



# AVS

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## Study Material

**Paper Name** : MANAGEMENT ACCOUNTING  
**Paper Code** : 21UBX11  
**Batch** : 2021 - 24  
**Semester** : V

# MANAGEMENT ACCOUNTING

## SYLLABUS

### UNIT – I

Management Accounting – Meaning, objectives and Scope –Need and Significance of Management Accounting.

### UNIT - II

Analysis and Interpretation of Financial Statement –Ratio Analysis – Significance of Ratios and Long Term Financial Position–Profitability Uses and Limitations of Ratios (Simple Problems).

### UNIT -III

Overhead – Classification of Overheads – Allocation and Absorption of Overhead (Simple Problems)

UNIT –IV Cost – Volume – Profit Analysis – Marginal Costing and Break – Even Analysis, Marginal Costing Significance and Limitations of Marginal Costing (Simple Problems)

### UNIT – V

Budgeting and Budgetary Control– Definition, Importance, Essentials, Classifications of Budgets, Master Budget and Preparation of Different Budgets – Steps In Budgetary Control (Simple Problems).

(Theory and problems may be in the ratio of 20% and 80% respectively)

Text Books 1. R.K.Sharma, Shasi.K.Gupta, Management Accounting Principles & Practice, Kalyani Publications, 2016 2. R.S.N.Pillai&Bhagavathi, Management Accounting, S.Chand and Co, 2015

**QUESTION PAPER PATTERN**

**MANAGEMENT ACCOUNTING**

Time: 3 Hours

Max. Marks: 75

**PART – A (15 x 1 = 15 Marks)**

Answer All Questions

**PART – B (2 x 5 = 10 Marks)**

Answer Any Two Questions

**PART – C (5 x 10 = 50 Marks)**

Answer Any Five Questions

## MANAGEMENT ACCOUNTING

### UNIT – I

#### MEANING:

The term management accounting refers to accounting for management. It provides information to management so that planning, organizing, directing and controlling of business operations can be done in an orderly manner. Thus management accounting is a system in carrying out its function more efficiently.

#### DEFINITION:

1. “Management Accounting is concerned with accounting information that is useful to management”.

- **Robert N. Anthony**

2. “Management Accounting is accounting for effective management”.-**BOSE**

#### NATURE AND CHARACTERISTIC OF MANAGEMENT ACCOUNTING:

Management Accounting is concerned with accounting information which is useful to management in maximizing profits or minimizing losses. The following are the main characteristics of Management Accounting.

##### 1. Forecasting:

It helps the management in planning for the future because decisions are always taken for future course of action.

##### 2. Supply Information:

Management Accounting provides information to the management and not decisions. The way in which the data is used depends upon the efficiency of the management.

##### 3. Increase in Efficiency:

The purpose of using accounting information is to increase efficiency of the concern. The efficiency can be achieved by setting up goals for each department.

##### 4. Techniques and Concepts:

Management accounting uses special techniques and concepts to make accounting data more useful i.e. marginal costing, break even analysis etc. The type of technique to use will be determined according to the situation.

##### 5. Cause and Effect Analysis:

It attempts to examine the ‘cause’ and ‘effect’ of different variables. For example, if there is a loss, the reasons for the loss are identified. Similarly, if there is a profit, the factors directly influencing the profitability are also studied.

##### 6. No fixed Norms:

It has no set of rules and formats like double entry system of book-keeping. The analysis of data depends upon the person using it.

##### 7. Assists Management:

Management accounting provides all assistance to management in all of its functions. By providing the accounting information in the required form and at the required time, it enables the management to perform its functions effectively.

## 8. Achieving of objectives:

In Management Accounting, the accounting information is used in such a way that it helps in achieving organizational objectives.

### SCOPE OF MANAGEMENT ACCOUNTING:

#### Scope of Management Accounting

- Financial Accounting
- Cost Accounting
- Budgeting & Forecasting
- Inventory control
- Reporting to management
- Internal audit
- Tax accounting



(Updated notes)

Management accounting includes various areas of specialization to render effective service to the management.

#### ⇒ **Financial Accounting:**

Financial accounting deals with financial aspects by preparation of profit and loss a/c and balance sheet. Management accounting rearranges and uses financial statements. Thus, management accounting is dependent on financial accounting.

#### ⇒ **Cost Accounting:**

Cost Accounting, through its various techniques, reveals efficiency of various divisions, departments and products. Management Accounting makes use of all this data by focusing it towards managerial decisions.

#### ⇒ **Budgeting and Forecasting:**

Budgeting is setting targets by estimating expenditure and revenue for a given set of circumstances. Both budgeting and forecasting are useful for management in planning various activities.

#### ⇒ **Inventory control:**

This includes planning, co-coordinating and control of inventory from the time of acquisition to the stage of disposal. This is done through various techniques of inventory control like stock levels, ABC & VED analysis etc.

#### ⇒ **Statistical Analysis:**

In order to make the information more useful, statistical tools are applied. These tools include charts, graphs, diagrams etc.

#### ⇒ **Analysis of Data:**

Financial statements are analyzed and compared with past statements compared with other firms and with standards set. This analysis and interpretation results in drawing reports to the management.

#### ⇒ **Internal Audit:**

Internal audit helps the management in fixing individual responsibility for internal control.

#### ⇒ **Tax Planning:**

Tax planning is done by, following the various tax incentives offered by the central and state governments, knowledge of tax provisions helps the management in meeting the tax liabilities.

⇒ **Methods & Procedures:**

It includes keeping of efficient system for data processing and effective reporting of required data in time.

**OBJECTIVES OF MANAGEMENT ACCOUNTING:**

The primary objective of management accounting is to enable management to maximize profits or minimize losses. The following are the important objectives of Management Accounting:

◆ **Planning and policy formulation:**

The object of management accounting is to supply necessary data to the management for formulating plans. Management accountant prepares statement of past results and gives information for the future. The figures supplied and opinion given by the management accountant helps management in planning and policy formulation.

◆ **Helpful in controlling performance:**

Management accounting devices like standard costing and budgetary control are helpful in controlling performance. The work is divided into different units and separate goals are set-up for each unit. The actual results are compared with pre-determined objectives. The management is able to find out the deviations and take necessary corrective measures.

◆ **Helpful in organizing:**

Organization is related to the establishment of relationship among different individuals in the concern. Management accounting helps in setting up on effective and efficient organizational framework.

◆ **Helpful in interpreting financial information:**

Financial information is of a technical nature and managerial personnel may not be able to understand the uses of various financial statements. Management accountant explains these statements to the management in a simple language. If necessary, he uses charts, diagrams etc.

◆ **Motivating employees:**

Targets are laid down for the employees. They feel motivated in achieving their targets and further incentives may be given for improving their performance.

◆ **Helpful in taking decisions:**

The management has to take certain important decisions. Management accountant prepares a report on the feasibility of various alternatives. The information provided by the accountant helps management in selecting a suitable alternative and take correct decisions.

◆ **Reporting to management:**

The primary objective of management accounting is to keep the management fully informed about the latest position of the concern. This helps the management in taking proper and timely decisions.

◆ **Helpful in co-ordination:**

Management accounting provides tools which are helpful in co-ordinating the activities of different departments.

◆ **Helpful on tax administration:**

Management accounting helps in assessing various tax liabilities and depositing correct amount of taxes with the concerned authorities.

## **NEED & IMPORTANCE (ADVANTAGES) OF MANAGEMENT:**

The advantages of management accounting are summarized below:

### **1. Helps in Decision Making:**

Management accounting helps in decision making such as pricing, make or buy, acceptance of additional orders, selection of suitable product mix etc. These important decisions are taken with the help of marginal costing.

### **2. Helps in Planning:**

Planning includes profit planning, preparation of budgets, programmes of capital investment and financing. Management accounting assists in planning through budgetary control, capital budgeting and cost-volume-profit analysis.

### **3. Helps in Organizing:**

Management accounting uses various tools and techniques like budgeting, responsibility accounting and standard costing. A sound organizational structure is developed to facilitate the use of these techniques.

### **4. Facilitates communication:**

Management is provided with up-to-date information through periodical reports. These reports assist the management in the evaluation of performance and control.

### **5. Helps in coordinating:**

The functional budgets (purchase budget, sales budget, overhead budget etc.) are integrated into one known as master budget. This facilitates clear definition of departmental goals and co-ordination of their activities.

### **6. Evaluation and Control of performance:**

Management accounting is a convenient tool for evaluation of performance. With the help of ratios and variance analysis, the efficiency of departments can be measured. Management accounting assists the management in the location of weak spots and in taking corrective actions.

### **7. Interpretation of Financial Information:**

Management accounting presents information in a simple and purposeful manner. This facilitates quick decision-making.

## **LIMITATIONS OF MANAGEMENT ACCOUNTING:**

### **❖ Based on accounting information:**

Management accounting is based on data supplied by financial and cost accounting. If financial data is not reliable then management accounting will not provide correct analysis.

### **❖ Lack of knowledge:**

The use of management accounting requires the knowledge of a number of related subjects such as accounting principles, statistics, economics, and principles of management etc. inefficiency in knowledge of any of these subjects limits the use of management accounting.

### **❖ Intuitive decisions:**

Though management accounting provides scientific analysis of various situations, there is a tendency for the management to make decisions intuitively. Such intuitive decisions limit the usefulness of management accounting.

### **❖ Not an alternative to administration:**

Management accounting does not provide an alternative to administration. The tools and techniques of management accounting provide only information and not decisions. Decisions are to be taken by the management.

❖ **Top heavy structure (costly):**

Introduction of management accounting system is a costly affair and can be used by big concerns only. Smaller units cannot afford to use this system because of heavy cost. A large number of rules and regulations are required to make this system effective.

❖ **Evolutionary stage:**

Management accounting is only in a developmental stage and not yet reached a final stage. The techniques and tools used by this system give different results.

❖ **Personal bias:**

The interpretation of financial information depends upon the capability of interpreter as one has to make a personal judgement. There is every chance of personal bias in analysis and interpretation.

❖ **Psychological resistance:**

The installation of management accounting involves basic change in organizational set up. New rules and regulations are to be framed which affect a number of personnel and hence there a possibility of resistance from employees.

**FINANCIAL ACCOUNTING:**

Main purpose of financial accounting is to ascertain profit or loss and to indicate financial position of an enterprise. Two fundamental statement of financial accounting are income and expenditure statement and balance sheet.

**FUNCTIONS OF FINANCIAL ACCOUNTING:**

✓ **Book-Keeping Function:**

Financial Accounting is helpful to a firm's management to ascertain the results of its operation and status of the business.

✓ **Classification of information:**

The data of one particular type is classified into one segment. This is done in the form of ledger accounts.

✓ **Preparation of Financial Statement:**

Business transaction relating are summarized by preparing the principal statement of the business i.e., Profit and loss account and the Balance Sheet.

✓ **Segregating Financial Transactions:**

The economic transactions relating to a business are measured in terms of money. Financial accounting is concerned with transactions which are measurable in monetary terms.

✓ **Interpretation of Financial Data:**

The management interprets the financial data for decision making.

✓ **Reporting of information:**

Financial Accounting not only records data but also communicates data by way of profit and loss account and the balance sheet to all concerned at frequent interval.

