SUPER 25 - COST THEORY QUESTIONS

1. OBJECTIVES OF COST ACCOUNTING

(a) Ascertainment of cost: The main objective of cost accounting is accumulation and ascertainment of cost.

(b) Determination of selling price: The cost accounting system helps in determination of selling price and thus profitability of a cost object.

(c) Cost control and cost reduction: To exercise cost control, the following steps should be observed:

(i) Determination of pre-determined standard or results
(ii) Measurement of actual performance
(iii) Comparison of actual performance with set standard or target
(iv) Analysis of variance and action

Cost Reduction may be defined "as the achievement of real and permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for the use intended or diminution in the quality of the product."

(d) Ascertaining the profit of each activity: The profit of any activity can be ascertained by matching cost with the revenue of that activity.

(e) Assisting management in decision making: Cost and Management accounting by providing relevant information, assist management in planning, implementing, measuring, controlling and evaluation of various activities.

2. COST UNITS

Industry	Cost unit
Bricks	Per 1,000 bricks
Power	Per kilowatt hours
Coal / Mining / Steel / Sugar / Paper / Fertilizer / Cement	Per tone
Gas	Per Cubic feet
Road construction	Per kilometer or per mile
Advertising / Interior decoration	Each job
Made to order / Readymade garments / Automobile / Furniture / Bicycle manufacturing	Number
Tyres & tubes Batch / Toy making / Printing press	Each batch
Pharmaceuticals	1,000 nos., tablets, strips
Water Supply	Per 1,000 litre
Bus service	Per passenger-kilometer
Education	Per student hour
Electricity	Per kilowatt-hour

Goods transport	Per ton-mile or per ton-km
Taxi	Per km
Road transport	Per km/ per passenger km
Airline	Per passenger per one way
Hospital	Per patient day/ per bed day
Hotel	Per room per day / per meal
Cinema	Per seat
Bridge construction / Civil construction	Each contract
Ship building	Each ship
Petro chemicals / Oil refinery	Per tons, gallons litres
Textiles	Per meter
Chemical	Per kg / litre / tonne

3. DISTINGUISH BETWEEN COST CONTROL & COST REDUCTION

Cost Reduction is defined by C.I.M.A London as "the achievement of real & permanent reduction in the unit cost of goods manufactured or services rendered without impairing their suitability for use intended". This definition reveals the following characteristics of cost reduction:

i. Cost reduction must be real; say, through increase in productivity.
ii. There is a saving in unit cost.
iii. Such saving is of permanent nature.
iv. The utility & quality of goods & services remain unaffected, if not improved.

Cost Control: The cost control is the function of keeping cost within prescribed limits. According to C.I.M.A, London, cost control "is the regulation by executive action of the cost of operating an undertaking, particularly where such action is guided by cost accounting." Cost control is based on the principle of pre- determined costs & achieving these cost levels so that inefficiencies & wastages may be reduced.

The main points of distinction between Cost Reduction & Cost Control are as follows:

1. Cost control aims at maintaining the costs in accordance with the **established standards**. While cost reduction is concerned with **reducing costs**. It challenges all standards and endeavors to better them continuously
2. Cost control seeks to attain lowest possible cost under **existing conditions**. While 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** while in case of cost reduction it is on **present and future**.
4. Cost Control is a **preventive function**, while cost reduction is a **corrective function**. It operates even when an efficient cost control system exists.
5. Cost control ends when **targets are achieved** while cost reduction has **no visible end**.

4. METHODS OF COSTING

f output	Method	Description	Example
A. Based on Customer's specification:			
- Single Unit	**Job** Costing	To ascertain the cost of each job / order / assignment.	Automobile Workshops, Interior Decoration etc.
- No of similar units	**Batch** Costing	To ascertain the cost of each batch / lot of units produced.	Pharmaceuticals, Printing press i.e. visiting cards, invitation etc.
- Execution of works	**Contract** Costing	To ascertain the cost for each contract	Roads, bridge projects, Civil Construction, Ship Building.
B. Similar units of single product, from:			
- Single process	**Unit** or **Output** or **Single** Costing	For the entire activity, but averaged for the output.	Quarries, Brickworks, Paint Manufacturing etc.
- Series of processes	**Process** or **Operation** Costing	For each process or operation.	Oil Refinery, Breweries, Sugar etc.
C. Multiple varieties of activities and processes	**Multiple** Costing	Combination of any of the methods listed above.	Production of TVs, computer etc, automobile assembly.
D. Rendering of services	**Operating** Costing	For each type of service.	Transport, Hotels, Cinema, Hospitals etc.

