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COSTING

LIFE SAVER

THEORY

CA-INTERMEDIATE

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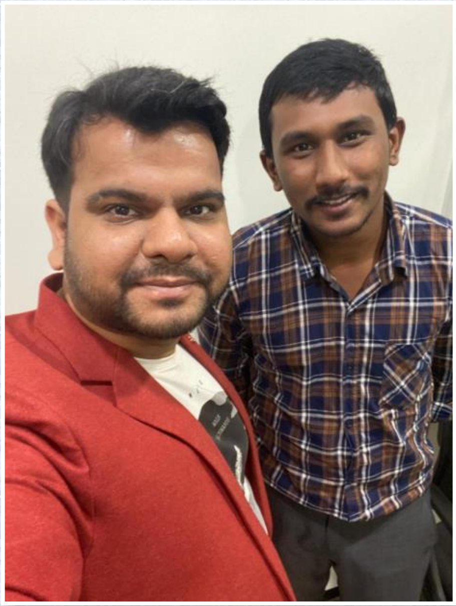
ALL INDIA RANK - 04



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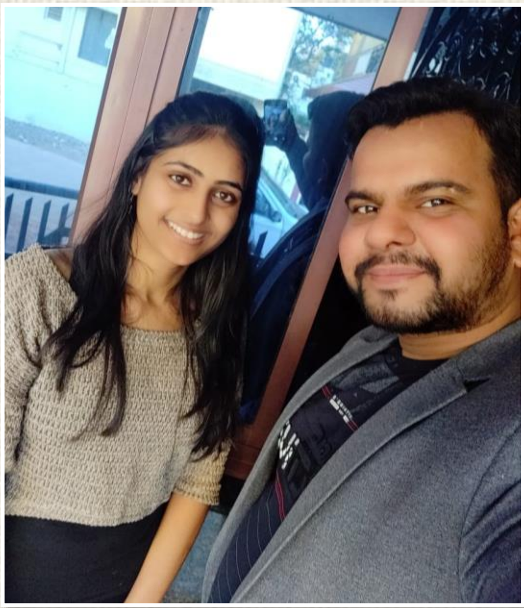

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CA DREAMERS
THE AVENGER

"Inspire You to Achieve Dreams"

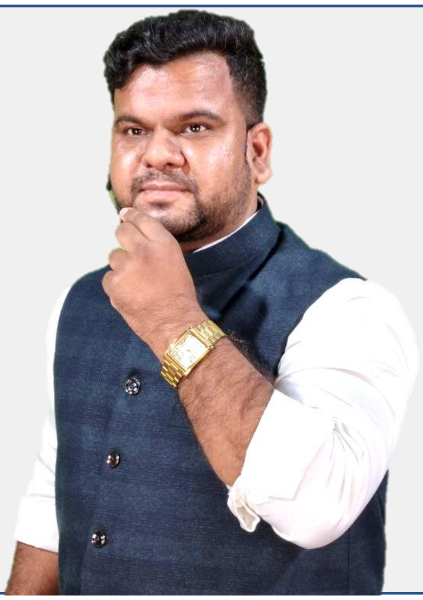
Our Mission.....

"We are here to Help you, Motivate you, Guide you and Inspire you to Clear exam in one shot"

Our Vision.....

"Inspire to Achieve Dreams"

"At Any How
At Any Cost
I AM THE CHAMPION"



COSTING THEORY

QUESTIONS AND ANSWERS

Q.1: Answer any four of the following:

(a) Differentiate between "Cost Accounting and Management Accounting".

(b) What are the important points an organization should consider if it wants to adopt Performance Budgeting?

(c) Explain what are the pre-requisites of integrated accounting.

(d) State the Method of Costing to be used in the following industries:

(i) Real Estate

(ii) Motor repairing workshop

(iii) Chemical Industry

(iv) Transport service

(v) Assembly of bicycles

(vi) Biscuits manufacturing Industry

(vii) Power supply Companies

(viii) Car manufacturing Industry

(ix) Cement Industry

(x) Printing Press

(e) Differentiate between "Marginal and Absorption Costing". [Nov 2020 (4 x 5 = 20 Marks)]

ANSWER:

(a) Difference between Cost Accounting and Management Accounting

	Basis	Cost Accounting	Management Accounting
(i)	Nature	It records the quantitative aspect only.	It records both qualitative and quantitative aspect.
(ii)	Objective	It records the cost of producing a product and providing a service.	It Provides information to management for planning and co-ordination.
(iii)	Area	It only deals with cost Ascertainment.	It is wider in scope as it includes financial accounting, budgeting, taxation, planning etc.
(iv)	Recording of data	It uses both past and present figures.	It is focused with the projection of figures for future.

(v)	**Development**	Its development is related to industrial revolution.	It develops in accordance to the need of modern business world.
(vi)	**Rules and Regulation**	It follows certain principles and procedures for recording costs of different products.	It does not follow any specific rules and regulations.

(b) For an enterprise that wants to adopt Performance Budgeting, it is thus imperative that:

- The objectives of the enterprise are spelt out in concrete terms.
- The objectives are then translated into specific functions, programmes, activities and tasks for different levels of management within the realities of fiscal constraints.
- Realistic and acceptable norms, yardsticks or standards and performance indicators should be evolved and expressed in quantifiable physical units.
- A style of management based upon decentralised responsibility structure should be adopted, and
- An accounting and reporting system should be developed to facilities monitoring, analysis and review of actual performance in relation to budgets.