**Cost Accounting:**

The term 'cost' has to be studied in relation to its purpose and conditions, as per the definition given by Institutions of Costs and Management Accountants (ICMA).

**FUNCTIONS (OR) OBJECTIVES OF COST ACCOUNTING:**

**Ascertainment of Cost (Cost Finding):**The primary objective of cost accounting is ascertainment of cost. It is done through the methods and techniques of costing. Costing is the process of collection, classification and analysis of costs or expenses.

**Control of Cost:**A basic function of cost accounting is control of costs. Cost control refers to, regulate the cost of production. In simple words, control of cost means maintain the level of cost which means cost per unit remain constant.



**Cost Reduction:** Cost reduction is the real and permanent reduction in the unit of goods manufactured or services. In other words cost reduction means reduce the cost of production, which means reduce the cost per unit of output.

**Fixation of Selling Price:** The total cost and the margin requirement determines the price of a product. Cost accounting provides detailed information regarding total cost in the form of various stages. It is aid to management for fixation of selling price.

**Framing Business Policy:** Cost accounting helps the management in formulating business policy and decision making. For.eg. Break even analysis and Cost volume profit analysis etc

**DIFFERENCE BETWEEN FINANCIAL ACCOUNTING & MANAGEMENT ACCOUNTING:**

<b>Financial Accounting</b>	<b>Management Accounting</b>
<p><b>1. Object:</b> To know the financial position and to find out profit or loss at the end of the financial year.</p>	To help the management in formulating policies and plans.
<p><b>2. Nature:</b> It records only transactions which have already taken place.</p>	It deals with projection of data for the future.
<p><b>3. Subject matter:</b> In Financial accounting, overall performance is judged.</p>	In Management accounting, the results of different departments are evaluated separately to find out their performance differently.
<p><b>4. Compulsion:</b> The preparation of financial accounts is compulsory.</p>	Preparation of management accounting is not compulsory. The management is free to use or not to use management accounting.
<p><b>5. Rules (Procedure):</b> Particular procedure is to be followed for preparing financial accounts.</p>	No such procedure in management accounting.
<p><b>6. Figures:</b> In Financial accounting, only actual figures are recorded and no room for approximate figures.</p>	The approximate figures are considered more useful than exact figures.
<p><b>7. Reporting:</b> [The reports are useful for outsiders like bankers, investors, shareholders, government agencies etc]. The reports are prepared not only for the benefit of the concern but also for outsiders.</p>	Management accounting reports are meant for internal use only.
<p><b>8. Description:</b> Only those things which can be measured in monetary terms are recorded.</p>	Management accounting uses both monetary and non-monetary events.

<p><b>9. Quickness:</b> Reporting of financial accounting is slow and time consuming.</p>	Reporting of management accounting is very quick.
<p><b>10. Accounting principles:</b> Financial accounts are governed by generally accepted principles and conventions.</p>	No set of principles are followed in management accounting.
<p><b>11. Period:</b> Financial accounts are prepared for a particular period. P&amp;L a/c for one year and Balance sheet is prepared on a particular date.</p>	Management accountant supplies information from time to time during the whole year.
<p><b>12. Publication:</b> Financial accounts like P&amp;L a/c and Balance sheet are published for the benefit of the public.</p>	Management accounting statements are prepared for the benefit of the management only and these are not published.
<p><b>13. Audit:</b> Financial accounts can be got audited.</p>	Management accounts cannot be audited.

**DIFFERENCE BETWEEN COST ACCOUNTING & MANAGEMENT ACCOUNTING:**

<b>Cost Accounting</b>	<b>Management Accounting</b>
<p><b>1. Object:</b> The object of cost accounting is to record the cost of producing a product.</p>	The purpose of management accounting is to provide information to the management for planning the activities of the business.
<p><b>2. Scope:</b> Cost accounting deals primarily with cost ascertainment.</p>	It includes Financial accounting, Cost accounting, Budgeting, Tax planning, Reporting to management etc.
<p><b>3. Nature:</b> Cost accounting uses both past and present figures.</p>	Management accounting is concerned with the projection of figures for future.
<p><b>4. Data used:</b> Only quantity aspect is recorded in cost accounting.</p>	Management accounting uses both quantitative and qualitative information.
<p><b>5. Principles followed:</b> Certain principles and procedures are followed for recording costs of different products.</p>	No specific rules and procedures are followed in reporting management accounting.

## MCQ (Multiple Choice Questions)

### PART-A

- 1) Management accounting can be viewed as \_\_\_\_\_.
- A. Marketing-oriented Accounting
  - B. Management-oriented Accounting**
  - C. Accounting-oriented Management
  - D. Manager-oriented Accounting
- 2) \_\_\_\_\_ is the language of Business which used to communicate financial information.
- A. Accounting
  - B. Marketing
  - C. Profit
  - D. Pricing
- 3) The term management accounting was first coined in \_\_\_\_\_.
- A. 1940
  - B. 1950**
  - C. 1960
  - D. 1970
- 4) Which is the sub-field of accounting?
- A. Management accounting
  - B. Cost accounting
  - C. Financial accounting
  - D. All of the above**
- 5) The main objective of management accounting is \_\_\_\_\_
- A. To maintain the accounting records
  - B. To know the amount due from customers and suppliers
  - C. To ascertain analyse and interpret the results of business operations**
  - D. To record all the business transactions
- 6) \_\_\_\_\_ is the study of managerial aspects of financial accounting
- A. Cost accounting
  - B. Financial accounting
  - C. Management accounting**
  - D. Business accounting
- 7) The purpose of management accounting is to help \_\_\_\_\_ make decisions
- A. managers**
  - B. investors
  - C. marketers
  - D. banks
- 8) Managerial accounting information is generally prepared for \_\_\_\_\_

- A. managers
- B. stakeholders
- C. government agencies
- D. competitors

9) \_\_\_\_\_ shows how the accounting function can be represented so as to fit it within the framework of Management activity.

- A. **Management accounting**
- B. Cost accounting
- C. Financial accounting
- D. Tax accounting

10) The primary task of management accounting is, therefore, to redesign the entire accounting system so that it may serve the \_\_\_\_\_ needs of the firm.

- A. Marketing
- B. **Operational**
- C. Human resource
- D. Production

**(PART – B) 5 MARKS**

1. Give an outline of the scope and objectives of Management accounting.(nov2018)
2. What are the functions of Management accounting?(nov2018)
3. Explain the importance of Management Accounting as a tool of management decision-making.
4. Differentiate Cost Accounting & Management Accounting.(nov2018)
5. Describe the limitations of Management Accounting.(nov2018)
6. Explain the characteristic feature of Management Accounting..( april2020)

**(PART – C) 10 MARKS**

7. Define Management Accounting. Distinguish between Financial Accounting & Management Accounting..( april17)
- 8 .What are the tools and techniques used in Management Accounting? Explain in detail.(nov2018)

### I. Unit-wise Abstract

**Name of the Paper: Management Accounting**

**Class: III BBA CA**

<b>Keywords</b>	<b>Definition</b>	<b>Important Question with marks</b>
It provides information to management so that planning, organizing, directing and controlling of business operations can be done in an orderly manner	Management Accounting is concerned with accounting information that is useful to management”.	<ol style="list-style-type: none"><li>1. What are the functions of Management accounting?(nov2018)</li><li>2. Explain the importance of Management Accounting as a tool of management decision-making.(Dec-2019)</li></ol>
Management accounting is concerned with the projection of figures for future.	Management accounting reports are meant for internal use only.	<ol style="list-style-type: none"><li>1. What are the tools and techniques used in Management Accounting? Explain in detail</li></ol>

**Signature of the Subject in charge**

**Head of the Department/Vice Principal**

## UNIT – II

### ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS

#### INTRODUCTION:

Financial statements refer to a package of statements such as balance sheet, income statement, funds flow statement, cash flow statement and statement of retained earnings. The balance sheet and income statement are traditional financial statements.

#### DEFINITION:

According to the American Institute of Certified Public Accounts (AICPA), “Financial statements reflect a combination of recorded facts, accounting principles and personal judgements”.

#### OBJECTIVES:

- \* To estimate the earning capacity of the concern.
- \* To judge the financial position and performance of the concern.
- \* To decide about the future prospects of the concern.
- \* To determine the debt capacity of the concern.

#### NATURE AND FINANCIAL STATEMENTS:

##### ● **Recorded Facts:**

The term recorded facts refers to the data taken out from accounting records. Facts which have not been recorded in the financial books are not depicted in financial statements, however important they might be.

##### ● **Accounting Principles:**

In financial statements, certain accounting principles, concepts and conventions are followed. For ex: the convention of valuing stock at cost or market price, whichever is less is followed.

##### ● **Personal Judgments:**

It has an important bearing on the financial statements. For ex: the selection of a method for stock valuation depends on the personal judgment of the accountant.

#### LIMITATIONS OF FINANCIAL STATEMENTS:

Financial statements are relevant and useful for a concern. But they do not present a final picture. The following are the limitations of financial statements:

- Financial statements are only interim reports.
- Many items in the financial statements are based on the personal judgment of the accountant. This factor affects the validity of financial statements.
- Non-monetary factors such as credit worthiness, reputation of the management, influence the financial position of a concern.
- Financial statements ignore the changes in price level. Hence, their use is limited during inflationary periods.
- In balance sheet, assets are recorded at their original costs. Replacement cost or realizable value of the asset is ignored. Hence, it does not reveal the true position of the business.
- Financial statements are records of past events only.
- Financial statements are prepared on the basis of certain accounting concepts and conventions.

## ANALYSIS AND INTERPRETATION:

Analysis and interpretation of financial statements is the most important step in accounting. To have a very clear understanding of the profitability and financial position of a company, the financial statements have to be analyzed and interpreted.

### Analysis:




It refers to the methodical classification of the data given in the financial statements. For ex: the amount of capital employed is not directly available in the balance sheet.

### Interpretation:

It means explaining the meaning and significance of the data so arranged. It is the study of the relationship between various financial factors. The relationship between profit and capital employed, current assets, sales etc. have to be explained. Further, to make interpretation more meaningful, comparisons have to be made.

Analysis and interpretation are closely related. Interpretation is not possible without analysis and without interpretation analysis has no value. Hence, the term analysis is widely used to refer both analysis and interpretation.

## TOOLS & TECHNIQUES OF FINANCIAL STATEMENTS:

-  Comparative Statements.
-  Common size Statements.
-  Trend Analysis.

### 1. Comparative Statements:

Financial statements are presented as on a particular date or for a particular period. For ex: balance sheet indicates the financial position as at the end of the period and also income statement.

But a financial analyst is interested in knowing whether the business is moving in a favorable or unfavorable direction.

### 2. Common size Statements:

Financial statements present absolute figures. They are even misleading. For ex: cost of sales in absolute figures might have gone up but as percentage of sales it might have come down. Hence, for a better understanding the figures are converted into percentage of some common base.

In income statement, a sale is taken as the common base in the common size statement. In balance sheet, each item is expressed as a percentage of the total of assets and liabilities.

