials used Rs. 1,50,000 ; Direct wages Rs.1,20,000 ; Factory overheads Rs. 30,000 and Administrative expenses Rs.15,000. Prepare the cost sheet of the machines and calculate the price which the company should quote for the manufacture of a machine requiring materials valued Rs. 1,250 and expenditure in productive wages Rs.750, so that the price might yield a profit of 20 % on the selling price.

Or

b) M/S Indu industries ltd is the manufacturers of Moonlight Torches. The following data relate to manufacture of torches during the month of March.

Raw materials consumed Direct wages Machine hours worked Machine hour ratae Office overhead Selling overhead Unit produced Units sold

Rs. 20,000 Rs. 12,000 9,500 hours Rs.2 20 % of works cost 50 paise per unit 20,000 units 18,000 @ Rs.5 for unit

Prepare cost sheet showing the cost and the profit per unit and the total profir earned.

17. a) Record the following transactions in Stores Ledger, pricing the materials under FIFO method. May 1

- Balance 50 units at Rs.25 per unit
- Received 300 units at Rs.30 per unit 5
- Issued 200 units Issued 120 units
- Received back 10 units (issued on 7th May)
- 10 Returned to Vendor 15 units purchased on 3rd May.
- 15 Received 200 units at Rs.32
- 18 Issued 150 units
- 19 Issued 50 units

The stock verification found a shortage of 10 units on 20th .

Or b) From the following particulars calculate reorder level, minimum level, maximum level and average level of stock. Normal usage 50 units per week

- Minimum usage 25 units per week Maximum usage 75 units per week
- Re order quantity 500 units per week Re order period 4 to 6 weeks

18. a) From the following data, prepare a statement showing the labour cost per man day of eight hours.

- i) Basic salary and dearness allowance Rs.300 per month.

 - ii) Leave salary to the workman 6 percent of the basic and D.A
 iii) Employer's contribution to Provident Fund 6% of (a) plus (b).

 - iv) Employee's contribution to P.F. 6% of (a) and (b).
 v) Pro-rata expenditure on amenities to labour Rs.25 per head per month.

2

vi) Number of working hours in a month 200. Or

b) X Ltd. has three production departments and two service departments. Following information relates to the month of January 2013: Department 10 000

Rent	KS. 10,000	
Depreciation of machine	20,000	
Motive power	3,000	
Indirect wages	23,000	
Lighting	1,200	
dditional information		

Particulars D E A 2,000 B C 3,000 Area 2,500 2,000 500 occupied(sq.feet) 20 10 15 10 Light points 3,000 50 Direct wages Horse power 3,000 2,000 1,500 500 60 30 10 Value of 60,000 80,000 1,00,000 5,000 5,000
 water of machine (Rs.)
 b0,000
 s0,000
 r,00

 Prepare overhead distribution statement.

19. a) X commenced work on a particular contract on 1st April 2014. He close his books of accounts for the year on 31st December each year. The following information is available in his records on 31.12.2014.

Rs. 50,000
12,000
1,00,000

A machine costing Rs.32,000 remained in use on site for 1/5 of the year. Its working life was estimated at 5 years and scrap value at Rs.2,000. A supervisor is paid Rs.2,000 per month and had devoted one half of his time on the contract.

All other expenses were Rs.15,000. The material on site was Rs.9,000. The contract price was Rs.4,00,000. On 31st December, 2/3rd of the contract was completed. However, the architect gave certificate only for Rs.2,00,000 on completed. However, the service which 75% was paid. Prepare the contract account in the books of X. Or

b) Ascertain the profit as per the financial books from the following information:

Profit as per cost accounts	Rs. 25,000
Closing stock over-valued in cost books	12,500
Preliminary expenses written off	3,000
Profit on sale of building	30,000
Administrative expenses over valued in cost books	50,375
Works overhead under recovered in cost books	30,375
Bank interest and transfer fee in financial books	5,000
Interest on investment recorded in financial books	10,000
Depreciation shown in excess in cost books	4,000
Provision made for income tax	40,000

20. Compulsory :-

The product of a manufacturing concern passes through two processes and then to finished stock. It is ascertained that in each process norma of the total weight is lost

Reg. No.....

[11CCU401] KARPAGAM UNIVERSITY

(Under Section 3 of UGC Act 1956) COIMBATORE - 641 021 (For the candidates admitted from 2011 onwards)

B.Com. DEGREE EXAMINATION, NOVEMBER 2014 Fourth Semester

> COMMERCE (COMPUTER APPLICATIONS) COST ACCOUNTING

> > Maximum : 100 marks

me: 3 hours

PART A (15 X 2= 30 Marks) Answer ALL the Questions

What are the Elements of Cost?

From the following calculate the prime cost: Direct material Rs.4980, Direct Labour Rs.1710, Opening Stock of Work-inprogress Rs.510 and Closing Stock of Work-in-progress Rs.450, Work -inprogress is valued at prime cost basis.

- From the following calculate the value of raw material consumed: Raw Materials purchased Rs.8800, Opening Stock of Raw Materials Rs.1,000 and Closing Stock of Raw Materials Rs.1,235.
- 4. Suppose the annual consumption is 675 units, 10% is the interest and cost of storing an article costing Rs. 30 per unit, cost of placing and order is Rs. 18. Calculate the E.O.Q.

5. Calculate (a) Re-order level (b) Minimum level Two

Two components A a	nd B are used as follows:
Normal usage	50 units per weck each
Minimum usage	25 units per week each
Maximum usage	75 units per week each
Re-order quantity	A:300 units B:500 units
Re-order period	A:4 to 6 weeks B:2 to 4 weeks

6. On the basis of the following information calculate the earnings of A and B on the straight price Rate basis system.

8 units per hour Standard Production Rs. 0.40 per hour Normal time rate

1

- 7. The guaranteed time table is Re. 1 per how high piece rate is Re. 0.20 per unit and standard output is 10 units per hour. In a day of 8 hours, A produces 70 units and B produces 80 units and C produces 90 units. Calculate the earning of A,B and C under Gantt task plan.
- 8. How will you calculate machine hour rate under machining department?9. What are the classifications of overhead cost?
- 10. What are the steps in overhead Accounting?
- What is process costing?
 Input 3800 units: output 3000 units, work-in-progress 800 units.

	Degree of completion	Process costs Rs.
Materials	80%	7280
Labour	70%	10680
Overheads	70%	7120

- 13. In process B,75 units of a commodity were transferred from process A at a cost of Rs.1310. The additional expenses incurred by the process were Rs.190. 20% of the units entered are normally lost and sold @Rs.4 per unit. The output of the process was 70 units. Prepare Process B Account.
- 14. A company maintained separate cost and financial accounts and the costing profit for 1993 differed to that revealed in financial accounts, which was shown as Rs.50,000. The following information is available

	Cost Accounts Rs.	Financial Accounts Rs.
Opening Stocks of Raw Materials	5,000	5,500
Cloging Stocks of Raw Materials	4,000	5,300
Opening Stocks of Finished Goods	12,000	15,000
Closing Stocks of Finished Goods	14,000	16,000

ii) Dividends with Rs.1000 were received by the company. iii) A machine with net book value of Rs.10,000 was sold during the year for

- Rs. 8,000.
- iv) The company charged 10% interest on its opening capital employed of Rs.80,000 to its process costs. You are required to figure which was shown in the cost accounts.

15. The Rama Corporation produces four products in a manufactor produced 10000 units of A, 20000 units of B, 25000 units of D. The cost before split off point for the four 140000. Using the average unit cost method (i) Calculate th (ii) Show how the joint cost would be apportioned among the cost would be appendix to the cost 2



PART B (5x 14= 70 Marks) Answer ALL the Questions

16. a. Explain the Difference between Cost Accounting and Financial Accounting Or

b. The following particulars have been extracted from the costing records of a manufacturing co., for the year ended 30th June, 2011.

Particulars	Rs.
Raw material purchase	1,00,000
Wages	
Direct	60,000
Indirect	10.000
Office Salaries	22,000
Finished Goods stock	10,000
Advertising	6,000
Agent's Commission	10,000
Rent, rates & taxes etc (9/10 for works, 1/10 for office)	2,000
Works	4,000
Building-repairs	2,000
Salaries-plant	4,000
Depreciation	Rs.
Plant Machinery	4,000
Building	2,000
Carriage inward	2,000
Carriage Outward	6,000
Sales	4,00,000
Opening Stock-	
Raw material	40,000
Traveling expenses	2,000
Power	2,000
Plant Maintenance	8,000
Miscellaneous expenses	
Plant	2,000
Office	2,000
Closing Stock	and the second
Raw Materials	40,000
Finished goods	6,000

Building is occupied 9/10 by factory and 1/10 by office. Production 20,000 (Units). You are required to prepare a detailed cost statement.