(c) The essential pre-requisites for integrated accounts include the following steps:

- The management's decision about the extent of integration of the two sets of books. Some concerns find it useful to integrate up to the stage of prime cost or factory cost while other prefer full integration of the entire accounting records.
- A suitable coding system must be made available so as to serve the accounting purposes of financial and cost accounts.
- An agreed routine, with regard to the treatment of provision for accruals, prepaid expenses, other adjustment necessary for preparation of interim accounts.
- Perfect coordination should exist between the staff responsible for the financial and cost aspects of the accounts and an efficient processing of accounting documents should be ensured.
- Under this system there is no need for a separate cost ledger. Of course, there will be a number of subsidiary ledgers; in addition to the useful Customers' Ledger and the Bought Ledger, there will be: (a) Stores Ledger; (b) Stock Ledger and (c) Job Ledger.

(d) Method of casting used in different industries:

S. No.	Industries	Method of Costing
(i)	Real Estate	Contract Costing
(ii)	Motor Repairing Workshop	Job Costing
(iii)	Chemical Industry	Process Costing
(iv)	Transport Service	Service/Operating Costing
(v)	Assembly of Bicycles	Unit/ Single/Output/Multiple Costing

(vi)	Biscuits Manufacturing Industry	Batch Costing
(vii)	Power Supply Companies	Service/Operating Costing
(viii)	Car Manufacturing Industry	Multiple Costing
(ix)	Cement Industry	Unit/Single/Output Costing
(x)	Printing Press	Job Costing

(e) Difference between Marginal costing and Absorption costing

S. No.	Marginal costing	Absorption costing
1.	Only variable costs are considered for product costing and inventory valuation.	Both fixed and variable costs are considered for product costing and inventory valuation.
2.	Fixed costs are regarded as period costs. The Profitability of different products is judged by their P/V ratio.	Fixed costs are charged to the cost of production. Each product bears a reasonable share of fixed cost and thus the profitability of a product is influenced by the apportionment of fixed costs.
3.	Cost data presented highlight the total contribution of each product.	Cost data are presented in conventional pattern. Net profit of each product is determined after subtracting fixed cost along with their variable costs.
4.	The difference in the magnitude of opening stock and closing stock does not affect the unit cost of production.	The difference in the magnitude of opening stock and closing stock affects the unit cost of production due to the impact of related fixed cost.
5.	In case of marginal costing the cost per unit remains the same, irrespective of the production as it is valued at variable cost	In case of absorption costing the cost per unit reduces, as the production increases as it is fixed cost which reduces, whereas, the variable cost remains the same per unit.

Q.2: **Answer any four of the following:**

(a) Sate how the following items are treated in arriving at the value of cost of material purchased:

(i) Detention Charges/Fines

(ii) Demurrage

(iii) Cost of Returnable containers

(iv) Central Goods and Service Tax (CGST)

(v) Shortage due to abnormal reasons.

(b) State the limitations of Budgetary Control System.

(c) Explain Blanket Overhead Rate and Departmental Overhead Rate. How they are

(a) calculated? State the conditions required for the application of Blanket Overhead Rate.

(b) State the method of costing that would be most suitable for:

(i) Oil Refinery

(ii) Interior Decoration

(iii) Airlines Company

(iv) Advertising

(v) Car Assembly

(c) Give any five examples of the impact of use of Information Technology in Cost Accounting.

[Jan 21 (4 x 5 = 20 Marks)]

ANSWER:

(a) **Treatment of items in arriving at the value of cost of material Purchased**

S.No.	Items	Treatment
(i)	**Detention charges/ Fine**	Detention charges/ fines imposed for non- compliance of rule or law by any statutory authority. It is an abnormal cost and **not included** with cost of purchase.
(ii)	**Demurrage**	Demurrage is a penalty imposed by the transporter for delay in uploading or offloading of materials. It is an abnormal cost and **not included** with cost of purchase.
(iii)	**Cost of returnable containers**	Treatment of cost of returnable containers are as follows: Returnable Containers: If the containers are returned and their costs are refunded, then cost of containers should not be considered in the cost of purchase. If the amount of refund on returning the container is less than the amount paid, then, only the short fall is added with the cost of purchase.
(iv)	**Central Goods and Service Tax (CGST)**	Central Goods and Service Tax (CGST) is paid on manufacture and supply of goods and collected from the buyer. It **is excluded** from the cost of purchase if the input credit is available for the same. Unless mentioned specifically CGST is not added with the cost of purchase.
(v)	**Shortage due to abnormal reasons**	Shortage arises due to abnormal reasons such as material mishandling, pilferage, or due to any avoidable reasons are not absorbed by the good units. Losses due to abnormal reasons are debited to costing profit and loss account.

