Semester VI

	L	T	P	C
15PAU601 CORE – MANAGEMENT ACCOUNTING	**4**	**1**	**-**	**5**

COURSE OBJECTIVE

- Management Accounting represents the basic concepts of financial statement analysis, ratio analysis and budgetary control.
- It includes the nature, scope and significance of management accounting.
- This paper gives the concepts of marginal costing, break even analysis, variance analysis, cash flow statement and fund flow statements.

LEARNING OUTCOME

- ➢ To enable the students to understand the importance and scope of management accounting in planning, controlling and decision making.
- ➢ To impart the student to prepare management reports by using funds flow and cash flow statement.

Unit I

Introduction: Meaning, Nature and Scope and functions of management accounting – Comparison of Management accounting, Cost accounting and financial accounting – Role of management accounting in decision making.

Unit II

Preparation of Financial Statement by applying Ratio analysis – Turnover ratio – Profitability ratio – Solvency ratios – Fund flow statement and Cash flow statement with AS 3.

Unit III

Introduction to Marginal costing – Marginal costing – Comparison with Absorption Costing – Cost-volume-profit Analysis – BEP – Application of Marginal costing – Break even analysis and Profit volume graph.

Unit IV

Budget and Budgetary Control – The budget manual – Preparation and Monitoring procedures – Budget variance – Flexible Budget – Preparation of Functional Budget for operating and non operating functions – Cash budget – Master budget – Principal Budget factors.

Unit V

Introduction to standard costing – Various types of Standards – Comparison of Material, Labour and Overhead Variance.

TEXT BOOKS

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

REFERENCES

1. Man Mohan and Goyal, (2014), Management Accounting, Sahitya bhavan, New Delhi.
2. Battacharya, S.K. John Dearden., (2013), Accounting for Management, Vikas Publishing House Pvt. Ltd., New Delhi.
3. Srinivasan.N.P (2013), Management and Financial Accounting, Sterling Publishers Pvt. Ltd., New Delhi.
4. Khan M.Y and Jain. P.K (2014), Management and Cost Accounting, Tata McGraw-Hill Publishing Company Ltd., New Delhi.

KARPAGAM ACADEMY OF HIGHER EDUCATION

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

Coimbatore – 641 021.

LECTURE PLAN
DEPARTMENT OF COMMERCE

STAFF NAME: A.MUTHUSAMY
SUBJECT NAME: MANAGEMENT ACCOUNTING SUB.CODE:15PAU601
SEMESTER: VI CLASS: III B.COM (PA)

S. No	Lecture Duration Period	Topics to be Covered	Support Material/Page Nos.
		UNIT-I	
1.	1	Meaning of Management Accounting	T: II 2.
2.	1	Nature of Management Accounting	T: II 4.
3.	1	Scope of Management Accounting	T: II 3.
4.	2	Functions of Management Accounting	T: II 5.
5.	1	Tools and techniques used in Management Accounting	T: II 6.
6.	1	Distinction between Financial accounting and Management Accounting	T: II 8.
7.	1	Distinction between Cost accounting and Management Accounting	T: II 8
8.	1	Management Accounting System	R5: A 8.
9.	2	Installation of Management Accounting system	R5: A 10.
10.	1	The Management Accountant	R5: A.11.
11.	1	Role of Management Accounting in Decision making	R5: A.9.
12.	1	Limitations of Management Accounting	R5: A.10.
13.	1	Recapitulation and discussion of important questions	
	Total No of Hours Planned For Unit 1=15		
		UNIT-II	
1.	1	Preparation of Financial statement	T: P 92.

2.	1	Analysis of Financial statements	T: P 94.
3.	3	Introduction to Ratio analysis and Turnover ratios: Capital turnover ratio, Fixed asset turnover ratio, Working capital turnover ratio, Total assets turnover ratio, Inventory turnover ratio, Debtors and Creditors turnover ratios.	T: P 126-128.
4.	3	Profitability ratios: Gross profit ratio, Net profit ratio, Operating profit ratio, Return on capital employed, Earning per share.	T: P 118-122
5.	2	Solvency Ratios: Liquidity ratio, Stability ratio, Current ratio, Liquid ratio, Absolute liquid ratio, Fixed asset ratio, Proprietary ratio, Capital gearing ratio.	T: P 129 - 133
6.	2	Fund flow statement	T: P 183- 195
7.	2	Cash flow statement with AS 3	T: P 250-267
8.	1	Recapitulation and discussion of important questions	
	Total No of Hours Planned For Unit II=15		
		UNIT - III	
1.	1	Introduction to Marginal costing	T: 301-302
2.	1	Features and advantages of Marginal costing	T: 302-304
3.	1	Comparison with Absorption costing	T: 312
4.	1	Cost volume profit analysis	T: 316-317
5.	2	Problems to be worked on Cost Volume Profit Analysis	T: 318-319
6.	1	Breakeven point	T: 319
7.	2	Problems to be worked on BEP	T: 320-323
8.	1	Application of marginal costing	T: 336-342
9.	1	Break Even analysis	T: 379-380
10.	1	Methods of Break even analysis	T: 380
11.	1	Profit volume graph.	T: 383

12.	1	Recapitulation and discussion of important questions	
	Total No of Hours Planned For Unit III=14		
		UNIT-IV	
1.	1	Introduction to Budget and Budgetary control	T: 462-467.
2.	1	Budget manual	T: 468
3.	1	Preparation and monitoring procedure	T: 466
4.	1	Budget Variance	T: 525
5.	1	Flexible budget	T: 487-488
6.	1	Functional budget: Sales budget	T: 471
7.	1	Production budget	T: 473
8.	1	Material Budget	T: 473
9.	1	Purchase Budget	T: 474
10.	2	Problems to be worked on sales, production, materials and purchase budgets	T: 471-476
11.	1	Cash Budget	T: 481
12.	1	Master Budget	T: 481-486
13.	1	Principal Budget factors	T: 469
14.	1	Zero Base Budgeting (ZBB)	T: 493
15.	1	Recapitulation and discussion of important questions	
	Total No of Hours Planned For Unit IV=16		
		UNIT-V	
1.	1	Introduction to Standard costing	T: 517-520
2.	1	Different type of Standards	T: 520
3.	1	Analysis of Variance	T: 525
4.	1	Material cost and price variance	T:526-527
5.	1	Material usage, Material mix and Material yield variance	T: 526-527
6.	1	Labour cost, Labour rate variance	T: 526-527

7.	1	Labour efficiency variance	T: 537-538
8.	1	Labour mix and labour yield variance	T: 537-538
9.	1	Overhead cost variance	T: 543
10.	1	Fixed and variable overhead variance	T: 556
11.	1	Sales variances	T: 557
12.	1	Recapitulation and discussion of important questions	
13.	1	**Revision:** Discussion of Previous ESE Question papers	
14.	1	Discussion of Previous ESE Question papers	
15.	1	Discussion of Previous ESE Question papers	
	Total No of Hours Planned for Unit V=15		
Total Planned Hours	**75**		

TEXT BOOK

1. Jain and Narang (2013) *Cost and Management Accounting*, Kalyani Publishers, Ludhiyana.

REFERENCES

1. S.N.Maheshwari (2014), *Principles of Management Accounting*, Sultan Chand & Sons, New Delhi.

UNIT-I

SYLLABUS

Introduction: Meaning, Nature and Scope and functions of management accounting – Comparison of Management accounting, Cost accounting and financial accounting – Role of management accounting in decision making.

INTRODUCTION

A business enterprise must keep a systematic record of what happens from day-today events so that it can know its position clearly. Most of the business enterprises are run by the corporate sector. These business houses are required by law to prepare periodical statements in proper form showing the state of financial affairs. The systematic record of the daily events of a business leading to presentation of a complete financial picture is known as accounting. Thus, Accounting is the language of business. A business enterprise speaks through accounting. It reveals the position, especially the financial position through the language called accounting.

MEANING OF ACCOUNTING:

Accounting is the process of recording, classifying, summarizing, analyzing and interpreting the financial transactions of the business for the benefit of management and those parties who are interested in business such as shareholders, creditors, bankers, customers, employees and government. Thus, it is concerned with financial reporting and decision making aspects of the business.

The American Institute of Certified Public Accountants Committee on Terminology proposed in 1941 that accounting may be defined as, “The art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character and interpreting the results thereof”.

BRANCH ES OF ACCOUNTING:

Accounting can be classified into three categories:

I. Financial Accounting
II. Cost Accounting, and
III. Management Accounting

FINANCIAL ACCOUNTING:

The term "Accounting unless otherwise specifically stated always refers to Financial Accounting. Financial Accounting is commonly carries on in the general offices of a business. It is concerned with revenues, expenses, assets and liabilities of a business house. Financial Accounting has two objectives, viz

1. To ascertain the profitability of the business, and
2. To know the financial position of the concern.

NATURE AND SCOPE OF FINANCIAL ACCOUNTING:

Financial accounting is a useful tool to management and to external users such as shareholders, potential owners, creditors, customers, employees and government. It provides information regarding the results of its operations and the financial status of the business. The following are the functional areas of financial accounting:-

1. Dealing with financial transactions:

Accounting as a process deals only with those transactions which are measurable in terms of money. Anything which cannot be expressed in monetary terms does not form part of financial accounting however significant it is.

2. Recording of information:

Accounting is an art of recording financial transactions of a business concern. There is a limitation for human memory. It is not possible to remember all transactions of the business. Therefore, the information is recorded in a set of books called Journal and other subsidiary books and it is useful for management in its decision making process.

3. Classification of Data:

The recorded data is arranged in a manner so as to group the transactions of similar nature at one place so that full information of these items may be collected under different heads. This is done in the book called ”Ledger. For example, we may have accounts called Salaries, Rent, Interest, Advertisement, etc. To verify the arithmetical accuracy of such accounts, trial balance is prepared.

4. Making Summaries:

The classified information of the trial balance is used to prepare profit and loss account and balance sheet in a manner useful to the users of accounting information. The final accounts are prepared to find out operational efficiency and financial strength of the business.

5. Analyzing:

It is the process of establishing the relationship between the items of the profit and loss account and the balance sheet. The purpose is to identify the financial strength and weakness of the business. It also provides a basis for interpretation.

6. Interpreting the financial information:

It is concerned with explaining the meaning and significance of the relationship established by the analysis. It should be useful to the users, so as to enable them to take correct decisions.

7. Communicating the results:

The profitability and financial position of the business as interpreted above are communicated to the interested parties at regular intervals so as to assist them to make their own conclusions.

LIMITATIONS OF FINANCIAL ACCOUNTING:

Financial accounting is concerned with the preparation of final accounts. The business has become so complex that mere final accounts are not sufficient in meeting financial needs.

Financial accounting is like a post-mortem report. At the most it can reveal what has happened so far, but it cannot exercise any control over the past happenings. The limitations of financial accounting are as follows:-

1. It records only quantitative information.
2. It records only the historical cost. The impact of future uncertainties has no place in financial accounting.
3. It does not take into account price level changes.
4. It provides information about the whole concern. Product-wise, process-wise, department-wise or information of any other line of activity cannot be obtained separately from the financial accounting.
5. Cost figures are not known in advance. Therefore, it is not possible to fix the price in advance. It does not provide information to increase or reduce the selling price.
6. As there is no technique for comparing the actual performance with that of the budgeted targets, it is not possible to evaluate performance of the busi ness.
7. It does not tell about the optimum or otherwise of the quantum of profit made and does not provide the ways and means to increase the profits.
8. In case of loss, whether loss can be reduced or converted into profit by means of cost control and cost reduction? Financial accounting does not answer this question.
9. It does not reveal which departments are performing well? Which ones are incurring losses and how much is the loss in each case?
10. It does not provide the cost of products manufactured
11. There is no means provided by financial accounting to reduce the wastage.
12. Can the expenses be reduced which results in the reduction of product cost and if so, to what extent and how? No answer to these questions.
13. It is not helpful to the management in taking strategic decisions like replacement of assets, introduction of new products, discontinuation of an existing line, expansion of

capacity, etc.

14. It provides ample scope for manipulation like overvaluation or undervaluation. This possibility of manipulation reduces the reliability.

15. It is technical in nature. A person not conversant with accounting has little utility of the financial accounts.

COST ACCOUNTING:

An accounting system is to make available necessary and accurate information for all those who are interested in the welfare of the organization. The requirements of majority of them are satisfied by means of financial accounting. However, the management requires far more detailed information than what the conventional financial accounting can offer. The focus of the management lies not in the past but on the future.

For a businessman who manufactures goods or renders services, cost accounting is a useful tool. It was developed on account of limitations of financial accounting and is the extension of financial accounting. The advent of factory system gave an impetus to the development of cost accounting.

It is a method of accounting for cost. The process of recording and accounting for all the elements of cost is called cost accounting.

The Institute of Cost and Works Accountants, London defines costing as, "the process of accounting for cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units. In its wider usage it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability of activities carried out or planned".

The Institute of Cost and Works Accountants, India defines cost accounting as, "the technique and process of ascertainment of costs. Cost accounting is the process of accounting for costs, which begins with recording of expenses or the bases on which they are calculated and ends with preparation of statistical data".

To put it simply, when the accounting process is applied for the elements of costs (i.e., Materials, Labour and Other expenses), it becomes Cost Accounting.

OBJECTIVES OF COST ACCOUNTING:

Cost accounting was born to fulfill the needs of manufacturing companies. It is a mechanism of accounting through which costs of goods or services are ascertained and controlled for different purposes. It helps to ascertain the true cost of every operation, through a close watch, say, cost analysis and allocation. The main objectives of cost accounting are as follows:-

1. Cost Ascertainment
2. Cost Control
3. Cost Reduction
4. Fixation of Selling Price
5. Providing information for framing business policy.

1. Cost Ascertainment:

The main objective of cost accounting is to find out the cost of product, process, job, contract, service or any unit of production. It is done through various methods and techniques.

2. Cost Control:

The very basic function of cost accounting is to control costs. Comparison of actual cost with standards reveals the discrepancies (Variances). The variances reveal whether cost is within control or not. Remedial actions are suggested to control the costs which are not within control.

3.Cost Reduction:

Cost reduction refers to the real and permanent reduction in the unit cost of goods manufactured or services rendered without affecting the use intended. It can be done with the help of techniques called budgetary control, standard costing, material control, labour control and overheads control.

4.Fixation of Selling Price:

The price of any product consists of total cost and the margin required. Cost data are useful in the determination of selling price or quotations. It provides detailed information regarding various components of cost. It also provides information in terms of fixed cost and variable costs, so that the extent of price reduction can be decided.

5. Framing business policy:

Cost accounting helps management in formulating business policy and decision making. Break even analysis, cost volume profit relationships, differential costing, etc are helpful in taking decisions regarding key areas of the business like-

a. Continuation or discontinuation of production
b. Utilization of capacity
c. The most profitable sales mix
d. Key factor
e. Export decision
f. Make or buy
g. Activity planning, etc.

NATURE AND SCOPE OF COST ACCOUNTING:

Cost accounting is concerned with ascertainment and control of costs. The information provided by cost accounting to the management is helpful for cost control and cost reduction through functions of planning, decision making and control. Initially, cost accounting confined itself to cost ascertainment and presentation of the same mainly to find out product cost. With the introduction of large scale production, the scope of cost accounting was widened and providing information for cost control and cost reduction has assumed equal significance along with finding out cost of production. To start with cost accounting was applied in manufacturing activities but now it is applied in service organizations, government organizations, local authorities, agricultural farms, extractive industries and so on.

Cost accounting guides for ascertainment of cost of production. Cost accounting discloses profitable and unprofitable activities. It helps management to eliminate the unprofitable activities. It provides information for estimate and tenders. It discloses the losses occurring in the form of idle time spoilage or scrap etc. It also provides a perpetual inventory system. It helps to make effective control over inventory and for preparation of interim financial statements. It helps in controlling the cost of production with the help of budgetary control and standard costing. Cost accounting provides data for future production policies. It discloses the relative efficiencies of different workers and for fixation of wages to workers.

LIMITATIONS OF COST ACCOUNTING:

i) **It is based on estimation:** as cost accounting relies heavily on predetermined data, it is not reliable.

ii) **No uniform procedure in cost accounting:** as there is no uniform procedure, with the same information different results may be arrived by different cost accounts.

iii) **Large number of conventions and estimate:** There are number of conventions and estimates in preparing cost records such as materials are issued on an average (or) standard price, overheads are charged on percentage basis, Therefore, the profits arrived from the cost records are not true.

iv) **Formalities are more:** Many formalities are to be observed to obtain the benefit of cost accounting. Therefore, it is not applicable to small and medium firms.

v) **Expensive:** Cost accounting is expensive and requires reconciliation with financial records.

vi) **It is unnecessary:** Cost accounting is of recent origin and an enterprise can survive even without cost accounting.

vii) **Secondary data:** Cost accounting depends on financial statements for a lot of information. Any errors or short comings in that information creep into cost accounts also.

MANAGEMENT ACCOUNTING

Management accounting is not a specific system of accounting. It could be any form of accounting which enables a business to be conducted more effectively and efficiently. It is largely concerned with providing economic information to mangers for achieving organizational goals. It is an extension of the horizon of cost accounting towards newer areas of management. Much management accounting information is financial in nature but has been organized in a manner relating directly to the decision on hand.

Management Accounting is comprised of two words ”Management and ”Accounting. It means the study of managerial aspect of accounting. The emphasis of management accounting is to redesign accounting in such a way that it is helpful to the management in formation of policy, control of execution and appreciation of effectiveness.

Management accounting is of recent origin. This was first used in 1950 by a team of accountants visiting U. S. A under the auspices of Anglo-American Council on Productivity

Definition:

Anglo-American Council on Productivity defines Management Accounting as, “the presentation of accounting information in such a way as to assist management to the creation of policy and the day to day operation of an undertaking”

The American Accounting Association defines Management Accounting as “the methods and concepts necessary for effective planning for choosing among alternative business actions and for control through the evaluation and interpretation of performances”.

The Institute of Chartered Accountants of India defines Management Accounting as follows: “Such of its techniques and procedures by which accounting mainly seeks to aid the management collectively has come to be known as management accounting”

From these definitions, it is very clear that financial data is recorded, analyzed and presented to the management in such a way that it becomes useful and helpful in planning and running business operations more systematically.

OBJECTIVES OF MANAGEMENT ACCOUNTING:

The fundamental objective of management accounting is to enable the management to maximize profits or minimize losses. The evolution of management accounting has given a new approach to the function of accounting. The main objectives of management accounting are as follows:

1. **Planning and policy formulation:**

Planning involves forecasting on the basis of available information, setting goals; framing polices determining the alternative courses of action and deciding on the programme of activities. Management accounting can help greatly in this direction. It facilitates the preparation of statements in the light of past results and gives estimation for the future.

2. **Interpretation process:**

Management accounting is to present financial information to the management. Financial information is technical in nature. Therefore, it must be presented in such a way that it is easily understood. It presents accounting information with the help of statistical devices like charts, diagrams, graphs, etc.

3. **Assists in Decision-making process:**

With the help of various modern techniques management accounting makes decision-making process more scientific. Data relating to cost, price, profit and savings for each of the available alternatives are collected and analyzed and provides a base for taking sound decisions.

4. **Controlling:**

Management accounting is a useful for managerial control. Management accounting tools like standard costing and budgetary control are helpful in controlling performance. Cost control is affected through the use of standard costing and departmental control is made possible through the use of budgets. Performance of each and every individual is controlled with the help of management accounting.

5. **Reporting:**

Management accounting keeps the management fully informed about the latest position of the concern through reporting. It helps management to take proper and quick decisions. The performance of various departments is regularly reported to the top management.

6. Facilitates Organizing:

Since management accounting stresses more on Responsibility Centres with a view to control costs and responsibilities, it also facilitates decentralization to a greater extent. Thus, it is helpful in setting up effective and efficiently organization framework.

7. Facilitates Coordination of Operations:

Management accounting provides tools for overall control and coordination of business operations. Budgets are important means of coordination.

NATURE AND SCOPE OF MANAGEMENT ACCOUNTING:

Management accounting involves furnishing of accounting data to the management for basing its decisions. It helps in improving efficiency and achieving the organizational goals. The following paragraphs discuss about the nature of management accounting.

1.Provides accounting information:

Management accounting is based on accounting information. Management accounting is a service function and it provides necessary information to different levels of management. Management accounting involves the presentation of information in a way it suits managerial needs. The accounting data collected by accounting department is used for reviewing various policy decisions.

2.Cause and effect analysis.

The role of financial accounting is limited to find out the ultimate result, i.e., profit and loss; management accounting goes a step further. Management accounting discusses the cause and effect relationship. The reasons for the loss are probed and the factors directly influencing the profitability are also studied. Profits are compared to sales, different expenditures, current assets, interest payables, share capital, etc.

3. **Use of special techniques and concepts.**

Management accounting uses special techniques and concepts according to necessity to make accounting data more useful. The techniques usually used include financial planning and analyses, standard costing, budgetary control, marginal costing, project appraisal, control accounting, etc.

4. Taking important decisions.

It supplies necessary information to the management which may be useful for its decisions. The historical data is studied to see its possible impact on future decisions. The implications of various decisions are also taken into account.

5. Achieving of objectives.

Management accounting uses the accounting information in such a way that it helps in formatting plans and setting up objectives. Comparing actual performance with targeted figures will give an idea to the management about the performance of various departments. When there are deviations, corrective measures can be taken at once with the help of budgetary control and standard costing.

6. No fixed norms.

No specific rules are followed in management accounting as that of financial accounting. Though the tools are the same, their use differs from concern to concern. The deriving of conclusions also depends upon the intelligence of the management accountant. The presentation will be in the way which suits the concern most.

7. Increase in efficiency.

The purpose of using accounting information is to increase efficiency of the concern. The performance appraisal will enable the management to pin-point efficient and inefficient spots. Effort is made to take corrective measures so that efficiency is improved. The constant review will make the staff cost – conscious.

8. **Supplies information and not decision.**

Management accountant is only to guide and not to supply decisions. The data is to be used by the management for taking various decisions. "How the data to be utilized is will depend upon the caliber and efficiency of the management.

9. Concerned with forecasting.

The management accounting is concerned with the future. It helps the management in planning and forecasting. The historical information is used to plan future course of action. The information is supplied with the object to guide management for taking future decisions.

LIMITATIONS OF MANAGEMENT ACCOUNTING:

Management Accounting is in the process of development. Hence, it suffers form all the limitations of a new discipline. Some of these limitations are:

1. Limitations of Accounting Records:

Management accounting derives its information from financial accounting, cost accounting and other records. It is concerned with the rearrangement or modification of data. The correctness or otherwise of the management accounting depends upon the correctness of these basic records. The limitations of these records are also the limitations of management accounting.