3

17. a. The following transactions occur in the purchase and issue of a material:

Date	Particulars
January 2	Purchased 4000 units @ Rs. 4.00 per unit
January 20	Purchased 500 units @ Rs. 5.00 per unit
February 5	Issued 2000 units
February 10	Purchased 6000 units @ Rs. 6.00 per unit
February 12	Issued 4000 units
March 2	Issued 1000 units
March 5	Issued 2000 units
March 15	Purchased 4500 units @ Rs5.50 per unit
March 20	Issued 3000 units

From the above, prepare stores ledger account by adopting LIFO method. Or

b. Show the Store Ledger entries as they would appear when using Weighted average method

April 1	Balance	300 units	Rs. 600
2	Purchase	200 units	Rs. 440
4	lssued	150 units	-
6	Purchase	200 units	Rs. 460
11	Issued	150 units	-
19	Issued	200 units	
22	Purchase	200 units	Rs. 480
27	Issued	250 units	

18. a. The New Enterprises Ltd., has three Production Departments A,B,C and two Service Departments D and E. The following figures are extracted from the' records of the company:

Particulars	Rs.
Rent and rates	5,000
General lighting	600
Indirect Wages	1,500
Power	1,500
Depreciation of Machinery	10,000
Sundries	10,000

4

The following further details are available:

	Total	A	B	C	D	E
(0 - 0)	10 000	2.000	2,500	3,000	2,000	500
Floor Space (Sq. II)	60	10	15	20	10 1	5
Dignipolitics.	10,000	3,000	2,000 1	3,000	1,500	500
H P of Machines	150	60	30	50	10	- /
Value of Machinery (Rs.)	2,50,000	0 60,00	000,08 0	1,00,000	5,000	5,000
Working Hours	-	6.226	5 4,028	4,066	-	-

The expenses of D and E are allocated as follows:

-	A	B	C	D	E
D	20%	30%	40%	-	. 10%
E	40%	20%	30%	10%	

What is the total cost of an article if its raw material cost is Rs. 50, labour cost Rs. 30 and its passes through Departments A,B and C for 4,5 and 3 hours respectively? Or

b. A companies has three production departments and two service departments and for a period the departmental distribution summary has the following totals:

Particulars	Rs.	
Production Departments:		
$P_1 - Rs. 800$; $P_2 - Rs. 700$ and $P_3 - Rs. 500$	2000	
Service Departments :		
S1 - Rs. 234 and S2 - Rs. 300	534	
	2534	

The excess of the service departments are charged out on a percentage basis as follows:

Departments	P ₁	P ₂	P ₃	S_1	S ₂
Service Department S1	20%	40%	30%		10%
Service Department S2	40%	20%	20%	20%	-

Prepare a statement showing the apportionment of two service departments expenses to Production Departments by Simultaneous Equation Method.

19. a. The Bengal Chemical Co. Ltd., produced three chemicals during the months of July 1995 by three consecutive processes. In each process 2 per cent of the total weight put in is lost and 10 percent is scrap which from process (1) and (2) realizes Rs. 100 a ton and form process (3) Rs. 20 a ton. The product of three processes is dealt with as follows:

5

	Process I	Process II	Process III
Passed to next	75%	50%	\ ·
Stock kept for sale	25%	50%	100%

	Process 1		Process II		Process III	
	Rs.	Tons	Rs.	Tons	Rs.	Tons
Raw materials	120000	1000	28000	140	107840	1348
Manufacturing Wages	20500	-	18520	-	15000	-
General Expenses	10300	-	7240		3100	

Prepare Process Cost Account, showing the cost per ton of each product. Or

b. A particular brand of phenyl passed through three important processes. During the week ended 15th January, 1992, 600 gross of bottles are produced. The cost book show the following information:

	Process 1	Process 2	Process 3
	Rs.	Rs.	Rs.
Material	4000	2000	1500
Labour	3000	2500	2300
Direct Expenses	600	200	500
Cost of bottles	Nil	2030	Nil
Cost of corks	Nil	Nil	Nil

The indirect expenses for the period were Rs. 1,600. The bye-products were sold for Rs. 240 (Process 2). The residue sold for Rs. 125.50 (Process 3). Prepare the account in respect of each process showing its cost and cost of production of the Finished product per gross of bottles.

20. a	. The following figures were available in respect of Ashok Engineering company for the year ended 31st March 2010.
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	Financial Accounts Rs.	Cost Accounts Rs.
Opening Stock:		
Raw Material	6.000	50.000
Work-in-progress	7.000	6 500
Finished Stock	5,000	4 500
Closing Stock:		4,000
Raw Material	4,000	4 300
Work-in-progress	3.000	3 700
Finished Stock	5 900	6 200
Purchases	40,000	0,200
Direct Wages	20,000	
Sales	20,000	21000 absorbed
Factory Expenses	1,10,000	40301000
Administration Expenses	3,000	2300 absorbed
Selling Expenses	4,000	4500 absobed
Financial Expenses	1,000	and and the g
nterest and Dividends Received	1,600	

Compute profit in financial Accounts and prepare a Reconciliation Statement.

Compute profile in matching Accounts and prepare a recommution statement.
 Or
 Construction Ltd is engaged to two contracts A and B during the year. The following particulars are obtained at the year end (Dec 31):

7

	Contract A	Contract B
Date of Commencement	April 1 Rs	Sep. 1 Rs
Contract Price	6,00,000	5.00.000
Materials issued	1,60,000	60,000
Materials Returned	4.000	2,000
Materials at site (Dec 31)	22,000	8,000
Direct Labour	1.50.000	42,000
Site Expenses	66,000	25,000
Establishment Expenses	25,000	7,000
Plant installed at site	80,000	70.000
Value of plant (Dec 31)	65,000	70,000
Cost of contract not yet certified	23,000	10,000
Value of contract certified	4,20,000	1 35 000
Cash received from contractees	3,78,000	1 25 000
Architect's Fees	2,000	1,25,000

During the period materials amounting to Rs.9000 have been transferred from contract A to contract B. You are required to show:
(a) Contract Accounts,
(b) Contractees Accounts and
(c) Extract from Balance Sheet as on December 31, clearly showing the calculation of work-in-progress.

Reg. No.....

[11CCU401]

KARPAGAM UNIVERSITY (Under Section 3 of UGC Act 1956) COIMBATORE – 641 021 (For the candidates admitted from 2011 onwards)

B.Com. DEGREE EXAMINATION, APRIL 2015 Fourth Semester

COMMERCE (COMPUTER APPLICATIONS)

COST ACCOUNTING

e 3 hours

Maximum : 100 marks

PART A (15 X 2= 30 Marks) Answer ALL the Questions

	State	four objectives of Cost Accounting.
1	From	the following calculate the prime cost:

Materials Rs.6,450, Direct Wages Rs.8,000, Factory Overheads Rs.2,950, Opening Stock of Work-in-progress Rs.1,300 and Closing Stock of Work-in-progress Rs.3,450. From the following calculate the cost of goods sold: Cost of production Rs.18350, Opening Stock of Finished Goods Rs.7150, Closing stock of Finished Goods Rs.4200. Calculate Average stock level Normal usage 150 units per week each 250 units per week each 750 units per week each Minimum usage Maximum usage Re-order quantity A:3000 units B:5000 units A:4 to 6 weeks B:2 to 4 weeks Re-order period A:4 to 6 5. Find E.O.Q. from the following Annual Usage : 600 units Cost of material per unit : Rs. 20 Cost of placing and receiving one order :Rs.60 Annual carrying cost of one unit: 10% of inventory values. 6. Rate per hour = Rs.1.50 per hour = 20 hours Time allowed for job Time taken = 15 hours Calculate the total earnings of the worker under the Halsey Plan. Also find out

effective rate of earning. 7. What is overhead?

8. 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.



Local Cost 11,900 3,200 4,500 4,200 5,800 General Cost 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. 9. What do you mean by development cost?

10. What is abnormal process loss?

- 11. In process A 100 units of raw materials were introduced at a cost of Rs.1000. The other expenditure incurred by the process was Rs.602 of the units introduced 10% are normally lost in the course of manufacture and they possess a scrap value of Rs.3 each. The output of process A was only 75 units. Prepare Process A Account.
- 12. 50 units are introduced into a process at a cost of Rs.50. The total additional expenditure incurred by the process is Rs.32 of the introduced 10% are normally spoil in the course of manufacture; these possess a scrap value of Re.0.20 each. Owing to an accident only 40 units are produced.

The profit shown in the financial accounts was Rs.1,12,870 and for the same period the cost accounts showed a profit of Rs.27,040.

	Cost Accounts Rs.	Financial Accounts Rs.
Depreciation	98,260	1,05,200
Stock valuation:		
Opening Stocks	2,75,100	2,55,000
Closing Stocks	1,82,180	1,87,500
Profit on sale of asset	-	8,500
Dividend Received	-	26,350
Imputed rent charge	32,500	
Reconcile the profit figures	-	-

 The accounts of pleasants company Ltd show for 1995: Materials Rs.3,50,000, Labour Rs. 2,70,000, Factory Overheads Rs.81,000 and Administration Overheads Rs.56,080. Show the percentage of Factory Overheads on the basis of Labour and Administration Overheads on the basis of works cost.

15. From the following information apportion marginal cost and fixed cost on suitable basis and obtain profit?loss under each of the joint products: Sales: A 200 kg @ Rs,40 per kg and B 400 kg @ Rs.20 per kg Total Cost : Marginal cost Rs.6000 and Fixed cost Rs.5000

PART B (5x 14= 70 Marks) Answer ALL the Questions

 a. Describe the classifications of costing. Or

b. A manufacturing concern requires a statement showing the result of its production operation for September, 2011. Cost records give the following information.