### 3. Trend Analysis:

Trend analysis is also an important and useful technique of financial statement analysis. The calculation of trend ratio involves the ascertainment of arithmetical relationship which each item of several years to the same item of base year. Thus, one particular year out of many years is taken as base. The value of one particular item out of several items shown in the financial statements are converted into ratio or percentage taking of that item in base year as equal to 100.

## RATIO ANALYSIS

### Meaning:

The relationship between two figures expressed mathematically is called a Ratio. It is a numerical relationship between two numbers which are related in some manner.

Ratio analysis is a technique of analysis and interpretation of financial statements. It is the process of determination and interpretation of various ratios for helping in decision making.

Ratio analysis involves 3 steps:

- ▶ Calculation of appropriate ratio from the financial statements.
- ▶ Comparison of the ratios with standards or with ratios of the past period. Comparison can also be made with the ratios of other firms.
- ▶ Interpretation of ratios.

### **Significance & Uses:**

Ratio analysis is a powerful tool of financial analysis. It used as a device to analyze and interpret the financial health of the firm. It helps the management in taking decision and control.

It is used for different parties for different purposes to know about the financial position. It helps in making decisions regarding the granting of credit and making investment in the firm.

### **Managerial uses of Ratio Analysis:**

- ❖ Simplifies Financial Statements.
- ❖ Helps measuring performance and position.
- ❖ Facilitates intra-firm comparison.
- ❖ Facilitates inter-firm comparison.
- ❖ Helps in forecasting and planning.
- ❖ Helps in co-ordination.
- ❖ Helps in control.

### **CLASSIFICATION OF RATIOS:**

A. Traditional Approach.

B. Functional Approach.

#### **A. Traditional Approach:**

##### **(a) Profit & Loss a/c Ratios:**

These are calculated on the basis of items of the profit and loss account only. **For ex:** gross profit ratio.

##### **(b) Balance Sheet Ratios:**

Ratios calculated on the basis of figures of the balance sheet only. **For ex:** current ratio.

##### **(c) Composite Ratios:**

These are based on figures of profit and loss account as well as balance sheet. **For ex:** Return on Investment ratio.

#### **B. Functional Approach:**

##### **♣ Solvency Ratio:**

Long-term and Short-term solvency ratios can be calculated. For ex: debt-equity ratio.

##### **♣ Profitability Ratio:**

The following ratios are ascertain return on investment, gross profit ratio etc.

##### **♣ Turnover / Activity Ratio:**

Fixed asset turnover ratio, working capital turnover ratio, stock turnover ratio can be ascertained.

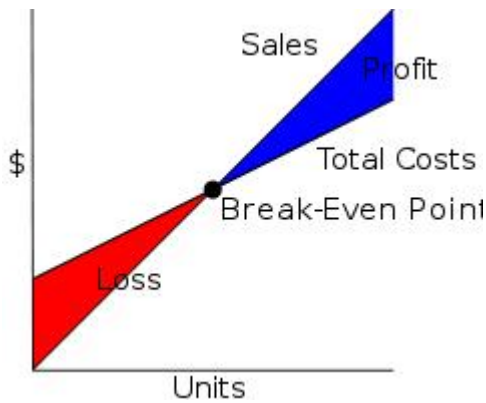
##### **♣ Capital Structure Ratio:**



Capital gearing ratio express the relationship between fixed interest bearing security [preference share capital and debentures] and equity shareholders fund.

The fixed interest bearing security is more than equity shareholders fund, the ratio is high gear. The equity shareholders fund is more than fixed interest bearing security the ratio is low gear.

### LIMITATIONS OF RATIO ANALYSIS:



Ratio analysis suffers from certain limitations. They are discussed below:

➤ **Inadequacy of standards:**

Ratios are useful only if they are compared with some standards. But, adequate standards like industry averages are not easily available.

➤ **Difficulty in comparison:**

In practice, it is difficult to have similar companies for comparison. Even if it is possible, their accounting periods may differ. This makes inter-firm comparison difficult.

➤ **Limitations of financial statements:**

Ratios are based on the information recorded in the financial statements. If there is any mistake in financial statements it affects the ratios also.

➤ **Ratios alone are not adequate:**

Ratios are only indicators. They cannot be taken as final regarding good or bad financial position of the firm.

➤ **Problems of price level changes:**

Ratio analysis does not take into account the effect of changes in price level. Because of this, interpretation of ratios becomes invalid.

➤ **No fixed standards:**

No fixed standards can be laid down. For ex: ideal ratio is said to be 2:1. However for firms which have adequate credit arrangement with their bankers, it may be perfectly ideal to have a ratio of 1:1.

➤ **Personal bias:**

Ratios are only a means of financial analysis. They have to be interpreted and different people may interpret the same ratio in different ways.

➤ **Window dressing:**

Financial statements can easily be window-dressed to present a better picture of the financial and profitability positions. Hence, one has to be very careful in making a decision on the basis of ratios calculated from such financial statements. But, it is very difficult for an outsider to know about the window-dressing made by a company.

**STEPS RATIO ANALYSIS:**

(1) Selection of relevant information:

The first step in ratio analysis is to select relevant information from financial statement and calculate appropriate ratios required for decision under consideration.

(2) Comparison of Calculated Ratios:

In order to assess the relative meaning the ratios calculated are compared with the past ratios and industry ratios.

(3) Interpretation and Reporting:

The third step in ratio analysis is to interpret the significance of various ratios, draw inference and to write a report.

**I.PROFITABILITY RATIO:**

**1.RETURN ON INVESTMENT OR OVER ALL PROFITABLE RATIO**

$$\text{R.O.I} = \frac{\text{Operating profit}}{\text{Capital employed}} \times 100$$

**(a) RETURN ON SHAREHOLDER FUND**

$$= \frac{\text{Net profit after interest and tax}}{\text{Shareholders fund}} \times 100$$

**(b).RETURN ON TOTAL ASSETS**

$$= \frac{\text{Net profit after tax}}{\text{Total assets}} \times 100$$

$$= \frac{\text{Net profit after tax + interest}}{\text{Total assets excluding fictitious assets}} \times 100$$

**2.GROSS PROFIT RATIO:**

$$= \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

**3.OPERATING RATIO:**

$$= \frac{\text{Cost of sales+ operating expenses}}{\text{Net sales}} \times 100$$

#### 4. OPERATING PROFIT RATIO:

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#### PROBLEMS:

1. From the following details of a trader you are required to calculate stock turnover ratio.

Sales	Rs. 39,984
Sales returns	Rs. 380
Opening stock	Rs. 1,378
Closing stock	Rs. 1,814
Total Cross Profit for the year	Rs. 8,068

#### Solution:

Cost of Sales

$$\begin{aligned} \text{Stock Turnover Ratio} &= \frac{\text{Sales} - \text{Gross Profit}}{\text{Average Stock}} \\ &= \frac{39,984 - 380 - 8,068}{\frac{1,378 + 1,814}{2}} \\ &= \frac{31,536}{1,596} \\ &= 19.76 \end{aligned}$$

$$\begin{aligned} \text{Average Stock} &= \frac{\text{Opening stock} + \text{Closing Stock}}{2} \\ &= \frac{1,378 + 1,814}{2} \\ &= \frac{3,193}{2} \\ &= 1,596 \end{aligned}$$

$$\begin{aligned} \text{Stock Turnover Ratio} &= \frac{31,536}{1,596} = 19.76 \text{ times} \end{aligned}$$

2. From the following information make out a statement of proprietors funds with as many detail as possible:

a. Current ratio	2.5
b. Liquidity ratio	1.5
c. Proprietary ratio	0.75
d. Working capital	Rs. 60,000
e. Reserves & Surplus	Rs. 40,000
f. Bank Overdraft	Rs. 10,000
g. There is no long- term loan or fictitious asset.	

Sol:

Particulars	Rs.	Rs.
-------------	-----	-----

Proprietors Fund:			
Share Capital		2,00,000	
Reserves & Surplus		40,000	<b>2,40,000</b>
Proprietors Fund represented by:			
Fixed assets(A)		<b>1,80,000</b>	
Current Assets:			
Stock	40,000		
Other current asset	60,000	1,00,000	
Less: Current liabilities:			
Bank Overdraft	10,000		
Other current liabilities	30,000	40,000	
Working Capital (B)		<b>60,000</b>	
Capital employed = A+B		<b>2,40,000</b>	
Less: Long- term debt		<b>Nil</b>	
<b>Proprietors Funds</b>			<b>2,40,000</b>

**Note:** If liquid liabilities are used in liquid ratio formula, the only change in the above statement is: Stock Rs. 55,000; Other Current assets: Rs: 45,000. No other figure or total is affected.

**Workings:**

**1. Calculation of CA & CL:**

$$\begin{aligned} \text{Current ratio given} &= 2.5 \\ &= \frac{\text{Current asset}}{\text{Current liabilities}} \\ \text{Current ratio} &= \frac{\text{Current asset}}{\text{Current liabilities}} \end{aligned}$$

If current assets are 2.5, current liabilities are 1.

$$\begin{aligned} \text{Working capital} &= \text{CA} - \text{CL} \\ &= 2.5 - 1 \end{aligned}$$

$$\begin{aligned} \text{Working capital given} &= \text{Rs. } 60,000 \\ 1.5 &= \frac{\text{Rs. } 60,000}{2.5} \end{aligned}$$

$$\text{Current asset} = 60,000 \times \frac{2.5}{1.5} = \text{Rs. } 40,000$$

**2. Calculation of liquid assets and stocks:**

Liquidity ratio given = 1.5

$$\begin{aligned} \text{Current ratio} &= \frac{\text{Current asset}}{\text{Current liabilities}} \\ &= \frac{\text{Liquid Assets}}{\text{Current liabilities}} \end{aligned}$$

$$1.5 = \frac{\text{Liquid Assets}}{40,000}$$

$$\text{Liquid assets} = 40,000 \times 1.5 = \text{Rs. } 60,000$$

$$\text{Liquid assets} = \text{Current asset} - \text{Stocks}$$

$$60,000 = 1,00,000 - 60,000 = \text{Rs. } 40,000$$

## 2. Calculation of Fixed assets and Capital:

Proprietary ratio given = 1.5

$$\text{Proprietary Ratio} = \frac{\text{Fixed assets}}{\text{Proprietors Fund}}$$

It is given that there is no long-term or fictitious assets.