2. It is only a Tool:

Management accounting is not an alternate or substitute for management. It is a mere tool for management. Ultimate decisions are being taken by management and not by management accounting.

3. Heavy Cost of Installation:

The installation of management accounting system needs a very elaborate organization. This results in heavy investment which can be afforded only by big concerns.

4.Personal Bias:

The interpretation of financial information depends upon the capacity of interpreter as one has to make a personal judgment. Personal prejudices and bias affect the objectivity of decisions.

5.Psychological Resistance:

The installation of management accounting involves basic change in organization set up. New rules and regulations are also required to be framed which affect a number of personnel and hence there is a possibility of resistance form some or the other.

6.Evolutionary stage:

Management accounting is only in a developmental stage. Its concepts and conventions are not as exact and established as that of other branches of accounting. Therefore, its results depend to a very great extent upon the intelligent interpretation of the data of managerial use.

7.Provides only Data:

Management accounting provides data and not decisions. It only informs, not prescribes. This limitation should also be kept in mind while using the techniques of management accounting.

8.Broad-based Scope:

The scope of management accounting is wide and this creates many difficulties in the implementations process. Management requires information from both accounting as well as non-accounting sources. It leads to inexactness and subjectivity in the conclusion obtained through it.

MANAGEMENT ACCOUNTANT

Management Accountant is an officer who is entrusted with Management Accounting function of an organization. He plays a significant role in the decision making process of an organization. The organizational position of Management Accountant varies form concern to concern depending upon the pattern of management system. He may be an executive in some concern, while a member of Board of Directors in case of some other concern. However, he occupies a key position in the organization.

In large concerns, he is responsible for the installation, development and efficient functioning of the management accounting system. He designs the frame work of the financial and cost control reports that provide with the most useful data at the most appropriate time. The Management Accountant sometimes described as Chief Intelligence Officer because apart form top management, no one in the organization perhaps knows more about various functions of the organization than him. Tandon has explained the position of Management Accountant as follows:

"The management accountant is exactly like the spokes in a wheel, connecting the rim of the wheel and the hub receiving the information. He processes the information and then returns the processed information back to where it came from".

Role of Management Accountant

Management Accountant, otherwise called Controller, is considered to be a part of the management team since he has the responsibility for collecting vital information, both from within and outside the company. The functions of the controller have been laid down by the Controller Institute of America. These functions are:

1. To establish, coordinate and ad minister, as an integral part of management, an adequate plan for the control of operations. Such a plan would provide, to the extent required in the business cost standards, expense budgets, sales forecasts, profit planning, and programme for capital investment and financing, together with necessary procedures to effectuate the plan.
2. To compare performance with operating plan and standards and to report and interpret the results of operation to all levels of management, and to the owners of the business. This function includes the formulation and ad ministration of accounting policy and the compilations of statistical records and special reposts as required.
3. To consult withal segments of management responsible for policy or action conserving

any phase of the operations of business as it relates to the attainment of objective, and the effectiveness of policies, organization strictures, procedures.

4. To administer tax policies and procedures.
5. To supervise and coordinate preparation of reports to Government agencies.
6. The assured fiscal protection for the assets of the business through adequate internal; control and proper insurance coverage.
7. To continuously appraise economic and social forces and government influences, and interpret their effect upon business.

Duties and Responsibilities of Management Accountant

The primary duty of Management Accountant is to help management in taking correct policy-decisions and improving the efficiency of operations. He performs a staff function and also has line authority over the accountants. If management accountant feels that a decision likely to be taken by the management based on the information tendered by him shall be detrimental to the interest of the concern, he should point out this fact to the concerned management, of course, with tact, patience, firmness and politeness. On the other hand, if the decision taken happens to be wrong one on account t of inaccuracy, biased and fabricated data furnished by the management accountant, he shall be held responsible for wrong decision taken by the management.

Controllers Institute of America has defined the following duties of Management Accountant or controller:

1. The installation and interpretation of all accounting records of the corporative.
2. The preparation and interpretation of the financial statements and reports of the corporation.
3. Continuous audit of all accounts and records of the corporation wherever located.
4. The compilation of costs of distribution.
5. The compilation of production costs.

6. The taking and costing of all physical inventories.
7. The preparation and filing of tax returns and to the supervision of all matters relating to taxes.
8. The preparation and interpretation of all statistical records and reports of the corporation.
9. The preparation as budget director, in conjunction with other officers and department heads, of an annual budget covering all activities of the corporation of submission to the Board of Directors prior to the beginning of the fiscal year. The authority of the Controller, with respect to the veto of commitments of expenditures not authorized by the budget shall, from time to time, be fixed by the board of Directors.
10. The ascertainment currently that the properties of the corporation are properly and adequately insured.
11. The initiation, preparation and issuance of standard practices relating to all accounting, matters and procedures and the co-ordination of system throughout the corporation including clerical and office methods, records, reports and procedures.
12. The maintenance of adequate records of authorized appropriations and the determination that all sums expended pursuant there into are properly accounted for.
13. The ascertainment currently that financial transactions covered by minutes of the Board of Directors and/ or the Executive committee are properly executed and recorded.
14. The maintenance of adequate records of all contracts and leases.
15. The approval for payment(and / or countersigning) of all cheques, promissory notes and other negotiable instruments of the corporation which have been signed by the treasurer or such other officers as shall have been authorized by the by=laws of the corporation or form time to time designated by the Board of Directors.
16. The examination of all warrants for the withdrawal of securities from the vaults of the corporation and the determination that such withdrawals are made in conformity with the by-laws and /or regulations established from time by the Board of Directors.
17. The preparation or approval of the regulations or standard practices, required to assure compliance with orders of regulations issued by duly constituted governmental agencies.

POSSIBLE QUESTIONS

Part - B

1. What is management accounting? What are its advantages
2. Define Management Accounting. State any six functions of Management Accounting.
3. Explain Scope of management accounting
4. What are the objectives of Management Accounting
5. What is management accounting? How is it different from Financial Accounting?
6. Distinguish between Management Accounting and cost Accounting
7. Explain The Tools of Management Accounting.
8. Discuss the various steps required for installing management accounting system.
9. What are the roles of Management Accountant?

S.NO	QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
1	The chief objective of management accounting is to serve.	Public at large	Employees	Management	Government	Management
2	The term management accounting was first coined by the British team of accountants that visited the.	USA	China	India	Japan	USA
3	Management accounting involves	Recording of costs	Recording of transaction	Preparation of accounts	Analysis and interpretation of data	Analysis and interpretation of data
4	Management accounting is also known as	Cost accounting	Financial accounting	Corporate accounting	Decision accounting.	Decision accounting.
5	Management accounting functions are	Complementary in nature	Contradictory nature	Neutral in effect	None of the above	Complementary in nature
6	Management accounting provides valuable services to management in performing.	Planning functions	Controlling functions	Co-ordinating functions	All managerial functions.	All managerial functions.
7	Management accounting is	An extension of financial accounting.	An extension of cost accounting.	A blend of these two and of financial management.	all the above	An extension of financial accounting.
8	Management accounting is concerned with formulation of _______ to meet enterprise objectives.	Plans	Cost	Both a and b	decision	Plans
9	Installation of management accounting is purely.	Compulsory	Optional	Both a and b	not necessary	Optional
10	The term of appointment of financial controller may be fixed by the	Board of Directors	Articles of association	Both a and b	Prospectus	Both a and b
11	Financial accounting deals with	Determination of costs	Determination of profits	Determination of prices	Determination of Expenses	Determination of profits
12	The term management accountancy was first used in	1910	1939	1950	1970	1950

13	Preparation of financial accounts is compulsory for	Sole trader business	Partnership firm	Join stock companies	Hindu Undivided Family	Join stock companies
14	A financial statement is outcome of ______ accounting	Cost	Management	Financial	Accounting	Financial
15	Provision of accounting information is known as	Reporting	Budgeting	Planning	Controlling	Reporting
16	______is the oldest branch of accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting.	Financial accounting
17	Management accounting also comprises the preparation of financial reports for non-management groups such as	Share holders	Creditors	Tax authorities	All of the above	All of the above
18	Information conveyed by the management accountant to the different levels of management groups should be.	Reliable	Valuable to the recipient	Relevant	All of the above	All of the above
19	Management accounting and cost accounting are	Supplementary to each other	Complementary to each other	Independent to each other	Opposite to each other	Complementary to each other
20	____ is also known as Management oriented accounting.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management accounting
21	_____Is concerned with accounting information which is useful to management in maximizing profits or minimizing losses.	Management accounting	Cost accounting	Financial accounting	Corporate accounting	Management accounting
22	_______Is concern with future.	Forecasting	Supply information	Increase in efficiency	Planning	Forecasting
23	_______ Provides information to the management and not decisions.	Forecasting	Supply information	Increase in efficiency	Receiving Information	Supply information
24	_____Is basically concerned with “the problem of choice”.	Forecasting	Supply information	Increase in efficiency	Receiving Information	Increase in efficiency
25	_____To makes accounting data more useful.	Techniques and concepts	Cause and effect analysis	No fixed norms	Assists management	Techniques and concepts

26	_____ Attempts to examine the 'cause' and 'effect' of different variables.	Techniques and concepts	Cause and effect analysis	No fixed norms	Assist management	Cause and effect analysis
27	_____ has no set of rules and formats like double entry system of book keeping.	Techniques and concepts	Cause and effect analysis	No fixed norms	Assist management.	No fixed norms
28	_____ in several ways in its functions but does not replace it.	Cause and effect analysis	No fixed norms	Assist management	Achieving of objectives	Assist management
29	______ is the general accounting which relates to the recording of business transactions in the books of business transactions in the books of prime entry.	Financial accounting	Cost accounting	Management accounting	Budgeting.	Financial accounting
30	_____is the process and techniques of ascertaining costs.	Management accounting	Financial accounting	Cost accounting	Budgeting	Cost accounting
31	_____ Means expressing the plans, policies and goals of the enterprise for a definite period in future.	Budgeting	Forecasting	Statistical methods	Inventory control	Budgeting
32	-------------- tools such as graphs, charts, diagrams, pictorial presentation, index number etc…	Budgeting	Forecasting	statistical	inventory control	statistical
33	------------- on the other hand, is a predication of what will happen, as a result of a given set of circumstances.	Budgeting	Forecasting	Statistical	Inventory control	Forecasting
34	----------------- Includes control over inventory from the time it is acquired till its final disposal	Budgeting	Forecasting	Statistical	Inventory control	Inventory control
35	--------------- is important part of management accounting	Budgeting	Statistical	Inventory control	Interpretation of data	Interpretation of data
36	---------------------May be sent monthly quarterly half yearly etc.	Report	Internal audit	Tax accounting	Methods and procedure	Report
37	--------------- Needs devising a system of internal control by establishing internal	Report	Internal audit	Tax accounting report	Methods and procedure	Internal audit

	audit coverage for all operating units					
38	------------------includes the computation of taxable income as per tax law filling of returns etc….	Report	Internal audit	Tax accounting report	Internal audit	Tax accounting report
39	-----------------provides statistical data to the various departments of the organization	Report	Internal audit	Tax accounting	Methods and procedure	Methods and procedure
40	The primary objective of----------------- is to enable the management to maximize or minimize losses	Cost accounting	financial accounting	management accounting	Corporate Accounting	management accounting
41	----------------------- is one of the primary function s of management	Planning	budgeting	Forecasting	Controlling	Planning
42	The main objective of management accounting is to present--------------------information to the management	Cost	Financial	Management	Accounting	Financial
43	Management accounting makes------------------ process more modern and scientific by providing significant information relating to various alternatives in terms of cost and revenue	Forecasting	Planning	Decision making	Budgeting	Decision making
44	Management accounting is a useful advice of managerial --------------------	Planning	Control	Motivation	Forecasting	Control
45	-------------------- Presents the different alternative plans before the management in a comparative manner	Reporting	Motivating	Controlling	Forecasting	Reporting
46	----------------- Increases the job satisfaction of employees and encourage them to look forward	Delegation	Motivation	Report	Directing	Delegation
47	----------------provides tools which are helpful in co ordination the activities of	Planning	Forecasting	co- ordination	Budgeting	co- ordination

	different section or department					
48	Increase the effectives of the organization and -------------------the workers	Delegation	Motivation	Report	Directing	Motivation
49	Return on capital employed is one of the tools of -------------	Financial accounting	Cost accounting	Corporate accounting	Management accounting	Management accounting
50	Budget are important means of -----------------	Motivation	Delegation	co- ordination	Directing	co- ordination
51	---------------- is a part of accounting	Management accounting	Financial accounting	cost accounting	corporate accounting	Management accounting
52	The-------------- in similar groups make the data more useful and understandable	Modification of data	Planning and forecasting	Financial analysis and interpretation	Communication	Modification of data
53	-------------- are essential for achieving business objectives	Modification of data	Planning and forecasting	Communication	Decision Making	Planning and forecasting
54	The ____ is most important function of management accounting.	Motivation	Delegation	Co-ordination	Interpretation	Interpretation
55	_____ of data are considered as back bone of management accounting.	modification of data	analysis and interpretation	communication	co-ordination	analysis and interpretation
56	Management accounting is an important medium of ______	Motivation	Co-ordination	Communication	Delegation	Communication
57	Mere financial data and its analysis and interpretation are not sufficient for purposes	Planning	Forecasting	Controlling	Decision-making	Decision-making
58	_____ supplies analytical information regarding various alternatives and the choice of management is made easy.	financial accounting	management accounting	cost accounting	corporate accounting	management accounting
59	____ is the essence of managerial activity.	Co-ordination	Control	Motivation	Decision making	Co-ordination
60	_______ has more or less become compulsory or statutory for every business.	financial accounting	cost accounting	management accounting	none of the above	financial accounting

UNIT – II

SYLLABUS

Preparation of Financial Statement by applying Ratio analysis – Turnover ratio – Profitability ratio – Solvency ratios – Fund flow statement and Cash flow statement with AS 3.

MEANING AND TYPES OF FINANCIAL STATEMENTS

A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an Income Statement.

Thus, the term 'financial statements' generally refers to two basic statements: *(i)* the Income Statement and (ii) the Balance Sheet. A business may also prepare (iii) a Statement of Retained Earnings, and (iv) a Statement of Changes in Financial Position in addition to the above two statements.

The meaning and significance of each of these statements is being explained below:

1.Income Statement

The Income statement (also termed as Profit and Loss Account) is generally considered to be the most useful of all financial statements. It explains what has happened to a business as a result of operations between two balance sheet dates. For this purpose it matches the revenues and costs incurred in the process of earning revenues and shows the net profit earned or less suffered during a particular period.

The nature of the 'Income' which is the focus of the Income Statement can be well understood if a business is taken as an organization that uses 'inputs' to 'produce' output. The outputs are the goods and services that the business provides to its customers. The values of these outputs are the amounts paid by the customers for them. These amounts are called 'revenues' in accounting. The inputs are the economic resources used by the business in providing these goods and services. These are termed as 'expenses' in accounting.

2. Balance Sheet

It is a statement of financial position of a business at a specified moment of time. It represents all assets owned by the business at a particular moment of time and the claims of the owners at outsiders against those assets at that time. It is in a way a snapshot of the financial condition of the business at that time.

The important distinction between an income statement and a Balance Sheet is that the Income Statement is for a period while Balance Sheet is on a particular date. Income Statement is, therefore, a flow report, as contrasted with the Balance Sheet which is a static report. However both are complementary to each other.

3. Statement of Retained Earnings

The term retained earnings means the accumulated excess of earnings over losses and dividends. The balance shown by the Income Statement is transferred to the Balance Sheet through this statement, after making necessary appropriations. It is thus a connecting link between the Balance Sheet and the Income Statement. It is fundamentally a display of things that have caused the beginning of the period retained earnings balance to be changed into the one shown in the end- of the period balance sheet. The statement is also termed as Profit and Loss Appropriation Account in case of companies.

4. Statement of Changes in Financial Position (SCFP)

The Balance Sheet shows the financial condition of the business at a particular moment of time while the Income Statement discloses the result s of operations of business over a period of time. However, for a better understanding of the affairs of the business, it is essential to identify the movement of working capital or cash in and out of the business. This information is available in the statement of changes in financial position of the business. The statement may emphasize any of the following aspects relating to change in financial position of the business:

i. **Change in working capital position**. In such a case the statement is termed as SCFP (Working Capital basis) or popularly Funds Flow Statement.

ii. **Change in cash position.** In such a case the statement is termed as SCFP (Cash basis) or popularly Cash Flow Statement.

iii. **Change in overall financial position.** In such a case the statement is termed simply as Statement of Changes in Financial Position (SCFP).

ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS

Financial Statements are indicators of the two significant factors:

i. Profitability, and

ii. Financial soundness

Analysis and interpretation of financial statements, therefore, refers to such a treatment of the information contained in the Income Statement and the Balance Sheet so as to afford full diagnosis of the profitability and financial soundness of the business. .

A distinction here can be made between the two terms - 'Analysis' and interpretation". The term' Analysis' means methodical classification of the data given in the financial statements. The figures given in the financial statements will not help one unless they are put in a simplified form. For example, all items relating to 'Current It Assets' are put at one place while all items relating to 'Current Liabilities' are put at another place. The term 'Interpretation' means explaining the meaning and significance of the data so simplified. However, both' Analysis' and 'Interpretation' are complementary to each other. Interpretation requires Analysis, while Analysis is useless without Interpretation. Most of the authors have used the term' Analysis' only to cover the meanings of both analysis and interpretation, since analysis involves interpretation. According to Myres, "Financial statement analysis is largely a study of the relationship among the various financial factors in a business as disclosed by a single set of statements and a study of the trend of these factors as shown in a series of statements." For the sake of convenience, we have also used the term 'Financial Statement Analysis' throughout the chapter to cover both analysis and interpretation. '

TYPES OF FINANCIAL ANALYSIS

Financial Analysis can be classified into different categories depending upon *(i)* the material used, and *(ii)* the *modus operandi* of analysis.

1. On the Basis of Material Used

According to this basis, financial analysis can be of two types:

(i) External Analysis.

This analysis is done by those who are outsiders for the business. The term outsiders include investors, credit agencies, government agencies and other creditors who have no access to the internal records of the company. These persons mainly depend upon the published financial statements. Their analysis serves only a limited purpose. The position of, these analysts has improved in recent times on account of increased governmental control over companies and governmental regulations requiring more detailed disclosure of information by the companies in their financial statements.

(ii) Internal Analysis.

This analysis is done by persons who have access to the books of account and other information related to the business. Such an analysis can, therefore, be done by executives and employees of the organization or by officers appointed for this purpose by the

Government or the Court under powers vested in them. The analysis is done depending upon the objective to be achieved through this analysis.

2. On the basis of modus operandi

According to this, financial analysis can also be of two types:

(i) Horizontal Analysis. In case of this type of analysis, financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with the standard or base year. The analysis statement usually contains figures for two or more years and the changes are shown regarding each item from the base year usually in the fom1 of percentage. Such an analysis gives the management considerable insight into levels and areas of strength and weakness. Since this type of analysis is based on the data from year to year rather than on one date, it is also tern as 'Dynamic Analysis'.

(iii) Vertical Analysis. In case of this type of analysis a study is made of the quantitative relationship of the various items in the financial Statements on a particular date. For example, the ratios of different items of costs for a particular period may be calculated with the sales for that period. Such an analysis is useful in comparing the performance of several companies in the same group', or divisions or department in the same company. Since this analysis depends on the data for one period, this is not very conducive to a proper analysis of the company's financial position. It is also called 'Static Analysis' as it is frequently used for referring to ratios developed on one date or for one accounting period.

It is to be noted that both analyses-vertical and horizontal-can be done simultaneously also. For example, the Income Statement of a company for several years may be given. Horizontally it may show the change in different elements of cost and sales over a number of years. On the other hand, vertically it may show the percentage of each element of cost to sales.

STEPS INVOLVED IN FINANCIAL STATEMENTS ANALYSIS

The analysis of the financial statements requires:

(i) Methodical classification of the data given in the financial statements. (ii) Comparison of the various inter-connected figures with each other by different 'Tools of Financial Analysis'. .

Each of the above steps has been explained in the following pages.

Methodical Classification

In order to have a meaningful analysis it is necessary that figures should be arranged properly. Usually instead the two-column (T form) statements, as ordinarily prepared the statements are prepared in single (vertical) column form "which should throw up significant figures by adding or subtracting". This also facilitates showing the figure of a number of firms or number of years side by side for comparison purposes.

TECHNIQUES OF FINANCIAL ANALYSIS

A financial analyst can adopt one or more of the following techniques/tools of financial analysis:

1. Comparative Financial Statements

Comparative financial statements are those statements which have been designed in a way so as to provide time perspective to the consideration of various elements of financial position embodied in such statements. In these statements figures for two or more periods are placed side by side to facilitate comparison.

Both the Income Statement and Balance Sheet can be prepared in the form of Comparative Financial Statements.

(i) Comparative Income Statement.

The Income Statement discloses Net Profit or Net Loss on account of operations. A Comparative Income Statement will show the absolute figures for two or more periods, the absolute change from one period to another and, if desired, the change in terms of percentages. Since the figures for two or more periods are shown side by side, the reader can quickly ascertain whether sales have increased or decreased, whether cost of sales has increased or decreased, etc. Thus, only a reading of data included in Comparative Income Statements will be helpful in deriving meaningful conclusions.

(ii) Comparative Balance Sheet.

Comparative Balance Sheet as on two or more different dates can be used for comparing assets and liabilities and finding out any increase or decrease in those items. Thus; while in a single Balance Sheet the emphasis is on present position, it is on change in the comparative Balance Sheet. Such a Balance Sheet is very useful in studying the trends in an enterprise.

Comparative Financial Statements can be prepared for more than two periods or more than two dates. However, it becomes very cumbersome to study the trend with more than two period‟s data. Trend percentages are more useful in such cases.

The American Institute of Certified Public Accountants has explained the utility of repairing the Comparative Financial Statements as follows:

The presentation of comparative financial statements is annual and other reports enhances the usefulness of such reports and brings out more clearly the nature and trend of rent changes affecting the enterprise. Such presentation emphasizes the fact that statement for a series of periods is far more significant than those of a single period and that the accounts of one period are but an installment of what is essentially a continuous history. In anyone year, it is ordinarily desired that the Balance Sheet, the Income Statement and the Surplus Statement be given for one or more preceding years as well as for the current year."

The utility of preparing the Comparative Financial Statements has also been realized in our country. The Companies Act, 1956, provides that companies should give figures for different items for the previous period, together with Current period figures in their Profit and loss Account and Balance Sheet.