Particulars	01.09.2011	30.09.2011
Raw Material	1,00,000	1,23,500
Finished Goods	71,500	42,000
Work-in-Progress	31.000	34,500

Transactions during the month of September, 2011:

Particulars	Rs.
Purchase of Raw Materials	88,000
Direct Wages	70,000
Works Expenses	39,500
Administration Expenses	13,000
Sale of Factory Scrap	2,000
Selling & Distribution Expenses	15,000
Sales	2,84,000

17. a. The following transactions took place in respect of an item of material:

Jan 1	Opening Balance	500 Units @ Rs. 4.00
4	Issued	200 Units
5	Received	200 Units @ Rs. 4.25
10	Issued	400 Units
12	Received	150 Units @ Rs. 4.10
15	Issued	100 Units
19	Issued	100 Units
20	Received	300 Units @ Rs. 4.50
25	Received	400 Units @ Rs. 4.00
26	Issued	200 Units
30	Issued	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. Or

3

b. The standard price of a material is fixed at Rs.10 per unit. Prepare the Stores Ledger Account showing how the cost of materials issued and value of balance in stock will be recorded under the standard price method from the following purchases and issues made during October, 2011

Date		Particulars	Quantity	Rate
October	2	Received	2000 Units	11
	5	Received	1000Units	10
1	0	Issued	1200Units	-
1	8	Received	800Units	9
2	5	Issued	900Units	-
2	9	Received	500Units	12
3	0	Issued	1100Units	-

Also find out the efficiency of purchasing materials.

18. a. Superfine Ltd. has furnished the following particulars for the half year ended March 31, 1992. Compute the department O/H rates. For the each of the Productions department assuming that the O/H charges are recovered as a % of direct wages.

Particular	Prod	uction D	Service Dept.		
	A	В	С	D	E
Direct Wages	4,000	6,000	8,000	2,000	4,000
Direct Material	2,000	4,000	4,000	3,000	3,000
No. of Employee	100	150	150	50	50
EBKWH	8,000	6,000	4,000	2,000	2,000
Light point	10	16	4	6	4
Assert value	1,20,000	80,000	60,000	20,000	20,000
Area occupied (sq.	150	250	100	50	50

Over Head expenses for the above period

Motive Power	3,300
Lighting	400
Stores exp	800
Staff welfare	4,800
Deprecation	30,000
Repair	15,000
Rent & Rates	1,200
General expenses	12,000

Apportion the expenses of service dept D in proportion to the direct wages & that of E in the ratio 5:3:2 to production dept A,B,C. Or

b. Shiva Industries Ltd., has four departments. A, B and C are production departments and D is the service department. The actual expenses for a month were as follows:

Particulars	Rs.
Rent	6,000
Repairs to plant	3,600
Depreciation	2,700
Lighting charges	600
Supervision	9,000
Insurance of stock	3,000
Power	5,400
Employee's Insurance Employer's liability	900

The following information is also available:

	Dept A	De	pt. B	Dept. C	Dept.
Area Sq.ft.	300	2	220	180	100
No of workers	48		32	24	16
Total wares	80	00	6 000	4 000	2 000
Total wages	8,0	00	6,000	4,000	2,000

Apportion the costs to four departments on the most equitable method.

19. a. The product of a company passes through three distinct processes to completion. These processes are known as A,B and C. From past experience it is ascertained that wastage is incurred in each process as under:

Process A	2% of input
Process B	3% of input
Process C	10% of input

The normal process loss occurring in the three processes is regularly sold at the rates of 50 paise (Process A), Re. 1 (Process B) and Rs. 2 (Process C) per unit respectively the output of each process passes immediately to the next process and the finished units are transferred from Process C to finished stock. The following expenses were incurred.

	A	B	C
Materials consumed	40,000	20,000	15,000
Direct labour	42,000	42,600	35,000
Manufacturing expenses	14,600	8,380	13,920
Repairs to Plant & Machinery	2,800	3,350	1,400

20,000 units have been issued to Process A at cost of Rs. 80,000. The output from each process has been as under:

Process A	19,500
Process B	18,800
Process C	16,600

There was not stock of work-in-process in any process. Prepare the process accounts and abnormal wastage account, assuming that the Abnormal wastage collected together for all the three processes was sold in one lump and fetched a price of Rs. 10,000. Or

b. A certain product passes through three processes before it is completed. The output of each process is charged to the next process at a price calculated to give a profit of 20% on transfer price(i.e. 25% on cost price). The output of process III is charged to finished stock account on a similar basis. There was no work-inprogress at the beginning of the year and overheads have been ignored. Stock in each process has been valued at prime cost of the process. The following data are obtained at the end of 31^{st} March, 2010.

	Process I Rs.	Process II Rs.	Process III Rs.	Finished Stock Rs.
Direct Material	4,000	6,000	2,000	
Direct wages	6,000	4,000	8,000	-
Stock on 31st March	2,000	4,000	6,000	3,000
Sales during the year				36,000

From the above information prepare

i. process cost accounts showing the profits element at each stage ii. actual realized profits

iii. stock valuation as would appear in the balance sheet.

20. a. A factory's normal capacity is 120000 units per annum. The estimated costs of production are as under:

Direct Materials Rs.3 per unit, Direct Labour Rs.2 per unit (subject to a minimum of Rs.12,000 pm) Overheads - Fixed Rs. Rs.1,60,000 per annum, Variable Rs.2 per unit, Semi- Variable Rs. 60,000 pa upto 50% capacity and an additional Rs.20,000 for every 20% increase in capacity or part thereof.

In 2010 the factory worked at 50% capacity for the first three months but it was expected that it would work @80% capacity for the remaining 9 months.

During the first three months, the selling price per unit was Rs.12. What should be the price in the remaining nine months to produce a total profit of Rs. 2,18,000?

Or

b. From the following data prepare a cost and profit statement of popular stoves manufacturing co for the year 2001:

Particulars	Rs.
Stock of materials on 1.1.2001	35,000
Stock of materials on 31.12.2001	4,900
Purchase of materials	52,500
Direct wages	95,000
Factory expenses	17,500
Establishment expenses	10,000
Completed stock in hand on 1.1.2001	NIL
Completed stock in hand on 31.12.2001	35,000
Sales	1,89,000

The number of stoves manufactured during the year 2001 was 4000.

The company wants to quote for a contract for the supply of 1000.Electric stoves during the year 2002. The stoves to be quoted are of uniform quality and make and similar to those manufactured in the previous year; but cost of materials has increased by 15% and cost of factory labour by 10%.

Prepare a statement showing the price to be quoted to give the same percentage of net profit on turnover as was realized during the year 2001, assuming that the cost per unit of overheads will be the same as in the previous year.

First Internal Examination Answer key for Applied Cost Accounting

PART – A Choose the Correct Answer

1. (a) Ascertainment of cost

- 2. (d) Decision Making and cost controlling
- 3. (a) Accounts
- 4. (b) Limitations
- 5. (c) Cost accounting
- 6. (b) Prime Cost
- 7. (c) Reporting
- 8. (c) production
- 9. (b) variable
- 10. (b) material
- 11. (a) Stock
- 12. (a) Fixed
- 13. (c) 2AO/C
- 14. (a) Storekeeper
- 15. (a) Minimum
- 16. (c) Raw material
- 17. (d) costing
- 18. (b) Always Better Control
- 19. (b) Ordering and carrying cost
- 20. (b) Complementary to each other

PART B

Answer All the Questions

21. a)

i) Cost: Information regarding cost of each product or service would enable the management to know where to economize on costs, how to fix prices, how to maximize profits and so on.

ii) Costing: The costing terminology of C.I.M.A ., London defines costing as the "the techniques and processes of ascertaining costs".

iii) Cost Accounting: Cost Accounting may be regarded as "a specialized branch of accounting which involves classification, accumulation, assignment and control of costs."

iv) Cost Units: The Chartered Institute of Management Accountants, London, defines a unit

of cost as "a unit of quantity of product, service or time in relation to which costs may be ascertained or expressed". The forms of measurement used as cost units are usually the units of physical measurements like number, weight, area, length, value, time etc.

Following are some examples of cost unit.

v) Cost Centre: According to Chartered Institute of Management Accountants, London, cost centre means "a location, person or item of equipment (or group of these) for which costs may be ascertained and used for the purpose of cost control".

(**Or**)

b) Methods of costing.

1. Job costing: It includes the following costing,

- a. Contract Costing
- b. Bach Costing
- c. Terminal Costing
- d. Operation Costing
- 2. Process Costing
- 3. Unit or single or output or single output costing
- 4. Operating Costing
- 5. Multiple or Complete Costing
- 6. Uniform Costing
- 7. Departmental Costing
- 8. Standard or Predetermined Costs.
- 9. Marginal Costs

22. a)

Cost Sheet:

	Total Cost (Rs.)	Cost per Unit (Rs.)
Prime cost	1,28,000	32
Works cost	1,60,000	40
Cost of production	1,76,000	44

Statement of Profit (3,600 units)

	(Or)	
Sales	1,80,000	50
Profit	16,200	4.50
Cost of Goods sold	1,63,800	45.50
Cost of production (3600 x 44)	1,58,400	44

b)

Prime Cost	6,70,000		
Cost of Production	7,80,000		
Total cost	7,90,000		
----------------------	-------------	--------------------	--------------------
Net Profit	10,000		
Sales	8,00,000		
23. a)		Material X (Units)	Material Y (Units)
Minimum level		400	300
Maximum level		1300	1500
Ordering level		900	600
		(Or)	
b) Economic ordering	quantity	2,500 Kgs	
No. of orders place	d in a year	4 order per year	

Answer key for Second Internal Examination Applied Cost Accounting

PART – A (20X 1 = 20 Marks) Choose the Correct Answer

- 1. (d) Pay roll
- 2. (a) Two
- 3. (d) Piece rate + Bonus
- 4. (a) Indirect expenses
- 5. (a) Administration overhead
- 6. (c) Controllable
- 7. (b) value of plant
- 8. (c) Selling overhead
- 9. (a) Service
- 10. (a) Direct Materials
- 11. (a) Production volume decreases
- 12. (b) Advertisement expenses
- 13. (a) Minimum Level
- 14. (b) Indirect
- 15. (d) Distribution overhead
- 16. (b) Machine Hour
- 17. (a) Service department
- 18 (d) selling
- 19. (a) Fixed overhead
- 20. (a) Floor area

PART B

Answer All the Questions

21. a) An Integrated Accounting System would be one where only a single set of books would contain all the information of Financial Accounting as well as Inventory/ Cost Accounting. Such a system would be very difficult to maintain if accounts are maintained manually. But most available Computerized Accounting Systems are Integrated Systems.