Balance sheet equation = Total assets - Total liabilities

(or) Proprietor's funds + CL = Fixed assets + CA

If proprietor's funds are assumed as X,

$$X + CL = 0.75X + \text{Current assets}$$

$$X + 40,000 = 0.75X + 1,00,000$$

$$X - 0.75X = 1,00,000 - 40,000$$

$$0.25X = 60,000$$

$$= 60,000 / 0.25 = \text{Rs. } 2,40,000$$

Proprietors funds = Rs. 2,40,000

Less: Reserves & Surplus = 40,000

-----

Rs. 2,00,000

-----

Fixed Assets = Rs. 2,40,000 X 0.75

= Rs. 1,80,000

**Note:**

Liquid assets

Some experts on ratio analysis use the formula for liquid ratio as -----

Liquid liabilities

Liquid liabilities = Current liabilities - Bank Overdraft

Liquid assets

1.5 = -----

40,000-10,000

Liquid assets = 1.5 X 30,000 = Rs.45,000

**MCQ (Multiple Choice Questions)**

**PART-A**

1. **Funds flow statement is prepared on the basis of \_\_\_\_\_.**
  - a. Profit and loss account of the current year
  - b. The balance sheet of the previous and current year
  - c. Both a and b
  - d. None of the above **(Answer: c)**
2. **Which of the following are sources of funds for an organisation?**
  - a. Conversion of debentures into shares
  - b. Conversion of loans into shares
  - c. Issue of shares against the purchase of fixed assets
  - d. None of the above **(Answer: d)**
3. **Funds flow statement is also known as \_\_\_\_\_.**
  - a. Statement of sources and uses of funds
  - b. Statement of sources and application of funds
  - c. Statement of funds flow
  - d. All of the above **(Answer: d)**
4. **The statement prepared while conducting funds flow analysis is called \_\_\_\_\_.**
  - a. Funds flow statement
  - b. Schedule of changes in working capital
  - c. Both a and b
  - d. None of the above **(Answer: c)**
5. **Funds flow statement is prepared to \_\_\_\_\_.**
  - a. Ascertain the item-wise outflow of funds in a given period
  - b. Identify changes in working capital
  - c. Identify reasons behind changes in working capital
  - d. All of the above **(Answer: d)**

6. The statement of cash flow clarifies cash flows according to

A) Operating and Non-operating Flows

B) Inflow and Outflow

C) Investing and Non-operating Flows

**D) Operating, Investing, and Financing Activities**

**Answer: D**

7. Cash flow example from a financing activity is

**A) Payment of Dividends**

B) Receipt of Dividend on Investment

C) Cash Received from Customers

D) Purchase of Fixed Asset

**Answer: A**

8. Cash flow example from an investing activity is

- A) Issue of Debenture
- B) Repayment of Long-term Loan
- C) Purchase of Raw Materials for Cash
- D) Sale of Investment by Non-Financial Enterprise**

**Answer: D**

9. Cash flow example from an operating activity is

- A) Purchase of Own Debenture
- B) Sale of Fixed Assets
- C) Interest Paid on Term-deposits by a Bank**
- D) Issue of Equity Share Capital

**Answer: C**

10. Which item comes under financial activities in cash flow?

- A) Redemption of Preference Share
- B) Issue of Preference Share
- C) Interest Paid
- D) All the above**

**Answer: D**

**(PART – B) 5 MARKS**

1. Explain the nature of financial statements.(nov2017)
2. What are the limitations of financial statements?.(nov2018)
3. List out the limitations of Ratio Analysis..(nov2018)
4. Explain – Comparative Statements..(april2017)
5. Discuss about common size statements..(april2020)
6. Give short notes on Trend Analysis..(nov2018)
7. Compute the debtors turnover ratio from the following:.(nov2018)

	Rs.
Gross Sales	1,42,000
Cash Sales	28,000
Sales Returns	14,000
Opening Debtors	15,000
Opening Bills Receivable	5,000
Closing Debtors	26,000
Closing Bills Receivable	4,000

**(PART – C) 10 MARKS**

1. Discuss some of the important ratios usually worked from financial statements showing how they would be useful to higher management.

**II. Unit-wise Abstract**

**Name of the Paper: Management Accounting**

**Class: III B.COM**

<b>Keywords</b>	<b>Definition</b>	<b>Important Question with marks</b>
Financial statements refer to a package of statements such as balance sheet, income statement, funds flow statement, cash flow statement and statement of retained earnings.	According to the American Institute of Certified Public Accounts (AICPA), “Financial statements reflect a combination of recorded facts, accounting principles and personal judgements”.	1.Explain the nature of financial statements.  2. What are the limitations of financial statements?
a. Comparative Statements. b. Common size Statements. c. Trend Analysis	Financial statements are presented as on a particular date or for a particular period. For ex: balance sheet indicates the financial position as at the end of the period and also income statement.	1. Discuss some of the important ratios usually worked from financial statements showing how they would be useful to higher management.

**Signature of the Subject in charge**

**Head of the Department/Vice Principal**



## UNIT - III OVERHEADS

### **Overheads –meaning:**

Cost relating to a cost centre or cost units of direct cost and indirect cost. Direct cost can easily be identified with cost units. Direct cost is the aggregate of direct material, direct labour and direct expenses. The indirect cost constitutes the ‘overheads’ which is the total of indirect material, indirect labour and indirect expenses.

### **Definition – indirect cost:**

CIMA defines indirect- cost as “expenditure on labour materials or services which cannot be economically identified with a specific saleable cost unit”.

### **Definition – overhead:**

According to Whelden “overhead may be defined as the cost of indirect material, indirect labour and such other expenses including services as cannot conveniently be charged to a specific unit. Alternatively overheads are all expenses other than direct expenses”.

### **Classification of overheads:**

Overheads classification involves two steps, viz.

- Identification of groups in which overheads are sub grouped.
- The process of classification of various items of overheads into one or another of the groups.

### **Determination of classifying groups:**

The method of classification of overheads depends on nature and size of the business. The various bases for classification are as under:

#### **a) Function wise classification;**

Function- wise classification is done according to major activity divisions of an organisation. The major groups are:

- Manufacturing overheads.
- Administration overheads.
- Selling overheads.
- Distribution overheads.
- Research and development cost.

#### **i) Manufacturing overhead:**

This is the total of indirect costs in production function of an organization. It includes all the expenses incurred from the time of receipt of raw material until the production is completed and finished product is kept ready for despatch except the direct wages and expenses. Manufacturing overhead is also known as production overhead or works overhead or works on cost, etc.

#### **ii) Administration overhead:**

These are the expenses incurred for management of an organization. It is the sum of those costs of general management, secretarial, accounting and administrative services, which cannot be directly related to the production.

#### **iii) Selling and marketing overhead costs:**

Marketing and selling overhead refer to indirect costs which are incurred for creating and stimulating demand, securing orders and retaining the customers.

#### **vi) Distribution overheads:**

It is the part of marketing costs incurred in warehousing saleable products and in delivering products to customers.

#### **v) Research and development costs:**

Research cost is the indirect cost incurred in searching for new products, new uses of existing products, new materials and new methods of production, etc. Developing cost is the cost incurred for implementing or introducing new products, methods and new application or uses for existing products.

**b) Behavior- wise classification:**

Under this method of classification the focus is on the behavior of costs. Various cost items behave in different ways, depending on how particular materials or services are used. Based on this behavior the overheads may be classified into the following three categories.

- Fixed overhead costs
- Variable overhead costs
- Semi variable costs.

**i) Fixed overhead costs:**

Fixed overhead cost or period costs remain constant irrespective of changes in volume of output and sales. Fixed overhead costs per unit decreases as production increases and increases as production decreases. Fixed overhead costs are not always fixed. They remain constant only in the short run. They will vary in the long run.

**ii) Variable overhead:**

These costs are directly related to the production. Total variable cost will vary directly in proportion to volume of output, while unit variable cost remains constant at all levels.

**iii) Semi variable overhead costs:**

Semi variable or semi fixed costs have the features of both the fixed and variable cost. These costs remain fixed up to a certain volume of output but they will change once the volume of output changes.

**c) Element-wise classification:**

Under element-wise classification the basic element of cost are taken as the criteria for subdivision of the total overhead. The overhead are classified in to

- Indirect materials
- Indirect labour
- Indirect expenses.

**i) Indirect materials;**

The indirect materials are consumed in general for number of output units as a common cost, which cannot be identified with particular cost units. They can be apportioned to cost centres and then finally absorbed by cost units.

**ii) Indirect labour:**

The wages and salaries which cannot be identified with particular cost centres and cost units are indirect labour. The indirect labour is apportioned to and absorbed by cost centres and cost units.

**iii) Indirect expenses:**

These are the expenses incurred commonly for more than one cost centre. They cannot be traces to a particular cost centre or cost unit. The indirect expenses are generally apportioned and absorbed by cost centres and cost units.

**d) Control wise classification:**

Here the costs are classified in to two parts:

- Controllable costs are costs which can be controlled by managerial decision making and influence.
- Uncontrollable costs are costs which cannot be controlled by managerial influence.

**e) Classification of overheads based on normality:**

According to this, the overheads are classified in to two types,

- Normal overheads
- Abnormal overheads

**i) Normal overheads:**

Normal overheads are incurred in achieving expected level of output. These expenses are inherent with production and are unavoidable.

**ii) Abnormal overheads:**

Abnormal overheads costs are not expected to be incurred in achieving normal output.

**Departmentalization of overheads:**

When all the overheads are collected under suitable account headings, the next step is allocation and apportionment of overhead costs to cost centres or departments. This is also called departmentalization or primary distribution of overhead.

**Types of departments:**

- Production department
- Service department
- Partly producing departments

**i) Production departments:**

These are the departments where actual manufacturing activity is undertaken. In these departments the raw materials are converted in to finished products with the help of manual and machine operations.

**ii) Service departments:**

In these departments there is no production activity but they render service for the benefit of other departments. The following are the features of service department.

- They are auxiliary departments
- They are not directly engaged in production
- They render special type of services for the benefit of other departments.

**iii) Partly producing departments;**

In every concern there may be miscellaneous departments. The nature of work done by these departments is such that it is not possible to place them in to a particular category of either production or service. They fall within the purview of both categories.

**Allocation of overhead costs:**

I.C.M.A., London has defined cost allocation as “the allotment of whole items of cost to cost centres or cost units. In other words allocation is allotment of overhead incurred for a particular cost centre to that specific cost centre. To the extent possible it is better to allocate overheads. The main conditions for allocation of costs are:

- The cost centre should be responsible for incurring such costs.
- The amount of overhead to be allocated should be specific.

**Apportionment of overhead costs:**

Charging a fair share of overhead to each cost centre is termed as apportionment. I.C.M.A., London defined it as “the allotment to two or more cost centres of proportions of common items of cost on estimated basis of benefit received”.

**Distribution of overheads:**

Distribution of overhead consists of apportioning and allocation of overhead to the different departments. The distribution is followed by redistribution of the costs assigned to certain departments. The distribution is of two types:

- Primary distribution and
- Secondary distribution.

**i) Primary distribution of overheads:**

Primary distribution of overheads is the process of allocating and apportioning the costs on suitable basis to all the departments or cost centres. Primary distribution is done without distinction between production and service departments.

**Bases of apportionment:**

In order to ascertain the correct cost of cost centres and cost units, suitable bases have to be adopted for allocation and apportionment of overhead. The following are some of the bases adopted for apportionment of manufacturing overheads.

- Direct allocation
- Labour hours
- Machine hours
- Value of direct material consumed
- Direct wages
- Number of staff
- Floor area of departments
- Capital value of assets
- Light points
- Kilowatt hours.