2. Common-size Financial Statements

Common-size Financial Statements are those in which figures reported are converted into percentages to some common base. In the Income Statement the sale figure is assumed to be 100 and all figures are expressed as a percentage of this total.

Comparative Utility of Common-size Financial Statements: The comparative common size financial statements show the percentage of each item to the total in each period but not variations in respective items from period to period. In other words common-size financial statements when read horizontally do not give information about the trend of individual items but the trend of their relationship to total. Observation of these trends is not very useful because there are no definite norms for the proportion of each item to total. For example, if it is established that inventory should be 30% of total assets, the computation of various ratios to total assets would be very useful. But since there are no such established standard proportions, calculation of percentages of different items of assets or liabilities to total assets or total liabilities is not of much use. On account of this reason common size financial statements are not much useful for financial analysis. However, common-size financial statements are useful for studying the comparative financial position of two or more businesses. However, to make such comparison really meaningful, it is necessary that the financial Instatements of all such companies should be prepared on the same pattern, *e.g.,* all the companies should be more or less of the same age, they should be following the same accounting practices, the method of depreciation on fixed assets should be the same.

3. Trend Percentages

Trend percentages are immensely helpful in making a comparative study of the financial statements for several years. The method of calculating trend percentages involves the calculation of percentage relationship that each item bears to the same item in the base year. Any year may be taken as the base year. It is usually the earliest year. Any intervening year may also be taken as the base year. Each item of base year taken as 100 and on that basis the percentages for each of the items of each of the *fears* is calculated. These percentages can also be taken as Index Numbers showing relative changes in the financial data resulting with the passage of time.

4. Funds Flow Analysis

Funds flow analysis has become an important tool in the analytical kit of financial analysts, credit granting institutions and financial managers. This is because the Balance Sheet of a business reveals its financial status at a particular point of time. It does not sharply focus those major financial transactions which have been behind the Balance Sheet changes. For example, if a loan of Rs.2,00,000 was raised and pail during the accounting year, the balance sheet will not depict this transaction However, a financial analyst must know the purpose for Which the loan was utilized and the source from which it was obtained. This will help him in making a better estimate about the company's financial position and policies.

5. Cost-Volume-Profit Analysis

Cost-Volume-Profit Analysis is an important tool of profit planning. It studies the relationship between cost, volume of production, sales and profit. Of course, it is not strictly a technique used for analysis of financial statements. However, it is an important tool for the management for decision-making since the data is provided by both cost and financial records. It tells the volume of sales at which firm will break-even, the effect on profit on 'account of variation in output, selling price and cost, and finally, the quantity to be produced and sold to reach the, target profit level.

6. Ratio Analysis

This is the most important tool available to financial analysts for their work. An accounting ratio shows the relationship in mathematical terms between two interrelated accounting figures. The figures have to be interrelated *(e.g.,* Gross Profit and Sales, Current Assets and Current Liabilities), because no useful purpose will be served if ratios are calculated between two figures which are not at all related to each other, *e.g.,* sales and discount on issue of debentures.

LIMITATIONS OF FINANCIAL ANALYSIS

Financial analysis is a powerful mechanism which helps in ascertaining the strengths and nesses in the operations and financial position of an enterprise. However, this analysis is subject to certain limitations. Most of these limitations are because of the limitations of the financial statements themselves. These limitations are as follows:

1. Financial Analysis is only a Means

Financial analysis is a means to an end and not the end itself. The analysis should be used as a starting point and the conclusion should be drawn not in isolation, but keeping view the overall picture and the prevailing economic and political situation.

2. Ignores Price Level Changes

Financial statements are normally prepared on the concept of historical costs. They do not reflect values in terms of current costs. Thus, the financial analysis based on such financial statements or accounting figures would not portray the effects of price level changes over the period.

3. Financial Statements are Essentially Interim Reports

The profit shown by Profit and Loss Account and the financial position as depicted by the Balance Sheet is not exact. The exact position can be known only when the business is closed down. Again, the existence of contingent liabilities and deferred revenue expenditure make them more imprecise.

4. Accounting Concepts and Conventions

Financial statements are prepared on the basis of certain accounting concept and conventions. On account of this reason the financial position as disclosed by statements may not be realistic. For' example, fixed assets in the balance sheet, shown on the basis of going concern concept. This means that value placed on& assets may not be the same which may be realized on their sale. On account convention of conservatism the income statement may not disclose true income of the business since probable losses are considered while probable incomes are ignored.

5. Influence of Personal Judgment

Many items are left to the personal judgment of the accountant. For example, the method of depreciation, mode of amortization of fixed assets, treatment of deferred revenue expenditure - all depend on the personal judgment of the accountant. The soundness of such judgment will necessarily depend upon his competence and integrity. However convention of consistency acts as a controlling factor on making indiscreet personal judgments.

6. Disclose only Monetary Facts

Financial statements do not depict those facts which cannot be expressed in terms of money. For example, development of a team of loyal and efficient workers, enlightened management, the reputation and prestige of management with the public are matters which are of considerable importance for the business, but they are nowhere depicted by financial statements.

RATIO ANALYSIS

Ratio Analysis is a very important tool of financial analysis. It is the process of establishing a significant relationship between the items of financial statements to provide a meaningful understanding of the performance and financial position of a firm.

In view of the requirements of various users (e.g., Short-term Creditors, Long- term Creditors, Management, Investors) of the ratios, one may classify the ratios into the following four groups:

Liquidity Ratios, Solvency Ratios, Activity Ratios and Profitability Ratios

Liquidity Ratios

These ratios measure the concern's ability to meet short-term obligations as and when they become due. These ratios show the short-term financial solvency of the concern. Usually the following two ratios are calculated for this purpose:

1. Current Ratio and 2. Quick Ratio

1. Current Ratio

(a) Meaning: This ratio establishes a relationship between current assets and current liabilities.

(b) Objective: The objective of computing this ratio is to measure the ability of the firm to meet its short-term obligations and to reflect the short-term financial strength / solvency of a firm. In other words, the objective is to measure the safety margin available for short-term creditors.

(c) Components: There are two components of this ratio which are a under:

(i) **Current Assets** which mean the assets which are held for their conversion into cash within a year and include the following:

(ii) **Current Liabilities** which mean the liabilities which are expected to be matured within a year and include the following:

Creditors for Goods

Creditors for Expenses

Bills Payable

Bank Overdraft

Short-term Loans and Advances

Income received-in-advance

Provision for Tax

Unclaimed dividend

d) Computation: This ratio is computed by dividing the current assets by the current liabilities. This ratio is usually expressed as a pure ratio e.g. 2 : I. In the form of a formula, this ratio may be expressed as under:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

(e) Interpretation: It indicates rupees of current assets available for each rupee of current liability, Higher the ratio, greater the margin of safety for sho rt-term creditors and vice-versa. However, too high / too low ratio calls for further investigation since the too high ratio may indicate the presence of idle funds with the firm or the absence of investment opportunities with the firm and too low ratio may indicate the over trading/under capitalization if the capital turnover ratio is high.

Traditionally, a current ratio of 2: 1 is considered to be a satisfactory ratio. On the basis of this traditional rule, if the current ratio is 2 or more, it means the firm is adequately liquid and has the ability to meet its current obligations but if the current ratio is less than 2, it means the firm has difficulty in meeting its current obligations. The logic behind this rule is that even if the value of current assets becomes half, the firm can still meet its short-term obligations.

However, the traditional standard of 2: I should not be used blindly since there may be firms having current ratio of less than 2, which are working efficiently and meeting their short-term obligations as and when they become due while the other firms having current ratio of more than 2, may not be able to meet their current obligations in time. This is so because the current ratio measures the quantity of current assets and not their quality. Current assets may consist of doubtful and slow paying debtors and slow moving and obsolete stock of goods. That is why, it can be said that current ratio is no doubt a quick measurement of a firm's liquidity but it is crude as well.

f) Precaution: While computing and using the current ratio, it must be ensured (a) that the quality of both receivables (debtors and bills receivable) and inventory has been carefully assessed and (b) that all current assets and current liabilities have been properly valued.

Example (iv): The Balance Sheet of Tulsian Ltd. as at 31 st March 19X1 is as under:

Equity Share Capital	1,00,000	Land & Building Plant & Machinery Furniture & Fixtures	6,00,000
18% Pref. Share capital	1,00,000		
			12,00,000
Reserves	60,000	Less: Depreciation	
			10,00,000
Profit & Loss A/c	2,40,000		
			1,00,000
15% Debentures Trade Creditors Bills Payable	8,00,000	Trade Investments (long-term) Stock	
			95,000
Outstanding Expenses Bank overdraft	40,000	Debtors 3,40,000	
Provision for Tax	30,000	Less: Provision 30,000	
			3,10,000
	20,000	Marketable Securities	
			10,000
		Cash	

Net Sales for the year 19XI-19X2 amounted to Rs. 20.00.000. Calculate Current Ratio.

Solution

Current Assets =Stock + Debtors - Provision on Debtors +Marketable Securities + Cash + B/R + Prepaid Expenses

= Rs. 95,000 + Rs. 3,40,000 - Rs. 30,000 + Rs. 10,000 + Rs. 10,000 + Rs. 10,000 + Rs. 5,000 = Rs. 4,40,000

Current Liabilities= Trade Creditors + B/P + O/s Exp + Bank O/D + Provision for Tax = Rs. 40,000 + Rs. 30,000 + Rs. 20,000 + Rs. 10,000 + Rs. 2,40,000

= Rs. 3,40,000

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{\text{Rs. 4,40,000}}{\text{Rs.3,40, 000}} = 22:17$$

2. Quick Ratio

(a) Meaning: This ratio establishes a: relationship between quick assets and current liabilities.

(b) Objective: The objective of computing this ratio is to measure the ability of the firm to meet its short-term obligations as and when due without relying upon the realization of stock.

(c) Components There are two components of this ratio which are as under:

(i) Quick assets: which mean those current assets which can be converted into cash immediately or at a short notice without a loss of value and include the following:

Cash Balances	Bank Balances
Marketable Securities	Debtors
Bills Receivable	Short-term Loans and Advances

(ii) Current liabilities: (as explained earlier in Current Ratio)

(d) Computation This ratio is computed by dividing the quick assets by the current liabilities. This ratio is usually expressed as a pure ratio e.g., 1: 1. In the form of a formula, this ratio may be expressed as under:

$$\text{Quick Ratio} = \frac{\text{Quick Assts}}{\text{Current Liabilities}}$$

(e) Interpretation: It indicates rupees of quick assets available for each rupee of current liability. Traditionally, a quick ratio of 1:1 is considered to be a satisfactory ratio. However, this traditional rule should not be used blindly since a firm having a quick ratio of more than 1, may not be meeting its short-term obligations in time if its current assets consist of doubtful and slow paying debtors while a firm having a quick ratio of less than 1, may be meeting its short-term obligations in time because of its very efficient inventory management.

(f) Precaution: While computing and using the quick ratio, it must be ensured, (a) that the quality of the receivables (debtors and bills receivable) has been carefully assessed and (b) that all quick assets and current liabilities have been properly valued.

Example (v): Current Assets Rs.2,00,000, Inventory Rs.40,000, Working Capital Rs.1, 20 000. Calculate the Quick Ratio.

Solution: Current Liabilities = Current Assets - Working Capital

= Rs. 2,00,000 - Rs. 1,20,000 = Rs. 80,000

Quick Assets = Current Assets - Inventory

= Rs. 2,00,000 - Rs. 40,000 = Rs. 1,60,000

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}} \quad \frac{\text{Rs.1,60,000}}{\text{Rs. 80000}} = 2:1$$

SOLVENCY RATIOS

These ratios show the long-term financial solvency and measure the enterprise's ability to pay the interest regularly and to repay the principal (i.e. capital amount) on maturity or in pre-determined installments at due dates. Usually, the following ratios are calculated to judge the long-term financial solvency of the concern.

Debt-Equity Ratio

(a) Meaning: This ratio establishes a relationship between long-term debts and share-holders' funds.

(b) Objective: The objective of computing this ratio is to measure the relative proportion of debt and equity in financing the assets of a firm.

(c) Components: There are two components of this ratio, which are as under:

(i) Long-term Debts, which mean long-term loans (whether secured or unsecured (e.g., Debentures, bonds, loans from financial institutions).

(ii) Shareholders' Funds which mean equity share capital plus preference share capital plus reserves and surplus minus fictitious assets (e.g., preliminary expenses).

(d) Computation: This ratio is computed by dividing the long-term debts by the shareholders' funds. This ratio is usually expressed as a pure ratio e.g., 2: 1. In the form of a formula, this ratio may be expressed as under:

$$\text{Debt-Equity Ratio} = \frac{\text{Long - term Debts}}{\text{Shareholders 'Funds}}$$

(e) Interpretation: It indicates the margin of safety to long-term creditors. A low debt equities ratio implies the use of more equity than debt which means a larger safety margin for creditors since owner's equity is treated as a margin of safety by creditors and vice versa.

Example (vi): Capital Employed Rs. 24,00,000, Long-term Debt Rs. 16,00,000

Calculate the Debt-Equity Ratio.

Solution: Shareholders' 'Funds = Capital Employed - Long-ter

= Rs. 24,00,000 - Rs. 16,00,000 = Rs. 8,00,000

$$\text{Debt-Equity Ratio} = \frac{\text{Long-term Debts}}{\text{Shareholders ' Funds}} = \frac{\text{Rs. 16,00,000}}{\text{Rs 8,00,00}} = 2:1$$

Example (vii): Capital Employed Rs. 8,00,000, Shareholders' Funds Rs. 2,00,000 Calculate the Debt Equity Ratio.

Solution: Long-term Debt = Capital Employed - Shareholders' Funds

= Rs. 8,00,000 - Rs. 2,00,000 = Rs. 6,00,000

$$\text{Debt equity Ratio} = \frac{\text{Long-term Debts}}{\text{Shareholders Funds}} = \frac{\text{- Rs. 6,00,000}}{\text{Rs. 2,00,000}} = 3:1$$

Debt Total Funds Ratio

This ratio is a variation of the debt-equity ratio and gives the similar indications as the debt-equity ratio. In this ratio, the outside long-term liabilities are related to the total capitalization of the firm and not merely to the shareholders' funds. This ratio is computed by dividing the long-term debt by the capital employed. In the form of a formula, this ratio may be expressed as under:

$$\text{Debt-Total Funds Ratio} = \frac{\text{Capital Employed}}{\text{long-term Debt}}$$

Where, the Capital Employed comprises the long-term debt and the shareholders' funds.

Interest Coverage Ratio (or Time-interest Earned Ratio or Debt-Service Ratio)

(a) Meaning: This ratio establishes a relationship between net profits before interest and taxes and interest on long-term debt.

(b) Objective: The objective of computing this ratio is to measure the debt- servicing capacity of a firm so far as fixed interest on long-term debt is concerned.

(c) Components: There are two components of this ratio which are as under: (i) Net profits before interest and taxes;

(ii) Interest on long-term debts.

(d) Computation: This ratio is computed by dividing the net profits before interest and taxes by interest on long-term debt. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under:

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before interest and taxes}}{\text{Interest on Long-term debt}}$$

(e) Interpretation: Interest coverage ratio shows the number of times the interest charges are covered by the profits out of which they will be paid. It indicates the limit beyond which the ability of the firm to service its debt would be adversely affected. For instance, an interest coverage of five times would imply that even if the firm's net profits before interest and tax were to decline to 20% of the present level, the firm will still be able to pay interest out of profits. Higher the ratio, greater the firm's ability to pay interest but very high ratio may imply lesser use of debt and/or very efficient operations.

Example (viii): Net Profit before Interest and Tax Rs. 3,20,000, Interest on long term debt Rs. 40,000. Calculate Interest Coverage Ratio.

Solution:

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Taxes}}{\text{Interest on Long-term Debt}}$$

Rs.3,20,000

= = 8 Times

Rs.40,000

ACTIVITY RATIOS

These ratios measure the effectiveness with which a firm uses its available resources. These ratios are also called 'Turnover Ratios' since they indicate the speed with which the resources are being turned (or converted) into sales.

Usually the following turnover ratios are calculated:

I. Capital Turnover Ratio
II. Fixed Assets Turnover Ratio,
III. Net Working Capital Turnover Ratio
IV. Stock Turnover Ratio
V. Debtors Turnover Ratio.
VI. Creditors Turnover Ratio.

Capital Turnover Ratio

(a) Meaning: This ratio establishes a relationship between net sales and capital employed.

(b) Objective: The objective of computing this ratio is to determine the efficiency with which the capital employed is utilized.

(c) Components: There are two components of this ratio which are as under: (i) Net Sales which mean gross sales minus sales returns; and

(ii) Capital Employed which means Long-term Debt plus Shareholders' Funds.

(d) Computation: This ratio is computed by dividing the net sales by the capital employed. This ratio is usually expressed as 'x' number of times. In the form of a formula this ratio may be expressed as under:

$$\text{Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Capital Employed}}$$

(e) Interpretation: It indicates the firm's ability to generate sales per rupee of capital employed. In general, the higher the ratio the more efficient the management and utilization of capital employed. A too high ratio may indicate the situation of an over-trading (or under. capitalization) if current ratio is lower than that required reasonably and vice versa.

Fixed Assets Turnover Ratio

(a) Meaning: This ratio establishes a relationship between net sales and fixed assets.

(b) Objective: The objective of computing this ratio is to determine the efficiency with which the fixed assets are utilized.

(c) Components: There are two components of this ratio which are as under: (i) Net Sales which means gross sales minus sales returns;

(ii) Net Fixed (operating) Assets which mean gross fixed assets minus depreciation thereon.

(d) Computation This ratio is computed by dividing the net sales by the net fixed assets. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under:

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Fixed Assets}}$$

(e) Interpretation: It indicates the firm's ability to generate sales per rupee of investment in fixed assets. In general, higher the ratio, the more efficient the management and utilization of fixed assets, and vice versa. It may be noted that there is no direct relationship between sales and fixed assets since the sales are influenced by other factors as well (e.g., quality of product, delivery terms, credit terms, after sales service, advertisement and publicities.)

Example (ix): Fixed Assets (at cost) Rs. 7,00,000, Accumulated Depreciation till date Rs. 1,00,000, Credit Sales Rs. 17,00,000, Cash Sales Rs., 1,50,000, Sales Returns Rs. 50,000. Calculate Fixed Assets Turnover Ratio.

Solution: Net Sales = Cash Sales + Credit Sales - Sales Returns

= Rs. 1,50,000 + Rs. 17,00,000 - Rs. 50,000 = Rs. 18,00,000

Net Fixed Assets = Fixed Assets (at cost) - Depreciation

= Rs. 7,00,000 - Rs. 1,00,000 = Rs. 6,00,000

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Fixed Assets}} = \frac{\text{Rs. 18,00,000.}}{\text{Rs. 600000}} = 3 \text{ Times}$$

Example (x): Capital Employed Rs. 2,00,000, Working Capital Rs. 40,000, Cost of goods sold Rs. 6,40,000, Gross Profit Rs. 1,60,000. Calculate Fixed Assets Turnover Ratio.

Solution: Net Sales = Cost of Goods Sold + Gross Profit

= Rs. 6,40,000 + Rs. 1,60,000 = Rs. 8,00,000

Net fixed Assets = Capital Employed - Working Capital

= Rs. 2,00,000 - Rs. 40,000 = Rs. 1,60,000

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net fixed Asset}} = \frac{\text{Rs. } 8{,}00{,}000}{\text{Rs. } 1{,}60{,}000} = 5 \text{ Times}$$

Working Capital Turnover Ratio

(a) Meaning: This ratio establishes a relationship between net sales and working capital.

(b) Objective: The objective of computing this ratio is to determine the efficiency with which the working capital is utilized.

(c) Components: There are two components of this ratio which are as under: (i) Net Sales which mean gross sales minus sales returns; and

(ii) Working Capital which means current assets minus current liabilities.

(d) Computation: This ratio is computed by dividing the net sales by the working i capital. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under:

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Working Capital}}$$

(e) Interpretation: It indicates the firm's ability to generate sales per rupee of working capital. In general, higher the ratio, the more efficient the management and utilization of, working capital and vice versa.

Example (xi): Current Assets Rs. 6,00,000, Current Liabilities Rs. 1,20,000, Credit Sales Rs. 12,00,000, Cash Sales Rs. 2,60,000, Sales Returns Rs. 20,000. Calculate Working Capital Turnover Ratio.

Solution:

Net Sales = Cash Sales + Credit Sales - Sales Returns

= Rs. 2,60,000 + Rs. 12,00,000 - Rs. 20,000 = Rs. 14,40,000

Working Capital = Current Assets - Current Liabilities

= Rs. 6,00,000 - Rs. 1,20,000 = Rs, 4,80,000

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Working Capital}} = \frac{\text{Rs. } 14,40,000}{\text{Rs. } 4,80,000} = 3 \text{ Times}$$

Stock Turnover Ratio

(a) Meaning: This ratio establishes a relationship between costs of goods sold and aver age inventory.

(b) Objective: The objective of computing this ratio is to determine the efficiency with which the inventory is utilized.

(c) Components: There are two components of this ratio which are as under: (i) Cost of Goods Sold, this is calculated as under.

Cost of Goods Sold = Opening Inventory + Net Purchases + Direct Expenses - Closing Inventory = Net Sales - Gross Profit

(ii) Average Inventory which is calculated as under:

Average Inventory = (Opening Inventory plus Closing Inventory)/2

(d) Computation: This ratio is computed by dividing the cost of goods sold by the average inventory. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under: -

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

(e) Interpretation: It indicates the speed with which the inventory is converted into sales. In general, a high ratio indicates efficient performance since an improvement in the ratio shows that either the same volume of sales has been maintained with a lower investment in stocks, or the volume of sales has increased without any increase in the amount of stocks. However, too high ratio and too low ratio calls for further investigation. A too high ratio may be the result of a very low inventory levels which may result in frequent stock-outs and thus the firm may incur high stock-out costs. On the other hand, a too low ratio may be the result of excessive inventory levels, slow-moving or obsolete inventory and thus, the firm may incur high carrying costs. Thus, a firm should have neither a very high nor a very low stock turnover ratio, it should have

satisfactory level. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratios or with the ratio of similar firms in the same industry or with industry average.

(f) Stock Velocity- This velocity indicates the period for which sales can be generated with the help of an average stock maintained and is usually expressed in days. This velocity may be calculated as follows:

$$\text{Stock Velocity} = \frac{\text{Average stock}}{\text{Average Daily cost of Goods Sold}}$$

$$\text{Or } \frac{\text{12 months /52 weeks /365 days}}{\text{Stock Turnover Ratio}}$$

FUND FLOW STATEMENT

Definition of fund flow

Flow of fund is just like circulation of blood. Like circulation of blood, fund flow should come in business and go from business.