Here we take the example of an Integrated Accounting System (our own product by the name: "Soft Accounting System") and explain how it's functionality differs with Non-Integrated manual Accounting system

	(Or)
b) Total cost of all departments	13,600
Production Department:	
Р	4,451
Q	3,626
R	2,582
S	1,997
Service Department	
Т	944

22. a) Apportionment of Advertising cost

Territory					
Χ	Y	Ζ	Total		
3200	4500	4200	11900		
1600	1800	2400	5800		
	X 3200 1600	Territory X Y 3200 4500 1600 1800	X Y Z 3200 4500 4200 1600 1800 2400		

The advertising cost of each territory is apportioned among the products

Product					
	Α	В	С	Total	
Territory X	3000	1800	-	4800	
Territory Y	1400	-	4900	6300	
Territory Z	-	4400	2200	6600	

(Or)

b) Journalise the following transactions assuming cost and financial accounts are integrated.

Rs.

i. Stores ledger a/c	Dr	20000	
To sundry creditors			20000
ii. Work in progress control a/c	Dr	15000	
To Stores ledger control a/c			15000
iii. Wages control a/c	Dr	8400	
Factory overhead control a/c	Dr	3600	
To bank a/c			12000
iv. Work in progress control a/c	Dr	9500	
To Factory overhead control	a/c		6650
To Wages control a/c			2850

v. Factory overhead control a/c Dr 8400 To Bank a/c 8400

23. a). Total earnings under

(i) Time wages system - Rs. 37.50

(ii) Piece wage system - Rs. 47.50

(iii) Halsey plan – Rs. 42.50

(iv) Rowan Scheme – Rs. 45

(**Or**)

b) Labour turnover under

- a) Separation method -2.5 %
- b) Replacement method 1.5 %
- c) Flux method 4%

Answer key for Model Examination Applied Cost Accounting

$\mathbf{PART} - \mathbf{A}$

Choose the Correct Answer

- 1. (a) Accounts
- 2. (b) Branch
- 3. (a) Fixed
- 4. (b) Always Better Control
- 5. (a) Production volume decreases
- 6. (d) Work cost + administrative overhead
- 7. (a) Minimum Level
- 8. (d) Receipt, Issue and Balance of material
- 9. (b) Indirect
- 10. (d) Distribution overhead
- 11. (b) Machine Hour
- 12. (b) Direct wages
- 13. (b) Job costing
- 14. (a) Petrol/ diesel
- 15. (a) Railways
- 16. (b) Job costing
- 17. (a) Cost
- 18. (d) Expected Loss
- 19. (d) Contract costing
- 20. (a) Selling and distribution

PART B

Answer All the Questions

- 21. a) Different methods of Costing.
 - 1. Job costing: It includes the following costing,
 - a. Contract Costing
 - b. Bach Costing
 - c. Terminal Costing
 - d. Operation Costing
 - 2. Process Costing

- 3. Unit or single or output or single output costing
- 4. Operating Costing
- 5. Multiple or Complete Costing
- 6. Uniform Costing
- 7. Departmental Costing
- 8. Standard or Predetermined Costs.
- 9. Marginal Costs

(**O**r)

b) Statement of Cost

Sales	8,00,000
Net Profit	10,000
Total cost	7,90,000
Cost of Production	7,80,000
Prime Cost	6,70,000

22. a)

- a) Re-order level 3900 units
- b) Minimum level 1150 units
- c) Maximum level 7400 units

(**O**r)

- b) Labour turnover under
 - a) Separation method -2.5 %
 - b) Replacement method 1.5 %
 - c) Flux method 4%

23. a) Statement of overhead apportionment

Expenses	Basis	Depar	rtments	Total
		Α	В	
Rent & Rates	Floor Area	218	142	360
Insurance	Plant value	104	26	130
Stores expenses	Labour hours	208	534	742
Fire insurance	Plant value	208	52	260
General factory	Labour hours	359	925	1284
labour				
Depreciation	Plant value	725	181	906

Holiday Pay	Direct wages	236	284	520
Plant repairs	Plant value	360	90	450
	Total	2418	2234	4652

(**O**r)

b) Apportionment of Overhead

	Production Departments			Service Departments.		
	А	В	С	Р	Q	
Departmental Expenses	6,50,000	6,00,000	5,00,000	1,20,000	1,00,000	
Apportioned of P Dept.	37,783	50,378	18,892	-1,25,945	18,982	
Apportioned of Q Dept.	47,557	35,667	29,723	5,975	-1,18,892	
	7,35,340	6,86,045	5,48,615	-	-	

24. a) Cost of running a bus per km is 0.50

(**O**r)

b) **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'.

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.

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.

25. a) Process A A/c

Abnormal wastage 100 units amounted to Rs. 421.

Transfer to Process B A/c 9,400 units @ Rs. 4.206 amounted to Rs. 39,539.

Process B A/c

Abnormal wastage 160 units amounted to Rs. 1,087.

Transfer to Finished stock A/c 8,300 units @ Rs. 6.80 amounted to Rs. 56,358.

(**O**r)

b) Statement of Equivalent Production

Completed work	Total Units	Equivalent units				
in progress		Materials (Rs.)	Labour (Rs.)	Overhead (Rs.)		
	3,000	3,000	3,000	3,000		
	800	640	560	560		
	3800	3640	3560	3560		

Question	Option - I	Option - II	Option - III	Option - IV	Answer
Costing is a technique of	Ascertainment of	analyzing of cost	utilization of cost	cost reduction	Ascertainment of cost
Cost accounting provide data for	Planning	Organizing	Decision making	Decision Making and	Decision Making and
Cost accounting is a separate	No branch	Branch	Batch	No Batch	Branch
Cost accounting serves the	Management	Financial	Marketing	Owners	Management
information needs of					
Cost accounting has been developed	Advantages	Limitations	Importance	Cost	Limitations
because of of financial		-			
Management accounting is concerned	Financial	Cost	Management	Auditing	Management
with accounting information that is	<u> </u>	F ' 1		A 11/1	
accounting deals with	Cost	Financial	Management	Auditing	Management
Monetary as well as non-monetary	I Iniform and in a	Standard and a	Tee dition of	Tab antina	Teo ditional anotica
Flistorical costing is also known as	Uniform costing	Standard costing	Traditional	Job costing	Traditional costing
is a tashnigua / process of	Costing	Cost	Cost accounting	Managamant	Costing
is a technique / process of	Marginal costing	Historical costing	Direct costing	Indirect costing	Historical costing
after they have been incurred	warginai costilig	riistoricai costilig	Direct costing	indirect costing	riistoricai costilig
is used of same costing	Uniform costing	Marginal costing	Standard costing	Job Costing	Uniform costing
principle or practices by several	Childrin costing	warginar costing	Standard costing	Job Costing	Onnorm costing
methods has been	Multiple costing	Farm costing	Onerating	Job Costing	Farm costing
dropped from the latest CIMA			costing		
Cost accounting can be used only by	Big	Small	Big and Small	Trading	Big and Small
concerns	8			8	
Many theories can be proved or	Cost accounting	Management accounting	Financial	Financial	Financial accounting.
disproved in the light of basic		0	accounting.	management	
principles of			c	e	
cost are those costs	Capital	Revenue	Direct	Indirect	Capital
The chief objective of management	Public	Employees	Management	Government	Management
accounting is to serve					
The term management accounting	USA	China	India	Japan	USA
Management accounting involves	Recording of	Recording of transaction	Preparation of	Analysis and	Analysis and
	costs	-	accounts	interpretation of data	interpretation of data
				-	-
Management accounting is also	Cost accounting	Financial accounting	Corporate	Decision accounting.	Decision accounting.
known as			accounting		
Management accounting functions are	Complementary	Contradictory in nature	Neutral effect	Opposite effect	Complementary in
	in nature				nature
Management accounting provides	Planning	Controlling functions	Co-ordinating	All managerial	All managerial
valuable services to management in	functions		functions	functions.	functions.
performing					
Management accounting is	An extension of	An extension of cost	An extension of	An extension of cost	An extension of cost
	financial	accounting.	auditing	accounting and	accounting and
	accounting.			Management	Management
				accounting	accounting
Management accounting is concerned	Plans	Cost	Purchase	Sales	Plans
Installation of management	Compulsory	Optional	Optimum	Fixed	Optional
The term of appointment of financial	Board of	Articles of association	Memorandum of	Chairman	Board of Directors and
controller may be fixed by the	Directors		Association		Articles of Association
Financial accounting deals with	Determination of	Determination of profits	Determination of	Determination of	Determination of
	costs		prices	production	profits
			1		I · · ·
The term management accounting	1910	1939	1950	1970	1950
Preparation of financial accounts is	Sole trader	Partnership firm	Joint stock	Co-operative socities	Joint stock companies
compulsory for	business		companies		F 20
			-		
is the oldest branch of	Management	Cost accounting	Financial	Corporate	Financial accounting
accounting.	accounting	-	accounting	accounting.	
Management accounting also	Shareholders	Creditors	Tax authorities	Tax authorities,	Tax authorities,
comprises the preparation of financial				Shareholders and	Shareholders and
reports for non-management groups				Creditors	Creditors
such as					
Management accounting and cost	Supplementary	Complementary to each	Independent to	Opposite to each	Complementary to
accounting are	to each other	other	each other	other	each other
		1			
is also known as Management	Management	Cost accounting	Financial	Corporate accounting	Management
oriented accounting.	accounting	1	accounting		accounting
is concerned with accounting	Management	Cost accounting	Financial	Corporate accounting	Management
information which is useful to	accounting	1	accounting		accounting
management in maximizing profits or		1			
minimizing losses.					
is the general accounting	Financial	Cost accounting	Management	Budgeting.	Financial accounting
which relates to the recording of	accounting	1	accounting		
pusiness transactions in the books of	1		1	l	