**ii) Secondary distribution of overheads:**

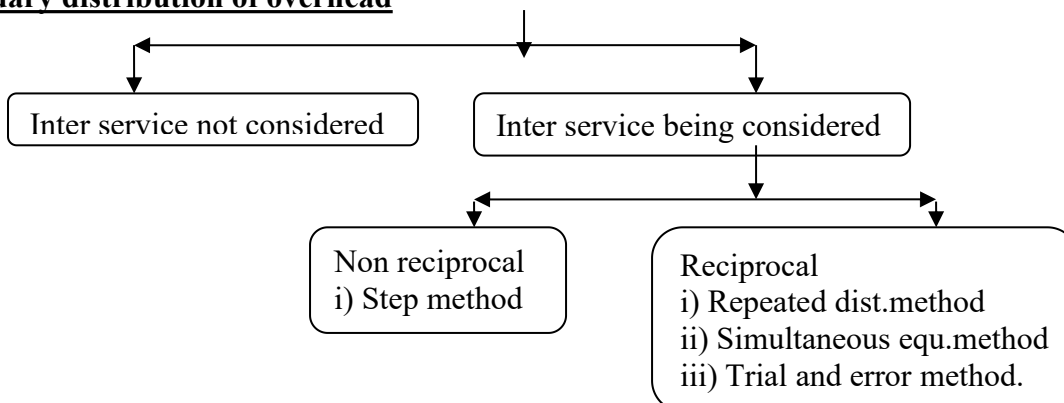
Secondary distribution is the process of redistribution of service department costs to production departments. This is done as output or jobs pass through one or more production cost centres only. This kind of distribution is called secondary apportionment. Suitable bases have to be adopted for redistribution of services department cost to production departments. The basis to be selected depends on the nature of service rendered by service department. The following are some of the general bases selected for apportionment of service department costs.

<b>Service cost center</b>	<b>Basis of apportionment among the production departments</b>
i) Stores department	i) No. of material requisitions, direct material of each department.
ii) Labour welfare department canteen service, recreation facility.	ii) No. of employees in each department.
iii) Building maintenance department.	iii) Relative area of each department.

**Methods of secondary distribution:**

Once the basis of apportionment of service department costs has been finalized the apportionment can be done by using any one of the following methods of secondary distribution.

**Secondary distribution of overhead**



**a) Direct reapportionment method (without considering inter service):**

Under direct redistribution method overhead of service departments apportioned to production departments only while inter service by service departments to each other is ignored. This method fails to obtain correct cost of each service department as service cost from other cost centres is not included.

**b) Apportionment considering inter service:**

Here service rendered by service departments to each other department is considered. Therefore service department costs are redistributed to other service departments and production departments. This may be either

- Non reciprocal
- reciprocal

**Non reciprocal apportionment:**

Under this method service department are arranged in the descending order of serviceability. The service department which renders service to all or maximum number of the other service and production departments is taken up for distribution. Then the second service cost centre is taken up and this process is repeated till costs of all the service cost centres have been distributed to production departments. This method is also called step ladder method.

**Reciprocal apportionment methods:**

These methods consider mutual service rendered by service departments among themselves along with the service rendered to production departments. The following are the reciprocal apportionment methods.

- Repeated distribution method
- Simultaneous equation method
- Trial and error method.

**i) Repeated distribution method:**

Under this method the overheads of service departments are distributed to production and service departments on the basis of the percentages agreed upon as reasonable. The process is repeated till the service department overhead cost becomes negligible.

**ii) Simultaneous equation method:** In this method the service rendered by each service department to other departments is estimated. One service department may render service to another service department and also receive its service in return.

**iii) Trial and error method:**

Under this method the process of repeated distribution is used in respect of service departments only. It is done on the basis of agreed percentages for the mutual service. After several divisions, the overhead balance for each department becomes negligible. At this stage further division is stopped and the total amounts of each department at this stage are ascertained. These total overheads of the service departments are then distributed to the production departments.

**Absorption of overheads:**

The last step is the process of accounting for manufacturing overhead is 'absorption' of the overhead. The process of charging the overhead cost of a cost centre to the cost units is called overhead absorption.

**Definition:**

According to I.C.M.A., overhead absorption is "the allotment of overhead to cost units by means of rates separately calculated for each cost centre".

**Overhead rates:**

Absorption of overheads is the charging of overheads of a department or a cost centre to the cost units which pass through the department or cost centre. The base selected is used to calculate a uniform 'Rate' to absorb the overheads which is called 'Absorption Rate'. The absorption rate is calculated by dividing the overhead by the units of base selected such as units of production, labour hours, machine hours, etc. The overhead cost of products or jobs is arrived at multiplying the rate by units of base contained in the job product or process, etc.

**Overhead rate = overhead expenses/Total quantum of base selected**

### Types of overhead rates:

The following are the main overhead rates generally discussed in cost accounting literature.

#### **i) Actual overhead rates:**

Actual overhead rate is obtained by dividing the actual overhead incurred during a period by the actual quantum of the base selected.

**Actual overhead rate= Actual overhead incurred during a period/Actual quantum or value of the base selected.**

#### **ii) Predetermined overhead rates:**

Predetermined overhead rates are more practical and useful as the rate is calculated well in advance of an accounting period. Cost of products and jobs can be ascertained as and when they are completed. In each organization where budgetary control is in operation, the data required for computation of predetermined rates will be readily available without additional clerical cost.

**Predetermined overhead rate= Budgeted overhead expenses for the period/ Budgeted base of the period.**

#### **iii) Blanket overhead rates:**

A single absorption rate may be calculated for the entire factory. This is known as the blanket rate.

**Blanket rate= Overhead cost of the entire factory/ Total quantum of the base selected.**

#### **iv) Multiple overhead rates:**

When different rates are calculated for different departments, cost centres, fixed overheads and variable overheads then the rates calculated are known as multiple rates.

**Multiple overhead rates=Overhead cost allocated/Corresponding base.**

### Methods of absorption of overhead:

#### **i) Direct material cost method:**

Under this method direct material is the basis for absorption. Direct material percentage rate is calculated by dividing the predetermined production overhead by direct material.

**Direct material percentage rate=factory overhead/Direct material cost\*100**

#### **ii) Direct labour cost method:**

Actual or predetermined direct labour cost method is calculated by dividing the overhead cost apportioned by the wages paid or expected to be paid and expressed as a percentage.

**Direct labour percentage rate=factory overhead/Direct wages\*100**

#### **iii) Prime cost percentage method:**

Under this method the overhead is divided by the aggregate of direct material and direct labour cost of the department.

**Prime cost percentage rate= factory overhead/prime cost\*100**

#### **iv) Direct labour hour method:**

Direct labour hour rate is computed by dividing the factory overhead by direct labour hours.

**Labour hour rate= factory overhead/labour hours**

#### **v) Rate per unit of production method:**

Per unit method of absorption of overhead is used when the output is measured in physical units like number, weight, etc. The rate per unit is calculated is given below.

**Overhead absorption rate per unit= factory overhead/units of production**

#### **vi) Sale price method:**

Under this method budgeted overheads are divided by the sale price of units of production.

**Sale price recovery rate=factory overhead/sales value of units of production**

#### **vii) Machine hour rate:**

Machine hour rate method of absorption is used in those industries where machines are extensively used for production and manual is negligible or plays very minor role.

## UNIT – IV

### MARGINAL COSTING

#### **MEANING:**

Marginal costing is helpful in determining the profitability of products, departments, processes and cost centres. While analyzing the profitability, marginal costing interprets the cost on the basis of nature of cost.

#### **DEFINITION:**

Marginal cost defined by I.C.M.A, “ The amount at any given volume of output by which aggregate costs are changed if the volume of output a increased or decreased by one unit. In practice this is measured by the total variable costs attributable to one unit.”

#### **FEATURES OF MARGINAL COSTING:**

- \* Marginal costing is a technique of control or decision making.
- \* Under marginal costing the total cost is classified as fixed and variable costs.
- \* Contribution is ascertained by reducing the marginal cost or variable cost from the selling price.
- \* The profitability of products, departments or process is determined on the basis of contribution.
- \* Profit is ascertained by reducing the fixed cost from the contribution of all the products or departments Or processes or divisions, etc.,

#### **ADVANTAGES OF MARGINAL COSTING:**

The statement prepared under marginal costing can be easily followed as it breaks up the cost as variable and fixed.

Stock valuation can be easily done and understood as it includes only the variable cost.

Marginal costing serves as a good basis for reporting to management.

The fixed costs are treated as period costs and are charged to P& L A/C directly.

Marginal costing technique is helpful in preparation of flexible budgets as the costs are split into fixed and variable portions.

Marginal costing is immensely helpful in determined of selling prices under different situations like recession, depression, introduction of new products, etc.

Marginal costing is helpful to management in exercising decision regarding make or buy, exporting, key factor and numerous other aspects of business operations.

#### **LIMITATIONS OF MARGINAL COSTING:**

Break up of cost into variable and fixed portion is a difficult problem.

Since fixed cost is not included in total cost, full costis not available to outsiders to judge the efficiency.

Marginal costing is more suitable for decision making in the short – term.

Under marginal costing only variable costs are considered and the output as well as stocks are undervalued and profits is distorted.

In these days of automation and technical advancement, huge investments are made in heavy machinery which result in heavy amount of fixed cost.

In contract type of business and job order business, full cost of the job or the contract is to be charged.

#### **DIFFERENCE BETWEEN MARGINAL COSTING AND ABSORBTION COSTING:**

	Absorption Costing	Marginal Costing
Charging of costs	Fixed costs form part of total costs of production and distribution.	Variable costs alone form part of cost of production, and sales whereas fixed costs are charged against contribution for determined of profit.

Valuable stock	of	Stocks and work in progress are valued at both fixed and variable cost.	Stocks are valued at variable cost only.
Variation in profits	in	When there is no sales the entire stock is carried forward and there is no trading profit or loss.	If there is no sales, the fixed overhead will be treated as loss in the absence of contribution.
Purpose		Absorption costing is more suitable for long term decision making and for pricing policy over long term.	Marginal costing is more useful for short term managerial decision making.
Emphasis		Absorption costing lays emphasis on production.	Marginal costing emphasizes selling and pricing aspects.

### Profit-Volume Ratio.

The Profit/volume ratio, which is also called the 'contribution ratio' or 'marginal ratio', expresses the relation of contribution to sales and can be expressed as under:

$$P/V \text{ Ratio} = \text{Contribution}/\text{Sales}$$

Since Contribution = Sales – Variable Cost = Fixed Cost + Profit, P/V ratio can also be expressed as:

$$P/V \text{ Ratio} = \text{Sales} - \text{Variable cost}/\text{Sales} \text{ i.e. } S - V/S$$

$$\text{or, } P/V \text{ Ratio} = \text{Fixed Cost} + \text{Profit}/\text{Sales} \text{ i.e. } F + P/S$$

$$\text{or, } P/V \text{ Ratio} = \text{Change in profit or Contribution}/\text{Change in Sales}$$

**The formula to calculate P/V ratio is:**

$$P/V \text{ Ratio} = \frac{\text{Contribution}}{\text{Sales}} = \frac{\text{Change in Contribution}}{\text{Change in sales}} = \frac{\text{Change of Profit}}{\text{Change in Sales}}$$

A high P/V ratio indicates high profitability so that a slight increase in volume, without increase in fixed cost, would result in high profits. A low P/V ratio, on the other hand, is a sign of low profitability so that efforts should be made to improve P/V ratio.