5. DIGITAL COSTING SYSTEM

Digital costing system links different business functions such as production, procurement, inventory management with the digital costing system of its suppliers, customers and the market through **data sharing** and **network interaction**.

Digital Costing System provides data to get the following information:

(i) Cost incurred on a **cost object**.
(ii) Data on **time spent**.
(iii) Data on **resource consumption**.
(iv) Data on current **market price of** final product and raw materials.

Benefits of Digital Costing System

(i) Ascertainment of **cost with certainty** on a cost object

(ii) Analysis of **data on time spent** on each activity to study and formulate incentive plans.

(iii) Helps in **material requirement planning and** scheduling the material procurement.

(iv) Helps to identify and **eliminate the non-value-added activities**.

(v) Data on **resource consumption** is helpful in setting the standards and measurement of variances on real time basis.

(vi) Extrapolation of data on **customer behaviour** towards the products to predict the market demand. It is helpful is preparation of budgets and planning of production.

(vii) A better analysis of cost behaviour improves the cost benefit analysis and equipping the management in informed **decision making**.

6. DIFFERENCE BETWEEN BILL OF MATERIAL & MATERIAL REQUISITION

Bill of material	Material requisition note
1. It is a document prepared by the drawing office (part of production, planning & control.	1. It is prepared by the foreman of the consuming department.
2. It is a complete schedule of component parts & raw material required for a particular job per work order along with the necessary blueprint of drawings.	2. It is a document authorising store keeper to issue materials to the consuming department.
3. It often serves the purpose of a Store Requisition as it shows the complete schedule of materials required for a particular job i.e. it can replace stores requisition.	3. It cannot replace a bill of material.
4. It can be used for the purpose of quotation.	4. It is useful in arriving historical cost only.
5. It helps in keeping a quantitative control on materials draw through Stores Requisition.	5. It shows the material actually drawn from stores.

7. BIN CARDS AND STORES LEDGER

(i) Bin cards are maintained by **the store keeper**, while the stores ledger is maintained by the **cost accounting department**.

(ii) Bin card is the **stores recording** document whereas the stores ledger is an **accounting record**.

(iii) Bin card contains information with regard to **quantities** i.e. their receipt, issue and balance while the stores ledger contains both **quantitative and value** information in respect of their receipts, issue and balance.

(iv) In the bin card entries are made at the time when **transaction takes place**. But in the stores ledger entries are made only **after the transaction has taken place**.

(v) Bin cards record **each transaction** but stores ledger records the same information in a **summarized form**.

8. JUST IN TIME (JIT) PURCHASES

JIT mean the purchases of goods materials such that **delivery immediately precedes their use**. This will ensure that stocks are as low as possible. JIT purchasing is implemented by developing closer relationship with supplier so that the company & supplier work together cooperatively. In JIT purchasing arrangement is made with supplier for more **frequent deliveries of smaller quantities** of materials so that each delivery is just sufficient to meet immediate production requirement.

JIT is based on two principles

(i) Produce goods only when it is required and

(ii) the products should be delivered to customers at the time only when they want.

It is also known as **'Demand pull'** or 'Pull through' system of production. In this system, production process actually starts after the order for the products is received. Based on the demand, production process starts and the requirement for raw materials is sent to the purchase department for purchase.

1. The supplier of materials cooperates with the company & supply request quantity of materials for which order is placed before the start of production reducing the cost of stock outs.
2. Investment in raw materials & WIP is substantially reduced thereby saving opportunity/ interest cost.
3. It result in saving is factory space & thus storage costs.
4. JIT purchases results in saving in materials handling & breakage costs.

9. TREATMENT OF NORMAL AND ABNORMAL LOSS OF MATERIALS

Waste - The portion of raw material which is lost during storage or production and discarded. The waste may or may not have any value.

Scrap - The materials which are discarded and disposed-off without further treatment. Generally, scrap has either no value of insignificant value. Some time it may reintroduced into the process as raw material.

Spoilage - It is the term used for materials which are badly damaged in manufacturing operations, and they cannot be rectified economically and hence taken out of process to be disposed of in some manner without further processing.

Defectives - It signifies those units or portions of production which do not meet the quality standards. Defectives arise due to sub-standard materials, bad-supervision, bad-planning, poor workmanship, inadequate-equipment and careless inspection.