is the process and techniques of ascertaining costs.	Management accounting	Financial accounting	Cost accounting	Budgeting	Cost accounting
is important part of management accounting	Budgeting	Fixing standards	Inventory control	Interpretation of data	Interpretation of data
The primary objective of	Cost accounting	Financial accounting	Management accounting	Auditing	Management accounting
The main objective of management	Cost	Financial	Auditing	Sales	Financial
Management accounting makes	Forecasting	Planning	Decision making	Budgeting	Decision making
process more modern and scientific	U	U	0	0 0	c
Management accounting is a useful	Planning	Control	Motivation	Forecasting	Control
Return on capital employed is one of	Financial	Cost accounting	Corporate	Management	Management
the tools of	accounting	C	accounting	accounting	accounting
of data are considered as back bone of management accounting	Modification of data	Analysis and interpretation	Communication	Co-ordination	Analysis and interpretation
Management accounting is an	Motivation	Co-ordination	Communication	Delegation	Communication
important medium of				Ŭ	
supplies analytical information	Financial	Management accounting	Cost accounting	Corporate accounting	Management
regarding various alternatives and the choice of management is made easy.	accounting		a	r	accounting
is the essence of managerial activity	Co-ordination	Control	Motivation	Decision making	Co-ordination
Incremental cost is a type of	Differential cost	Out-of-pocket cost	Conversion cost	Factory	Differential cost
Fixed cost per unit increases when	Production volume decreases	Production volume increases	Variable cost per unit decreases	Sales Increases	Production volume decreases
Opportunity cost helps in	Ascertainment of cost	Controlling cost	Making managerial	Sales Decisions	Making managerial decisions
Closing stock are valued at cost price or market price whichever is less in	Financial accounting	Cost accounting	Management accounting	Corporate Accounting	Financial accounting
Direct material+ Direct labour+ Direct expenses =	Fixed cost	Prime cost	Factory cost	Total cost	Prime cost
Salary of general manager is generally treated as	Factory overhead	Administrative overhead	Selling overhead	Distribution overhead	Administrative overhead
of any product comprises of	Work cost	Prime cost	Total cost	Factory Cost	Prime cost
all direct cost					
means and represents the factory cost plus administrative	Prime cost	Work cost	Cost of production	Cost of sales	Cost of production
expenses					
Indirect material + indirect labour + = overhead	Indirect expenses	Direct labour	Direct expenses	Factory overhead	Indirect expenses
, is the sales overhead	Office salaries	Advertisement expenses	Factory rent	Indirect material	Advertisement expenses
Prime cost =	Direct material+direct	Direct material+labour direct expenses	Inmaterials +direct expenses	Inmaterials +Indirect expenses	Direct material+direct labour+direct
Works cost =	Prime	Prime cost+Selling	Prime	Prime cost+ Selling	Prime cost+factory
0	cost+ractory cost	overnead	cost+administrati	overnead	cost
Cost of production =	Work cost +	Work cost + prime cost	Work cost x	Work cost +	Work cost +
total cost?	production+Selli ng and	overhead	production + administrative	mone of mese	production+Selling and distribution
The work cost is also known as	Factory cost	Prime Cost	cost of	cost of sales	Factory cost

Owerther	Orthur I	Outling II	Ontine III	Orden IV	A
Question Quantitative perpetual inventory means	Bin card	Stores ledger	Continuous stock taking	JIT Option - IV	Answer Stores ledger
EOQ is related to	Fixed cost	Ordering and carrying	Variable cost	Total cost	Ordering and carrying cost
Bin card is the record of	Receipt, issue and balance of material stock	Receipt, issue and balance of material with	Fixed assets	Current assets	Receipt, issue and balance of material with value
	without the value	value			
ABC analysis stands for	Always best control	Always Better Control	Automated Better Control	Adjusted best control	Always Better Control
Inventory means	Stock	Material	Stores	Sales	Stock
BIN card is maintained by	Storekeener	Accountant	Auditor	Supervisor	Store keeper
FOO -					
EQQ -	Mac/C	NAC/O	N2CO/I	Access L coul	V2CO/I
should not be allowed to fall at any time	Minimum Lever	Maximum Lever	ke- Older level	Average Lever	Minimum Lever
Market price method is also called as	Standard price Method	Replcement method	Average Method	Base stock Method	Base stock Method
scarp arise due to bad workmanship	legimate scrap	Administrative scarp	Defective Scarp	Average Stock	legimate scrap
spoilage is uncontrollable or unavoidable	Normal	Abnormal	Defective	Average	Normal
card is attached to each bin rack	Material control	material transfer note	BIN card	Stores ledger	BIN Card
document which	Material control	material transfer note	BIN card	Stores ledger	material transfer note
records transfer of surplus from one job to another					
ensures effective utilisation of material	control	usage	material control	wastage	material control
avoids over investment in	control	usage	material control	wastage	material control
ensures upto date maintance of	control	usage	material control	wastege	material control
stock records	hin cord	stores ladgar	continuous stock taking	Matarial transfor nota	continuous stock taking
the prepetual inventory system	bill card	stores ledger	continuous stock taking	Material transfer note	continuous stock taking
Storce ledger is kept in the department	production	sales	stores	costing	costing
Under method a standard or fixed	actual	fixed	standard	costing	actual
Scrap refers to	damage	wastage	reused	valueless	damage
refers to a units of output which	seran	enoilage	wastane	damage	enoilage
failed to reach the require standard of quality or specification	serup	sponage	wasage	uunuge	sponage
is the portion of raw material lost	scrap	spoilage	wastage	damage	spoilage
	job costing	process costing	unit costing	contract costing	job costing
is attached to each bin to	bin card	stores ledger	bill of material	stock transfer note	bin card
is known as automatic inventory	perpetual inventory	stores ledger	bill of material	stock transfer note	perpetual inventory
An system of material control will lead to a significant reduction in total cost of production	Poor	Better	Efficient	good	Efficient
helps to prevent over	Material control	material transfer note	BIN card	Stores ledger	Material Control
prevents loss during storage	Material control	material transfer note	BIN card	Stores ledger	Material Control
card helps the store keeper to	Material control	material transfer note	BIN card	Stores ledger	BIN Card
control the stock	Meterial control		DIN	C	DIN Coul
can send the material requision for purchase of material in time	Material control	material transfer note	BIIN Card	Stores ledger	BIN Card
contains the accounts for each class of material	Material control	material transfer note	BIN card	Stores ledger	Stores Ledger
is maintained in loose leaf	Material control	material transfer note	BIN card	Stores ledger	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	Bill of material
serve as a purchase	Material control	material transfer note	BIN card	Bill of material	Bill of material
requisition to the purchase department method in which	FIFO	LIFO	FFFO	LFIO	FIFO
materials are issued in order when they are received in the store				2.10	
method in which materials received last are issued first	FIFO	LIFO	FFFO	LFIO	LIFO
The minimum quanity is known as	Base stock method	Simple Avarage Method	weighted avearge method	Market price method	Base stock method
method is determined by	Base stock method	Simple Avarage Method	weighted avearge method	Market price method	Simple Avarage Method
method takes into account	Base stock method	Simple Avarage Method	weighted avearge method	Market price method	weighted avearge method
both quanity and price for arriving at the average price	Dase stock memou	Simple revalage metilou	ginea aveaige meniou	market price method	
method is also called	Base stock method	Simple Avarage Method	weighted avearge method	Market price method	Market price method
replacement method			1		