### Uses of P/V Ratio:

(i) It helps in the determination of Break-even-point [BEP = Fixed cost ÷ P/V ratio]

(ii) It helps in the determination of profit at any volume of sales

$$[\text{Sales} \times P/V \text{ ratio} = \text{Contribution, Profit} = \text{Contribution} - \text{Fixed Cost}]$$

(iii) It helps in the determination of sales to earn a desired amount of profit



$$\left[ \text{Sales} = \frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{P/V Ratio}} \right]$$

(iv) It helps in determining the required selling price per unit

$$\left[ \text{Selling price per unit} = \frac{\text{Variable cost}}{(1 - \text{P/V ratio})} \right]$$

(v) It helps in determining the variable cost for any volume of sales

$$[\text{Variable cost} = \text{Sales} \times (1 - \text{P/V ratio})]$$

**The ratio can be increased by increasing the contribution. This can be done by:**

- (i) Increasing the selling price per unit
- (ii) Reducing the variable or marginal cost.
- (iii) Changing the sales mixture and selling more profitable products for which the P/V ratio is higher.

The concept of P/V ratio is also useful to calculate the break-even point, the profit at a given volume of sales, the sales volume required to earn a given (or desired) profit and the volume of sales required to maintain the present profits if the selling price is reduced by a specified percentage.

**The formula for the sales volumes required to earn a given profit is:**

$$\text{P/V Ratio} = \text{Contribution/Sales}$$

$$\text{or, P/V Ratio} = \text{Fixed Cost} + \text{Profit/Sales}$$

$$\text{or, Sales} = \text{Fixed Cost} + \text{Profit/P/V ratio} = F + P/\text{P/V ratio}$$

## **BREAK –EVEN POINT**

### **Definition of Break-Even Analysis:**

Break-even analysis refers to ‘ascertainment of level of operations where total revenue equals to total costs’. It is an analysis used to determine the probable profit or loss at any level of operations. Break-even analysis is a method of studying the relationship among sales revenue, variable cost and fixed cost to determine the level of operation at which all the costs are equal to its sales revenue and it is the no profit no loss situation.

### **Formulae for Break-Even Analysis:**

$$\text{Break – Even point (unit)} = \frac{\text{Fixed cost}}{\text{Contribution p.u.}}$$

$$\text{Break – Even Point (Rs.)} = \frac{\text{Fixed cost}}{\text{P/V ratio}}$$

$$\text{or} = \text{Break – even units} \times \text{Selling price p. u.}$$

$$P/V \text{ ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100$$

$$\text{Desired sales} = \frac{\text{Fixed cost} + \text{Desired profit}}{P/V \text{ ratio}}$$

At Break – even point

$$\text{Contribution} = \text{Fixed cost}$$

$$\text{Contribution} - \text{Fixed cost} = 0$$

### **Assumptions and Limitations of Break-Even Analysis:**

**The following assumptions and limitations are important considerations in break-even analysis:**

- (a) The break-even analysis requires that all costs should be segregated into fixed and variable components. There is difficulty in segregation of semi-variable expenses into variable and fixed elements of costs accurately.
- (b) It is assumed that all fixed costs remain constant at various levels of activity. But in practice, it may not be fixed in the long-run.
- (c) Another assumption is that variable costs are really variable and changes in direct proportion to the volume of output. It means that variable cost per unit of product remains constant. In practice variable costs are not necessarily strictly variable with output.
- (d) In break-even analysis, it is assumed that production units and sales units are equal and no inventory exists in the beginning or at the end of the period for which analysis is made. In practice there will always be existence of inventory.
- (e) There will be no change in selling price and it remains constant at all levels of output and further assumed that there is no change in sales mix. In the real world situation, to increase the sales, it may necessitate to frequently change the selling prices and sales mix of the products.
- (f) It is assumed that productivity, operating efficiency, product specifications and methods of manufacture and sale will not undergo any change. In actual situation, the operating efficiency and productivity depends upon the manpower, it is impractical to assume that these factors remain constant.
- (g) A break-even chart can depict the position of only one product and fails to present various products in the sales mix in one chart and different charts are required to be drawn for different products.
- (h) Break-even analysis ignores the capital employed in business, which is one of the important facts in determination of profitability of the company and its products.
- (i) The break-even charts assumes that total cost and total revenue can be represented in straight lines. In practice, the function of costs and revenue are curvilinear in nature.

## Margin of Safety:

The margin of safety refers to sales in excess of the break-even volume. It represents the difference between sales at a given activity level and sales at break-even point. It is important that there should be a reasonable margin of safety to run the operations of the company in profitable position.

A low margin of safety usually indicates high fixed overheads so that profits are not made until there is a high level of activity to absorb the fixed costs. A margin of safety provides strength and stability to a concern.

The margin of safety is an important measure, especially in times of receding sales, to know the real position to operate without incurring losses and to take steps to increase the margin of safety to improve the profitability.

### Margin of safety is calculated by using the following formulae:

$$\text{Margin of Safety} = \text{Actual Sales} - \text{Break - Even Sales}$$

$$\text{or} = \frac{\text{Profit}}{P/V \text{ ratio}}$$

$$\text{or} = \frac{\text{Profit} \times \text{Selling Price p.u.}}{\text{Selling Price p.u.} - \text{Variable Cost p.u.}}$$

*Margin of Safety as % of Total Sales*

$$= \frac{\text{Margin of Safety}}{\text{Total Sales}} \times 100$$

### How to Improve Margin of Safety?

The higher the margin of safety, the better profitability of the product/product line.

### The margin of safety can be improved by adopting any of the following steps:

- (a) Keeping the break-even point at lowest level and try to maintain actual sales at highest level.
- (b) Increase in sales volume.
- (c) Increase in selling price.
- (d) Change in product mix increasing contribution.
- (e) Lowering fixed cost.
- (f) Lowering variable cost.
- (g) Discontinuance of unprofitable products in sales mix.

### The following points highlight the ten techniques of application of marginal costing.

Technique of Application # 1. Profit Planning:

Profit planning is the planning of future operations to attain maximum profit.

Under the technique of marginal costing, the contribution ratio, i.e., the ratio of marginal contribution to sales, indicates the relative profitability of the different products of the business whenever there is any change in volume of sales, marginal cost per unit, total fixed costs, selling price, and sales-mix etc.

Hence marginal costing is an useful tool in planning profits as it ensures sufficient return on capital employed.

**Example 1:**

A company manufactures a single product having a marginal cost of Re. 0.75 per unit. Fixed costs are Rs. 12,000. The market is such that up to 40,000 units can be sold at Rs. 1.50 per unit, but any additional sales must be made at Re. 1.00 per unit. There is a planned profit of Rs. 20,000.

How many units must be made and sold?

**Solution:**

Contribution desired = Fixed Cost + Desired Profit

= Rs. 12,000 + Rs. 20,000 = Rs. 32,000

Contribution from 40,000 units = 40,000 x Rs. (1.50 – 0.75) = Rs. 30,000

**Additional units to be produced and sold at Re. 1.00 per unit after 40,000 units:**

Contribution to be earned after 40,000 units = Rs. (32,000 – 30,000) = Rs. 2,000

New contribution per unit = Re. (1.00 – 0.75) = Re 0.25

Additional units to be produced for contribution of Rs. 2,000

= Rs. 2,000 x 100/25 = 8,000 units.

Total units to be produced to earn planned profit of Rs. 20,000

= 40,000 units + 8,000 units = 48,000 units.

**Technique of Application # 2. Pricing of Products:**

Sometimes pricing decisions have to be taken to cater to a recessionary market or to utilise spare capacity where only marginal cost is recovered. For export market, sometimes full cost is loaded to the sale price to remain competitive. Sometimes special prices are to be offered with expansion in mind, fixation of price below cost can be made on a short-term basis.

**It may be advisable to fix prices equal to or below marginal cost under the following cases:**

- (i) To maintain production and employees occupied.
- (ii) To keep plant in use in readiness to go 'full team ahead'.

- (iii) To prevent loss of future orders.
- (iv) To dispose of perishable product.
- (v) To eliminate competition of nearer rivals.
- (vi) To popularize a new product.
- (vii) To keep the sales of a conjoined product which is making a considerable amount of profit.
- (viii) Where prices have fallen considerably or a loss has already been made.

**PROBLEM – 1**

Vasanth ltd. Presents the following results for one year. Calculate the P/V Ratio, BEP and Margin of Safety.

	Rs.
Sales	2,00,000
Variable costs	1,20,000
Fixed costs	50,000
Net profit	30,000

Sol:

Particulars	Rs.
Sales	2,00,000
Less : Margin / Variable cost	1,20,000
Contribution	80,000
Less : Fixed cost	50,000
Profit	30,000

$$\begin{aligned}
 (1) \text{ P/V Ratio} &= \frac{\text{Contribution}}{\text{Sales}} \times 100 \\
 &= \frac{80000}{2,00,000} \times 100 = 40 \%
 \end{aligned}$$

$$\begin{aligned}
 (2) \text{ Break Even Point} &= \frac{\text{Fixed expenses}}{\text{P/V Ratio}} \\
 &= \frac{50,000}{40} \times 100
 \end{aligned}$$

$$\begin{aligned}
 (3) \text{ Margin Of Safety} &= \text{Sales} - \text{Break even sales} \\
 &= 2,00,000 - 1,25,000 \\
 &= \text{Rs. } 75,000
 \end{aligned}$$

PROBLEM – 2

From the following information relating to Prakash Bros. Ltd., you are required to find out

(1) P/V Ratio (2) Break even point (3) Profit (4) Margin of safety (5) Volume of sales to earn profit of Rs. 6,000

	Rs.
Total fixed costs	4,500
Total variable	7,500
Total sales	15,000

Sol:

Particulars	Rs.
Sales	15,000
Less : Margin / Variable cost	7,500
Contribution	7500
Less : Fixed cost	4,500
Profit	30,00

$$\begin{aligned}
 (1) \text{ P/V Ratio} &= \frac{\text{Contribution}}{\text{Sales}} \times 100 \\
 &= \frac{7,500}{15,000} \times 100 = 50 \%
 \end{aligned}$$

$$\begin{aligned}
 (2) \text{ Break Even Point} &= \frac{\text{Fixed expenses}}{\text{P/V Ratio}} \\
 &= \frac{5,500}{40} \times 100 \\
 &= \text{Rs. 9,000}
 \end{aligned}$$

$$(3) \text{ Profit} = \text{Rs. 3,000}$$

$$\begin{aligned}
 (4) \text{ Margin of safety} &= \text{Sales} - \text{Break even sales} \\
 &= 15,000 - 9,000 = \text{Rs. 6,000}
 \end{aligned}$$

(5) Sales to earn profit of Rs. 6,000

$$\begin{aligned}
 \text{Required Sales} &= \frac{\text{Fixed cost} + \text{Required profit}}{\text{P/V Ratio}} \\
 &= \frac{4,500 + 6,000}{50\%} \\
 &= \text{Rs. 21,00}
 \end{aligned}$$