Flow of fund here means conversation of one asset to be use to purchase of another asset or use to deduction in liabilities

Definition of fund flow statement

Fund flow statement is a statement which shows source and use of fund in particular time. This period may be two years or more years' .Basis of making fund flow statement is two years or more than two years balance sheet.

Funds Flow Statement is a statement prepared to analyse the reasons for changes in the Financial Position of a Company between two Balance Sheets. It shows the inflow and outflow of funds i.e. Sources and Applications of funds for a particular period.

In other words, a **Funds Flow Statement** is prepared to explain the changes in the Working Capital Position of a Company.

There are 2 types of Inflows of Funds:-

1. Long Term Funds raised by Issue of Shares, Debentures or Sale of Fixed Assets
2. Funds generated from Operations

If the Long Term Fund requirements of a company are met just out of the Long Term Sources of Funds, then the whole fund generated from operations will be represented by increase in Working Capital. However, if the Funds generated from Operations are not sufficient to bridge a gap of Long Term Fund Requirements, then there will be a decline in Working Capital.

Advantages of Fund Flow Statements

A Funds flow statement is prepared to show changes in the assets, liabilities and equity between two balance sheet dates, it is also called statement of sources and uses of funds. The advantages of such a financial statement are many fold.

Some of these are:

1. Funds flow statement reveals the net result of Business operations done by the company during the year.

2. In addition to the balance sheet, it serves as an additional reference for many interested parties like analysts, creditors, suppliers, government to look into financial position of the company.

3. The Fund Flow Statement shows how the funds were raised from various sources and also how those funds were deployed by a company, therefore it is a great tool for management when it wants to know about where and from what sources funds were raised and also how those funds got utilized into the business.

4. It reveals the causes for the changes in liabilities and assets between the two balance sheet dates therefore providing a detailed analysis of the balance sheet of the company.

5. Funds flow statement helps the management in deciding its future course of plans and also it acts as a control tool for the management.

6. Funds flow statement should not be looked alone rather it should be used along with balance sheet in order judge the financial position of the company in a better way.

Disadvantages of Fund Flow Statements

Funds flow statement has many advantages; however it has some disadvantages or limitations also.

Let’s look at some of the limitations of funds flow statement.

1. Funds Flow statement has to be used along with balance sheet and profit and loss account for inference of financial strengths and weakness of a company it cannot be used alone.

2. Fund Flow Statement does not reveal the cash position of the company, and that is why company has to prepare cash flow statement in addition to funds flow statement.

3. Funds flow statement only rearranges the data which is there in the books of account and therefore it lacks originality. In simple words it presents the data in the financial statements in systematic way and therefore many companies tend to avoid preparing funds flow statements.

4. Funds flow statement is basically historic in nature, that is it indicates what happened in the past and it does not communicate anything about the future, only estimates can be made based on the past data and therefore it cannot be used the management for taking decision related to future.

Benefits of Funds Flow Statement

Funds Flow Statement is useful for Long Term Analysis. It is a very useful tool in the hands of the management for judging the financial and operating performance of the Company. The Balance Sheet and the Profit and Loss A/c (Income Statement)fail to provide the information which is provided by the Funds Flow Statement i.e. Changes in Financial Position of an enterprise. Such an analysis is of great help to the management, shareholders, creditors etc

1. The Funds Flow Statement helps in answering the following questions:-

- Where have the profits gone?
- Why is there an imbalance existing between liquidity position and profitability position of an enterprise?
- Why is the concern financially solid in spite of losses?

2. The Funds Flow Statement analysis helps the management to test whether the working capital has been effectively used or not and the working capital level is adequate or inadequate for the requirements of the business. The Working Capital Position helps the management in taking policy decisions regarding payment of dividend etc.

3. The Funds Flow Statement Analysis helps the investors to decide whether the company has managed the funds properly. It also indicates the Credit Worthiness of a company which helps the lenders to decide whether to lend money to the company or not.

It helps the management to take policy decisions and to decide about the financing policies and Capital Expenditure for the future.

Limitations of Fund Flow Statement

The fund flow statement suffers from the following **limitations**:

1. The fund flow statement is prepared with the help of balance sheet and profit and loss account of the current period and these statements are based on historical cost. So a realistic comparison of profitability and the funds position is not possible as the current cost is not considered for the purpose of preparation of fund flow statement.
2. The cash position of the firm is not revealed by fund flow statement. To know the cash position a cash flow statement has to be prepared.
3. The various activities are not classified as operating activities, investing activities and financing activities while preparing fund flow statement.

Uses of Fund Flow Statement

1. The users of fund flow statement, such as investors, creditors, bankers, government, etc., can understand the managerial decisions regarding dividend distribution, utilization of funds and earning capacity with the help of fund flow statement.
2. The quantum of working capital is revealed by the schedule of working capital changes, which is a part of fund flow statement.
3. The fund flow statement is the best and first source for judging the repaying capacity of an enterprise.
4. The management will be able to detect surplus/shortage of fund balance.
5. The fund from operation is not mentioned in the profit and loss account and balance sheet but it is separately calculated for the purpose of fund flow statement.

Difference between Funds Flow Statement and Cash Flow Statement

	Basis of Difference	**Funds Flow Statement**	**Cash Flow Statement**
1.	**Basis of Analysis**	Funds flow statement is based on broader concept i.e. working capital.	Cash flow statement is based on narrow concept i.e. cash, which is only one of the elements of working capital.
2.	**Source**	Funds flow statement tells about the various sources from where the funds generated with various	Cash flow statement stars with the opening balance of cash and reaches to the closing balance of cash by proceeding through

		uses to which they are put.	sources and uses.
3.	**Usage**	Funds flow statement is more useful in assessing the long-range financial strategy.	Cash flow statement is useful in understanding the short-term phenomena affecting the liquidity of the business.
4.	**Schedule of Changes in Working Capital**	In funds flow statement changes in current assets and current liabilities are shown through the schedule of changes in working capital.	In cash flow statement changes in current assets and current liabilities are shown in the cash flow statement itself.
5.	**End Result**	Funds flow statement shows the causes of changes in net working capital.	Cash flow statement shows the causes the changes in cash.
6.	**Principal of Accounting**	Funds flow statement is in alignment with the accrual basis of accounting.	In cash flow statement data obtained on accrual basis are converted into cash basis.

Steps for making Fund flow statement
1st step: Making schedule or statement of change working capital
2nd step: Making adjusted profit and loss account or statement showing fund from operation or lost in operation

3rd Step: Fund flow statement

First Step Making of statement of Changes of Working Capital
For making of fund flow statement. It is very necessary to make statement of changes of working capital. Because net increase in working capital is use of fund and net decrease in working capital is source of fund. So, it is duty of accountant to make statement of changes of working capital. Making of statement of changes working capital is very easy and simple.

We take two balance sheets, one is current year balance sheet and other is previous year balance sheet. Then we separate current assets and current liabilities.
If current assets are more than previous year current assets, it means increase in working

capital.

If current assets are less than previous year current assets, it means decrease in working capital. Because, relationship between current assets and working capital is positive and if any changes in current assets, working capital will change in same direction.

If current liabilities are more than previous year current liabilities, it means decrease in working capital.

If current liabilities are less than previous year current liabilities, it means increase in working capital. Relationship between working capital and current liabilities are inverse.

Statement or schedule of changes in working capital

2nd Step

Statement showing the fund from operation

Because is the source of fund and will show in fund flow statement's source side. So before making fund flow statement, we must make statement showing the fund from operation.

Operation means business activity and fund from operation means profit from business activity. So, you will easy understand that profit from business activity between two accounting period must be the source of fund.

Statement of fund from operations

Closing balance of profit and loss account or retained earning as given in the Balance sheet

Add non –fund and non operating items which have been already Debited to profit and loss account

1. Depreciation
2. Amortization of fictitious and intangible assets

goodwill
patents
trade marks

preliminary expenses

Funds Flow Statement states the changes in the working capital of the business in relation to the operations in one time period.

The main components of Working Capital are:

Current Assets

1. Cash
2. Receivables
3. Inventory

Current Liabilities

1. Payables

Net working capital is the total change in the business's working capital, calculated as total change in current assets minus total change in current liabilities.

Working Capital = Current Assets-Current Liabilities

PROBLEMS:

SUM 1:

Prepare a funds flow statement

Balance Sheet of M/s ___

Liabilities	**As on 31st December**		**Assets**	**As on 31st December**	
	2004	**2005**		**2004**	**2005**
Share Capital	10,000	15,000	Cash	5,000	8,000
Profit and Loss Appropriation account	5,000	8,000	Debtors	10,000	15,000
Long Term Loan	4,000	6,000	Stock	10,000	12,000
Sundry Creditors	8,000	12,000	Machinery	3,000	5,000
Bills Payable	5,000	3,000	Land	4,000	4,000
	32,000	44,000		32,000	44,000

From the information relating to the non-current area from the balance sheet figures on 31st Dec 2004 and 31st Dec 2005, we would be able to prepare a funds flow statement for the

Balance Sheet of M/s ___

Schedule/Statement of Changes in Working Capital for the period from __ to __

Particulars/Account	Balance as on 31st December		Working Capital Change	
	2004	2005	Increase	Decrease
a) CURRENT ASSETS 1) Cash 2) Sundry Debtors 3) Stock	 5,000 10,000 10,000	 8,000 15,000 12,000		 3,000 5,000 2,000
TOTAL	25,000	35,000		10,000
b) CURRENT LIABILITIES 1) Sundry Creditors 2) Bills Payable	 8,000 5,000	 12,000 3,000	 4,000	 2,000
TOTAL	13,000	15,000	4,000	2,000
Working Capital [(a) - (b)]	12,000	20,000		
TOTAL			4,000	12,000
Net Change in Working Capital				8,000

period between 31st December 2004 and 31st December 2005 i.e. for the year 2005.

Funds Flow Statement for the period from __ to __

Particulars	Amount	Amount
a) **Sources (Inflow) of Funds** 1) Share Capital 2) Funds from Operations [P/L appropriation account]	5,000 3,000	8,000
b) **Applications (Outflow) of Funds** 1) General Reserve 2) Machinery	2,000 2,000	4,000
Change in Working Capital [a - b]		+ 4,000

SUM 2:

From the following information prepare

i) A Schedule of Changes in Working Capital

ii) A Funds Flow Statement

Balance Sheet of M/s ______

Liabilities	as on 31st March		Assets	as on 31st March	
	2006	2007		2006	2007
Capital	18,50,000	21,00,000	Goodwill (at Cost)	6,00,000	6,00,000

Profit/Loss Appropriation	14,78,000	17,64,000	Land and Buildings	18,50,000	22,00,000
Bank Loan	12,00,000	9,00,0000	Plant and Machinery	4,74,000	5,24,000
Bills Payable	4,00,000	6,80,000	Furniture and Fittings	1,94,000	1,94,000
Sundry Creditors	14,00,000	12,20,000	Stock/Inventories	8,26,000	7,24,000
Reserve for Taxation	2,00,000	1,80,000	Sundry Debtors	12,00,000	12,80,000
			Bills Receivable	8,00,000	7,21,000
			Bank	5,00,000	4,83,000
			Cash	84,000	1,18,000
TOTAL	65,28,000	68,44,000	TOTAL	65,28,000	68,44,000

SOLUTION

Schedule/Statement of Changes in Working Capital for the period from 31/03/06 to 31/03/07

Particulars/Account	Balance as on 31st March		Working Capital Change	
	2006	2007	Increase	Decrease
a) CURRENT ASSETS				
1) Stock/Inventories	8,26,000	7,24,000		1,02,000
2) Sundry Debtors	12,00,000	12,80,000	80,000	
3) Bills Receivable	8,00,000	7,21,000		79,000
4) Bank	5,00,000	4,83,000		17,000
5) Cash	84,000	1,18,000	34,000	
TOTAL	34,10,000	33,26,000	1,14,000	1,98,000
b) CURRENT LIABILITIES				
1) Bills Payable	4,00,000	6,80,000		2,80,000
2) Sundry Creditors	14,00,000	12,20,000	1,80,000	
3) Provision for Taxation	2,00,000	1,80,000	20,000	
TOTAL	20,00,000	20,80,000	2,00,000	2,80,000

Working Capital [(a) - (b)]	14,10,000	12,46,000		
TOTAL			3,14,000	4,78,000
Net Change in Working Capital				1,64,000

Working Notes

Make up the ledgers for all the non-current accounts.

Dr Capital a/c Cr

Date	Particulars	Amount	Date	Particulars	Amount
31/03/07	To Balance c/d	21,00,000	01/04/06 —	By Balance b/d By Bank a/c (?)	18,50,000 2,50,000
		21,00,000			21,00,000
			01/04/07	By Balance b/d	21,00,000

Assumption :
Capital has been raised during the period for cash.

Dr Bank Loan a/c Cr

Date	Particulars	Amount	Date	Particulars	Amount
— 31/03/07	To Bank a/c (?) To Balance c/d	3,00,000 9,00,000	01/04/06	By Balance b/d	12,00,000
		12,00,000			12,00,000
			01/04/07	By Balance b/d	9,00,000

Assumption :
Bank loan has been repaid during the period through a cheque.

Dr Land and Buildings a/c Cr

Date	Particulars	Amount	Date	Particulars	Amount
01/04/06	To Balance b/d	18,50,000	31/03/07	By Balance c/d	22,00,000

—	To Bank a/c (?)	3,50,000			
		22,00,000			22,00,000
01/04/07	To Balance b/d	22,00,000			

Assumption :
Additional assets have been purchased during the period for cash.

Dr Plant and Machinery a/c Cr

Date	Particulars	Amount	Date	Particulars	Amount
01/04/06	To Balance b/d	4,74,000	31/03/07	By Balance c/d	5,24,000
—	To Bank a/c (?)	50,000			
		5,24,000			5,24,000
01/04/07	To Balance b/d	5,24,000			

Assumption :
Additional assets have been purchased during the period for cash.

Posting by name Bank on the credit side indicates an inflow and on the debit side indicates an outflow.

Dr Profit and Loss Appropriation Cr

Date	Particulars	Amount	Date	Particulars	Amount
31/03/07	To Balance c/d	17,64,000	01/04/06	By Balance b/d	14,78,000
			31/03/07	By Funds From Operations (?)	2,86,000
		17,64,000			**17,64,000**
			01/04/07	**By Balance b/d**	**17,64,000**

Assumption :
Funds have been generated through operations during the period.

Treat the Funds from operations posting as if it is a posting by name bank.

Funds Flow Statement

Funds Flow Statement for the period from 31/03/06 to 31/03/07

Particulars	Amount	Amount
a) Sources (Inflow) of Funds 1) Share Capital 2) Funds from Operations [P/L appropriation account]	2,50,000 2,86,000	5,36,000
b) Applications (Outflow) of Funds 1) Land and Buildings 2) Plant and Machinery 3) Bank Loan	3,50,000 50,000 3,00,000	7,00,000

Sum 3:

Following are the Balance Sheets of BROYHILL Industries Ltd, as on 31.12.2005 and 31.12.2006

Balance Sheet of M/s BROYHILL Industries Ltd,

Liabilities	As on 31st December		Assets	As on 31st December	
	2005	2006		2005	2006
Share capital	12,00,000	16,00,000	Goodwill (at Cost)	6,00,000	5,50,000
Debentures	4,00,000	6,00,000	Plant and Machinery	8,00,000	14,90,000
Reserve	3,00,000	3,50,000	(Cost)	2,00,000	2,00,000
Profit & Loss a/c	2,50,000	5,00,000	Furniture	6,00,000	10,00,000
Creditors	4,50,000	3,80,000	Buildings	2,20,000	-

Bank Loan	8,00,000	13,00,000	Investments	3,50,000	4,70,000
Fixed Deposits	2,00,000	-	Land	3,38,000	3,72,000
Provision for			Debtors	6,00,000	8,00,000
Depreciation	12,000	6,000	Stock	40,000	80,000
on Buildings	40,000	48,000	Bank	14,000	12,000
on Plant & Machinery			Preliminary expenses		
	60,000	70,000			
Provision for:	50,000	1,20,000			
Bad & Doubtful Debts					
Taxation					
	37,62,000	49,74,000		37,62,000	49,74,000

You are required to analyse the Funds Flow and the Changes in working Capital in as much detail as possible, using the following additional details available.

M/S BROYHILL Industries Ltd
Schedule/Statement of Changes in Working Capital for the period from 31/12/05 to 31/12/06

Particulars/Account	**Balance as on 31st March**		**Working Capital Change**	
	2005	**2006**	**Increase**	**Decrease**
a) CURRENT ASSETS				
	3,38,000	3,72,000	34,000	-
1) Debtors	6,00,000	8,00,000	2,00,000	-
2) Stock	40,000	80,000	40,000	-
3) Bank				

TOTAL	9,78,000	12,52,000	2,74,000	-
b) CURRENT LIABILITIES				
1) Creditors	4,50,000	3,80,000	70,000	
2) Provision for Bad Debts	60,000	70,000		10,000
2) Provision for Taxation	50,000	1,20,000		70,000
TOTAL	5,60,000	5,70,000	70,000	80,000
Working Capital [(a) - (b)]	4,18,000	6,82,000		
TOTAL			3,14,000	4,78,000
Net Change in Working Capital			2,64,000	

Dr Profit and Loss Appropriation a/c Cr

Particulars	Amount	Particulars	Amount
To Reserve a/c	30,000	By Building Sale a/c	20,000
To Profit and Loss a/c	2,50,000	By Investments a/c	24,000
To Goodwill a/c	50,000	**By Funds From Operations (?)**	3,64,000
To Reserve for Depreciation on Plant and Machinery	20,000		
To Machine Sale a/c	8,000		
To Depreciation on	44,000		

Furniture To Reserve for Depreciation on Building To Preliminary Expenses	 4,000 2,000		
	4,08,000		4,08,000

Statement for Calculation of Funds from Operations

Particulars	Amount	Amount
Current Period Profit Capitalised **Add:** Losses/Appropriations debited to Profit/Loss a/c 1) Reserve created 2) Goodwill written off 3) Reserve for Depreciation on Plant and Machinery 4) Loss on Sale of Machine 5) Depreciation on Furniture 6) Reserve for Depreciation on Building 7) Preliminary Expenses Written off	30,000 50,000 20,000 8,000 44,000 4,000 2,000	2,50,000 1,58,000
Less: Gains and Adjustments credited to Profit/Loss a/c 1) Profit on Sale of Building 1) Profit on Sale of Investments	20,000 24,000	4,08,000 44,000
Funds From Operations		3,64,000

Statement of Sources and Applications of Funds for the period from __ to __

Sources/Inflows of Funds	Amount	Applications/Outflows of Funds	Amount

Share Capital (Stock) Share Capital (Cash/Bank) Debentures Bank Loan Plant Sale Building Sale Investments Sale Land Sale Funds from Operations	50,000 3,00,000 2,00,000 5,00,000 1,20,000 1,10,000 2,44,000 1,70,000 3,88,000	Purchase of Plant and Machinery Purchase of Furniture Purchase of Buildings Fixed Deposits Cleared Purchase of Land	8,30,000 44,000 4,50,000 2,00,000 2,70,000
	20,58,000		17,94,000
		Change in Fund (Working Capital)	2,64,000

POSSIBLE QUESTIONS

PART – B

1. The following is the Trading and Profit & Loss a/c of Venkateshwara P ltd, for the year ended 31.03.2016.

Particulars.	Rs.	Particulars.	Rs.
To Stock in hand	76,250	By Sales	5,00,000
To Purchases	3,15,250	By Stock in hand	95,500
To Carriage and Freight	2,000		
To Wages	5,000		
To Gross Profit	2,00,000		
	5,98,500		5,98,500
To Administrative expenses	1,01,000	By Gross Profit	2,00,000
To Finance expenses:		By Non operating incomes:	
Interest 1,200		Interest on Securities 1,500	
Discount 2,400		Dividend on Shares 3,750	
Bad debts 3,400	7,000	Profit on Sale of shares 750	6,000
To Selling and distribution expenses	12,000		
To Non Operating expenses:			
Loss on sale of securities 350			
Provision for legal suit 1,650	2,000		
To Net Profit	84,000		
	2,06,000		2,06,000

You are required to calculate: a) Gross profit ratio, b) Net Profit ratio, c) Operating ratio, d) Operating Profit ratio.

2. The following are the Balance sheet of Rajesh Exports ltd, for the years 2015 and 2016.

Balance Sheet

Liabilities	2015 Rs.	2016 Rs.	Assets	2015 Rs.	2016 Rs.
Creditors for goods	1,60,000	2,50,000	Current Assets:		
Creditors for expenses	10,000	12,000	Stock	2,00,000	2,70,000
Bills payable	1,00,000	1,10,000	Sundry Debtors	2,25,000	2,45,000
Share capital	5,50,000	6,20,000	Cash	40,000	65,000
Share premium	50,000	80,000	Prepaid expenses	25,000	22,000
Profit & Loss a/c	1,00,000	2,00,000	Non-Current Assets:		
Debentures	3,00,000	2,00,000	Plant & Machinery	7,00,000	8,80,000
General Reserve	2,00,000	2,60,000	Goodwill	1,00,000	70,000
			Investments	1,80,000	1,80,000
	14,70,000	17,32,000		14,70,000	17,32,000

You are required to prepare Funds Flow Statement.

3. The following are the extracts from the financial statements of Blue Chip as on 31st march 2015 and 2016 respectively.

	2015	**2016**
Stock	10,000	25,000
Debt	20,000	20,000
Bills receivable	10,000	5,000
Advances (recoverable in cash or kind)	2,000	-
Cash in Hand	18,000	15,000
Bills payable	15,000	20,000
Bank overdraft	-	2,000
9% Debentures, 2,000	5,00,000	5,00,000
Sales for the year	3,50,000	3,00,000
Gross Profit	70,000	50,000

You are required to compute for these years, a) Current ratio, b) Liquidity ratio, c) stock turnover ratio.

4. The financial position of MNC ltd, on 1st April 2016 and 31st March 2017 was as follows,

	01.04.16 Rs.	31.03.17 Rs.		01.04.16 Rs.	31.03.17 Rs.
Current Liabilities	72,000	82,000	Cash	8,000	7,200
Loan from associate company	-	40,000	Debtors	70,000	76,800
			Stock	50,000	44,000
Loan from Bank	60,000	50,000	Land	40,000	60,000
Capital and reserves	2,96,000	2,98,000	Building	1,00,000	1,10,000
			Machinery	2,14,000	2,44,000
			Provision for Depreciation	(54,000)	(72,000)
	4,28,000	4,70,000		4,28,000	4,70,000

During the year Rs. 52,000 were paid as dividends. Prepare Cash Flow statement as per revised AS 3.