method is a standard or a fixed price is used for pricing the issues	Standard price Method	Simple Avarage Method	weighted avearge method	Market price method	Standard price Method
Anything which has no value is considered to be	wastage	Scarp	Spoliage	materials	wastage
may be normal or abnormal	wastage	Scarp	Spoliage	materials	wastage
is sold without further treatement are used as raw material for another process	wastage	Scarp	Spoliage	materials	Scarp
is a document which authorises and records the issues of materials for use	Material Requstion Note	Material transfer note	BIN card	Bill of material	Material Requstion Note
Goods received note is prepared by the department receiving the goods from the	Supplier	Customer	Producer	Distributor	Supplier
document which records transfer of surplus from one job to another	Material control	Material transfer note	BIN card	Stores ledger	Material transfer note
The stores department is a	Service department	Production department	Sales	Advertisement	Service department
The store is headed by	Stores Manager	Storeskeeper	Stores manager or storeskeeper	Purchase Manager	Storeskeeper
The stock register shall show the	Receipt of materials	Issue of materials	The balance of materials	Receipt, Issue and Balance of material	Receipt, Issue and Balance of material
Reorder level is calculated by using the	Maximum consumption	Maximum consumption x	Minimum consumption x	Minimum level	Maximum consumption x
following formula	x Maximum reorder period	Minimum reorder period	Minimum reorder period		Maximum reorder period
In FIFO method, the	Old stocks issued first	New stocks issued first	New stocks or old stocks are issued first	New Stock only	Old stocks issued first
In standard price method the materials are issued at	Cost price	Market price	Neither the cost price nor the market price	Standard price	Neither the cost price nor the market price
is the standard price method	Basic standard price	Current standard price	Standard price	Basic standard price and Current standard price	Basic standard price and Current standard price
T X R + % (S - T)R =	Rowan plan	Emerson efficiency plan	Halsey premium	Maslows premium	Halsey premium
Wage sheets is prepared by	Production	Purchase	Sales	Pay roll	Pay roll
In Taylor's differential piece rate system piece rates are set for each job.	Two	Three	Four	Five	Two
What is considered under Gantt task and bonus scheme?	Time	Piece rate	Bonus	Piece rate + Bonus	Piece rate + Bonus
The taylor's differential wage system	Punishes the inefficient workers	Encourages the efficient workers	Punishes the inefficient worker and Encourages the efficient workers	Awarded	Punishes the inefficient worker and Encourages the efficient workers
is not included in the labour cost	Basic pay	Employer's contribution to ESI	Employee's contribution to provident fund	Dearness allowance	Employee's contribution to provident fund

Question	Ontion - I	Option - II	Ontion - III	Option - IV	Answer
Overhead means	Indirect expenses	Direct expenses	Work expenses	Fcatory expenses	Indirect Expenses
	_		-		_
Classification of overhead is important in order to identify cost with centre	Process	sales	Cost	production	Cost
materials are those materials which do not form a part of the finished goods	Direct	Indirect	Raw material	cost of material	Indirect
of indirect materials cannot be identified with and allocated but can be apportioned to a particular product	cost	expenses	labour	sales	Cost
labours which is not directly engaged in production of goods or services	Direct	indirect	semi- skilled	Skilled	Indirect
The wages Paid for indirect labour is known as expenses	direct	indirect	bonus	penalty	Indirect
labours helps the direct labour engaged in production	direct	Idirect	bonus	penalty	Indirect
expenses that are not directly charged to production	Indirect	Direct	overhead	selling	Indirect
Factory expenses is also known as	production overhead	manufacturing overhead	selling overhead	distribution overhead	Manufacturing overhead
overhead covers all expenses incurred from stage of raw materials to finished goods	production overhead	factory overhead	selling overhead	distribution overhead	Factory overhead
incurred for running the office	Adminstaration overhead	factory overhead	selling overhead	distribution overhead	Adminstration overhead
incurred for actual sales and promotion of sales	administration overhead	factory overhead	Selling overhead	distribution overhead	Selling overhead
incurred for packing and delivery of goods to customers	administration overhead	factory overhead	selling overhead	Distribution overhead	Distribution overhead
do not vary with the volume of products	Fixed overhead	variable overhead	selling overhead	semi variable overhead	Fixed overhead
are partly fixed and partly variable	Fixed overhead	variable overhead	selling overhead	semi variable overhead	Semi variable overheads
oveheads refers to such overhead which are expected to be incurred in attaining a given output	Normal	Abnormal	Controllable	Un controllable	Normal
oveheads refers to such overhead which are not expected to be incurred in attaining a given output	Normal	Abnormal	Controllable	Un controllable	Abnormal
cost are variable cost which can be controlled	Normal	Abnormal	Controllable	Un controllable	Controllable
cost are fixed cost which cannot be controlled	Normal	Abnormal	Controllable	Un controllable	Un controllable
materials are those materials which do not form a part of the finished goods	direct	Indirect	Raw material	cost of material	Indirect
is the process of grouping of cost according to their common characterstics	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost classification
is defined as the allotment of whole amount of cost centre or cost units	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost allocation
is defined as the alloment proportions of cost to cost centre or cost units	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost apportionment
means allotment of overheads to jobs	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	cost absorption

Expenses which can be directly	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost Allocation
identified with a particular			11	1	
department or cost centre is					
called					
Allocation and apportionment	Departmentalisation	Cost Allocation	Cost Apportionment	Cost absorption	Departmentalisation
of overhead expenses to various	1		11	I	. I
production and service					
department is known as					
department are	Service	Production	Sales	Purchase	Service
those department which enable	Scivico	Troduction	Suco	i urenase	Service
other department to work					
outer department ip work					
ensures	Departmentalisation	Cost Allocation	Cost Apportionment	Cost absorption	Departmentalisation
accuracy in cost accertainment	Departmentansation	Cost / mocation	cost reportionment	cost absorption	Departmentarisation
facilitates	Departmentalisation	Cost Allocation	Cost Apportionment	Cost absorption	Departmentalisation
work and supervision	Departmentalisation	Cost Anocation	Cost Apportionment	Cost absorption	Departmentalisation
is assential for	Departmentalisation	Cost Allocation	Cost Apportionment	Cost absorption	Departmentalisation
budgetary control	Departmentalisation	Cost Anocation	Cost Apportionment	Cost absorption	Departmentalisation
is obtained by	Direct material cost percentage	direct labour cost percentage	prime cost percentage	work cost percentage	direct material cost percentage
dividing the amount of	Direct material cost percentage	direct labour cost percentage	prime cost percentage	work cost percentage	uneer material cost percentage
overheads by direct material					
cost					
is obtained by	Direct material cost percenta	direct labour cost percentes-	nrime cost percentage	work cost percentage	Direct labour cost parcentege
is obtained by	Breet material cost percentage	uncer labour cost percentage	prime cost percentage	work cost percentage	Direct labour cost percentage
overheads by the direct war				1	
is obtained to	Direct material costt-	direct labour cost nt	nrime cost parat	work cost percentage	prime cost percentage
dividing the amount of	Direct material cost percentage	unect tabour cost percentage	prime cost percentage	work cost percentage	prime cost percentage
avarband by the minut of				1	
overnead by the prime cost	Direct material and	direct laboret -	nrima aast	Direct loborn hours	Direct lobour bases and
is obtained by	Direct material cost percentage	unect labour cost percentage	prime cost percentage	Direct labour nour percentage	Direct labour nour percentage
uividing the amount of					
overneads by the labour hours	Dia a il a a	1 1.1	1. 11 .	D: (11 1)	1. 1
is obtained by	Direct material cost percentage	direct labour cost percentage	machine Hour rate	Direct labour hour percentage	machine hour rate
dividing the amount of					
overheads by the macchine					
hours					
Overheads in cost accounts are	Estimate Rates	Fixed rates	Variable rates	semivariable rates	Estimated rates
usually the basis of					
report helps the	Audit	cost	estimated	historical cost	Audit
management in decision					
making					
method helps to	Direct material cost percentage	direct labour cost percentage	Machine Hour rate	Direct labour hour percentage	Machine hour rate
compare the efficiencies and					
cost of operating different					
machines					
Under absorption, the	Actual	work	selling overhead	distribution overhead	Actual
overheads absorbed in					
production less than the					
overhead					
absorbtion	under	Over	Fixed	Variable	Over
means that the overhead					
absorbed in production are					
more than that of actual					
overhead					
rate is the cost	Labour per hour	Machine Hour	wage hour	indirect labour hour	machine Hour
of running a machine per hour					
si i interinte per nour					
Each machine or group of	Fixed overhead	Direct overhead	Variable overhead	Semi variable overhead	fixed overhead
machine is treated as a cost	i neu overneuu	Shoet Oreineau	, and the overhead	Seria variable overhead	inted overhedu
centre in order to identify the				1	
expenses					
Standing charge is also known	Fixed overhead	Direct overhead	Variable overhead	Semi variable overhead	fixed overhead
as	i incer overhead	Direct Overhead	, anabie overnicau	Seria variable overhead	naed Overneau
As	Variable expenses	Fired Ernenses	Sami variable Ernoncos	Direct expenses	Variable Expanses
known as	, madie expenses	TIACU EAPOIISES	Somi variable Expenses	Direct expenses	, anabic Expenses
State the bases of	Floor area	value of plant	value of stock	value of materials	Floor area
apportionment for rest	1 1001 alta	value of pidlit	value of Stock	value of materials	11001 4154
State the bases of	Light points	value of plant	value of stock	value of materials	Light points
apportionment for lighting	Eight points	value of plant	value of stock	value of materials	Light points
State the bases for	Light points	value of plant	value of stock	value of metarials	Value of plant
apportionment of the initial	Light points	value of pidlit	value of Stock	value of materials	value of plant
apportionment of deprictation				1	
or plant and macinery	X 1 4 5 4	1 6 1 4	1 6 4 1		1 6 6 1
State the bases of	Light points	value of plant	value of stock	value of materials	value of stock
apportionment for insurance of					
stock					
State the bases of	Light points	value of plant	value of stock	value of materials	Value of materials
apportionment for material				1	
handling charges	Į			l	
State the bases of	No. of, Employees	value of plant	value of stock	value of materials	No.of, Employees
apportionment of supervision					