**MCQ ( Multiple Choice Questions)**  
**PART-A**

- 1. Fixed expenses decrease per unit with the increases in production and increases per unit with the decrease in production.**
  - a) True
  - b) False
- 2. Marginal costs is taken as equal to**
  - a) Prime Cost plus all variable overheads
  - b) Prime Cost minus all variable overheads
  - c) Variable overheads
  - d) None of the above
- 3. If total cost of 100 units is Rs 5000 and those of 101 units is Rs 5030 then increase of Rs 30 in total cost is**
  - a) Marginal cost
  - b) Prime cost
  - c) All variable overheads
  - d) None of the above
- 4. Marginal cost is computed as**
  - a) Prime cost + All Variable overheads
  - b) Direct material + Direct labor + Direct Expenses + All variable overheads
  - c) Total costs – All fixed overheads
  - d) All of the above
- 5. Marginal costing is also known as**
  - a) Direct costing
  - b) Variable costing
  - c) Both a and b
  - d) None of the above
- 6. Which of the following statements are true?**
  - A) Marginal costing is not an independent system of costing.
  - B) In marginal costing all elements of cost are divided into fixed and variable components.
  - C) In marginal costing fixed costs are treated as product cost.
  - D) Marginal costing is not a technique of cost analysis.
- 7. While computation of profit in marginal costing**
  - a) Total marginal cost is deducted from total sales revenues
  - b) Total marginal cost is added to total sales revenues
  - c) Fixed cost is added to contribution
  - d) None of the above

**8. Which of the following are the assumptions of marginal costing?**

- A) All the elements of cost can be divided into fixed and variable components.
- B) Total fixed cost remains constant at all levels of output.
- C) Total variable costs varies in proportion to the volume of output.
- D) Per unit selling price remain unchanged at all levels of operating activity.**

**9. In two periods total costs amounts to Rs 50000 and Rs 40000 against production of 20000 and 15000 units respectively. Determine marginal cost per unit and fixed cost.**

- a) Rs 2 and Rs 10,000**
- b) Rs 4 and Rs 5000
- c) Rs 10 and Rs 8000
- d) None of the above

**10.. Under High and Low Point method, the output at two different levels is compared with the amount of \_\_\_\_\_ incurred at these two points.**

- a) Total fixed costs
- b) Total costs**
- c) Total fixed costs
- d) None of the above

**PART – B (5 MARKS)**

- 6. Define Marginal costing and its Features. (nov 2019)
- 7. Describe the objectives of marginal costing. (nov 2018)
- 8. What are the limitations of breakeven point? (april 2017)
- 9. What is 'Key Factor '? Explain its significance? (nov 2019)

**PART – C (10 MARKS )**

- 10. Explain the importance of marginal costing in decision making. (nov 2019)
- 11. What is marginal costing? What are the Characteristics?

Marginal Costing – Absorption costing – P/V Ratio – BEP and Margin of Safety - Practical Application of marginal costing technique to different situations. (nov 2018)



## V. Unit-wise Abstract

**Name of the Paper: Management Accounting**

**Class: III BBA CA**

Keywords	Definition	Important Question with marks
<p>Marginal costing is helpful in determining the profitability of products, departments, processes and cost centres. While analyzing the profitability, marginal costing interprets the cost on the basis of nature of cost.</p>	<p>Marginal cost defined by I.C.M.A, “ The amount at any given volume of output by which aggregate costs are changed if the volume of output a increased or decreased by one unit.</p>	<p>Define Marginal costing and its Features. (nov 2019)</p> <p>Describe the objectives of marginal costing. (nov 2018)</p> <p>What are the limitations of breakeven point? (april 2017)</p>
<ol style="list-style-type: none"> <li>1. Stock valuation can be easily done and understood as it includes only the variable cost.</li> <li>2. Marginal costing serves as a good basis for reporting to management.</li> <li>3. The fixed costs are treated as period costs and are charged to P&amp; L A/C directly.</li> </ol>	<p><b>Definition of Break-Even Analysis:</b></p> <p>Break-even analysis refers to ‘ascertainment of level of operations where total revenue equals to total costs’.</p>	<ol style="list-style-type: none"> <li>.1. Explain the importance of marginal costing in decision making. (nov 2019)</li> <li>2.What is marginal costing? What are the Characteristics?(Dec-2020)</li> </ol>

**Signature of the Subject in charge**

**Head of the Department/Vice Principal**

## UNIT – V

### BUDGET & BUDGETARY CONTROL

#### INTRODUCTION:

A budget is a detailed plan of operation for some specific future period. The word 'budget' is derived from a French term "bougette" which means leather pouch in which funds are appropriated for meeting anticipated expenses.

#### Meaning:

A budget is a plan of action expressed in financial terms or non-financial terms. It is prepared for a definite period of time. It is a planned estimate of future business conditions such as the sales, cost and profit.

A budget is a tool, which helps the management in planning and control of business activities.

#### DEFINITION:

1. According to **ICMA, England**, a budget is, "a financial and /or quantitative statement, prepared and approved prior to a defined period of time, of the policy to be pursued during the period for the purpose of attaining a given objective."

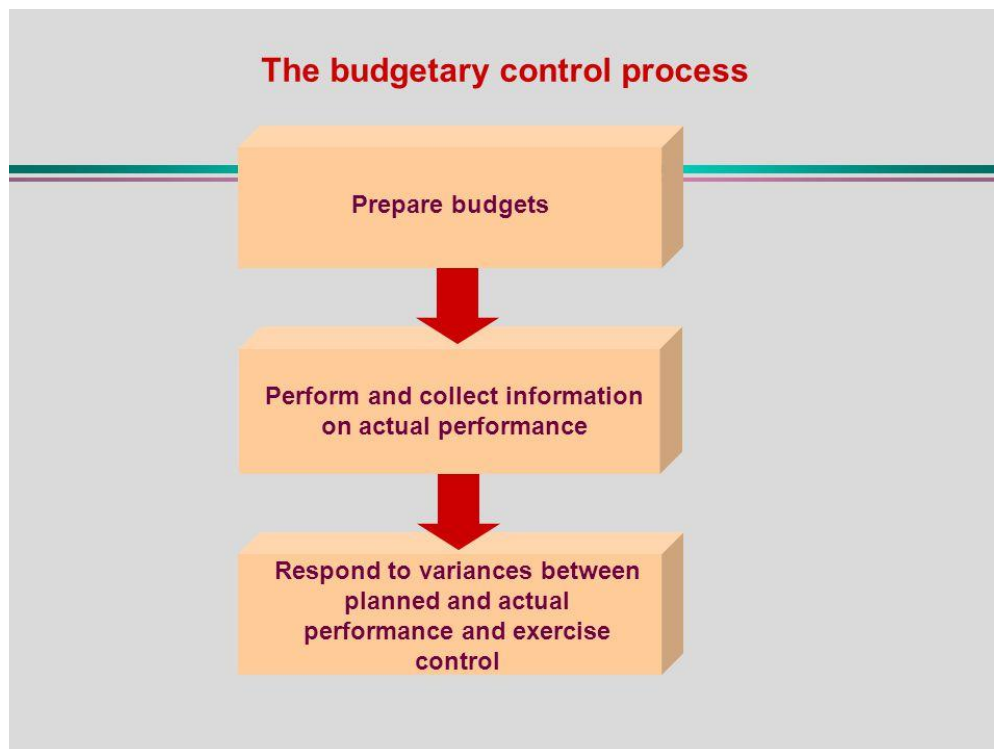
2. "Budget is an estimate of future needs arranged according to an orderly basis, covering some or all of the activities of an enterprises for definite period of time"- **George R.Terry**.

#### BUDGETARY CONTROL:

1. According to ICMA, England, budgetary control is "the establishment of budgets relating the responsibilities of executives to the requirements of a policy and the continuous comparison of actual with budgeted results, either to secure by individual action the objectives of that policy or to provide a basis for its revision."

2. According to J Batty " budgetary control is a system which uses budgets as a means of planning and controlling all aspects of producing and / or selling commodities and services".

#### STEPS IN BUDGETARY CONTROL:



1. Establishment of budgets for each section of the organisation.
2. Recording of actual performance.
3. Continuous comparison of the actual performance with the budget.

4. In case there is a difference between actual and budgeted performance, taking suitable remedial action.
5. Revision of budgets if necessary.

#### **OBJECTIVES OF BUDGETARY CONTROL:**

1. To define the goal of the enterprise.
2. To provide long and short period plans for attaining these goals.
3. To co-ordinate the activities of different departments.
4. To operate various cost centres and departments with efficiency and economy.
5. To eliminate waste and increase the profitability.
6. To estimate capital expenditure requirements of the future.
7. To centralize the control system.
8. To correct deviations from established standards.
9. To fix the responsibility of various individuals in the organization.
10. To ensure that adequate working capital is available for the efficient operation of the business.
11. To indicate to the management as to where action is needed to solve problems without delay.

#### **FUNCTION OF BUDGETARY CONTROLLER:**

Budget controller is also called budget officer or budget director. He is a top executive responsible for the efficient working of budgetary control system. He should possess sound knowledge of accounting, budgetary control and technical aspects of the business. His main functions are:

1. Arranging for all the meetings of the budget committee.
2. Issuing instructions to various departments.
3. Receiving and checking the budget estimates.
4. Suggesting revisions
5. Preparing the summary budget and place all budgets before the committee.
6. Ensuring that management prepares their budget in time.
7. Coordinating all budget work.

#### **ADVANTAGES:**

##### **Maximization of profits:**

Budgetary control aims at increasing the overall profits of organization. This is achieved through planning , coordination and economical.

##### **Effective coordination:**

Performance and working of various activities is effectively coordinated through budgetary control. Emphasis on co – ordination and cooperation helps in achieving the predetermined targets and goals.

##### **Evaluation of executive performance:**

Goals are set for each department. Actual performance is compared with standards and deviations are reported to top management for action against unfavourable deviations.

##### **Economy in operations;**

Expenses are properly planned and financial resources are put to optimum use.

##### **Correction of ineffectiveness:**

Comparison of actual performance with budgeted performance reveals weak spots so that attention is focused on them to improve the performance.

#### **LIMITATIONS:**

##### **Prediction of uncertain future:**

Budgeting is a process of forecasting and estimation. Forecasting may not be accurate.

##### **Changes of conditions:**

Budgets are prepared on the basis of certain prevailing conditions. If the conditions change budget Are also to be revised.

**Complacence:**

General tendency of employees is to achieve the targets as budgeting fixes the targets. Some of the employees who are highly skillful may also be satisfied in performing up to the goals set without showing full potential which will be a loss to the enterprise as well as the employee in terms of productivity.

**Difficulty in coordination:**

Effective implementation of budgetary control depends upon proper coordination among various departments as the performance of a departments depends on the work of other departments and vice versa.

**CLASSIFICATION OF BUDGETS:**

Budgets are classified according to their nature. The following are the different classifications of budgets.

A. Classification according to time:

1. Long-term budgets
2. Short-term budgets
3. Current Budgets.

B. Classification according to functions:

1. Functional or subsidiary budgets
2. Master budget.

C. Classification on the basis of flexibility:

1. Fixed budget
2. Flexible budget

**A. Classification according to time:**

1. Long-term Budgets:

Long-term budgets are prepared to reflect long-term planning of the business. Generally, the long-term period varies between five to ten years. E.g. capital expenditure, research and development, long-term finances, etc.

2. Short-term budgets:

These budgets are generally for duration of one year and are expressed in monetary terms. E.g. Cash, Material budget, etc.

3. Current Budgets:

The duration of current budgets is generally in months and weeks. These budgets are prepared for the current operations of the business.