10. ABC AND VED ANALYSIS - – REFER CLASS NOTES

11. TREATMENT OF IDLE TIME, OVERTIME AND LABOUR TURNOVER – REFER CLASS NOTES

12. UNDER OR OVER RECOVERY & ITS TREATMENT

1. **Supplementary overhead rate :** If the under-absorption is significant, supplementary overhead rate is computed and applied to the jobs

2. **Transfer to current year's costing PL A/C** : If the under-absorption is minor and insignificant, it may be transferred to the current year's costing P and L a/c., without re-opening the various job accounts involved.

3. **Transfer to next year** : Alternatively, the under-absorption can be transferred to the next year's Factory overhead control account with the hope that the same can be adjusted in the next year. But this method is not recommended as most of the overhead are period costs and related to time.

13. ADVANTAGES OF INTEGRATED ACCOUNTING :

- **No need for Reconciliation-**Since there is one set of accounts, thus there is one figure of profit. Hence the question of reconciliation of costing and financial profit does not arise.
- **Less efforts-**There is no duplication of recording of entries to maintain separate books.
- **Less Time consuming-**Costing data are available from books of original entry and hence no delay is caused in obtaining information.
- **Economical process-**Centralization of accounting function results in economy.

Essential pre-requisites for integrated accounts:

- 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 primary 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.
- 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.

14. REASONS FOR DIFFERENCE BETWEEN PROFITS SHOWN IN COST ACCOUNTS AND THOSE SHOWN IN FINANCIAL ACCOUNTS

1. Items included in financial accounts only
2. Items included in cost accounts only – Usually notional charges / imputed costs / opportunity costs.
3. Under or over absorption of overheads, if transferred to next year's accounts-
4. Different bases of stock valuation
5. Different methods of charging depreciation –

15. DIFFERENCE BETWEEN JOB AND BATCH COSTING

Job Costing	Batch Costing
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.
Cost determined for each Job	Cost determined in aggregate for the entire Batch and then arrived at on per unit basis.
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

16. INTER-PROCESS PROFITS

Generally processes are regarded as cost centres i.e. the focus is only on ascertainment of cost. Sometimes, they can also be treated as profit centres i.e. responsibility for earning profits. However, since output of intermediate processes is not directly saleable, 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. This is called as transfer price. The difference between cost incurred & the transfer price is known as inter-process profits.

Advantages:

(a) It is a possible to compare cost of output & market value at each stage of completion.

(b) It is easier to fix responsibility of process managers for cost control through indirect means of achieving profits.

(c) Each process is made to stand by itself as to profitability.

Disadvantages:

(a) It is a complicated method involving transfer-pricing considerations. The determination of appropriate transfer price is not a simple affair.

(b) It might promote conflicts & misunderstandings among mangers as regards comparative profitability.

(c) It requires reconciliation between profits books at each stage & actual realised profits since it shows profits locked up in unsold stock.

17. TREATMENT OF BY PRODUCT – REFER CLASS NOTES

18. BUILD-OPERATE-TRANSFER (BOT) APPROACH

In recent years a growing trend emerged among Governments in many countries to solicit investments for public projects from the private sector under BOT scheme. BOT is an option for the Government to outsource public projects to the private sector.

With BOT, the private sector designs, finances, constructs and operate the facility and eventually, after specified concession period, the ownership is transferred to the

Government. Therefore, BOT can be seen as a developing technique for infrastructure projects by making them amenable to private sector participation.
The fundamental principle in determining user levy is, 'if the price for a transport facility is set at a level that reflects the benefit, each user gains from improvements in the facility, it will result in traffic flow levels that equate social costs with user benefits.'

19. FIXED VS FLEXIBLE BUDGETS:

Basis	Fixed Budget	Flexible Budget
Assumption	Based on assumption that business conditions will remain constant.	Based on assumption that business conditions are changing.
Nature	It has a fixed nature. Change is not possible once prepared.	It has a dynamic / variable nature. Adjustment is possible.
Classification	Cost is not classified according to their nature.	Cost is classified into fixed, variable and semi-variable.
Forecast	Pure forecast is not possible on the basis of fixed budget.	Pure forecast about various costs of production is possible on the basis of flexible budget.
Business decisions	Fixed budget is not suitable and appropriate for business decisions.	Flexible budget is more suitable and appropriate for business decisions.

20. BUDGETARY CONTROL

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.