State the bases of	No. of, Employees	value of plant	value of stock	value of materials	Value of plant
apportionment of repairs to					
plant					
Each machine or group of	Fixed overhead	Direct overhead	Variable overhead	Semi variable overhead	fixed overhead
machine is treated as a cost					
centre in order to identify the					
expenses					
Canteen expenses is	No.of, Employees	value of plant	value of stock	value of materials	No.of, Employees
apportionmet based on					
State the bases for	Direct Materials	value of plant	value of stock	value of materials	Direct materials
apportionment of indirect					
materials					
State the bases for	Direct Materials	Direct wages	value of stock	value of materials	Direct wages
apportionment of indirect					
wages					
State the bases for	Floor area	value of plant	value of stock	value of materials	Floor area
apportionment of municipal					
taxes					
State the bases for advertising	Actual Expenses	value of plant	value of stock	value of materials	Actual Expenses
is the process	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost Apportionment
of distribution of overheads to					
various departments					
method	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost Classification
depends upon the type and size					
of the business					
is process of	Cost Classification	Cost Allocation	Cost Apportionment	Cost absorption	Cost Allocation
charging the full amount of					
overhead without division					

Question	Option - I	Option - II	Option - III	Option - IV	Answer
is the production carried on	Process costing	Job costing	Unit costing	Contract costing	Job costing
against specific orders from customers					
accumulated for each	Cost	price	unit	sales	Cost
Job costing is a method of	Cost allotment	Ascertainment of cost	allocation of cost	classification of cost	Ascertainment of cost
cost of an individual job Each job is treated as	ascertined	accumulated	collected	changed	accumulated
costs are					
Job costing shows the cost and of each job	profit& losss	profit	loss	revenue cost	profit
method of costing adopted in printing press	Process costing	Job costing	Unit costing	Contract costing	Job costing
Job costing is also known as	terminal costing	Job costing	Unit costing	Contract costing	terminal costing
Specific order costing is also known as	Process costing	Job costing	Unit costing	Contract costing	Job costing
In costing the production is always against the customer order	Process costing	Job costing	Unit costing	Contract costing	Job costing
The cost data provided by job costing helps in	Decision making	Planning	Cost control	cost Reduction	Planning
Cost reordered under job costing help in preparation of	Report	Budget	Cost Data	Selling Price	Budget
Operating costing is also called	Process	Job costing	Contract costing	Service costing	Service Costing
is a method of costing applied to ascertain the cost of providing a service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
type of costing used	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
Service rendered in the same oraganisation is known as	Internal Service	External Service	Both	Costing Service	Internal Service
percent is calculated by dividing the toatl cost by number of service units	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing

A proper cost unit	Cost	Demand	Sales	Supply	Cost
must be selected in					
oredr to ascertain the					
unit					
of services					
Other name of service	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
costing	operating costing	Job costing	contract costing	bervice costing	Operating Costing
eosting					
Industries using	Operating Costing	Job costing	Contract costing	Service costing	Operating Costing
costing do not					
produce goods but					
render service					
Service rendered to	Internal Service	External Service	Both	Costing Service	External service
the customers is					
KIIOWII as					
Example of external	Hospital	Manufacttuting industry	service outlet	distributors	Hospital
services	100001000	industry	service surfer	distributors	Toopiui
In	Simple cost unit	composite cost unit	Multiple cost unit	single cost unit	simple cost unit
case only one variable					
is taken	-				
In	Composite costing	multiple costing	single unit costing	opertaing costing	Composite costing
case more than one					
The basic problem in	Composite costing	multiple costing	single unit costing	Opertaing costing	Operating Costing
The basic problem in	Composite costing	muniple costing	single unit costing	Opertaing costing	Operating Costing
costing is the					
selection of cost unit					
	Standing Charges	operating charges	maintenance charges	variable charges	Standing charges
changes are incurred	0 0		0	0	0 0
weather the vechicle					
is running or not					
8		-			
In Standing charges	Fixed	Variable	Semivariable	Changed	Fixed
In Standing charges variables are	Fixed	Variable	Semivariable	Changed	Fixed
In Standing charges variables are in	Fixed	Variable	Semivariable	Changed	Fixed
In Standing charges variables are in nature	Fixed	Variable Salary	Semivariable	Changed	Fixed
In Standing charges variables are in nature 	Fixed	Variable Salary	Semivariable Fuel	Changed Power	Fixed Rent
In Standing charges variables are in nature is one of the example of standing	Fixed Rent	Variable Salary	Semivariable Fuel	Changed Power	Fixed Rent
In Standing charges variables are in nature is one of the example of standing charge	Fixed Rent	Variable Salary	Semivariable Fuel	Changed Power	Fixed Rent
In Standing charges variables are in nature is one of the example of standing charge	Fixed Rent Standing Charges	Variable Salary operating charges	Semivariable Fuel maintenance charges	Changed Power variable charges	Fixed Rent Operating charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in	Fixed Rent Standing Charges	Variable Salary operating charges	Semivariable Fuel maintenance charges	Changed Power variable charges	Fixed Rent Operating charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature	Fixed Rent Standing Charges	Variable Salary operating charges	Semivariable Fuel maintenance charges	Changed Power variable charges	Fixed Rent Operating charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature 	Fixed Rent Standing Charges Pertol/ diesel	Variable Salary operating charges annual tax	Semivariable Fuel maintenance charges Insurance	Changed Power variable charges Rent	Fixed Rent Operating charges Petrol/Diesel
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of expenses of	Fixed Rent Standing Charges Pertol/ diesel	Variable Salary operating charges annual tax	Semivariable Fuel maintenance charges Insurance	Changed Power variable charges Rent	Fixed Rent Operating charges Petrol/Diesel
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge	Fixed Rent Standing Charges Pertol/ diesel Standing Charges	Variable Salary operating charges annual tax	Semivariable Fuel maintenance charges Insurance	Changed Power variable charges Rent	Fixed Rent Operating charges Petrol/Diesel Maintenance charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi	Fixed Rent Standing Charges Pertol/ diesel Standing Charges	Variable Salary operating charges annual tax operating charges	Semivariable Fuel maintenance charges Insurance Maintenance charges	Changed Power variable charges Rent variable charges	Fixed Rent Operating charges Petrol/Diesel Maintenance charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature	Fixed Rent Standing Charges Pertol/ diesel Standing Charges	Variable Salary operating charges annual tax operating charges	Semivariable Fuel maintenance charges Insurance Maintenance charges	Changed Power variable charges Rent variable charges	Fixed Rent Operating charges Petrol/Diesel Maintenance charges
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs	Variable Salary operating charges annual tax operating charges Depreciation	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages	Changed Power variable charges Rent variable charges Annual Tax	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs	Variable Salary operating charges annual tax operating charges Depreciation	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages	Changed Power variable charges Rent variable charges Annual Tax	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs	Variable Salary operating charges annual tax operating charges Depreciation	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages	Changed Power variable charges Rent variable charges Annual Tax	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost Fixed Cost Eixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in 	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost Fixed Cost Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in 	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Repairs Fixed Cost Fixed Cost Fixed Cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in General supervision will occur in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Fixed Cost Fixed Cost Fixed Cost Maintenance cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in Tyres and tube cost will appear in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Fixed Cost Fixed Cost Fixed Cost Maintenance cost
In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature charges are semi variable in nature farages are semi variable in nature Garrage rent will occur in Tax and insurance will occur in Tyres and tube cost will appear in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost Variable Cost	Semivariable Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Fixed Cost Fixed Cost Fixed Cost Maintenance cost
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In Standing charges variables are in nature is one of the example of standing charge expenses isvariable in nature is an example of operating charge charges are semi variable in nature charges are semi variable in nature is an example of maintenance charge Garrage rent will occur in Tax and insurance will occur in General supervision will occur in Tyres and tube cost will appear in Repair cost will appear in	Fixed Rent Standing Charges Pertol/ diesel Standing Charges Repairs Fixed cost Fixed cost Fixed cost Fixed cost Fixed cost Fixed cost	Variable Salary operating charges annual tax operating charges Depreciation Variable Cost Variable Cost Variable Cost Variable Cost Variable Cost Variable Cost	Semivariable Fuel Fuel maintenance charges Insurance Maintenance charges Wages Maintenance Cost Maintenance Cost Maintenance Cost Maintenance Cost Maintenance Cost	Changed Power variable charges Rent variable charges Annual Tax Operating Cost Operating Cost Operating Cost Operating Cost Operating Cost	Fixed Rent Operating charges Petrol/Diesel Maintenance charges Fixed Cost Fixed Cost Fixed Cost Maintenance cost Maintenance cost

Painting Cost will appear in	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Maintenance cost
Pertol, oil, grease Cost will incurr in	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
Wages of operators will incurr in cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
Depriciation will incur in cost	Fixed cost	Variable Cost	Maintenance Cost	Operating Cost	Operating Cost
is a example for transport services	Tramways	Gas supply	Water supply	Hospitals	Tramways
is a example for transport services	Railways	Gas supply	Water supply	Hospitals	Railways
is a example for transport services	Bus transport	Gas supply	Water supply	Hospitals	Bus transport
is a example for supply services	Bus transport	Gas supply	Railways	Tramways	Gas supply
is a example for supply services	Bus transport	Electricity supply	Railways	Tramways	Electricity supply
is a example for supply services	Bus transport	Water supply	Railways	Tramways	Water supply
is a example for welfare supplies	Tramways	Gas supply	Water supply	Hospitals	Hospitals
is a example for welfare supplies	Tramways	Gas supply	Water supply	Canteens	Canteens
is a example for welfare supplies	Tramways	Gas supply	Water supply	Libraries	Libraries
is a example for munipal service	Street lighting	Gas supply	Water supply	Libraries	Street lighting
is a example for munipal service	Road Maintenance	Gas supply	Water supply	Libraries	Road Maintenance
is a example for transport services	Airways	Gas supply	Water supply	Hospitals	Airways
In semi variable	Maintenance charges	Fixed charges	Operating charger	Repair charges	Maintenance charges
expenses are included	Maintenance charges	Standing charges	Operating charger	Repair charges	Standing charges
charges are incurred inspite of the kilometeres run	Wantenance enarges	Standing charges	operating enalger	Repair enarges	Standing charges
is also know as fixed charges	Maintenance charges	Standing charges	Operating charger	Repair charges	Standing charges
If the job is accepted, a is made by the planning department	Prodution order	Sales order	Purchased order	Stores order	Prodution order