(b) Limitations of Budgetary Control System

Points	Description
1. Based on Estimates	Budgets are based on a series of estimates, which are based on the conditions prevalent or expected at the time budget is established. It requires revision in plan if conditions change.
2. Time factor	Budgets cannot be executed automatically. Some preliminary steps are required to be accomplished before budgets are implemented. It requires proper attention and time of management. Management must not expect too much during the initial development period.
3. Co-operation Required	Staff co-operation is usually not available during the initial budgetary control exercise. In a decentralised organisation, each unit has its own objective and these units enjoy some degree of discretion. In this type of organisation structure, coordination among different units is required. The success of the budgetary control depends upon willing co-operation and teamwork,
4. Expensive	The implementation of budget is somewhat expensive. For successful implementation of the budgetary control, proper organisation structure with responsibility is prerequisite. Budgeting process start from the collection of information to for preparing the budget and performance analysis. It consumes valuable resources (in terms of qualified manpower, equipment, etc.) for this purpose; hence, it is an expensive process.
5. Not a substitute for management	Budget is only a managerial tool and must be intelligently applied for management to get benefited. Budgets are not a substitute for good management.
6. Rigid document	Budgets are sometime considered as rigid documents. But in reality, an organisation is exposed to various uncertain internal and external factors. Budget should be flexible enough to incorporate ongoing developments in the internal and external factors affecting the very purpose of the budget.

(c) Blanket Overhead Rate: Blanket overhead rate refers to the computation of one single overhead rate for the whole factory.

This overhead rate is computed as follows:

$$\text{Blanket Rate} = \frac{\text{Total overheads for the factory}}{\text{Total number of units of base for the factory}}$$

Departmental Overhead Rate: It refers to the computation of one single overhead rate for a particular production unit or department.

This overhead rate is determined by the following formula:

$$\text{Departmental overheads Rate} = \frac{\text{Overheads of department or cost centre}}{\text{Corresponding base}}$$

Conditions required for the Application of Blanket Overhead:

A blanket rate should be applied in the following cases:

(1) Where only one major product is being produced.

(2) Where several products are produced, but

  (a) All products pass through all departments; and

  (b) All products are processed for the same length of time in each department.

(d) Method of Costing

S.No.	Industry	Method of Costing
(i)	Oil Refinery	Process Costing
(ii)	Interior Decoration	Job Costing
(iii)	Airlines Company	Operation/ Service Costing
(iv)	Advertising	Job Costing
(v)	Car Assembly	Multiple Costing

(e) Example of Impact of Information Technology in cost accounting may include the following:

(i) After the introduction of ERPs, different functional activities get integrated and as a consequence a single entry into the accounting system provides custom made reports for every purpose and saves an organisation from preparing different sets of documents. Reconciliation process of results of both cost and financial accounting systems become simpler and less sophisticated.

(ii) A move towards paperless environment can be seen where documents like Bill of Material, Material Requisition Note, Goods Received Note, labour utilisation report etc. are no longer required to be prepared in multiple copies, the related department can get e-copy from the system.

(iii) Information Technology with the help of internet (including intranet and extranet) helping in resource procurement and mobilisation. For example, production department can get materials from the stores without issuing material requisition note physically. Similarly, purchase orders can be initiated to the suppliers with the help of extranet. This enables an entity to shift towards Just-in-Time (JIT) approach of inventory management and production.

(iv) Cost information for a cost centre or cost object is ascertained with accuracy in timely manner. Each cost centre and cost object is codified and all related costs are assigned to the cost objects or cost centres using assigned codes. This automates the cost accumulation and ascertainment process. The cost information can be customised as per the requirement. For example, when an entity manufacture or provide services, are able to know information job-wise, batch-wise, process-wise, cost centre wise etc.

(v) Uniformity in preparation of report, budgets and standards can be achieved with the help of IT. ERP software plays an important role in bringing uniformity irrespective of location, currency, language and regulations.

(vi) Cost and revenue variance reports are generated in real time basis which enables the management to take control measures immediately.

(vii) IT enables an entity to monitor and analyse each process of manufacturing or service activity closely to eliminate non value added activities.

Q.3:

(a) WRITE note on cost-plus-contracts.

(b) HOW apportionment of joint costs upto the point of separation amongst the joint products using market value at the point of separation and net realizable value method is done? DISCUSS.

(c) DISCUSS cost classification based on variability and controllability.

(d) **DESCRIBE the salient features of budget manual.** **[RTP May 21]**

ANSWER:

(a) These contracts provide for the payment by the contractee of the actual cost of construction plus a stipulated profit, mutually decided between the two parties.

The main features of these contracts are as follows:

(i) The practice of cost-plus contracts is adopted in the case of those contracts where the probable cost of the contracts cannot be ascertained in advance with a reasonable accuracy.

(ii) These contracts are preferred when the cost of material and labour is not steady and the contract completion may take number of years.

(iii) The different costs to be included in the execution of the contract are mutually agreed, so that no dispute may arise in future in this respect. Under such type of contracts, contractee is allowed to check or scrutinize the concerned books, documents and accounts.

(iv) Such a contract offers a fair price to the contractee and also a reasonable profit to the contractor.

The contract price here is ascertained by adding a fixed and mutually pre-decided component of profit to the total cost of the work.

(b) Apportionment of Joint Cost amongst Joint Products using:

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

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

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

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

(c) Cost classification based on variability

(i) Fixed Costs – These are the costs which are incurred for a period, and which, within certain output and turnover limits, tend to be unaffected by fluctuations in the levels of activity (output or turnover). They do not tend to increase or de-crease with the changes in output. For example, rent, insurance of factory building etc., remain the same for different levels of production.

(ii) Variable Costs – These costs tend to vary with the volume of activity. Any increase in the activity results in an increase in the variable cost and vice-versa. For example, cost of direct labour, etc.