**B.Functional Budgets:**

These budgets relate to various functions of the concern. Following are the commonly prepared functional budgets:

- a) Purchase budget
- b) Cash budget.
- c) Production budget.
- d) Sales budget.
- e) Materials budget.
- f) Overhead budget
- g) Labour budget.
- h) Research and development budget.
- i) Capital expenditure budget.

## **2. Master budget:**

This budget is a summary of various functional budgets. It encompasses the activities of the whole organization.

### **1. Sales budget:**

A sales budget is an estimate of expected sales during the budget period. It may be stated in terms of money or quantity or both.

### **2. Production Budget:**

The preparation of production budget is dependent on the sales budget. Production budget is an estimate of quantity of goods that must be produced during the budget period.

### **3. Materials Budget:**

Materials may be direct or indirect. The materials budget deals with only the direct materials. Indirect materials are included in the factory overhead budget.

### **4. Direct Labour Budget:**

This indicates detailed requirements of direct labour and its cost to achieve the production target.

### **5. Cash budget:**

This budget gives an estimate of receipts and payments of cash during the budget period. It is prepared by the chief accountant. It shows the cash available and needed from time to time to meet the capital requirement of the organization.

### **6. Overhead Budget:**

#### **a. Production overhead budget:**

It is a budget of indirect costs in the form of indirect material and indirect expenses to be incurred in the factory.

#### **b. Administration overhead budget:**

This budget is prepared to estimate the expenditure to be incurred for planning, organizing, direction and control functions of the management.

#### **c. Selling and distribution overhead budget:**

This budget is prepared to estimate expenditure to be incurred to sell the product and its distribution. It is based on sales budget.

### **7. Research and development budget:**

This budget is prepared to estimate the research and development expenditure to be incurred during a specific period.

### **8. Capital Expenditure budget:**

This budget is prepared to estimate the capital expenditure on fixed assets – Buildings, machinery, plant, furniture etc.

## **C. Classification on the basis of flexibility:**

### **1. Fixed Budget:**

It is prepared for a given level of activity and remains same irrespective of change of activity.

### **2. Flexible Budget:**

It is a budget prepared for various levels of activity by classification of expenditure under fixed, variable and semi fixed categories.

## **PROBLEMS:**

### **I. Production Budget:**

- a. You are required to prepare a production budget for the half year ending June 2000 from the following information.

Product	Budgeted sales quantity (Units)	Actual stock on 31.12.1999 (Units)	Desired stock on 30.06.2000 (Units)
S	20,000	4,000	5,000
T	50,000	6,000	10,000

Sol:

**Production Budget for the half year ending 30.06.2000**

Particular	Products		Total (Units)
	S (Units)	T (Units)	
Sales (Budgeted)	20,000	50,000	70,000
+ Desired closing stock	5,000	10,000	15,000
	25,000	60,000	85,000
- Opening stock	4,000	6,000	10,000
Quantity to be produced	21,000	54,000	75,000

**II Cash Budget:**

1. From the following data forecast the cash position at the end of April, May and June 2008.

Month	Sales (Rs)	Purchase (Rs)	Wages (Rs)	Sales Expenses (Rs)
February	1,20,000	80,000	10,000	7,000
March	1,30,000	98,000	12,000	9,000
April	70,000	1,00,000	8,000	5,000
May	1,16,000	1,03,000	10,000	10,000
June	85,000	80,000	8,000	6,000

**Further Information:**

- ➔ Sales at 10% realized in the month of sales. Balance equally realized in two subsequent months.
- ➔ Purchase: Creditors are paid in the month following the month of supply.
- ➔ Wages: 20% paid in arrears in the following month.
- ➔ Sundry expenses paid in the month itself.
- ➔ Income tax Rs. 20,000 payable in June.
- ➔ Dividend Rs. 12,000 payable in June.
- ➔ Income from investment Rs. 2,000 received half-yearly in March and September.
- ➔ Cash balance on hand as on 1.04.2008 Rs. 40,000.

Sol:

**Cash budget for 3 months ending June 2008**

Particular	April (Rs)	May (Rs)	June (Rs)
Opening balance of cash	40,000	47,700	29,700
+ Receipts: Cash Sales	7,000	11,600	8,500
Cash from debtors:			

1 <sup>st</sup> month	58,500	31,500	52,200
2 <sup>nd</sup> month	54,000	58,500	31,500
<b>Total Receipts(A)</b>	<b>1,59,500</b>	<b>1,49,300</b>	<b>1,21,900</b>
<b>- Payments: Cash from Purchase</b>	<b>98,000</b>	<b>1,00,000</b>	<b>1,03,000</b>
Wages: Current	6,400	8,000	6,400
Arrear	2,400	1,600	2,000
Sundry Expenses	5,000	10,000	6,000
Income Tax	-	-	20,000
Dividend	-	-	12,000
<b>Total Payments (B)</b>	<b>1,11,800</b>	<b>1,19,600</b>	<b>1,49,400</b>
<b>Closing balance of cash (A-B)</b>	<b>47,700</b>	<b>29,700</b>	<b>-27,500(O.D)</b>

### III Flexible Budget:

1. Draw up a flexible budget for production at 75% and 100% capacity on the basis of the following data for a 50% activity.

Particulars	Per Unit (Rs.)
Material	100
Labour	50
Variable expenses (Direct)	10
Administrative expenses (50% fixed)	40,000
Selling and Distribution expenses (60% fixed)	50,000
Present production (50% activity)	1,000 Units

**Sol:**

#### Cash Budget for 3 months ending June 2008

Particular	Capital Levels					
	50% 1,000Units		75% 1,500 Units		100% 2,000 Units	
	Per unit(Rs)	Total (Rs)	Per unit(Rs)	Total (Rs)	Per unit(Rs)	Total (Rs)
Material	100	1,00,000	100.00	1,50,000	100	2,00,000
Labour	50	50,000	50.00	75,000	50	1,00,000
Variable expenses	10	10,000	10.00	15,000	10	20,000
<b>Prime Cost</b>	<b>160</b>	<b>1,60,000</b>	<b>160.00</b>	<b>2,40,000</b>	<b>160</b>	<b>3,20,000</b>
<b>Administrative expenses:</b>						
Variable (50%)	20	20,000	20.33	30,000	20	40,000
Fixed (50%)	20	20,000	13.33	20,000	10	20,000
<b>Cost of Production</b>	<b>200</b>	<b>2,00,000</b>	<b>193.33</b>	<b>2,90,000</b>	<b>190</b>	<b>3,80,000</b>
<b>Selling &amp; Distribution Expenses:</b>						
Variable (40%)	20	20,000	20.00	30,000	20	40,000
Fixed (60%)	30	30,000	20.00	30,000	15	30,000
<b>Total Cost</b>	<b>250</b>	<b>2,50,000</b>	<b>233.33</b>	<b>3,50,000</b>	<b>225</b>	<b>4,50,000</b>

**MCQ (Multiple Choice Questions)**  
**PART-A**

- 1) In a month, payment for salary was Rs. 5,750 when the lag in payment of salary is 1/8 month. If total salaries of current month are Rs 6,000, determine the salaries of previous month.
- a. Rs 4,800
  - b. Rs 4,250**
  - c. Rs 4,000
  - d. Rs 4,750
- 2) In a firm, the forecast of wages for month of December, January, February and March are Rs 4,800, Rs 6,400 and Rs 6,800. The time-lag in payment of wages is 1/8 month. Determine the amount of wages payable in each month January to March.
- a. Rs 6,750, Rs 6,350 and Rs 5,850
  - b. Rs 5,850, Rs 6,350 and Rs 6,750**
  - c. Rs 5,850, Rs 6,750 and Rs 6,350
  - d. None of the above
- 3) Cash budget deals with historical data whereas Cash Flow Statement deals with future data.
- a. True
  - b. False**
- 4) In cash flow method for preparing cash budget, payment of dividends and prepaid payments are
- a. Deducted from opening balance of cash**
  - b. Added to opening balance of cash
  - c. Not included in cash budget
  - d. None of the above
- 5) As per Cash flow method Increase in current liabilities and decrease in current assets are
- a. Deducted from opening balance of cash
  - b. Added to opening balance of cash**
  - c. Not included in cash budget
  - d. None of the above
- 6) As per Cash flow method, the amount of expected net operating cash profit during the fiscal is



- a. **Added to the opening balance of cash**
- b. Deducted from the opening balance of cash
- c. Not included in cash budget
- d. None of the above

7) Which of the following method is based on technique of cash flow statement?

- a. Cash Accounting Period
- b. **Projected Balance Sheet Method**
- c. Project forecast method
- d. None of the above

8) Which of the following statements are not true about Projected Balance Sheet Method?

- a. It is good for long-term
- b. It is appropriate for annual cash forecast
- c. **It is of extreme use for planning and control**
- d. None of the above

9) A budgeted balance sheet is prepared in Projected Balance sheet method and an estimate is made of the value of all assets including bank overdraft, cash balance and bank.

- a. True
- b. **False**

10) Given estimated sales in February, March, April, May and June are Rs 90,000, Rs 96,000, Rs 54,000, Rs 87,000 and Rs 63,000. In case 50% of sales are realized in the next month and balance in the next of next month determine cash collection from sales in April and May.

- a. Rs 93,000 and Rs 75,000
- b. **Rs 93,000 and Rs 70,500**
- c. Rs 75,000 and Rs 70,500
- d. None of the above

**(PART- B) 5 MARKS**

1. State the objectives of budgetary control.(nov2016)
2. How cash budgets are prepared?(april 2016)
3. Discuss about the advantages and disadvantages of budgetary control.(april2016)
4. Write short notes on Overhead Budgets.(nov2018)
5. Explain about (a) Budget committee & (b) Budget centre.(nov2017)

**(PART-C) 10 MARKS**

6. Discuss about the steps in installation of budgetary control system in detail.(april2016)
7. What is budget? Explain its types.(april 2020)

#### IV. Unit-wise Abstract

**Name of the Paper: Management Accounting**

**Class: III B.COM**

Keywords	Definition	Important Question with marks
<p>A budget is a detailed plan of operation for some specific future period.</p> <p>A budget is a plan of action expressed in financial terms or non-financial terms. It is prepared for a definite period of time.</p>	<p>“Budget is an estimate of future needs arranged according to an orderly basis, covering some or all of the activities of an enterprises for definite period of time”- <b>George R.Terry.</b></p>	<ol style="list-style-type: none"> <li>1. Write short notes on Overhead Budgets.(nov2018)</li> <li>2. Explain about (a) Budget committee &amp; (b) Budget centre.(nov2017)</li> </ol>
<ol style="list-style-type: none"> <li>1. Establishment of budgets for each section of the organisation.</li> <li>2. Recording of actual performance.</li> <li>3. Continuous comparison of the actual performance with the budget.</li> </ol>	<p>According to J Batty “ budgetary control is a system which uses budgets as a means of planning and controlling all aspects of producing and / or selling commodities and services”.</p>	<ol style="list-style-type: none"> <li>1. Discuss about the steps in installation of budgetary control system in detail.(april2016)</li> <li>2. What is budget? Explain its types.(April 2020)</li> </ol>

**Signature of the Subject in charge**

**Head of the Department/Vice Principal**