If the job is accepted,	Prodution	Sales	Planning	Marketing	Planning
a production order is					
made by the					
department					
The prepartion of	Unit cost sheet	Service cost sheet	Batch cost sheet	Farm cost sheet	Batch cost sheet
is similar to that of job cost sheet					
The prepartion of Batch cost sheet is	Unit cost sheet	Service cost sheet	Job cost sheet	Farm cost sheet	Job cost sheet
similar to that of					
Batch cost per unit =	Total cost of a batch / number of items produced in the batch	Total cost of a batch + number of items produced in the batch	Total cost of a batch - number of items produced in the batch	Total cost of a batch x number of items produced in the batch	Total cost of a batch/number of items produced in the batch

Question	Option - I	Option - II	Option - III	Option - IV	Answer
is a method of	Process costing	Job costing	Unit costing	Contract costing	Process costing
costing to findout the cost of a	Ū	ě	Ū.	, i i i i i i i i i i i i i i i i i i i	Ū
product at each stage or process of					
production					
The	G 1	D 1 (D (11	C 1	D (11
There are certain industries where	Goods	Product	Raw material	Sales	Raw material
the passes through					
the different stages of a product					
Process costing is used to find out	Cost	Expenses	Unit costing	Income	Cost
of the product at		1	6		
of the product at					
the end of each stage	0.1.1	D: .	D:	x u	0.1.1
are collected for	Overhead	Direct wages	Direct labour	Indirect wages	Overhead
each process and debited to the					
process account					
is arrived by	Total cost	Product expenses	Cost per unit	sales cost	Cost per unit
dividing the total process cost by		-	-		*
the number of units produced					
the number of units produced	Tetel sest	Des du et enne en en e	Court man amit	1	Tetel Cent
cost of the finished	I otal cost	Product expenses	Cost per unit	sales cost	Total Cost
product is the sum of all costs					
incurred in all the process					
In the production is	Process costing	Job costing	Unit costing	Contract costing	Process costing
carried out in anticipation of	ũ	Ū	Ū.	0	Ū
demand					
t demand	D C	T 1	T T 10 01	a:	D C
in the costs are	Process costing	JOD COSUNG	Unit costing	Contract costing	Process costing
computed periodcally for each					
process					
are transferred	Process costing	Job costing	Unit costing	Contract costing	Process costing
from one process to another	5	5	6	5	6
process					
process	D	* *	XX 11	a	D
In the paper work is	Process costing	Job costing	Unit costing	Contract costing	Process costing
compartively less					
loss refers to the	Normal	Abnormal	Controllable	Un controllable	Normal
loss which is un avoidble in a					
manufacturing process					
value of normal	Usable	Paglicable	Unusable	controllable	Paplicable
	Usable	Realisable	Ullusable	controllable	Realisable
loss units in credited to process					
account					
The cost of normal loss is treated	Sales value	Cost of production	Cost of sales	cost per unit	Cost of production
as a part of					
loss refers to the	Abnormal Loss	Normal Loss	Avoidable Loss	Unavoidable loss	Abnormal Loss
avoidable loss					
can be astimated in	Abnormal Loss	Normal Loss	Avoidable Loss	Unavoidable loss	Abnormal Loss
	Abiofiliai Loss	Normai Eoss	Avoidable Loss	Chavoidable 1033	Abiofiliai Eoss
advance					
Abnormal loss arises when the	Abnormal Loss	Normal Loss	Avoidable Loss	Expected Loss	Expected Loss
actual loss is more than the					
losses					
The cost of abnormal loss is not	Sales value	Cost of production	Cost of sales	cost per unit	Cost of production
included in the		F		F	F
	N IG:	A1 1.C.	F (10)	I G :	10
gain arises when the	Normai Gain	Abnormai Gain	Expected Gain	Less Gain	Abnormal Gain
actual output is higher than the					
expected normal output					
Abnormal gain is treated on	usable	Recovery	wastage	useful	Recovery
of cost of			Ŭ		
production		1			1
Inter process profit in the	Unit price	aast price	abnormal pri	normal prior	Unitorioa
the process profit is the	oun price	cost price	aonormai price	normai price	omt price
difference between transfer price					1
and					
Cost are not transferred except	low	high	Surplus	defecit	Surplus
when there is					1
production		1			1
Process costing facilitates correct	Value of stock	high	curplus	defecit	Value of stock
Tibeess costing facilitates contect	value of stock	ingn	suipius	delecti	value of stock
	F ()	TT: / . 1 /			TT: 1 .
Process costing is based on	Future cost	Historical cost	estimate cost	prime cost	Historical cost
cost					
Each is treated as a	unit price	process	Contract	Unit	Contract
cost unit					
Contracts are generally of a	Long	Short	medium	very long	Long
duration					5
duration	n	T 1	**	a	D
costing is mainly	Process costing	Job costing	Unit costing	Contract costing	Process costing
adopted in construction of bridges					
The number of contract undertaken	High	Small	Medium	Very Low	Small
are usually _		1			1
· · · · · · · · · · · · · · · · · · ·					
nrica is notd in	Process costing	Job costing	Unit costing	Contract costing	Contract Costing
	1 TOCESS COSULING	soo cosulig	o int costilig	Contract costing	Contract Costing
installments depending on the					
process of work					
Contract costing is a form	Specific order costing	Job costing	Unit costing	Contract costing	Specific order costing
of costing	-			-	-

A separate account	Contract	Unit	Ich	Specific	Contract
is prepared for each contract	Contract	om	300	Speeme	Contract
cost usually constitute a major portion of the total cost of the contract	Direct	Indirect	Fixed	Variable	Direct
cost usually constitue a small portion of the total cost of contract	Direct	Indirect	Fixed	Variable	Indirect
The direct labour cost incurred on the contract is to the contract account	Debited	Credited	Enetered	Fixed	Debited
The direct expenses incurred for the contract is also to the contract account	Debited	Credited	Enetered	Fixed	Debited
which cannot be directly charged to contract	Dircet expenses	Indirect Expenses	Fixed Expenses	Variable Expenses	Indirect Expenses
contracts take a long time for completion and require huge investments	Large	Small	Medium	Very High	Large
money is paid to the contractor after the expiry of a stipulate time	usable	Recovery	wastage	useful	Recovery
is treated as a reserve	Notional profit	recovery	wastage	useful	Notional Profit
The price is paid in installments depending on the process of work	Process costing	Job costing	Unit costing	Contract costing	Contract Costing
is a contract in which the contractee agrees to pay the cost of work done plus a percenatee of it towards profit	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract
In which contract	Cost + contract	Escalation clause	Retention money	Unit Contract	Cost + contract
clause is in contract agreement	Cost + contract	Escalation clause	Retention money	Unit Contract	Escalation clause
product refers to the secondary product obtained during the course of manufacturing the main product	Substitute	Joint	By product	Related product	By product
Value of closing stock of is considerd as zero for the purpose of balance sheet	Substitute	Joint	By product	Related product	By product
expenses are incurred for selling the by products	Selling and distribution	Production	purchase	Raw material expenses	Selling and distribution
by products are valued at the current market price	Replacement Method	Standard Cost method	Apportionment Method	Allocation Method	Replacement Method
by products are valued at standard cost	Replacement method	Standard Cost method	Apportionment Method	Allocation Method	Standard cost Method
products refers to two or more prodcucts of equal importance which are prodcuced from same raw material	Substitute	Joint	By product	Related product	Joint
has its own price and market utility	Substitute	Joint Product	By product	Related product	Joint Product
If work completed of the contract price is taken to profit and loss account	one fourth	two fourth	three fourth	one fifth	One fourth
contracts such as constuctions of bridges, theatres and hospitals takes a long time to complete	Large	small	medium	Very small	Large
represents production of a process in terms of completed units	Equivalent production	Unequivalent production	Normal production	Abnormal production	Equivalent production
Formula for equivalent units of work in progress =	Actual no of units in progress of manufacture x percentage of work completed	Actual no of units in progress of manufacture + percentage of work completed	Actual no of units in progress of manufacture - percentage of work completed	Actual no of units in progress of manufacture / percentage of work completed	Actual no of units in progress of manufacture x percentage of work completed
There aresteps in calculation of equivalent production	3	4	2	5	3

There are	3	4	2	5	3
elements of production cost					
is the first	Material	Labour	Production overhead	overhead	Material
element of production cost					
is the second	Material	Labour	Production overhead	overhead	Labour
element of production cost					
is the third	Material	Labour	Production overhead	overhead	Production overhead
element of production cost					
There are	3	4	6	5	6
methods					
of apportionment of joint cost					
The term	By Product	Product	Sub Product	Product Line	By product
is generally used by businessmen					
and accountant to denote the one					
or more product of relatively small					
value that are produced					
simultaneously with a product of					
greater value					