5. Calculate the following ratio from the balance sheet given below, i) Debt Equity ratio, ii) Liquidity ratio, iii) Fixed Assets to Current Assets and iv) Fixed assets turnover ratio.

Balance sheet

Liabilities	Rs.	Assets.	Rs.
Equity capital	1,00,000	Goodwill	60,000
Reserves	20,000	Fixed Assets (at cost)	140,000
Profit & Loss a/c	30,000	Stock	30,000
Secured Loan	80,000	Sundry Debtors	30,000
Sundry Creditors	50,000	Advances	10,000
Provision for taxation	20,000	Cash Balance	30,000
	3,00,000		3,00,000

The sales for the year were Rs. 5,60,000

6. Balance sheets of M/s Ram and Shyam as on 1st January, 2017 and 31st December 2017 were as follows:

Liabilities	1/1/2017 (Rs)	31-12-2017 (Rs)	Assets	1/1/2017 (Rs)	31-12-2017 (Rs)
Creditors	40,000	44,000	Cash	10,000	7,000

Mrs.Ram's Loan	25,000		Debtors	30,000	50,000
Capital	1,25,000	1,53,000	Stock	35,000	25,000
			Machinery	80,000	55,000
			Land	40,000	50,000
			Building	35,000	60,000
	2,30,000	**2,47,000**		**2,30,000**	**2,47,000**

During the year a machine costing Rs.10,000 (Accumulated depreciation Rs.3,000) was sold for Rs.5,000. The provision for depreciation against machinery as on 1st January, 2017 was Rs.25,000 and on 31st December, 2017 Rs.40,000. Net profit for the year 2017 amounted to Rs.45,000.

You are required to prepare Funds flow Statement.

7. The following Balance sheet is given of Dharani ltd, for the year ended 31st March 2016.

Liabilities	Rs.	Assets	Rs.
2000 equity shares of Rs. 100 each	2,00,000	Land and Buildings	1,50,000
Reserves	90,000	Plant & Machinery	80,000
Profit & Loss a/c	60,000	Stock in trade	1,49,000
Bills payable	40,000	Sundry debtors	41,000
Other current liabilities	90,000	Cash and bank balance	30,000
		Bills receivable	30,000
	4,80,000		4,80,000

Calculate i) Capital turnover ii) Fixed assets turnover iii) Working capital turnover iv) Stock turnover v) Debtors turnover vi) Creditor turnover ratios with reference to the following additional information.

i) Sales (Credit) Rs. 8,50,000 ii) Cost of Goods sold Rs. 5,10,000 iii) Average inventory Rs. 1,24,250 iv) Average receivables Rs. 85,000 v) Average payables Rs. 80,000 vi) Credit Purchases Rs. 5,45,250.

8. From the following balances, you are required to calculate cash from operations:

	December 31 2007 Rs.	December 31 2008 Rs.
Debtors	50,000	47,000
Bills Receivable	10,000	12,500
Creditors	20,000	25,000
Bills Payable	8,000	6,000
Outstanding Expenses	1,000	1,200
Prepaid Expenses	800	700
Accrued Income	600	750
Income received in Advance	300	250
Profit made during the year	--	1, 30,000

S.NO	QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
1	The indicated quotient of two mathematical expression is known as---------------	Ratio	Analysis	Working capital	Statements	Ratio
2	Current ratio is an example for _____ ratio.	Balance sheet	Income statement	Inter statement	Intra Statement	Balance sheet
3	___ ratio is an example for long term solvency ratio.	Gross profit	Debt equity	Net profit	Price earning	Debt equity
4	The relationship between current assets and current liabilities is known as ___ ratio.	Gross profit	Net profit	current	Stock turnover	current
5	The ideal current ratio is ______	2:1	3:1	4:1	3:2	2:1
6	Liquid ratio is also known as ___ ratio.	current	Acid test	Velocity	Quick	Acid test
7	Operating cost net sales X 100= ______	Gross profit ratio	Net profit ratio	Operating ratio	Current ratio	Operating ratio
8	The ideal liquid ratio is ______	1:1	1:2	1:4	1:5	1:1
9	Total sales / debtors = _____	Debtors	Debtors turnover ratio	Current ratio	Liquid ratio	Debtors turnover ratio
10	The excess of current assets over current liabilities is known as	Current ratio	Liquid ratio	Working capital	Debt-Equity Ratio	Working capital
11	To measure the overall performance and 3effectiven3ess of the firm.	Profitability	Activity	Liquidity	Leverage	Profitability
12	A ___ current ratio represents that the firms liquidity position.	High	Low	Both a and b	Medium	Low
13	Efficiency ratio are also called as ____ ratios	Turnover	Profitability	Liquidity	Leverage	Turnover
14	A ____ inventory ration indicates an inefficient management of inventory.	Low	High	Both a and b	Medium	Low
15	Profit and loss account is also called as the _____ statement.	Balance sheet	Income statement	Asset account	Common Statement	Income statement
16	Proprietary ratio is also known as _______	Equity	Debt equity	current	Debt	Equity
17	With the help of current assets and current liabilities, one can calculate.	Current ratio	Gross profit ratio	Net profit ratio	Operating ratio	Current ratio
18	Current ration 2.5 ; current liabilities Rs 1,00,000 current assets=_____	40,000	2,50,000	1,50,000	2,00,000	2,50,000

19	Average of gross profit Rs. 40,000 ; rate of gross profit 25% sales=____	10,000	1,00,000	1,60,000	50,000	1,00,000
20	Average stock= rs. 40,000; closing stock RS 5000 in excess of opening stock. Then the closing stock is equal to	42,500	80,000	40,000	85,000	42,500
21	The mathematical yardstick, which provides a measure of the relationship between two accounting, figure is known.	Accounting ratio	Property ratio	Current ratio	Gross profit ratio	Accounting ratio
22	____ Ratios help to management in evaluating the performance.	Solvency	Activity	Liquidity	Profitability	Activity
23	____ Solvency is indicated by debt equity ratio.	Long term	Short term	Both a and b	Medium Term	Long term
24	The primary objective of _____ ratio is to measure the liquidity.	Gross profit	Net profit	Current ratio	Operating Profit	Current ratio
25	Average receivable period is 2.4 months, hence debtors turnover will be	6 months	10 months	5 months	4 months	5 months
26	If the operating ratio is 75% ; the net operating profit ratio will be	25%	100%	66%	10%	25%
27	____ ratio establishes the relationship between total operating expenses and sales.	Current ratio	Operating ratio	Liquid ratio	Stock turnover ratio	Operating ratio
28	Total assets minus total liabilities is equal to ______	Network	Owner’s fund	Share holder’s fund	All of the above	All of the above
29	_____ ratio indicates the number of times earning per share is covered by its market price.	Earning per share	Price earning ratio	Dividend per share	Yield Per Share	Price earning ratio
30	_____ ratio I s also known as rate of dividend to net profit	Payout	Price earning ratio	Gross profit ratio	Net profit ratio	Payout
31	The reciprocal of payout ratio is _______	Interest cover	Dividend covers	Earning per share	Price earning ratio	Dividend covers
32	Activity ratios are also known as	Performance ratios	Turnover ratios	Both a and b	Profitability Ratios	Turnover ratios
33	_______ indicates the number of times the payable rotate in a year.	Creditors velocity	Debtors turnover	Stock turnover	Debtors velocity	Creditors velocity
34	______ ratio attempts to measure the utilization and effectiveness of the use of current assets.	Current assets turn over	Current ratio	Net current assets turnover	Liquid ratio	Current assets turn over

35	Financial ratio include	Fixed assets ratio	Current ratio	Quick ratio	All of the above	All of the above
36	Common statement is also known as	Component percentage	100 percent statement	Both a and b	50 percent statement	Both a and b
37	______ analysis refers to the comparison financial data of a company for several years.	vertical	Horizontal	Both a and b	axis	Horizontal
38	_______ analysis refers to the study of relationship of the various items in the financial statements of one accounting period.	vertical	Horizontal	Both a and b	axis	vertical
39	______ liabilities are those liabilities which are intended to be paid in the ordinary course of business within one accounting year.	Fixed	Long term	Short term	current	current
40	Current ratio is 2. Current assets = Rs 40,000 then current liabilities= _____	Rs.5,000	Rs10,000	Rs1,20,000	Rs1, 40,000	Rs1,20,000
41	Financial statements are	Estimates of facts	Anticipated facts	Recorded facts	Historical Facts	Recorded facts
42	Current liability of company is Rs. 3,00,000 if current ratio is 3:1 and quick ratio is1:1 then the value of stock in trade is	1,00,000	2,00,000	3,00,000	6,00,000	6,00,000
43	Current ratio= 2:5; liquid ratio=1:5 working capital= 60,000 then liquid assets = ________	20,000	60,000	40,000	1,00,000	60,000
44	Current assets of a concern = Rs. 3,00,000 current liabilities = 1,00,000 then current ratio =_____	3	2	1	4	3
45	If current ratio is 1:5:1 and current liability is 50,000 then the current assets could be	1,00,000	1,25,000	75,000	70,000	75,000
46	Higher the ratio, the lower the profitability is applicable to	Gross profit ratio	Net profit ratio	Operation ratio	Return on investment	Operation ratio
47	Which of the following transaction with results in change in current ratio	paid 90 day bank loan	liquidated long term liability	purchased merchandise on credit	received payment of an account receivable	liquidated long term liability
48	Financial statement records only	Monetary facts	No monetary facts	Both a and b	Non Monetary	Monetary facts
49	Network of business means	Equity capital	Total assets	Total assets- total liabilities	Fixed assets- current assets	Total assets- total liabilities

50	An ____ in debt collection period indicates blockage of funds in debtors.	Increase	Decrease	Both a and b	Neither Increase nor Decrease	Increase
51	_____ ratio denotes the relationship between stock and sales.	stock turn over ratio	fixed assets turnover ratio	working capital ratio	gross profit ratio	stock turn over ratio
52	____ ratio gives an idea about adequate investments or over investment or under investment in fixed assets.	fixed assets turn over ratio	fixed assets to current assets ratio	fixed assets to capital ratio	Turnover Ratio	fixed assets to capital ratio
53	______ is the between sales or cost of sales and share holder’s fund.	Debt equity ratio	Owned capital turnover	Fixed assets ratio	Operation ratio	Owned capital turnover
54	Total sales – sales return = _______	Net sales	Cash sales	Credit sales	Average sales	Net sales
55	Cash sales + credit sales + ____	Net sales	Sales return	Total sales	Average Sales	Total sales
56	Cost of goods sold + closing stock – opening stock=_______	Purchase	Sales	Purchase return	Sales return	Purchase
57	Opening stock + closing stock/2 =______	Total stock	Average stock	Total liabilities	Total Assets	Average stock
58	Working capital = proprietary funds _____	Total asset	Current asset	Fixed asset	Contingent Assets	Fixed asset
59	Opening stock + purchase – closing stock	Sales	Purchase	Cost of goods sold	Working capital	Cost of goods sold
60	Opening debtors + closing debtors /2 _______	Total creditors	Average creditors	Total debtors	Average debtors	Average debtors

UNIT-III

SYLLABUS

Introduction to Marginal costing – Marginal costing – Comparison with Absorption Costing – Cost-volume-profit Analysis – BEP – Application of Marginal costing – Break even analysis and Profit volume graph.

Marginal Costing : Introduction

By analyzing the Behaviour of costs in relation to changes in volume of output it becomes evident that there are some items of costs which tend to vary directly with the volume of output, whereas there are others which tend to vary with volume of output, are called variable cost and those remain unaffected by change in volume of output are fixed cost or period costs.

Marginal costing is a study where the effect on profit of changes in the volume and type of output is analyzed. It is not a method of cost ascertainment like job costing or contract costing. It is a technique of costing oriented towards managerial decision making and control.

Marginal costing, being a technique can be used in combination with other technique such as budgeting and standard costing. It 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. The emphasis is on Behaviour of costs and their impact on profitability

Definition

Marginal costing is defined by the ICWA, India as "the ascertainment of marginal costs and of the effect on profit of changes in volume or type of output by differentiating between fixed costs, and variable costs"

Batty defined Marginal Costing as, "a technique of cost accounting which pays special attention to the Behaviour of costs with changes in the volume of output"

Kohler‟s Dictionary for Accounting defines Marginal Costing "as the ascertainment of marginal or variable costs to an activity department or products as compared with absorption costing or direct costing"

The method of charging all the costs to production is called absorption costing. Kohler‟s dictionary for Accountants defines it as "the process of allocating all or a portion of fixed and variable production costs to work – in – process, cost of sales and inventory". The net profits ascertained under this system will be different from that under marginal costing because of

- Difference in stock valuation
- Over and under – absorbed overheads

Direct costing is defined as the process of assigning costs as they are incurred to products and services

Features of Marginal Costing

The following are the special features of Marginal Costing:

- Marginal costing is a technique of working of costing which is used in conjunction with other methods of costing (Process or job)
- Fixed and variable costs are kept separate at every stage. Semi – Variable costs are also separated into fixed and variable.
- As fixed costs are period costs, they are excluded from product cost or cost of production or cost of sales. Only variable costs are considered as the cost of the product.
- As fixed cost is period cost, they are charged to profit and loss account during the period in which they incurred. They are not carried forward to the next year's income.
- Marginal income or marginal contribution is known as the income or profit.
- The difference between the contribution and fixed costs is the net profit or loss.
- Fixed costs remains constant irrespective of the level of activity.
- Sales price and variable cost per unit remains the same.
- Cost volume profit relationship is fully employed to reveal the state of profitability at various levels of activity.

Assumptions in Marginal Costing

The technique of marginal costing is based on the following assumptions:

1. All elements of costs can be divided into fixed and variable.
2. The selling price per unit remains unchanged at all levels of activity.
3. Variable cost per unit remains constant irrespective of level of output and fluctuates directly in proportion to changes in the volume of output.
4. Fixed costs remain unchanged or constant for the entire volume of production.

5. Volume of product is the only factor which influences the costs.

Characteristics of Marginal Costing

The essential characteristics and mechanism of marginal costing technique may be summed up as follows:

1. **Segregation of cost into fixed and variable elements:** In marginal costing, all costs are segregated into fixed and variable elements.
2. **Marginal cost as product cost:** Only marginal (variable) costs are charged to products.
3. **Fixed costs are period costs:** Fixed cost are treated as period costs and are charged to costing profit and loss account of the period in which they are incurred.
4. **Valuation of inventory:** The work – in – progress and finished stocks are valued at marginal cost only.
5. **Contribution is the difference between sales and marginal cost:** The relative profitability of the products or departments is based on a study of "contribution" made by each of the products or departments.

Advantages of Marginal Costing

Marginal costing is an important technique of managerial decision making. It is a tool for cost control and profit planning. The following are the advantages of marginal costing technique:

1. Simplicity

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

2. Stock Valuation

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

3. Meaningful Reporting

Marginal costing serves as a good basis for reporting to management. The profits are analyzed from the point of view of sales rather than production.

4. Effect on Fixed Cost

The fixed costs are treated as period costs and are charged to Profit and Loss Account directly. Thus, they have practically no effect on decision making.

5. Profit Planning

The Cost – Volume Profit relationship is perfectly analysed to reveal efficiency of products, processes, and departments. Break – even Point and Margin of Safety are the two important concepts helpful in profit planning.

6. Cost Control and Cost Reduction

Marginal costing technique is helpful in preparation of flexible budgets as the costs are classified into fixed and variable. The emphasis is laid on variable cost for control. The constant focus is on cost and volume and their effect on profit pave the way for cost reduction.

7. Pricing Policy

Marginal costing is immensely helpful in determination of selling prices under different situations like recession, depression, introduction of new product, etc. Correct pricing can be developed under the marginal costs technique with the help of the cost information revealed therein.

8. Helpful to Management

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

Limitations of Marginal Costing

Following are the limitations of marginal costing:

- **Classification of Cost**

Break up of cost into fixed and variable portion is a difficult problem. More over clear cost division of semi – variable or semi – fixed cost is complicated and cannot be accurate.

- **Not Suitable for External Reporting**

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

- **Lack of Long – term Perspective**

Marginal costing is most suitable for decision making in a short term. It assumes that costs are classified into fixed and variable. In the long term all the cost are variable. Therefore it ignores time element and is not suitable for long term decisions.

- **Under Valuation of Stock**

Under marginal costing only variable costs are considered and the output as well as stock are undervalued and profit is distorted. When there is loss of stock the insurance cover will not meet the total cost.

- **Automation**

In these days of automation and technical advancement, huge investments are made in heavy machinery which results in heavy amount of fixed costs. Ignoring fixed cost in this context for decision making is irrational.

- **Production Aspect is Ignored**

Marginal costing lays too much emphasis on selling function and as such production aspect has been considered to be less significant. But from the business point of view, both the functions are equally important.

- **Not Applicable in all Types of Business**

In contract type and job order type of businesses, full cost of the job or the contract is to be charged. Therefore it is difficult to apply marginal costing in all these types of businesses.

- **Misleading Picture**

Each product is shown at variable cost alone, thus giving a misleading picture about its cost.

- **Less Scope for Long – term Policy Decision**

Since cost, volume, and profits are interlinked in price determination, which can be changed constantly, development of long term pricing policy is not possible.

Marginal Costing and Absorption Costing

Absorption costing charges all the costs i.e., both the fixed and variable fixed to the products, jobs, processes, and operations. Marginal costing technique charges variable cost. Absorption is not any specific method of costing. It is common name for all the methods where the total cost is charged to the output.

Absorption Costing is defined by I.C.M.A, England as *"the practice of charging all costs, both fixed and variable to operations, processes, or products"*

From this definition it is inferred that absorption costing is full costing. The full cost includes prime cost, factory overheads, administration overheads, selling and distribution overheads.

Distinction between Absorption Costing and Marginal Costing

Absorption Costing	Marginal Costing
1. Total cost technique is the practice of charging all cost, both variable and fixed to operations, process or products. 2. It values stock at the cost which includes fixed cost also. 3. It is guided by profit which is the excess of sales over the total costs in solving managerial problems 4. In total cost technique, there is a problem of apportionment of fixed costs which may result in under or over recovery of expenses.	1. Marginal costing charges only variable cost to products, process, or operations and excludes fixed cost entirely. 2. It values stock at total variable cost only. This results in higher value of stock under absorption costing than in marginal costing. 3. It focuses its attention on Contribution which is excess of sales over variable cost.

The difference between marginal costing and absorption costing is shown with the help of the following examples.

Differential costing

The concept of differential cost is a relevant cost concept in those decision situations which involve alternative choices. It is the difference in the total costs of two alternatives. This helps in decision making. It can be determined by subtracting the cost of one alternative from the cost of another alternative. Differential costing is the change in the total cost which results from the adoption of an alternative course of action. The alternative may arise on account of sales, volume, price change in sales mix, etc decisions. Differential cost analysis leads to more correct decisions than more marginal costing analysis. In this technique the total costs are considered and not the cost per unit. Differential costs do not form part of the accounting system while marginal costing can be adapted to the routine accounting itself. However, when decisions involve huge amount of money differential cost analysis proves to be useful.

In the illustration given below, differential cost at levels of activity has been shown:

	Alternative I	**Alternative II**	**Differential cost**
Sales (Rs)	80000	100000	20000
Direct materials	40000	50000	10000
Direct labour	16000	20000	4000
Variable overheads	4000	5000	1000
Fixed overheads	3000	3000	
Cost of sales	63000	78000	15000

Differential cost is generally confused with marginal cost. Of course, these two techniques are similar in some aspects but these also differ in certain other respects.

Similarities

(i) Both the differential cost analysis and marginal cost analysis are based on the classification of cost into fixed and variable. When fixed costs do not change, both differential and marginal costs are same.

(ii) Both are the techniques of cost analysis and presentation and are used by the management in formulating policies and decision making.

Dissimilarities

(i) Marginal cost may be incorporated in the accounting system where as differential cost are worked out for reporting to the management for taking certain decisions.

(ii) Entire fixed cost are excluded from costing where as some of the relevant fixed costs may be included in the differential cost analysis.

(iii) In marginal costing, contribution and p/v ratio are the main yardstick for evaluating performance and decision making. In differential cost analysis emphasis is made between differential cost and incremental or decremental revenue for making policy decisions.

(iv) Differential cost analysis may be used in absorption costing and marginal costing.

Marginal Cost

Marginal cost is the cost of producing one additional unit of output. It is the amount by which total cost increases when one extra unit is produced or the amount of cost which can be avoided by producing one unit less.

The ICMA, England defines marginal cost as, *"the amount of any given volume of output by which the aggregate cost are charged if the volume of output is increased or decreased by one unit"*.

In practice, this is measured by the total cost attributable to one unit. In this context, a unit may be single article, a batch of articles, an order, a stage of production, a process etc., often managerial costs, variable costs are used to mean the same.

Features of Marginal Cost

- It is usually expressed in terms of one unit.
- It is charged to operation, processes, or products.
- It is the total of prime cost plus variable overheads of one unit.

Marginal Cost Statement

In marginal costing, a statement of marginal cost and contribution is prepared to ascertain contribution and profit. In this statement, contribution is separately calculated for each of the product or department. These contributions are totaled up to arrive at the total contribution. Fixed cost is deducted from the total contribution to arrive at the profit figure. No attempt is made to apportion fixed cost to various products or departments.

Marginal Cost Equation

For convenience the element of cost statement can be written in the form of an equation as given below:

Sales – Variable Cost = Fixed Cost plus or minus Profit or Loss. Or

Sales – Variable Cost = Fixed Cost plus or minus Profit or Loss

In order to make profit, contribution must be more than fixed cost and to avoid loss, contribution should be equal to fixed cost.

The above equation can be illustrated in the form of a statement.

Application of marginal Costing

1. Fixation of Selling Price:

Price is one of the most significant factor that determines the market for the prodicts as well as the volume of profit for the organization. Under normal circumstances, the price of a product must cover the total cost of theat product plus a margin of profit. However under certain special circumstances, price has to be fixed even below the total cost

2. Accepting bulk orders:

Somebulk orders may be received from local dealers or foreign dealers asking for a price which is below the market price. This calls for a decision to accept or reject the order. The order from a local dealer should not be accepted at price below the market price because it will affect the normal market and goodwill of the company.

3. Make or buy Decision:

In a make or buy decision the price quoted by the outside suppliers should be compared with the marginal cost of producing the component parts. If the outside price of the component is lower than the marginal cost of producing it , it is worth buying.