(iii) Semi-variable Costs – These costs contain both fixed and variable components and are thus partly affected by fluctuations in the level of activity. Examples of semi variable costs are telephone bills, gas and electricity etc.

Cost classification based on controllability

(i) Controllable Costs - Cost that can be controlled, typically by a cost, profit or investment centre manager is called controllable cost. Controllable costs incurred in a particular responsibility centre can be influenced by the action of the executive heading that responsibility centre. For example, direct costs comprising direct labour, direct material, direct expenses and some of the overheads are generally controllable by the shop level management.

(ii) Uncontrollable Costs - Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs. For example, expenditure incurred by, say, the tool room is controllable by the foreman in-charge of that section but the share of the tool-room expenditure which is apportioned to a machine shop is not to be controlled by the machine shop foreman.

(d) Salient features of Budget Manual

- Budget manual contains much information which is required for effective budgetary planning.
- A budget manual is a collection of documents that contains key information for those involved in the planning process.
- An introductory explanation of the budgetary planning and control process, including a statement of the budgetary objective and desired results is included in Budget Manual.
- Budget Manual contains a form of organisation chart to show who is responsible for the preparation of each functional budget and the way in which the budgets are interrelated.

- In contains a timetable for the preparation of each budget.
- Copies of all forms to be completed by those responsible for preparing budgets, with explanations concerning their completion is included in Budget Manual.

Q.4:

(a) DISCUSS the Net Realisable Value (NRV) method of apportioning joint costs to by-products.

(b) DIFFERENCIATE between Service costing and Product costing.

(c) DISCUSS the Controllable and un-controllable variances.

(d) DISCUSS the Standard and Discretionary Cost Centres.

[MTP March 21 (4 × 5 = 20 Marks)]

ANSWER:

(a) Net Realisable Value method: The realisation on the disposal of the by-product may be deducted from the total cost of production so as to arrive at the cost of the main product. For example, the amount realised by the sale of molasses in a sugar factory goes to reduce the cost of sugar produced in the factory.

When the by-product requires some additional processing and expenses are incurred in making it saleable to the best advantage of the concern, the expenses so incurred should be deducted from the total value realised from the sale of the by-product and only the net realisations should be deducted from the total cost of production to arrive at the cost of production of the main product. Separate accounts should be maintained for collecting additional expenses incurred on:

(i) Further processing of the by-product, and

(ii) Selling, distribution and administration expenses attributable to the by-product.

(b) Service costing differs from product costing (such as job or process costing) in the following ways due to some basic and peculiar nature.

(i) Unlike products, services are intangible and cannot be stored, hence, there is no inventory for the services.

(ii) Use of Composite cost units for cost measurement and to express the volume of outputs.

(iii) Unlike a product manufacturing, employee (labour) cost constitutes a major cost element than material cost.

(iv) Indirect costs like administration overheads are generally have a significant proportion in total cost of a service as unlike manufacturing sector, service sector heavily depends on support services and traceability of costs to a service may not economically feasible.

(c) Controllable and un-controllable variances: The purpose of the standard costing reports is to investigate the reasons for significant variances so as to identify the problems and take corrective action.

Variances are broadly of two types, namely, controllable and uncontrollable. Controllable variances are those which can be controlled by the departmental heads whereas uncontrollable variances are those which are beyond their control. Responsibility centres are answerable for all adverse variances which are controllable and are appreciated for favourable variances. Controllability is a subjective matter and varies from situation to situation. If the uncontrollable variances are of significant nature and are persistent, the standard may need revision.

(d) (i) **Standards Cost Centre:** Cost Centre where output is measurable and input required for the output can be specified. Based on a well-established study, an estimate of standard units of input to produce a unit of output is set. The actual cost for inputs is compared with the standard cost. Any deviation (variance) in cost is measured and analysed into controllable and uncontrollable cost. The manager of the cost centre is supposed to comply with the standard and held responsible for adverse cost variances. The input-output ratio for a standard cost centre is clearly identifiable.

(ii) **Discretionary Cost Centre:** The cost centre whose output cannot be measured in financial terms, thus input-output ratio cannot be defined. The cost of input is compared with allocated budget for the activity. Example of discretionary cost centres are Research & Development department, Advertisement department where output of these department cannot be measured with certainty and co-related with cost incurred on inputs.

Q.5:

(a) **DISTINGUISH between cost control and cost reduction.**

(b) **EXPLAIN the advantages that would accrue in using the LIFO method of pricing for the valuation of raw material stock.**

(c) **DISCUSS basic assumptions of Cost Volume Profit analysis.**

(d) **DESCRIBE the steps necessary for establishing a good budgetary control system.**

[MTP April 21 (4 × 5 = 20 Marks)]

ANSWER:

(a) **Difference between Cost Control and Cost Reduction**

Cost Control	Cost Reduction
1. Cost control aims at maintaining the costs in accordance with the established standards.	1. Cost reduction is concerned with reducing costs. It challenges all standards and endeavours to improvise them continuously
2. Cost control seeks to attain lowest possible cost under existing conditions.	2. Cost reduction recognises no condition as permanent, since a change will result in lower cost.
3. In case of cost control, emphasis is on past and present	3. In case of cost reduction, it is on present and future.