Budgetary Control Involves

1. Establishment of budgets
2. Continuous comparison of actuals with budgets for achievement of targets.
3. Revision of budgets after considering the changes in the circumstances.
4. Fixation of the responsibility for failure to achieve the budget targets.

Objectives of Budgetary Control System

1. Portraying with precision the **overall aims of the business** and determining targets of performance for each section or department of the business.

2. Laying down the **responsibilities of each of the executives** and other personnel so that everyone knows what is expected of him and how he will be judged. Budgetary control is one of the few ways in which an objective assessment of executives or department is possible.

3. Providing a **basis for the comparison** of actual performance with the predetermined targets and investigation of deviation, if any, of actual performance and expenses from the budgeted figures. This naturally helps in adopting corrective measures.

4. Ensuring **optimum use of available resources** to maximise profit or production, subject to the limiting factors. Since budgets cannot be properly drawn up without considering all aspects, usually there is good co-ordination when a system of budgetary control operates.

5. **Co-ordinating various activities** of the business, and centralising control and yet enabling management to decentralise responsibility and delegate authority in the overall interest of the business.

6. Providing a basis for revision of current and future policies.

7. Drawing up long range plans with a fair measure of accuracy.

8. Providing a yardstick against which actual results can be compared.

21. ZERO – BASED BUDGETING (ZBB)

Zero based budgeting differs from the conventional system of budgeting because it mainly **starts from scratch or zero and not on the basis of trends** or historical levels of expenditure. 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.

In case of corporate entities, ZBB is best suited for discretionary costs like research and development cost, training programmes, advertisement 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

Advantages of Zero-based Budgeting

- It provides a systematic approach for the **evaluation of different activities** and rank them in order of preference for the allocation of scarce resources.
- It ensures that the various functions undertaken by the organization are **critical** for the achievement of its objectives and are being performed in the best possible way.
- It provides an opportunity to the management to **allocate resources** for various activities only after having a thorough cost-benefit-analysis. The chances of arbitrary cuts and enhancement are thus avoided.
- The areas of **wasteful expenditure** can be easily identified and eliminated.
- Departmental budgets are closely linked with **corporation objectives**.
- The technique can also be used for the introduction and implementation of the system of '**management by objective**.' Thus, it cannot only be used for fulfillment of the objectives of traditional budgeting but it can also be used for a variety of other purposes.

Limitations of Zero-based Budgeting

- The work involves in the creation of decision-making and their subsequent ranking has to be made on the basis of **new data**. This process is **very tedious to management**.
- The activities selected for the purpose of ZBB are on the basis of **the traditional functional departments**. So, the consideration scheme may not be implemented properly.

Difference between Traditional Budgeting and Zero- based budgeting

- Traditional budgeting is **accounting oriented**. Main stress happens to be on previous level of expenditure. Zero-based budgeting makes a **decision- oriented approach**. It is very rational in nature and requires all programmes, old and new, to compete for scarce resources.
- In traditional budgeting, first reference is made to **past level of spending** and then demand for inflation and new programmes. In zero- based budgeting, management focuses attention to only **on decision packages**, which enjoy priority to others.
- In tradition budgeting, some managers **deliberately inflate their budget** request so that after the cuts they still get what they want. In zero-based budgeting, a rationale analysis of budget proposals is attempted. The managers, who unnecessarily try to inflate the budget request, are likely to be **caught and exposed**. Management accords its approval only to a carefully devised result-oriented package.
- Traditional budgeting is **not as clear and as responsive** as zero-base budgeting.
- Traditional budgeting makes a routine approach. Zero-based budgeting makes a very straightforward approach and immediately spotlights the decision packages enjoying priority over others.

22. DISTINCTION BETWEEN MARGINAL COSTING AND ABSORPTION COSTING

Basis	Marginal costing	Absorption costing
Fixed costs	Fixed costs are ignored & not included in costs of production or costs of finished stock or work-in-progress.	Fixed overheads are added to cost of production. The stocks are also valued at a cost which includes fixed expenses as well.
Cost per unit	Cost per unit remains the same irrespective of the production as it is valued at variable costs.	Cost / unit reduces the production increase as it is fixed cost which reduces, whereas, the variable cost / unit remains the same.
Decision Making	It is suitable for decision making.	Not suitable for decision making.
Cost comparison & cost control	Cost comparison & cost control is easy.	Costs are found to be different due to inclusion of FC & thus making cost comparison & control difficult.