4. Selection of suitable product Mix:

When a factory manufactures more than one product a problem is faced by the management as to which product will give maximum profits. The solution is the products which give the maximum contribution are to be retained and their production should be increased.

5. Key factor

It is also known as limiting factor. A key factor is one which restricts production and profit of a business. It may arise due to the shortage of material, labour, capital and sales. Normally where there is no limiting factor the selection of the product will be on the basis of the highest.

6. Maintaining a desired level of profit:

Management may be intersted in maintai ning a desired level of profits. The sales requi9red to earn a desired level of profits can be ascertained by the marginal techniques.

7. Alternatives methods of production

Marginal costing is helpful in comparing the alternative methods of productioin.

8. Determination of optimum level of activity:

The technique of marginal costing helps the management in determining the optimum level of activity. To make such a decision, contribution at different levels of activity can be found. The level of activity which gi ves the highest contribution will be the optimum level.

9. Evaluation of performance:

Evaluation performance efficiency of various department or products lines can be made with the help of marginal cost. The management has to discontinue the production of non profitable products so as to maximize the profits. In such cases, decision to discontinue will be on the basis of the lowers contribution.

10. Decision Making:

Decision making is a process of selecting the best course of action from a number of availed alternatives. Problems like selection of the method of manufacture, using the production capacity for different products, continuing, dropping of a product showing a loss, expansion or change in market call for a decision.

COST VOLUME PROFIT ANALYSIS

Cost Volume Profit Analysis (C V P) is a systematic method of examining the relationship between changes in the volume of output and changes in total sales revenue, expenses (costs) and net profit. In other words. it is the analysis of the relationship existing amongst costs, sales revenues, output and the resultant profit.

To know the cost, volume and profit relationship, a study of the following is essential :

(1) Marginal Cost Formula

(2) Break-Even Analysis

Marginal Costing and Cost Volume Profit Analysis

(3) Profit Volume Ratio (or) PV Ratio

(4) Profit Graph

(5) Key Factors and

(6) Sales Mix

Objectives of Cost Volume Profit Analysis

The following are the important objectives of cost volume profit analysis:

(1) Cost volume is a powerful tool for decision making.

(2) It makes use of the principles of Marginal Costing.

(3) It enables the management to establish what will happen to the financial results if a specified level of activity or volume fluctuates.

(4) It helps in the determination of break-even point and the level of output required to earn a desired profit.

(5) The PV ratio serves as a measure of efficiency of each product, factory, sales area etc. and thus helps the management to choose a most profitable line of business.

(6) It helps us to forecast the level of sales required to maintain a given amount of profit at different levels of prices.

Illustration No.1:

A company is manufacturing three products X, Y and Z. It supplies you the following information:

	Products		
	X (Rs)	**Y (Rs)**	**Z (Rs)**
Direct Materials	**2500**	**10000**	**1000**
Direct Labour	**3000**	**3000**	**500**
Variable Overheads	**2000**	**5000**	**2500**
Sales	**10000**	**20000**	**5000**

Total fixed overheads Rs. 3000/-

Prepare a marginal cost statement and determine profit and loss.

Solution:

Marginal Cost Statement

Products

	X (Rs)	Y (Rs)	Z (Rs)	Total (Rs)
Sales (A)	10000	20000	5000	35000
Direct materials	2500	10000	1000	13500
Direct Labour	3000	3000	500	6500
Variable Overheads	2000	5000	2500	9500
Marginal Cost (B)	7500	18000	4000	29500
Marginal Contribution (A – B)	2500	2000	1000	5500
Less:FixedCost				3000
NetProfit				2500

Contribution:

Contribution is the difference between selling price and variable cost of one unit. The greater contribution from the selling unit indicates that the variable cost is less compared to selling price. Total contribution is the number of units

Multiplied by contribution per unit. Contribution will be equal to the total fixed costs at break even point where profit is zero.

Illustration No.2:

Calculate contribution and profit from the following details: Sales Rs. 12000

Variable Cost Rs. 7000, Fixed Cost Rs. 4000

Solution:

Contribution = Sales – Variable cost

Contribution = Rs. 12000 – Rs. 7000 = **Rs. 5000**

Profit = Contribution – Fixed Cost

Profit = Rs. 5000 – Rs. 4000 = **Rs. 1000**

Profit / Volume Ratio

This is the ratio of contribution to sales. It is an important ratio analysing the relationship between sales and contribution. A high p/v ratio indicates high profitability and low p/v ratio indicates low profitability. This ratio helps in comparison of profitability of various products. Since high p/v ratio indicate as high profits, the objective of every organization should be to improve or increase the p/v ratio.

P / V Ratio = Contribution / Sales x 100 or C / S x 100

When profits and sales for two consecutive periods are given, the following formula can be applied:

$$\frac{\text{Change in Profit}}{\text{Change in Sales}}$$

P / V ratio is also used in making the following type of calculations:

a) Calculation of Break even point.

b) Calculation of profit at a given level of sales.

c) Calculation of the volume of sales required to earn a given profit.

d) Calculation of profit when margin of safety (discussed below) is given.

e) Calculation of the volume of sales required to maintain the present level of profit if selling price is reduced.

Volume or activity can be expressed in any one of the following ways:

1. Sales capacity expressed as a percentage of maximum sales.
2. Sales value in terms of money.
3. Units sold.
4. Production capacity expressed in percentages.
5. Value of cost of production.
6. Direct labour hours.
7. Direct labour value.
8. Machine hours.

The factors which are usually involved in this analysis are:

a) Selling price b) Sales volume c) Sales mix

d) Variable cost per unit e) Total fixed cost

Illustration No:3

Sales Rs. 2,00,000

Variable Cost Rs.100000

You are required to calculate: P / V Ratio

Contribution=Selling Price - Variable Cost

=Rs. 2,00000- 1,00,000=Rs.100000

P/V Ratio= Contribution/Sales *100= 100000/200000*100=50%

Break even Analysis

Break-Even Analysis is also called Cost Volume Profit Analysis. The term Break-Even Analysis is used to measure inter relationship between costs, volume and profit at various level of activity. A concern is said to break-even when its total sales are equal to its total costs. It is a point of no profit no loss. This is a point where contribution is equal to fixed cost. In other words, the break-even point where income is equal to expenditure {or) total sales equal to total cost.

The break-even point can be calculated by the following formula:

Break-Even Point = Fixed cost/PV Ratio

Illustration No.4

From the following particulars find out break-even point:

Fixed Expenses Rs. 1.00.000

Selling price Per unit Rs. 20

Variable cost per unit Rs. 15

Solution:

Contribution per unit = Selling Price per unit - Variable Cost per unit

= Rs. 20 - Rs. 15 = Rs. 5

=Rs. 1.00.000/5 =20.000 units

= 20,000 x Rs. 20 = Rs. 4,00,000

Margin of safety:

The excess of actual or budgeted sales over the break-even sales is known as the margin of safety.

Margin of safety = actual sales - break-even sales

So this shows the sales volume which gives profit. Larger the margin of safety greater is the profit.

Marginal safety =Budget sales - break-even sales

When margin of safety is not satisfactory, the following steps may be taken into account:

a) Increase the volume of sales.

b) Increase the selling price.

c) Reduce fixed cost.

d) Reduce variable cost.

e) Improve sales mix by increasing the sale of products with P/V ratio.

The effect of a price reduction will always reduce the P / V ratio, raise the break – even point shorten the margin of safety.

Illustration No.5

From the following particulars, calculate Margin of safety :

Fixed cost Rs. 1,00,000

Variable cost Rs. 1,50,000

Total Sales Rs. 3,00,000

Solution:

Margin of Safety = Sales - Variable Cost

= Rs. 3,00,000 - 1,50,000 = Rs. 1,50,000

Profit = Contribution - Fixed Cost

= Rs. 1,50,000 - 1,00,000 = Rs.50,000

P I V Ratio 50%

50,000 /100x 50 = Rs. 1,00,000

Angle of incidence:

This is obtained from the graphical representation of sales and cost. When sales and output in units are plotted against cost and revenue the angle formed between the total sales line and the total cost line at the break-even point is called the angle of incidence.

Large angle indicates a high rate of profit while a narrow angle would show a relatively low rate of profit.

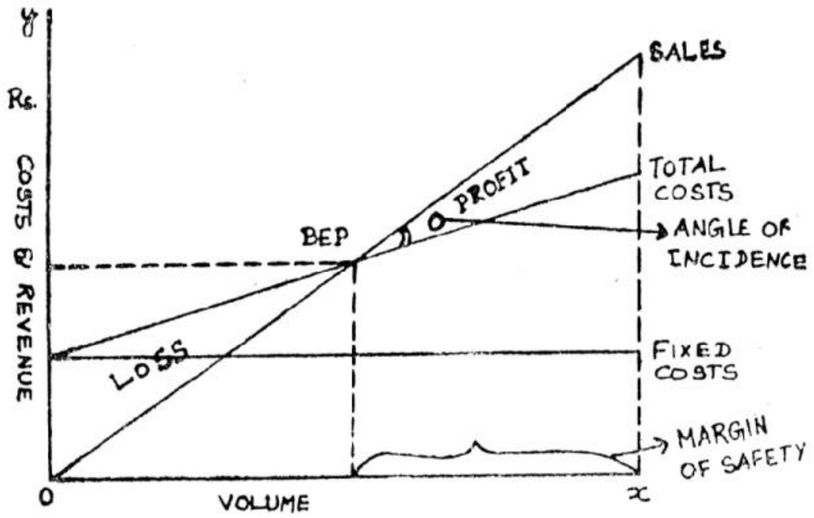
Profit goal:

To earn a desired amount of profit i.e., a profit goal can be reached by the formula given below

$$\text{Sales volume to reach profit goal} = \frac{\text{Fixed cost + Desired profitability}}{\text{Contribution ratio}}$$

Break Even Chart

These depict the interplay of three elements viz., cost, volume, and profits. The charts are graphs which at a glance provide information of fixed costs, variable costs, production / sales achieved profits etc., and



From the above break-even chart, we can understand the following points :

(1) Cost and sales revenue are represented on vertical axis, i.e., Y-axis.

(2) Volume of production or output in units are plotted on horizontal axis, i.e., X-axis.

(3) Fixed cost line is drawn parallel to X-axis.

(4) Variable costs are drawn above the fixed cost line at different level of activity. The variable cost line is joined to fixed cost line at zero level of activity.

(5) The sales line is plotted from the zero level, it represents sales revenue.

(6) The point of intersection of total cost line and sales line is called the break-even point which means no profit no loss.

(7) The margin of safety is the distance between the break-even point and total output produced.

(8) The area below the break-even point represents the loss area as the total sales and less than the total cost.

(9) The area above the break-even point represents profit area as the total sales more than the cost.

(10) The sales line intersects the total cost line represents the angle of incidence. The large angle of incidence indicates a high rate of profit and vice versa.

II. Cash Break-Even Point

In cash break-even chart, only cash fixed costs are considered. Non-cash items like depreciation etc. are excluded from the fixed costs for computation of break-even point. Cash Break-Even Chart depicts the level of output or sales at which the sales revenue will be equal to total cash outflow. It is computed as under:

Cash Break-Even Point = Cash Fixed Costs/Contribution per unit

Advantages of Break-Even Chart

(1) It enables to determine the profit or loss at different levels of activities.

(2) It is useful to measure the relationship between cost volume and profit.

(3) It helps to determine the break-even units, i.e., output and sales volume.

(4) It helps to measure the profitability of various products.

(5) It facilitates most profitable product mix to be adopted.

(6) It assists future planning and forecasting.

(7) It enables to determine total cost, fixed cost and variable cost at different levels of activity.

(8) This chart is very useful for effective cost control.

Limitations of Break-Even Chart

(1) It is based on number of assumptions which may not hold good.

(2) Break-even charts are rarely of value in a multi-product situation.

(3) A break-even chart does not take into consideration semi-variable cost, valuation of opening stock and closing stock.

(4) Determination of seIling price is based on many factors which will affect the constant selling price.

(5) Capital employed, Government policy, Market environment etc. are the important aspects for managerial decisions. These aspects are not considered in break-even chart.

Angle of Incidence

This is the angle of intersection between the sales line and the total cost line. The larger the angle the greater is the profit or loss, as the case may be.

Profit Volume Graph

Profit volume graph is a pictorial representation of the profit volume relationship. It shows profit and loss account at different volumes of sales. It is simplified form of break even chart as it clearly represents the relationship of profit to volume of sales. It is possible to construct a profit volume graph for any data relating to a business firm where a break even chart can be drawn. A profit volume graph may be preferred to a break even chart as profit or losses can be directly read at different levels of activity.

The construction of profit volume graph involves the following steps:

1. Scale of sale is selected on horizontal axis and that for profit or loss are selected on vertical axis. The area below the horizontal axis is the loss area and that above it is the profit area.
2. Points of profits of corresponding sales are plotted and joined. The resultant line is profit / loss line

Advanced Problems in Marginal Costing

Problem No.1 From the following data calculate

1. Numbers of units to be sold to earn a profit of Rs.120000

2. Sales to earn a profit of Rs.120000

Selling price per unit	Rs.40
Variable selling cost per unit	Rs.3
Variable manufacturing cost per unit	Rs.22

Fixed factory overhead Rs.160000

Fixed selling cost Rs.20000

Solution

1. Number of units to be sold to earn a profit of Rs.120000

= Fixed expenses+ profit/ contribution per unit

= Rs.40 – Rs.25 = Rs.15

= Rs.180000+120000/15= 300000/15= 20000 units

2. Sales to earn a profit of Rs.120000

= Fixed expenses+ profit/ contribution per unit * Selling price per unit

= Rs.180000+120000/15*40= Rs.800000

Problem No.2 Assuming that the cost structure and selling prices remain the same in periods I and II find out

1. P/v Ratio

2. BE Sales

3. Profit when sales are Rs.100000

4. Sales required to earn a profit of Rs.20000

Period	Sales Rs.	Profit Rs.
I	120000	9000
II	140000	13000

1. P/V Ratio = Contribution /sales *100

   = 13000-9000/140000-120000*100= 20%

2. **BE Sales**

   Contribution- Fixed Cost=24000=15000= Rs.9000

   BE Sales= Fixed expenses/ PV Ratio= 15000/20%= Rs.75000

3. Profit when sales Rs.100000

100000=15000+profit/ 20%= Profit= Rs. 5000

4. Sales required to earn a profit of Rs.20000

Sales= 15000+20000/20%= Rs.175000

POSSIBLE QUESTIONS

PART – B

1. Break even sales Rs.1,60,000

Sales for the year 2007 Rs.2,00,000

Profit for the year 2007 Rs. 12,000

Calculate: (i) Profit or Loss on a sale value of Rs.3,00,000

(ii) During 2008 it is expected that selling price will be reduced by 10%. What should be the sales if the company desires to earn the same amount of profit as 2007?

2. You are required to calculate i) Margin of safety ii) Sales iii) Variable cost from the following figures,

Fixed cost	Rs. 12,000
Profit	Rs.1,000
Break even sales	Rs.60,000

3. You are required to calculate (i) P.V ratio (ii) margin of safety (iii) sales

(iv) Variable cost from the following figures: fixed cost Rs.12,000 , Profit

Rs.1,000 Break even sales Rs.60,000.

4. Assuming that the cost structure and selling prices remain same in periods I and II, find out:

a) Profit volume ratio, b) Fixed cost, c) Breakeven point for sales, d) Profit when sales are of Rs. 1,00,000 e) Sales required to earn a profit of Rs.20,000 and f) Margin of safety at a profit of Rs. 15,000 g) Variable cost in Period II.

Period	Sales (Rs.)	Cost (Rs.)	Profit (Rs.)
I	1,20,000	1,11,000	9,000

II	1,40,000	1,27,000	13,000

5. You are given:

Margin of safety Rs.15,000 which represents 30% of sales. PV / Ratio 40%. Calculate.

(i) Sales (ii) Break even sales

(iii) Fixed cost and (iv) Profit.

6. From the following information relating to quick standards ltd. You are required to find out (a) P.V ratio (b) Break even point (c) Profit (d) Margin of safety (e) Also Calculate the Volume of sales to earn profit of Rs.6,000.

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

7. The following data are obtained from the records of a company. You are required to calculate a) P/V Ratio, b) Fixed cost and c) Break-even point

Year	Sales Rs.	Profit Rs.
I	3,20,000	40,000
II	3,60,000	56,000

8. Vasanth Ltd., presents the following results for one year. Calculate the P/V Ratio, BEP and Margin of Safety.

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

9. From the following information relating to Tusker Ltd., you are required to find out i) P.V.Ratio ii) BEP iii) Profit iv) Margin of Safety.

Total Fixed Costs	Rs.13,500
Total Variable Cost	Rs.22,500
Total Sales	45,000

v) Also calculate the Volume of sales to earn profit of Rs. 18,000.

10. From the following data, Calculate Break Even Point expressed in terms of units and also the new B.E.P. if selling price is reduced to 10 %

Fixed Expenses:

Depreciation	Rs. 1,00,000
Salaries	Rs. 1,00,000

Variable Expenses:

Materials	Rs. 3 per unit
Labour	Rs. 2 per unit
Selling price	Rs. 10 per unit

S.NO	QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
1	_____ May be regarded as the life blood of a business	Working capital	Current asset	Fixed asset	Current liability	Working capital
2	There are ______ concepts of working capital	One	Two	Three	Four	Two
3	The concepts of working capital _____	Gross concept	Net concept	Both a and b	Working capital	Both a and b
4	The term _____ represent the difference between current assets and current liabilities	Gross working capital	Net working capital	Both a and b	Working capital	Net working capital
5	The networking capital can be ____	positive	Negative	positive or negative	positive and negative	positive or negative
6	As indicated ____ concepts of working capital have functional significance	Net	Gross	Net or gross	Net and gross	Net and gross
7	At the beginning of a business venture cash is provided by ______	Owners	Leaders	Owners and leaders	Owners or leader	Owners and leaders
8	______ is essentially circulating capital	Fixed assets	Working capital	Stock	Liabilities	Working capital
9	The classification of working capital into _____ components	One	Two	Three	Four	Two
10	______ component represents the value of the current assets required on a continuing basis over the entire year and for several year	Fixed working capital	Permanent working capital	Both a and b	Fluctuating Working Capital	Both a and b
11	_______ working capital can further e classified as regular working capital and reserve working capital	permanent	Temporary	Variable	Adequate	permanent
12	______ represents a certain amount of fluctuations in current assets	Fixed working capital	permanent working capital	Temporary working	Fluctuating Working	Temporary working capital

	during a short period.			capital	Capital	
13	A business firm must maintain an _____ of working in order to run its business smoothly.	permanent	Fixed	Temporary	Adequate	Adequate
14	Adequate working capital will lead inefficiency _____ in costs and reduction in profits.	Increase	Decrease	Both a and b	Negative	Increase
15	The amount of ______ reduces the cost of purchases.	Cash discount	Goodwill	Credit worthiness	Ability to face cris	Cash discount
16	_____ enables a business to without stand periods of depression smoothly.	Cash discount	Good will	Credit worthiness	Ability to face	Ability to face
17	Making prompt payment is a base to create and maintain _____	Cash discount	Good will	Ability to face crisis	Credit	Good will
18	_____ of the firm can not work without adequate working capital.	Current assets	Total assets	Fixed assets	Fluctuating Assets	Fixed assets
19	A sound system of ______ enables a concern to pay regular dividends to its investors.	Assets	Liabilities	Working capital	Stock	Working capital
20	The _____ manager is always interested in obtaining the working capital at the right time, at a cost and the best favorable terms.	Financial	Marketing	Sales	Purchase	Financial
21	The _____ level cannot be expected to reduce at any time.	Minimum	Maximum	Medium	Equal	Minimum
22	______ Working capital should be provided in such a manner that the enterprise may have its uninterrupted use for a long time.	Long term	Short term	Internal	External	Long term
23	_______ is the most important source for raising the permanent working	Floating of debentures	Issue of share	Pouching back of profits	Loans	Issue of share

	capital					
24	Shares are of _____ types	One	Two	Three	Four	Two
25	____ amount of permanent capital should be raised by the issue of shares	Minimum	Maximum	Medium	Equal	Maximum
26	____ is also an important source of long term working capital.	Floating of debentures	Issue of shares	Public deposit	Loans	Floating of debentures
27	______ means the reinvestment by a concern of its surplus earning in its business.	Ploughing back of profit	Floating of debentures	Long term loans	public deposit	Ploughing back of profit
28	Provide _____ types of loans long term, medium term short term loans.	One	Two	Three	All	All
29	______ type of finance is ordinary repayable in installments	Ploughing back of profit	Floating of debentures	long term loans	Public deposits	long term loans
30	________ covers the need of working capital financing day to day business requirement.	Long term fund	Short term fund	Internal	External	Short term fund
31	________ covers the need of working capital financing day to day business requirement.	Long term fund	Short term fund	Internal	External	Short term fund
32	Short term working capital are of _____ types.	One	Two	Three	Four	One
33	The _____ reserve provides a good source of for working capital.	Depreciation fund	Provision for tax	Accrued expenses	Revenue Reserve	Provision for tax
34	_______ Constitute as a source of working.	Depreciation	Provision for tax	Accrued expenses	Revenue Reserve	Accrued expenses
35	The firm can post pone the payment of expenses for _____ period.	Short	Long	Maximum	Minimum	Short
36	The ______ extended by one business enterprise on another on the	Credit papers	Trade credit	Bank credit	Customer's credit	Trade credit

	purchase and sale of goods.					
37	_____ can be discounted with a bank.	Credit papers	Trade credit	Bank credit	Customer’s credit	Credit papers
38	______ provides working capital in the forum of over drafts, cash credit, short term, loans etc.	Credit papers	Trade credit	Bank credit	Customer’s credit	Bank credit
39	______ governments, sometimes, provide, short term finance on easy terms.	Central	State	central & state	None of the above	central & state
40	_______ is often obtained at low rate interest.	customer’s credit	Government	Loans from directors	Security of employee	Loans from directors
41	_______ is required to make deposits their employer companies.	Customers credit	Government	Loans from directors	Security of employee	Security of employee
42	______ is the life blood of a business.	Assets	Liabilities	Working capital	Loan	Working capital
43	Working capital = __________	Current assets – current liabilities	Current liabilities - current assets	Current assets + current liabilities	fixed assets + current assets	Current assets – current liabilities
44	Average cost per month = _________	Cost of raw material / 12 months	cost of raw material + 12 months	Cost of raw material X 12 months	Cost of raw material – 12 months	Cost of raw material / 12 months
45	Accounts _________ are collected from debtor’s cash into firm.	Payable	Receivables	Both a and b	Acceptable	Receivables
46	_______ is not a method of cost ascertainment like job costing or contract costing.	Standard costing	Marginal costing	Working capital	Budgetary control	Marginal costing
47	For _______ marginal costing is more helpful to the management.	Planning	co-ordinating	Decision making	Staffing	Staffing
48	In ________ costing, only variable items of costs are taken into account.	Standard	Marginal	Working capital	Budgetary control	Marginal

49	_______ is not allocated to cost unit	Fixed costs	Variable	Both a and b	Semi - variable Cost	Variable
50	Marginal cost means the _______ thing as variable cost.	Same	Different	Variable	Fixed	Same
51	The accountant's concept of ______ different from economist's concept of marginal cost.	Total cost	Average cost	Additional cost	Marginal cost	Marginal cost
52	Economists define marginal cost as the producing one additional unit.	Total cost	Average cost	Additional cost	Marginal cost	Additional cost
53	Additional unit shall include an element of ____ also	Fixed cost	Variable cost	Total cost	Semi - variable Cost	Fixed cost
54	Marginal cost = _________	prime cost – total variable	Total variable cost – prime cost	Prime cost + total variable cost	Prime cost + total fixed cost	Prime cost + total variable cost
55	Marginal cost = _________	Total cost – fixed cost	Total cost – variable cost	Total cost + fixed cost	Total cost + variable cost	Total cost – fixed cost
56	Total cost 400, fixed cost Rs. 200 marginal cost =______	600	200	500	100	200
57	Marginal cost = ______	Increase in total cost / increase in total units	Decrease in total cost / decrease in total units	Increase in total cost X increase in total units	Neither Increase nor Decrease	Increase in total cost / increase in total units
58	Total cost Rs. 600 fixed cost Rs. 200 marginal cost ______	100	200	800	400	400
59	Total cost Rs.800 fixed cost Rs. 200 marginal cost = ______	600	800	1000	200	600
60	______ is one which tends to be unaffected by variation in volume of output.	Total cost	Average cost	Marginal cost	Fixed cost	Fixed cost

UNIT IV

SYLLABUS

Budget and Budgetary Control – The budget manual – Preparation and Monitoring procedures – Budget variance – Flexible Budget – Preparation of Functional Budget for operating and non operating functions – Cash budget – Master budget – Principal Budget factors.