4.	Cost control is a preventive function	4.	Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
5.	Cost control ends when targets are achieved.	5.	Cost reduction has no visible end and is a continuous process.

(b) The advantages that would accrue in using the LIFO method of pricing for the valuation of raw material stock are as follows:

- The cost of materials issued will be either nearer to and or will reflect the current market price. Thus, the cost of goods produced will be related to the trend of the market price of materials. Such a trend in price of materials enables the matching of cost of production with current sales revenues.
- The use of the method during the period of rising prices does not reflect undue high profit in the income statement as it was under the first-in-first-out or average method. In fact, the profit shown here is relatively lower because the cost of production takes into account the rising trend of material prices.
- In the case of falling prices profit tends to rise due to lower material cost, yet the finished products appear to be more competitive and are at market price.
- Over a period, the use of LIFO helps to iron out the fluctuations in profits.
- In the period of inflation LIFO will tend to show the correct profit and thus avoid paying undue taxes to some extent.

(c) Assumptions of Cost Volume Profit analysis:

1. **Changes in the levels of revenues and costs arise only because of changes in the number of product (or service) units produced and sold** – for example, the number of television sets produced and sold by Sony Corporation or the number of packages delivered by Overnight Express. The number of output units is the only revenue driver and the only cost driver. Just as a cost driver is any factor that affects costs, a revenue driver is a variable, such as volume, that causally affects revenues.
2. **Total costs can be separated into two components;** a fixed component that does not vary with output level and a variable component that changes with respect to output level. Furthermore, variable costs include both direct variable costs and indirect variable costs of a product. Similarly, fixed costs include both direct fixed costs and indirect fixed costs of a product
3. When represented graphically, **the behaviours of total revenues and total costs are linear** (meaning they can be represented as a straight line) in relation to output level within a relevant range (and time period).
4. **Selling price, variable cost per unit, and total fixed costs (within a relevant range and time period) are known and constant.**

5. The analysis either covers a single product or assumes that **the proportion of different products when multiple products are sold will remain constant** as the level of total units sold changes.

6. All revenues and costs can be added, subtracted, and compared **without taking into account the time value of money.**

(d) The following steps are necessary for establishing a good budgetary control system:

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

Q.6:

(a) Journalise the following transactions in cost books under non-integrated system of Accounting.

(i)	**Credit Purchase of Material**	**₹ 27,000**
(ii)	**Manufacturing overhead charged to Production**	**₹ 6,000**
(iii)	**Selling and Distribution overheads recovered from Sales**	**₹ 4,000**
(iv)	**Indirect wages incurred for Manufacturing department**	**₹ 8,000**
(v)	**Material returned from production to stores**	**₹ 9,000**

(b) EXPLAIN the difference between Cost Accounting and Management Accounting

(c) DEFINE Zero Based Budgeting and mention its various stages.

(d) HOW do you deal with the following in cost accounts?

(i) Fringe benefits

(ii) Bad debts. **[MTP Oct 21 (4 x 5 = 20 Marks)]**

ANSWER:

(a) Journal entries are as follows:

			Dr. (₹)	**Cr. (₹)**
(i)	Stores Ledger Control A/c........................	Dr.	27,000	
	To Cost Ledger Control A/c			27,000
(ii)	Work-in-Process Control A/c....................	Dr.	6,000	

	To Manufacturing Overhead Control A/c		6,000
(iii)	Cost of Sales A/c.................................. Dr. To Selling & Dist. Overheads Control A/c	4,000	4,000
(iv)	(1) Wage Control A/c .... Dr. To Cost Ledger Control A/c	8,000	8,000
	(2) Manufacturing Overhead Control A/c........... Dr. To Wages Control A/c	8,000	8,000
	OR		
	Manufacturing Overheads Control A/c............. Dr. To Cost Ledger Control A/c	8,000	8,000
(v)	Stores Ledger Control A/c................... Dr. To Work-in-Process control A/c	9,000	9,000

*Cost Ledger Control A/c is also known as General Ledger Control A/c

(b) Difference between Cost Accounting and Management Accounting

	Basis	Cost Accounting	Management Accounting
(i)	Nature	It records the quantitative aspect only.	It records both qualitative and quantitative aspect.
(ii)	Objective	It records the cost of producing a product and providing a service.	It Provides information to management for planning and co-ordination.
(iii)	Area	It only deals with cost Ascertainment.	It is wider in scope as it includes financial accounting, budgeting, taxation, planning etc.
(iv)	Recording of data	It uses both past and present figures.	It is focused with the projection of figures for future.
(v)	Development	Its development is related to industrial revolution.	It develops in accordance to the need of modern business world.
(vi)	Rules and Regulation	It follows certain principles and procedures for recording costs of different products.	It does not follows any specific rules and regulations.

(c) Zero-based Budgeting: (ZBB) is an emergent form of budgeting which arises to overcome the limitations of incremental (traditional) budgeting system. Zero- based Budgeting (ZBB) is defined as 'a method of budgeting which requires each cost element to be specifically justified, although the activities to which the budget relates are being undertaken for the first time, without approval, the budget allowance is zero'.

ZBB is an activity based budgeting system where budgets are prepared for each activities rather than functional department. Justification in the form of cost benefits for the activity is required to be given. The activities are then evaluated and prioritized by the management on the basis of factors like synchronisation with organisational objectives, availability of funds, regulatory requirement etc.