23. TREATMENT OF VARIANCES IN COST ACCOUNTS:

1. **Transfer to Costing P&L**: In this method, WIP A/C, Finished Stock A/C & cost of Sales A/c are maintained at standard costs. Hence, all the cost variances are transferred to costing P& L A/C. All adverse variances are debited & favourable variances are credited to Costing P&L A/C.

2. **Apportionment of variances to Work –in-progress, Finished Stock & cost of Sales:** Under this method, the variances are distributed to WIP A/C, Finished Stock A/C and Cost of Sales A/C in proportion to the closing balances of each account & it has the effect of recording actual costs in the Financial Statements .The arguments in favour of this method are as follows:-

   (a) Adding back the variance to the standard costs will reflect the actual costs.

   (b) Showing the inventory at actual costs for balance sheet purposes.

   (c) Standard costs are tools of control & hence only actual costs should be reflected in P & L A/C & Balance Sheet.

   (d) Variances are not actual losses and hence they should not be allowed to distort profits.

3. **Carry Over of Variances:** Under this method net favourable or net adverse variances are carried forward to the next year. Net favourable variances are shown as deferred credit or reserve, & net adverse variances are shown as deferred charge.

24. BUDGETARY CONTROL VS STANDARD COSTING

Basis	**Standard cost**	**Budgetary control**
Meaning	A control technique which compares standard costs & revenues with actual results to obtain variances which are used to stimulate improved performance.	It requires setting up budgets which are related to the responsibilities of the executives for the implementation of the policy
Based on	Based on technical assessments	Based on past actual adjusted to future trends.
Scope	Used mainly for production expenses i.e. elements of cost.	Compiled for sales, production, purchase, expenses, profit, capital expenditure & cash.
Accounting	Is a projection of Cost Accounts.	A projection of Financial Accounts.
Uses	Standards are pointers to further improvements.	Budgets are indices, adherence to which keeps a business out of problems.
Expressed as	Expressed per unit of production.	Expressed in totals of amounts.
Detailed analysis	Detailed analysis is needed in case of variances.	No further analysis is required if costs are within the budget.

25. LEVEL OF ACTIVITIES UNDER ABC METHODOLOGY

Unit level activities	- The use of indirect materials / consumables tends to increase in proportion to the number of units produced. - The inspection or testing of every item produced, if this was deemed necessary or, perhaps more likely, every 100th item produced.
Batch level activities	- Material ordering–where an order is placed for every batch of production - Machine set-up costs–where machines need resetting between each different batch of production. - Inspection of products where the first item in every batch is inspected rather than every 100th item quoted above.
Product level activities	- Designing the product, - Producing parts specifications - Keeping technical drawings of products up to date.
Facilities level activities	- Maintenance of buildings - Plant security

26. ACTIVITY BASED MANAGEMENT

The use of ABC as a costing tool to manage costs at activity level is known as Activity Based Cost Management (ABM).
ABM is a discipline that focuses on the efficient and effective management of activities as the route to continuously improving the value received by customers. ABM utilizes cost information gathered through ABC.

Analysis involved in ABM:

(1) Cost Driver Analysis: The factors that cause activities to be performed need to be identified in order to manage activity costs. Cost driver analysis identifies these causal factors.

(2) Activity Analysis.

(a) Value-Added Activities (VA): The value-added activities are those activities which are indispensable in order to complete the process. The customers are usually willing to pay (in some way) for these services. For example, polishing furniture by a manufacturer dealing in furniture is a value added activity.

(b) Non-Value-Added Activities (NVA): The NVA activity represents work that is not valued by the external or internal customer. NVA activities do not improve the quality or function of a product or service, but they can adversely affect costs and prices. Moving materials and machine set up for a production run are examples of NVA activities.

(3) Performance Analysis: Performance analysis involves the identification of appropriate measures to report the performance of activity centres or other organisational units, consistent with each unit's goals and objectives.

Activity Based Management in Business

(i) Cost Reduction: ABM helps the organisation to identify costs against activities and to find opportunities to streamline or reduce the costs or eliminate the entire activity, especially if there is no value added.

(ii) Business Process Re-engineering: Business process re-engineering involves examining business processes and making substantial changes to how organisation currently operates. ABM is a powerful tool for measuring business performance, determining the cost of business output and is used as a means of identifying opportunities to improve process efficiency and effectiveness.

(iii) Benchmarking: Benchmarking is a process of comparing of ABC-derived activity costs of one segment of company with those of other segments. It requires uniformity in the definition of activities and measurement of their costs.