BUDGET AND BUDGETARY CONTROL

Definition

A Budget is a plan that outlines an organization's financial and operational goals. So a budget may be thought of as an action plan; planning a budget helps a business allocate resources, evaluate performance, and formulate plans. While planning a budget can occur at any time, for many businesses, planning a budget is an annual task, where the past year's budget is reviewed and budget projections are made for the next three or even five years.

The Institute of Cost and Management Accountants, London, gives the following definitions:

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 that period for the purpose of attaining a given objective. It may include income, expenditure and the employment of capital.

Budgetary control

Budgetary control is the process of determining various budgeted figures for the enterprise for the future period and then comparing the budgeted figures with the actual performance for calculating variances, if any. First of all budgets are prepared and the actual results are recorded. The comparison of budgeted and actual figures will enable the management to find out description and take remedial measures at a proper time. The budgetary control is a continuous process, which helps in planning and co ordination.

Budgetary control. "The establishment of departmental budgets relating the responsibilities of executive to the requirements of a policy, and the continuous comparison of actual with budgeted results, either to secure by individual action the objectives of the policy, or to provide a firm basis for its revision."

Thus, a budget is a predetermined statement of management policy during a given period which provides a standard for comparison with the results actually achieved. Budgetary control is a system of controlling costs which includes the preparation of budgets, coordinating the departments and establishing responsibilities, comparing actual performance with that of budgeted and acting upon results to achieve maximum profitability. Budgeting is essentially concerned with planning, and can be broadly illustrated by comparison with the routine a ship's captain follows on each voyage.

Budget, Budgeting and Budgetary Control

A budget is a blue print of a plan expressed in quantitative--terms. Budgeting is a technique for formulating budgets. Budgetary control, on the other hand, refers to the principles, procedures and practices of achieving given objectives through budgets

Objectives of budgeting

1. to define the goal of the enterprises
2. to provide long and short period for attaining these goals
3. to co-ordinate the activities of different department.

THE OBJECTIVES OF A BUDGETARY CONTROL

1. Definition of Goals: Portraying with precision, the overall aims of the business and determining targets of performance for each section or department of the business.

2. Defining Responsibilities: Laying down the responsibilities of each individual so that everyone knows what is expected of him and how he will be judged.

3. Basis for Performance Evaluation: Providing basis for the comparison of actual performance with the predetermined targets and investigation of deviation, if any, of actual performance and expenses from the budgeted figures. It helps to take timely corrective measures.

4. Optimum use of Resources: Ensuring the best use of all available resources to maximize profit or production, subject to the limiting factors.

5. Coordination: Coordinating the various activities of the business and centralizing control, but also making a facility for the Management to decentralize responsibility and delegate authority.

6. Planned action: Engendering a spirit of careful forethought, assessment of what is possible and an attempt at it. It leads to dynamism without recklessness. It also helps to draw up long range plans with a fair measure of accuracy.

7. Basis for policy: Providing a basis for revision of current and future policies.

Importance of Budgetary Control

1. To Use the Forecasting Techniques

It is the importance of budgetary control that with this, we can use the forecasting techniques. Three departments work hard for calculating best estimation of future. Accounting department provides old data. Statistical department provides the tools and techniques of forecasting like probability, time series other sampling methods. Management department uses both department services to estimate the expenditures and revenue of business under the normal conditions of business. So, no department say anything wrong in making of budget. So, it is necessary for business to use budgetary control techniques.

2. Fix the Responsibility of Departments

Department's scientific name is cost center. Manager makes budget and show the target of company and employees are given the powers to perform these targets. After checking the variance in budget through budgetary control process, manager can fix the responsibility of each department and its employees in a particular cost center.

3. Effective Utilization of Company's resources

Company can only effective use its resources, if someone stops misuse of money and fund of company. If budgetary control is used in company, at that time, no action will be taken before making budget. Responsible personal of company will be accountable for his action. Suppose, company has fixed the target of company's annual Sale is $ 40,00,000 after participating sales manager in the setting of this sale budget. Now, after one year, if sale is just $ 1,00,000. This sale manager must say what is the reason for not selling the product up to standard level of sale.

4. Excel ourself

After using budgetary control techniques in our business, we will definitely learn the skills of excel ourself_because we all know that a budget is based on estimates, it may or may not be true. But continually practise of making good budget and apply in organisation, manager can learn skills and experience for increasing the efficiency in every work of company. Meaning of this, manager will get positive approach through budgetary control.

Steps in budgetary control

1. Organization chart
2. Budget Centre
3. Budget Committee
4. Budget Manual
5. Budget period
6. Key Factor

The management is efficient if it is able to accomplish the objective of the enterprise. It is efficient when it accomplishes the objectives with minimum effort and cost. In order to attain long-range efficiency and effectiveness, management must chart out its course in advance.

A systematic approach to facilitate effective management performances profit-planning and control, or budgeting. Budgeting is therefore an integral part of management. In a way, a budgetary control system has been described as a historical combination of a “goal – setting machine for increasing an enterprise's profits, and a goal-achieving machine for facilitating organizational coordination and planning while achieving the budgeted targets."

Objectives of Budgetary Control

Briefly, the main objectives of budgetary control are:

1. To combine the ideas of all levels of management in the preparation of the budget.
2. To coordinate all the activities of the business.
3. To centralize control.
4. To decentralize responsibility to each manager involved.
5. To act as a guide for management decision-making when unforeseeable conditions affect the business.
6. To plan and control income and expenditure so that maximum profitability is achieved.
7. To direct capital expenditure in the most profitable direction.
8. To ensure that sufficient working capital is available for the efficient operation of the business.
9. To provide a yardstick against which results can be compared.
10. To show management where action is needed to remedy a situation.

Basic Conditions for the Successful Operation of Budgetary Control

1. Realistic Budget: The quality of the budget is very important for the successful operation of budgetary control. If should be realistic and operationally feasible. Flexible budget is normally a good budget as it take into consideration the dynamics of the business. It must be based on what is attainable, must suit the organizational facilities and complexities and must be flexible to accommodate the changing environment of the business.

2. Qualitative and Timely Reporting : Variances must be analyzed, interpreted and reported in a manner which is easily understandable. Reporting must be on time and bring out significant areas/points and be precise, simple and meaningful. Time is the essence of reporting and maintenance of time schedule enhances the value of reporting and leads to correction of many adverse events/trends which otherwise would have taken a heavy toll.

3. Management's Attitude: The management must have a positive attitude towards budgetary control. Any scheme of control is a discipline and regulation. Management must have faith and confidence in the scheme. Management must take keen interest in the scheme of budgetary control and render whole-hearted support and cooperation in making this a success.

Advantages of Budgetary Control

The following are some of the most significant advantages of budgeting :

1) Budgeting compels management to plan for the future. The budgeting process forces management to look ahead and become more effective and efficient in administering business operations. It instills into managers the habit of evaluating carefully their problems and related variables before making any decisions.

2) Budgeting helps to coordinate, integrate, and balance the efforts of various departments in the light of the overall objectives of the enterprise. This results in goal congruency and harmony among the departments.

3)Budgeting facilitates control by providing definite expectations in the planning phase that can be used as a frame of reference for judging the subsequent performance. Undoubtedly, budgeted performance is a more relevant standard for comparison than past performance is based on historical factors which are constantly changing.

4) Budgeting improves the quality of communication. The enterprise's objectives, budgets goals, plans, authority and responsibility and procedures to implement plans are clearly written and communicated through budgets to all individuals in the enterprise. This results in better understanding and harmonious relating among mangers and subordinates.

5) Budgeting helps to optimize the use of the firm's resources, both capital and human. It aids in directing the total efforts of the firm into the most profitable channels.

6) Budgeting increase the morale and thereby the productivity of the employees by seeking their meaningful participation in the formulation of plans and policies, bringing about a

harmony between individual goals and the enterprise's objectives, and by providing incentives for better performance.

7) Budgeting develops profit-mindedness and cost consciousness.

8) Budgeting permits the management to focus attention on significant matters through budgetary reports. Thus, it facilitates management by exception and thereby saves the management's time and energy.

9) Budgeting measure efficiency and thereby enables self-evaluation by the management, it also indicates the progress made in attaining the enterprise's objectives.

Problems of the Budgeting System

The major problems in developing a budgeting system are:

1. Getting the support and involvement of all levels of management.
2. Developing meaningful forecasts and plans, especially the sales plan.
3. Inducing all individuals to get involved in the budgeting process, and gaining their full participation.
4. Establishing realistic objectives, procedures and standards of desired performance.
5. Applying the budgeting systems in a flexible manner.
6. Maintaining effective follow-up procedures, and adapting the budgeting system to changing circumstances.

Limitations of Budgetary Control

Management must consider the following limitations in using the budgeting system as a device to solve managerial problems:

1)Budgeting is not an exact science, its success depends upon the precision of estimates. Estimates are based on facts and managerial judgement. Managerial judgement can suffer from subjectivity and personal biases. The efficacy of budgeting thus depends upon the quality of managerial judgement.

2) A perfect system of budging cannot be organized in a short period. Business conditions change rapidly. Therefore, the budging system should be continuously adapted to changing circumstance. Budgeting has to be a continuous exercise, it is a dynamic process. Management should not lose patience, it should go on trying various techniques and procedures in developing and using the budgeting system.

3) A skillfully prepared budget system will not by itself improve the management of an enterprise unless it is properly implemented. For the success of the budgetary system, it is essential that it is understood by all, and that the managers and subordinates put in concerted effort for accomplishing the budget goals. All persons in the enterprise must be fully involved in the preparation and execution of budgets, otherwise budgeting will not be effective.

4) Budgeting is a management tool, a way of managing, not the management itself. The presence of a budgetary system should not make management complacent. To get the best results, management should use budgeting with intelligence and foresight, along with other managerial techniques. Budgeting assets management, it cannot replace management.

5) Budgeting will be ineffective and expensive if it is unnecessarily detailed and complicated. A budget should be precise in format and simple to understand, it should be flexible in application.

6) Budgeting will hide inefficiencies instead of revealing them if there is not evaluation system. There should be continuous evaluation of the actual performance. The standards should also be re-examined regularly.

Budget Period:

There is no “right” period for any budget. Budget periods may be short term and long term. If a business experiences seasonal fluctuations, the budget period will probably extend over one seasonal cycle. If this cycle covers, say two or three years, the long-term budget would cover the period, while the short-term budgets would perhaps be preparation on a monthly basis for control purpose. Short-term budgeting is usually costly to prepare and operate, while long-term budgeting may be considerably affected by unforeseen conditions.

Budget periods frequently used in industry vary between one month and one year, the latter probably being the most commonly used as it fits in with the normally accepted accounting period. However, forecasts of much longer periods than a year may be used in the case of capital expenditure budgets, for example, which must be planned well in advance. A common practice in industry is to have a series of budget periods. Thus, the sales budget may cover the next five years, while production and cost budgets may cover only one year. These yearly budgets will be broken down into quarterly or even monthly periods. Where long-term budgets are operated it is usual to supplement them with short-term ones.

The key factor.

This is the factor whose influence must first be assessed in order to ensure that functional budgets are reasonably capable of fulfillment. The key factor-known variously as the “limiting” or “governing” or “principle budget” factor is of vital importance. It may not be the same for each budget period, as the circumstances may change.

It determines priorities in functional budget. Among the many key factors which may affect budgeting are the following:

1. Management
2. Lack of capital, restricting policy
3. Lack of knowhow
4. Inefficient executives
5. Insufficient research into product design and methods.

Classification of Budgets

Though budgets can be classified according to various points of view the following bases of classification are generally in vogue:

1) Classification according to time factor Functional classification

2) Classification according to flexibility factor.

1) Classification according to time factor.

Long-term Budgets (2) Short-term Budgets (3) Current Budgets: They cover a period of a month or so and as shot-term budgets, they get adjusted to prevailing circumstances. Sometimes, within the framework of a short-term budget, there are quarterly plans which are prepared by recasting the budget for a still shorter period on the basis of the performance of the immediate past. In a way, these quarterly budgets are meant to be an elaboration of the annual budget.

Functional Classification

Sales Budget, (2) Production Budget, (3) Personnel Budget (4) Purchase Budget : Correlated with sales forecast and production planning, it deals with purchases that are required for planned production. purchase would include both direct and indirect materials and goods. (5) Research Budget (6) Cash Budget (7) Capital Budget (8) Master Budget (9) Plant utilization Budget (10) Office and Administration Budget. This budget represents cost of all administrative expenses, such as managing director's salary, staff salaries and expenses of office management like lighting and cleaning.

2) Classification According to Flexibility

Fixed Budget: This is budget in which targets are rigidly fixed. Such budgets are usually prepared from one to three months in advance of the fiscal year to which they are applicable. Thus, twelve months or more may elapse before figures forecast for the December budget Are used to measure actual performance. Many things may happen during this intervening period and they mayh make the figures go widely out of the line with the actual figures. Thought it is true that a fixed, or static budget as it is sometimes called, can be revised whenever the necessity arises, it smacks of rigidity and artificially so far as control over costs and expenses are concerned. Such budgets are preferred only where sales can be forecast with the greatest of accuracy which means, in turn, that the cost and expenses in relation to sales can be quite accurately ascertained.

Flexible Budget

A flexible budget is a budget that adjusts or flexes for changes in the volume of activity. The flexible budget is more sophisticated and useful than a static budget, which remains at one amount regardless of the volume of activity.

SALES BUDGET

This is a forecast of total sales expressed and incorporated in quantities and / or money. A sales budget may be prepared by expressing turnover under any one or combination of the following:

1. Product or product group;
2. Territories, areas and countries;
3. Types of customers, e.g., National, Government, export, home, wholesales, or retails;
4. Salesman, agents or representatives, and
5. Period; such as quarters, months, weeks, etc.

A sales budget may be prepared with the help of any one or more of the following methods.

Analysis of past sales: Analysis of past sales for a number of years, say 5 to 10 years, viz. long-term trend, seasonal trend, cyclical trend, sundry other factors. The long-term trend represents the movement of the fortunes of a business over many years. The seasonal trend may affect many types of business and hence this factor must be taken into account when studying figures for consecutive months over a number of years. The cyclical trend represents the fluctuations in the business activity due to the effect of the trade cycle. In order to study the cyclical trend it is desirable to disregard the effects to the long-term and seasonal trends. Sundry factors include, such as a strike in the industry or a serious fire or flood. From such analysis it will be possible to suggest future trends. In analyzing such sales, considerable help can be obtained from statistical reports produced by the trade units and commercial intelligence units, government publications, etc.

Studying the impact of factors affecting sale: Any change in the company policy or method should always be considered. For example, introduction of special discounts special salesmen, a new design of the product, new or additional advertising campaigns, improved deliveries, after-sales service should have some market effect on a sales budget. While preparing such forecasts, the sales manager must consider the opinion of divisional managers and other sales staff, the budget officer and the accountant. It will be observed that the preparation of a sales budget involves many factors and calls for a high degree of knowledge of conditions, and if ability to deduce fro the known facts and various estimates the probable course of sales budget is prepared first. If production is the key factor, the production budget should be built up first and the sales budget must be drawn up within up within the limits imposed by the production budget.

Illustration 1

AB Co. Ltd. manufactures two products, A and B, and sells them through two divisions – North and South. For the purpose of submission of sales budget to the budget committee, the following information has been made available.

Product	North	South
A	4,000 at Rs. 9	6,000 at Rs. 9
B	3,000 at Rs. 21	45,000 at Rs. 21

Actual sales of the current year were:

Product	North	South
A	5,000 at Rs. 9	6,000 at Rs. 9
B	2,000 at Rs. 21	4,000 at Rs. 21

Market studies reveal that the product A, is popular but under-period. It is observed that if the price of A is increased by Re. 1 it will still find a ready market. On the other hand, B is over-period to customers and the market could absorb more if the sales price of B is reduce by Re. 1. The management has agreed to give effect to the above price changes.

From the information relating to these price changes and reports from salesman, the following estimates have been prepared by divisional managers. Percentage increase in sales over current budget is:

Product	North	South
A	+10%	+5%
B	+20%	+10%

Additional sales above the estimated sales of divisional managers are:

Product	North	South
A	600 units	700 units’
B	400 units	500 units

Prepare a Sales Budget

Solution

Sales Budget

A B Co. Ltd.

For the Year : 19 x 7

Division	Product		Budget for Future Period Unit Price Value			Budget for Current Period Unit Price Value	Actual sales for Current Period Unit Price Value

		Qty	Rs.	Rs.	Qty	Rs.	Rs.	Qty	Rs.	Rs.
North	A	5,000	10	50,000	4,000	9	36,000	5,000	9	45,000
	B	4,000	20	80,000	3,000	21	63,000	2,000	21	42,000
Total		9,000		1,30,000	7,000		99,000	7,000		87,000
South	A	7,000	10	70,000	6,000	9	54,000	7,000	9	63,000
	B	6,000	20	1,20,000	5,000	21	1,05,000	4,000	21	84,000
Total		13,000		1,90,000	11,000		1,59,000	11,000		1,47,000
Total	A	12,000	10	1,20,000	10,000	9	90,000	12,000	9	1,08,000
(Summary)	B	10,000	20	2,00,000	8,000	21	1,68,000	6,000	21	1,26,000
Total		22,000		3,20,000	18,000		2,58,000	18,000		2,34,000

Production Budget

Like the sales budget, the production budget is built up in terms of quantities and money. The quantities are entered at the beginning and, when the remainder of the budget have been built up and the cost of production calculated, the costs are entered to compile a production cost budget. In preparing the production budget, consideration should be given to the following:

Principal budget factor, e.g., if sales be the budget factor then it should be the sales budget; otherwise other budgets.

Production planning and determination of optimum factory capacity.

The opening stocks, and stocks required to be carried at the end of the period.

The policy of the management regarding manufacture or purchase of components.

The production budget may be classified under the following heads:

1. Products
2. Manufacturing department
3. Months, quarters, etc.

ABC Col. Ltd.

(Production Budget (in units)

Items	A	B
Sales during the period	12,000	10,000
Required stock on 31st Dec.	1,000	2,000
Total	13,000	12,000
Less Estimated Opening stock	1,000	1,000
Estimated production	12,000	11,000

Purchase Budget

A purchase Budget gives the details of the purchase which must be made to meet the needs of the business. It includes all items of purchase. Such as raw materials, indirect materials and other equipments. The purchase budget for raw materials is the most important and the following factors are required to be considered in preparing this budget.

Opening and closing stocks.

Unfulfilled orders at the beginning of the budget period.

Storage space, economic buying quantity, and financial resources.The prices to be paid.

Illustration 5

The following information regarding the stocks of materials required for the production programme of Ramesh Limited is available.

Materials	Estimated Consumption during 1983-84 (in kg)	Estimated Stocks (in kg)	
	In 1st July 1983	On 30th June 1984	
AB	9,03,000	20,000	17,000
GH	6,90,000	10,000	20,000
XY	5,47,000	30,000	33,000

Collating the details given above with the information contained in the Materials Budget, prepare the Purchase Budget of Ramesh Limited.

Solution:

Ramesh Limited

Purchase Budget

(1983-84)

Particulars	AB	GH	XY
	kg.	kg	kg
Estimate Consumption	9,03,000	6,90,000	5,47,000
Add: Stock required on 30-06-84	17,000	20,000	33,000
Total requirements	9,20,000	7,10,000	5,80,000
Less: Estimated stock on 1st July 1983	20,000	10,000	30,000
Quantity to be purchased	9,00,000	7,00,000	5,50,000
Price per kg (Estimate	Re. 1	50 p	40 p
Estimated cost of purchase of materials (Rs)	9,00,000	3,50,000	2,20,000

Preparation of Cash Budget

A complete system of budgetary control makes the construction of cash budget easy. It is one of the functional budgets which is prepared along with other budgets. There are three recognized methods of preparing a cash budget.

1. The Receipts and Payment Method;

2. The Adjusted Profit and Loss Method; and
3. The Balance Sheet Method.

Steps to be adopted

Cash Receipts Forecast; Cash receipts from sales, debtors, income from sales of assets and investments and probable borrowings should be forecast and brought into cash budget. Any lag in payment by debtors or by others shall be considered for ascertaining further cash inflows.

Cash requirements forecast: Total cash outflows are taken out from operating budgets for the elements of cost, and from capital expenditure budget for the purchase of fixed assets. Adjustments are to be made for any lag in payments.

Care must be taken to ensure that outstanding or accruals are excluded from the cash budget since this method is based on the concept of actual cash flows.