ZBB is suitable for both corporate and non-corporate entities. In case of non-corporate entities like Government department, local bodies, not for profit organisations, where these entities need to justify the benefits of expenditures on social programmes like mid-day meal, installation of street lights, provision of drinking water etc.

ZBB involves the following stages:

(i) Identification and description of Decision packages

(ii) Evaluation of Decision packages

(iii) Ranking (Prioritisation) of the Decision packages

(iv) Allocation of resources

(d) (i) Fringe benefits: These are the additional payments or facilities provided to the workers apart from their salary and direct cost-allowances like house rent, dearness and city compensatory allowances. These benefits are given in the form of overtime, extra shift duty allowance, holiday pay, pension facilities etc.

These indirect benefits stand to improve the morale, loyalty and stability of employees towards the organisation. If the amount of fringe benefit is considerably large, it may be recovered as direct charge by means of a supplementary wage or labour rate; otherwise, these may be collected as part of production overheads.

(ii) Bad debts: There is no unanimity among different authors of Cost Accounting about the treatment of bad debts. One view is that 'bad debts' should be excluded from cost. According to this view bad debts are financial losses and therefore, they should not be included in the cost of a particular job or product.

According to another view it should form part of selling and distribution overheads, especially when they arise in the normal course of trading. Therefore, bad debts should be treated in cost accounting in the same way as any other selling and distribution cost. However extra ordinarily large bad debts should not be included in cost accounts.

Q.7:

(a) How apportionment of joint costs up-to the point of separation amongst the joint products using market value at the point of separation and net realizable value method is done? DISCUSS.

(b) Discuss cost classification based on variability and controllability.

(c) WRITE NOTE on cost-plus-contracts.

(d) DESCRIBE the salient features of budget manual. **[MTP Nov 21 (4 x 5 = 20 Marks)]**

ANSWER:

(a) Apportionment of Joint Cost amongst Joint Products using:

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

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

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

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

(b) Cost classification based on variability

(i) **Fixed Costs –** These are the costs which are incurred for a period, and which, within certain output and turnover limits, tend to be unaffected by fluctuations in the levels of activity (output or turnover). They do not tend to increase or decrease with the changes in output. For example, rent, insurance of factory building etc., remain the same for different levels of production.

(ii) **Variable Costs –** These costs tend to vary with the volume of activity. Any increase in the activity results in an increase in the variable cost and vice-versa. For example, cost of direct labour, etc.

(iii) **Semi-variable Costs –** These costs contain both fixed and variable components and are thus partly affected by fluctuations in the level of activity. Examples of semi variable costs are telephone bills, gas and electricity etc.

Cost classification based on controllability

(i) **Controllable Costs -** Cost that can be controlled, typically by a cost, profit or investment centre manager is called controllable cost. Controllable costs incurred in a particular responsibility centre can be influenced by the action of the executive heading that responsibility centre. For example, direct costs comprising direct labour, direct material, direct expenses and some of the overheads are generally controllable by the shop level management.

(ii) **Uncontrollable Costs -** Costs which cannot be influenced by the action of a specified member of an undertaking are known as uncontrollable costs. For example, expenditure incurred by, say, the tool room is controllable by the foreman in-charge of that section but the share of the tool-room expenditure which is apportioned to a machine shop is not to be controlled by the machine shop foreman.

(c) Cost-Plus contracts: These contracts provide for the payment by the contractee of the actual cost of construction plus a stipulated profit, mutually decided between the two parties.

The main features of these contacts are as follows:

(i) The practice of cost-plus contracts is adopted in the case of those contracts where the probable cost of the contracts cannot be ascertained in advance with a reasonable accuracy.

(ii) These contracts are preferred when the cost of material and labour is not steady and the contract completion may take number of years.

(iii) The different costs to be included in the execution of the contract are mutually agreed, so that no dispute may arise in future in this respect. Under such type of contracts, contractee is allowed to check or scrutinize the concerned books, documents and accounts.

(iv) Such a contract offers a fair price to the contractee and also a reasonable profit to the contractor.

The contract price here is ascertained by adding a fixed and mutually pre-decided component of profit to the total cost of the work.

(d) Salient features of Budget Manual

Budget manual contains much information which is required for effective budgetary planning.

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

Q.8:

Answer any <u>four</u> of the following:

(a) Briefly explain the 'techniques of costing'.

(b) Narrate the terms 'Joint Products' and 'By-Products' with an example of each term.

(c) Discuss the steps involved in setting labour time standards.

(d) What is 'Budgetary Control System' and discuss the components of the same.

(e) Describe the difference between 'Cost Control' and 'Cost Reduction'.

[Dec 21 (4 x 5 = 20 Marks)]

ANSWER:

(a)

Techniques	Description

	Uniform Costing	When a number of firms in any industry agree among themselves to follows the same system of costing in detail, adopting common terminology for various items and processes they are said to follows a system of uniform costing. Advantages of such as system are: i. A comparison of the performance of each of the firms can be made with that of another, or with the average performance in the industry. ii. Under such a system, it is also possible to determine the cost of production of goods which is true for the industry as a whole. It is found useful when tax-relief or protection is sought from the Government.
	Marginal Costing	It is defined as the ascertainment of marginal cost by differentiating between fixed and variable cost. It is used to ascertain effect of changes in volume or type of output on profit.
	Standard Costing and Variance Analysis	It is the name given to the technique whereby standard costs are pre-determined and subsequently compared with the recorded actual costs. It is thus a techniques of cost ascertainment and cost control. This technique may be used in conjunction with any method of costing. However, it is especially suitable where the manufacturing method involves production of standardized goods of repetitive nature.
	Historical Costing	It is the ascertainment of costs after they have been incurred. This type of costing has limited utility. • Post Costing: It means ascertainment of cost after production is completed. • Continuous costing: Cost is ascertained as soon as the job is completed or even when the job is in progress.
	Absorption Costing	It is the practice of charging all costs, both variable and fixed tolerations, processes or products. This differs from marginal costing where fixed costs are excluded.
	Direct costing	Direct costing is a specialized form of cost analysis that only uses variable costs to make decisions. It does not consider fixed costs, which are assumed to be associated with the time periods in which they are incurred.

(b) (i) **Joint products –** Joint products represent "two or more products separated in the course of the same processing operation usually requiring further processing, each product being in such proportion that no single product can be designated as a major product".

In other words, two or more product of equal importance, produced, simultaneously from the same process, with each having a significant relative sale value are known as joint products.

For example, in the oil industry, gasoline, fuel oil, lubricants, paraffin, coal tar, asphalt and kerosene are all produced from crude petroleum. These are known as joint products.

(ii) **By-Products –** These are defined as "products recovered from material discarded in a main process, or from the production of some major products, where the material value is to be considered at the time of severance from the main product." Thus, by-products emerge as a result of processing operation of another product or they are produced from the scrap or waste of materials of a process. In short, a by-product is a secondary or subsidiary product which emanates as a result of manufacture of the main product.

The point at which they are separated from the main product or products is known as split-off point. The expenses of processing are joint till the split-off point.

Examples of by -products are molasses in the manufacture of sugar, tar, ammonia and benzole obtained on carbonisation of coal and glycerine obtained in the manufacture of soap.

(c) Procedure of Setting Labour Time Standards

The following are the steps involved in setting labour standards:

(a) **Standardisation:** Products to be produced are decided based on production plan and customer's order.

(b) **Labour specification:** Types of labour and labour time is specified. Labour time specification is based on past records and it takes into account normal wastage of time.

(c) **Standardisation of methods:** Selection of proper machines to use proper sequence and method of operations.

(d) **Manufacturing layout:** A Plant of operation for each product listing the operations to be performed is prepared.

(e) **Time and motion study:** It is conducted for selecting the best way of completing the job or motions to be performed by workers and the standard time which and average worker will take for each job. This also takes into account the learning efficiency and learning effect.

(f) **Training and trial:** Workers are trained to do the work and time spent at the time of trial runs is noted down.

(d) Budgetary Control system: It is the system of management control and accounting in which all the operations are forecasted and planned in advance to the extent possible and the actual results compared with the forecasted and planned results.

Components of budgetary Control System: The policy of a business for a defined period is represented by the master budget, the detailed components of which are given in a number of individual budgets called functional budgets. These functional budgets are broadly grouped under the following heads:

(i) **Physical budgets:** Those budgets which contain information in quantitative terms such as the physical units of sales, production etc. This may include quantity of sales, quantity of production, inventories, and manpower budgets are physical budgets.

(ii) **Cost budgets:** Budgets which provides cost information in respect of manufacturing, administration, selling and distribution, etc. for example, manufacturing costs, selling costs, administration cost, and research and development cost budgets are cost budgets.

(iii) **Profit budges:** A budget which enables the ascertainment of profit. For examples, sales budget, profit and loss budget, etc.

(iv) **Financial budgets:** A budget which facilitates in ascertaining the financial position of a concern, for example, cash budgets, capital expenditure budget, budget balance sheet etc.

(e)

Cost Control	Cost Reduction
1. Cost control aims at maintaining the costs in accordance with the established standards.	1. Cost reduction is concerned with reducing costs. It challenges all standards and endeavors to improvise them continuously
2. Cost control seeks to attain lowest possible cost under existing conditions.	2. Cost reduction recognises no condition as permanent, since a change will result in lower cost.
3. In case of cost control, emphasis is on past and present	3. In case of cost reduction, it is on present and future.
4. Cost control is a preventive function	4. Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
5. Cost control ends when targets are achieved.	5. Cost reduction has no visible end and is a continuous process.

Q.9:

(a) DIFFERENTIATE between Cost Control and Cost Reduction.

(b) 'Like other branches of accounting, cost accounting also has certain limitations'. EXPLAIN the limitations.

(c) DIFFERENTIATE between Job Costing and Batch Costing.

(d) DISCUSS the treatment of by-product cost in Cost Accounting when they are of small total value. **[RTP Nov 21]**

ANSWER:

(a)

S. No.	Cost Control	Cost Reduction
1	Cost control aims at maintaining the costs in accordance with the established standards.	Cost reduction is concerned with reducing costs. It challenges all standards and endeavours to improvise them continuously.
2	Cost control seeks to attain lowest possible cost under existing conditions.	Cost reduction recognises no condition as permanent, since a change will result in lower cost.

3	In case of cost control, emphasis is on past and present.	In case of cost reduction, it is on present and future.
4	Cost control is a preventive function.	Cost reduction is a corrective function. It operates even when an efficient cost control system exists.
5	Cost control ends when targets are achieved.	Cost reduction has no visible end and is a continuous process.

(b) "Like other branches of accounting, cost accounting also has certain limitations". The limitations of cost accounting are as follows:

(i) Expensive: It is expensive because analysis, allocation and absorption of overheads requires considerable amount of additional work, and hence additional money.

(ii) Requirement of reconciliation: The results shown by cost accounts differ from those shown by financial accounts. Thus, preparation of reconciliation statements is necessary to verify their accuracy.

(iii) Duplication of work: It involves duplication of work as organization has to maintain two sets of accounts i.e. Financial Accounts and Cost Accounts.

(c)

S. No.	Job Costing	Batch Costing
1	Method of costing used for non- standard and non-repetitive products produced as per customer specifications and against specific orders.	Homogeneous products produced in a continuous production flow in lots.
2	Cost determined for each Job.	Cost determined in aggregate for the entire Batch and then arrived at on per unit basis.
3	Jobs are different from each other and independent of each other. Each Job is unique.	Products produced in a batch are homogeneous and lack of individuality.

(d) When the by-products are of small total value, the amount realised from their sale may be dealt in any one the following two ways:

(i) The sales value of the by-products may be **credited to the Costing Profit and Loss Account** and no credit be given in the Cost Accounts. The credit to the Costing Profit and Loss Account here is treated either as miscellaneous income or as additional sales revenue.

(ii) The sale proceeds of the by-product may be **treated as deductions from the total costs**. The sale proceeds in fact should be deducted either from the production cost or from the cost of sales.

Q.10:

(a) **DISTINGUISH clearly between Bin cards and Stores Ledger.**

(b) **Some of the items of PR Company, a manufacturer of corporate office furniture, are provided below. As the company is in the process of developing a formal cost accounting system, you are required to CLASSIFY the items into three categories namely: (i) Cost tracing (ii) Cost allocation (iii) Non-manufacturing item.**

Carpenter wages, Depreciation - office building, Glue for assembly, Lathe department supervisor, Metal brackets for drawers, Factory washroom supplies, Lumber, Samples for trade shows, Lathe depreciation, Lathe operator wages.

(c) **In Batch Costing, STATE how is Economic Batch Quantity determined?**

(d) **EXPLAIN what are the essential pre-requisites of Integrated accounting system?**

(e) **WHAT is inter-process profit? STATE its advantages and disadvantages.**

[RTP May 22 (4 × 5 = 20 Marks)]

ANSWER:

(a)

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

(b)

Item	Cost Tracing	Cost Allocation	Non-manufacturing
Carpenter wages	✓		
Depreciation – office building			✓
Glue for assembly		✓	
Lathe department supervisor		✓	
Metal brackets for drawers	✓		
Factory washroom supplies		✓	
Lumber	✓		
Samples for trade shows			✓

Lathe depreciation		✓	
Lathe operator wages		✓	

(c) **The economic batch size or Economic Batch Quantity** may be determined by calculating the total cost for a series of possible batch sizes and checking which batch size gives the minimum cost. The objective here being to determine the production lot (Batch size) that optimizes on both set up and inventory holding cots formula. The mathematical formula usually used for its determination is as follows:

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

Where,

D = Annual demand for the product

S = Setting up cost per batch

C = Carrying cost per unit of production

(d) **Essential pre-requisites for Integrated Accounts:** The essential pre-requisites for integrated accounts include the following steps-

1. The management's decision about the extent of integration of the two sets of books. Some concerns find it useful to integrate up to the stage of prime cost or factory cost while other prefers full integration of the entire accounting records.
2. A suitable coding system must be made available so as to serve the accounting purposes of financial and cost accounts.
3. An agreed routine, with regard to the treatment of provision for accruals, prepaid expenses, other adjustment necessary for preparation of interim accounts.
4. Perfect coordination should exist between the staff responsible for the financial and cost aspects of the accounts and an efficient processing of accounting documents should be ensured.

(e) **Inter-Process Profit:** To control cost and to measure performance, different processes within an organization are designated as separate profit centres. In this type of organizational structure, the output of one process is transferred to the next process not at cost but at market value or cost plus a percentage of profit. The difference between cost and the transfer price is known as inter - process profits.

The advantages and disadvantages of using inter-process profit, in the case of process type industries are as follows:

Advantages:

1. Comparison between the cost of output and its market price at the stage of completion is facilitated.
2. Each process is made to stand by itself as to the profitability.

Disadvantages:

1. The use of inter-process profits involves complication.
2. The system shows profits which are not realised because of stock not sold out.

Q.11: What is Bill of Material? Describe the uses of Bill of Material in following departments:

(i) Purchases Department

(ii) Production Department

(iii) Stores Department

(iv) Cost / Accounting Department **[Dec 21 (5 Marks)]**

ANSWER:

Bill of Material: It is a detailed list specifying the standard quantities and qualities of materials and components required for producing a product or carrying out of any job.

Uses of Bill of Material in different department:

Purchase Department	Production Department	Stores Department	Cost/Accounting Department
Materials are procured (purchased) on the basis of specifications mentioned in it.	Production is planned according to the nature, volume of the materials required to be used. Accordingly, material requisition lists are prepared.	It is used as a reference document while issuing materials to the requisitioning department.	It is used to estimate cost and profit. Any purchase, issue and usage are compared/ verified against this document.