Illustration 6

A newly started company Quick Co. Ltd., wishes to prepare cash budget from January. Prepare a cash budget for the first six months from the following estimated revenue and expenditure.

Month	Total Sales	Material	Wages	Production Overheads	Selling and distribution Overheads
	Rs.	Rs.	Rs.	Rs.	Rs.,
Jan.	20,000	20,000	4,000	3,200	800
Feb.	22,000	14,000	4,400	3,300	900
Mar.	24,000	14,000	4,600	3,300	800

Apr.	26,000	12,000	4,600	3,400	900
May.	28,000	12,000	4,800	3,500	900
June	30,000	16,000	4,800	3,600	1,000

Cash balance on 1st January was Rs. 10,000. A new machine is to be installed at Rs. 30,000 on credit, to be repaid by two equal installments in March and April.

Sales commission @ 5% on total sales is to be paid within the month following actual sales. Rs. 10,000 being the amount of 2nd call may be received in March. Share premium amounting to Rs. 2,000 is also obtainable with 2nd call.

Period of credit allowed to suppliers	2 months
Period of credit allowed to customers	1 month
Delay in payment of overheads	1 month
Delay in payment of wages	½ month
Assume cash sales to be 50% of total sales.	

Quick Co. Limited

Cash Budget

For the period January to June 1984

Details	Jan.	Feb.	Mar.	Apr.	May.	June
	Rs.	Rs.	Rs,	Rs,	Rs,	Rs.

A Balance b/d	10,000	18,000	29,000	20,000	6,100	8,800
B Receipts: Cash Sales (50%)	10,000	11,000	12,000	13,000	14,000	15,000
Debtors	-	10,000	11,000	12,000	13,000	14,000
Capital	-	-	10,000	-	-	-
Share premium	-	-	2,000	-	-	-
(A + B) Total	20,000	39,000	64,800	45,000	33,100	37,800
C Payments Material	-	-	20,000	14,000	14,000	12,000
Wages	2,000	4,200	4,500	4,600	4,700	4,800
Production Overheads	-	800	900	800	900	900
Commission	-	1,000	1,100	1,200	1,300	1,400
Machinery	-	-	15,000	15,000	-	-
(C) Total	2,000	9,200	44,800	38,900	24,300	22,600
Balance						
(A+B+C)	18,000	29,800	20,000	6,100	8,800	15,200

Flexible Budgets

In those industries where the pattern of demand is stable, a fixed budget may be adequate, especially where the budget period is comparatively short. In such businesses it is possible to forecast sales with a considerable degree of accuracy. There are many undertakings where stable conditions are absent. In such concerns fluctuations in output might lead to violent deviations from the budget. In such concerns it is usual to adopt the flexible budgetary technique. A flexible budget is a budget which is designed to change in accordance with the level of activity actually attained. If flexible.

The owner of a car knows that the more he uses it per year the more it costs him to operate it. He also knows that the more he uses his car the less its costs per running metres. The reason for this lies in the nature of the expenses, some of which are fixed while others are variable or semi variable. Insurance, taxes, registration, and garaging are fixed costs; they remain the same whether the car is operated 1,000 or 2,000 kilometers. The costs of tyres, petrol oil, and repair are variable costs and depend largely upon the kilometers driven. Obsolescence and depreciation result in a combined type of cost that, although fluctuating to some degree upon the usage of the car, is semi-variable for it does not vary directly with the usage. The cost of operating the car per kilometer depends on the number of kilometers the car is used. The mileage constitutes the basis for judging the activity of the automobile. If the owners prepares an estimate of total cross and compares his actual expanses with the budget in keeping his expenses within the allowed limits, unless he takes the mileage factor into account.

Originally, the flexible budget idea was applied principally to the control of departmental factory overhead. In recent years, however, the idea has been applied to the entire budget so that production budgets as well as selling and administrative budgets are prepared on a flexible basis. The construction of a flexible budget is identical with that of a fixed budget, except that a budget is calculated for each volume ranging from a possible 60 per cent to 100 per cent of capacity. When actual figures are available estimate previously determined for the level attained are compared with actual results, and the differences are noted. This end-of period comparison is used to measure the performance of each department head. It is this readymade method of comparison that makes the flexible budget a valuable instrument for cost control. The flexible budget assists in evaluating the effects of varying volumes of activity on profits and on cash position.

Illustration 9

The following data are available in a manufacturing company for the half-year period ending 30th June, 1984.

Fixed expenses:	Rs. (Lakhs)	
Wages and salaries	8.4	
Rent, rates, and taxes	5.6	
Depreciation	7.0	
Sundry administrative expenses	8.9	
		29.9
Semi-variable expenses @ 50% of capacity -		
Maintenance and repairs	2.5	
Indirect labour	9.9	
Sales department salaries etc.,	2.9	
Sundry administrative expenses	2.6	
		17.9
Variable expenses: @ 50% of capacity -		
Material	24.0	
Labour	25.6	
Other expenses	3.8	
		53.4

It is assumed that fixed expenses remain constant for all levels of production' semi-variable expenses remain constant between 45% and 65% of capacity, increasing by 10% between 65% and 80% of capacity and 20% between 89% and 100% of capacity.

Sales at the various levels are:

60% capacity	Rs. 100.00 lakhs
75% Capacity	120.00 Lakhs
90% Capacity	150.00 Lakhs
100% Capacity	170.00 Lakhs

Prepare a flexible budget for the half-year and forecast the profits at 60%, 75%, 90% of capacity.

Solution

Flexible Budget for the Half-Year Ending 30th June 1984

(showing the forecast of profit of different levels)

	Operating capacity				
Elements of cost	50%	60%	75%	90%	100% Standard
A Fixed expenses:					
Wages and salaries	8.4	8.4	8.4	8.4	8.4

Rent, rates and taxes	5.6	5.6	5.6	5.6	5.6
Depreciation	7.0	7.0	7.0	7.0	7.0
Sundry expenses	8.9	8.9	8.9	8.9	8.9
	29.9	29.9	29.9	29.9	29.9
B. Semi-variable exp:					
Maintenance and repairs	2.5	2.5	2.75	3.00	3.00
Indirect labour	9.9	9.9	10.89	11.88	11.88
Sales Dept. salaries	2.9	2.9	3.19	3.48	3.48
Sundry Adm. expenses	2.6	2.6	2.86	3.12	3.12
	17.9	17.9	19.69	21.48	21.48
C. Variable expenses:					
Material	24.0	28.80	36.00	43.20	48.0
Labour	25.6	30.72	30.47	46.08	51.2
Other expenses	3.8	4.56	5.70	6.84	7.6
	53.4	64.08	80.17	96.12	106.8

Total cost of Production	101.2	111.88	129.76	147.50	158.18
(i.e. Total of A, B and C) Profit (+) of Loss (-)		-11.88	-9.76	+2.50	+11.82
Sales		100.00	120.00	150.00	170.00

Less: Bills Payable	=	10,000
Sundry Creditors	=	Rs. 1,91,667

Human Factors in Budgeting

If a budget program is to be successful, it must have the complete acceptance and support of the persons who occupy key management positions.

Zero Based Budgeting (ZBB)

Zero based budgeting (ZBB) is an alternative approach that is sometimes used particularly in government and not for profit sectors of the economy.

Preparation of different budget

A standing budget committee will usually be responsible for overall policy matters relating to the budget program and for coordinating the preparation of the budget itself.

Master Budget

The master budget is a summary of company's plans that sets specific targets for sales, production, distribution and financing activities. It generally culminates in a cash budget, a budgeted income statement, and a budgeted balance sheet.

Sales Budget

A sales budget is a detailed schedule showing the expected sales for the budget period; typically, it is expressed in both dollars and units of production. An accurate sales budget is the key to the entire budgeting in some way. If the sales budget is sloppily done then the rest of the budgeting process is largely a waste of time.

Production Budget

The production budget is prepared after the sales budget. The production budget lists the number of units that must be produced during each budget period to meet sales needs and to provide for the desired ending inventory.

Inventory Purchases Budget for a Merchandising Firm

Manufacturing firms prepare production budget but merchandising firms prepare merchandising purchase budget instead. Merchandising purchase budget shows the amount of goods to be purchased from its suppliers during the period.

Material Budgeting | Direct Materials Budget

Direct materials budget is prepared after computing production requirements by preparing a production budget. Direct materials budget or materials budgeting details the raw materials that must be purchased to fulfill the production requirements and to provide for adequate inventories.

Labour Budget

The direct labor budget is developed from the production budget. Direct labor requirements must be computed so that the company will know whether sufficient labor time is available to meet the budgeted production needs.

Manufacturing Overhead Budget

The manufacturing overhead budget provides a schedule for all costs of production other than direct materials and direct labor.

Ending Finished Goods Inventory Budget

After preparing sales budget, production budget, direct materials budget, direct labor budget, and manufacturing overhead budget the management has all the data needed to calculate unit product cost. This calculation is needed for two reasons: first, to determine cost of goods sold on the budgeted income statement; and second, to know what amount to put on the balance sheet inventory account for unsold units. The carrying cost of unsold units is calculated on the ending inventory finished goods budget.

Selling and Administrative Expense Budget

Selling and administrative expense budget lists the budgeted expenses for areas other than manufacturing.

Cash Budget

Cash budget is a detailed plan showing how cash resources will be acquired and used over some specific time period.

Budgeted Income Statement

The budgeted income statement is one of the key schedules in the budget process. It shows the company's planned profit for the upcoming budget period, and it stands as a benchmark against which subsequent company performance can be measured.

Budgeted Balance Sheet

The budgeted balance sheet is developed by beginning with the current balance sheet and adjusting it for the data contained in other budgets.

International Aspects of Budgeting

A multinational company faces special problems when preparing a budget. The problems arise because of fluctuations in foreign currency exchange rates, the high inflation rates found in some countries, and local economic conditions and governmental policies that affect everything from labor costs to marketing practices.

Steps involved in the Budgetary Control Techniques:

1. State the objectives clearly.
2. Formulating the necessary plans to ensure that the desired objectives are achieved.
3. Translating the plans into budgets.
4. Relating the responsibilities of executives to the budgets.
5. Continuous comparison of the actual results with that of the budget & the ascertainment of deviations (Positive/negative).
6. Investigating into the deviations & establishing the causes.
7. Presentation of information to the management relating the variances to individual responsibilities.
8. Corrective action of the management to present recurrence of variance.

POSSIBLE QUESTIONS

PART B

1. Draw up a flexible budget for overhead expenses on the basis of the following data and determine overhead rates at 70%, 80% and 90% plant capacity.

Particulars	At 80% capacity (Rs)
Variable Overheads:	
Indirect labour	12,000
Stores including spares	4,000
Semi-Variable Overheads:	
Power(30% fixed, 70% variable)	20,000
Repairs and maintenance (60% fixed , 40% variable)	2,000
Fixed Overheads:	
Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total overheads	**62,000**

Estimated direct Labour hours 1,24,000 hrs.

2. Draw a material Procurement Budget (Quantitative) from the following information:

Estimated Sales of a product 40,000 units. Each unit of the product requires 3 units of material A and 5 units of material B.

Estimated opening balances at the commencement of the next year:

Finished product 5,000 units

Material A 12,000 units

Material B 20,000 units

Materials on Order:

Material A 7,000 units

Material B 11,000 units

The desirable closing balances at the end of the next year

Finished product 7,000 units

Material A 15,000 units

Material B 25,000 units

Material on order:

Material A 8,000 units

Material B 10,000 units

3. Prepare a cash budget for 3 months ending December 2002.

Month	**Sales (Rs)**	**Materials(Rs)**	**Labour (Rs.)**	**Overheads (Rs)**
Aug	10,000	6,000	1,000	1,100
Sep	12,000	6,600	1,200	1,230
Oct	14,000	6,400	1,400	1,450

Nov	16,000	7,200	1,600	1,600
Dec	18,000	7,600	1,800	1,750

Credit terms are:

(i) sales-20% of sales are on cash.50% credit sales is received in the same month and remaining 50% in the next month.

(ii) Material -1 month credit.

(iii) Wages and overheads- ½ month credit.

Cash and bank balance on 1st October is Rs.5,500.

Other information's are:

(i) Income tax paid in December 2002 Rs.3,500 and

(ii) Sale of old car Rs.20,000 received in November 2002.

4. The sales director of a manufacturing company reports that next year he expects to sell 60,000 units of a particular product. The production department gives the following figures.

Two kinds of raw materials A and B are required for manufacturing the product. Each product requires 3 units of material A and 4 Units of material B. the estimated opening balance next year will be:

Finished product -13,000 units, Material A-10,000 units, Material B-17,000 units. The desirable closing balances at the end of the year are:

Finished product-18,000 units' material A-15,000 units, Material B-20,000 units. Draw up a material purchase budget.

5. Prepare a cash budget for the three months ended 30th September 2008 based on the following information:

	Rs.
Cash at bank on 1st July 2008	25,000
Monthly salaries and wages (estimated)	10,000
Interest payable in August, 2008	5,000

Estimated	**June (Rs)**	**July (Rs)**	**August (Rs)**	**September (Rs)**
Cash sales (actual)	1,20,000	1,40,000	1,52,000	1,21,000
Credit sales	1,00,000	80,000	1,40,000	1,20,000
purchase	1,60,000	1,70,000	2,40,000	1,80,000
Other expenses	18,000	20,000	22,000	21,000

Credit sales are collected 50% in the month of sale and 50% in the month following. Collections from credit sales are subject to 10% discount if received in the month of sale and to 5%if received in the month following.

10% of the purchases are in cash and balance is paid in next month.

6.The sales director of a manufacturing company reports that next year he expects to sell 60,000 units of a particular product. The production department gives the following figures.

Two kinds of raw materials A and B are required for manufacturing the product. Each product requires 3 units of material A and 4 Units of material B. the estimated opening balance next year will be:

Finished product -13,000 units, Material A-10,000 units, Material B-17,000 units. The desirable closing balances at the end of the year are:

Finished product-18,000 units' material A-15,000 units, Material B-20,000 units. Draw up a material purchase budget.

7. The Sales Director of a manufacturing company reports that next year he expects o sell 50,000 units of a particular product.

The production Manager consults the Store keeper and casts his figures as follows:

Two kinds of raw materials A and B, are required for manufacturing the product. Each unit of the product requires 2 units of A and 3 units of B. The estimated opening balances at the commencement of the next year are:

Finished Product : 10,000 units
Raw Materials : A: 12,000 units;
B: 15,000 units

The desirable closing balances at the end of the next year are:

Finished product : 14,000 units
Raw Materials : A : 13,000 units
B : 16,000 units

Prepare Production Budget and Materials Purchase Budget for the next year.

8. Prepare a Cash Budget for the months of May, June and July 2009 on the basis of the Following information: a) Income and Expenditure Forecasts:

Months	**Credit Sales Rs.**	**Credit Purchased Rs.**	**Wages Rs.**	**Manufacturing Expenses Rs.**	**Office Expenses Rs.**	**Selling Expenses Rs.**
March	60,000	36,000	9,000	4,000	2,000	4,000
April	62,000	38,000	8,000	3,000	1,500	5,000
May	65,000	33,000	10,000	4,500	2,500	4,500
June	58,000	35,000	8,500	3,500	2,000	3,500
July	56,000	39,000	9,500	4,000	1,000	4,500
August	60,000	34,000	8,000	3,000	1,500	4,500

b) Cash balance on 1 st May 2009 Rs. 8,000.

c) Plant costing Rs. 16,000 is due for delivery in July, payable 10% on delivery and the balance after three months.

d) Advanced Tax of Rs. 8,000 each is payable in March and June.

e) Period of credit allowed (a) by suppliers – two months, and (b) to customers – one month.

f) Lag in payment of manufacturing expenses – ½ month.

g) Lag in payment of office and selling expenses – one month.

9. The expenses for the production of 5,000 units in a factory are given as follows:

	Per unit Rs.
Materials	50
Labour	20
Variable Overheads	15
Fixed Overheads (Rs.50,000)	10
Administrative Expenses (5% variable)	10
Selling Expenses (20% Fixed)	6
Distribution Expenses (10% Fixed)	5
Total cost of sales per unit	**116**

You are required to prepare a budget for the production of 7,000 units.

10. Ganesh ltd., manufacturing two brands of pen Hero & Zero. The sales department of the company has three departments in different areas of the country.

The sales budget for the year ending 31st December 2008 were: Hero-Department I 3,00,000; Department II 5,62,500;Department III 1,80,000and Zero-Department I 4,00,000;Department II 6,00,000; and Department III 20,000. Sales prices are Rs.3 and Rs.1.20 in all departments.

It is estimated that by forced sales promotion the sale of 'Zero' in department I will increase by 1,75,000. It is also expected that by increasing production and arranging extensive advertisement, Department III will be enabled to increase the sale of 'Zero' by 50,000.

It is recognized that the estimated sales by department II represent an unsatisfactory target. It is agreed to increase both estimates by 20%

Prepare a sales Budget for the year 2009.

S.NO	QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
1	Budgetary control is a _______ of costing.	Mental	Technique	Kind	Analysis	Technique
2	The process of preparing a budget is known	Budget	Budgeting	Budgetary control	Budget Cost	Budgeting
3	The explanation of MBE is	Management by exception	Management, botany, economics	Master of business economics	Management by Objectives	Management by exception
4	MBO means	Management by exception	Management by organization	Management by objectives	Master of business economics	Management by objectives
5	Budgetary control and budgets are the ________	same	Different	Variable	Equal	same
6	Budgetary control relates to	Persons	A product	Both a and b	Producer	Persons
7	Both budgetary control and _______ systems are interrelated.	Marginal costing	Standard costing	Budgeting	Break Even	Standard costing
8	The ________ is the document which lays down the details of the budgeting organization and procedures.	Budget manual	Budget committee	Budget procedure	Budget Cost	Budget manual
9	The period covered by a budget is known as _____	Budget committee	Budget period	Budget manual	Budget Cost	Budget period
10	Generally the budget period is _____	two years	three years	one year	five years	one year
11	In most of the companies, the key factor	Production	Finance	Sales	Cost	Sales
12	________ budget is one among the functional budgets.	Sales	Capital	Fixed	Responsibility	Sales
13	_______ budget is concerned with estimating the probable Output of each product in the forth coming	Sales	Production	Cash	Advertising	Production

	budget period					
14	_____ refers to the quantity of work that can be performed in one hour.	Standard quantity	Standard hour	Actual hour	Machine Hour	Standard hour
15	Zero base budgeting overcomes the weakness of _______	Conventional budgeting	Sales budget	Production budget	Cash Budget	Conventional budgeting
16	A master budget is also known as _______ all functional budgets.	Summary	Production	Sales	Finance	Summary
17	A fixed budget is useful only when the actual level of activity corresponds to the ______ levels of activity.	Actual	Budgeted	Manual	Financial	Budgeted
18	A_______ is a department or section of the organisation defined for the purpose of budgetary control.	Budget committee	Budget centre	Budget manual	Budgeting	Budget centre
19	_____ is a factor whose influence effects all other budgets.	Key factor	Production	Sales	Finance	Key factor
20	A _______ budget is one which is established for use unaltered over a long period of time	Basic	Current	Sales	Production budget	Basic
21	________ is a plan of estimated receipts and payment of cash for the budget period	Cash budget	Sales budget	Production budget	Conventional Budget	Cash budget
22	_______ budget is one which incorporate all functional budgets.	Master	Flexible	Sales	Finance	Master
23	________ budget is a budget which is designed to change in accordance with the level of activity actually attained.	Master	Flexible	Fixed	Variable	Flexible
24	_______ budget is a budget which is designed to remain unchanged	Master	Flexible	Fixed	Variable	Fixed

	irrespective of the level of activity actually attained.					
25	The difference between the budgeted figures and actual figures is ___	Variance	Profit	Sales	Cost	Variance
26	______ ration gives the percentage of actual hours worked to the budgeted hours.	Capacity	Efficiency	Activity	Effect	Capacity
27	Sales budget is _______	a functional budget	Expenditure budget	Master budget	Production budget	a functional budget
28	The difference in fixed cost and variable cost is a special significance in the preparation of ____	Cash budget	Static budget	Flexible budget	Production budget	Flexible budget
29	The budget which is prepared first of all is _______	Budget for key factor	Cash budge	Master budget	Flexible budget	Budget for key factor
30	A budge manual contains a summary of _______	All financial budgets	Ratios	The responsibility of the persons engaged in the routine of and the forms and records required for budgetary control.	Statements	The responsibility of the persons engaged in the routine of and the forms and records required for budgetary control.
31	Key factor is also known as ___ factor	principal	Limiting	Governing	normal	principal
32	The budgets are proper for a given level of activity, the budget is prepared before the beginning of a financial year.	Flexible	Fixed	Sales	Master	Flexible

33	A factor which influences all other budget	Limiting factor	Production factor	Master budget	Production budget	Limiting factor
34	_____ budget is a plan of estimated receipts and payments of cash for the budget period.	Cash	Sales	Production	Raw material	Production
35	Before the implementation of the master budget it must be approved by the _________	Budget committee	Board of directors	Share holders	Government	Budget committee
36	Both budgetary control and _______ systems are inter related .	Marginal costing	Budgeting	Standard costing	Process costing	Budgeting
37	________ is based on prospective approach	Performance budgeting	Flexible budgeting	Zero base budgeting	Master Budget	Performance budgeting
38	Zero base budgeting technique was first used in America in __	1960	1962	1968	1970	1962
39	Zero base budgeting was originally developed by ________	Peter a. pyre	Brown & Howard	ICMA	ICWA	Peter a. pyre
40	Ratios which are used to compare, to control and to appraise the operations of the management are known as ___	Control ratios	Current ratios	p/v ratio	Profitability Ratios	Control ratios
41	Budgetary control is a system which uses budget as a means of ________ and controlling.	Planning	Staffing	Co-Ordination	Organizing	Planning
42	A budget is a plan of action for a _______ period.	Previous	Future	Both a and b	Present	Future
43	A budget guides every manager in the process.	Planning	Staffing	Organizing	Decision making	Decision making
44	In budgetary control ____ costs are recorded	Actual	Variable	Fixed	Semi - variable Cost	Actual
45	Budgeted costs are compared	Actual costs	Variable costs	Fixed costs	Semi -	Actual costs

	with________				variable Cost	
46	Activities of various departments are _______	Planned	Organized	Co-Ordination	Decision	Co-Ordination
47	The _______ of a business must be defined clearly	Objectives	Delegation	Co-Operation	Flexibility	Objectives
48	Budgeting must have the complete ______ of the top management.	Objectives	Delegation	Co-Operation	Flexibility.	Co-Operation
49	Employee should be educated about the merits of _____ systems.	Budgeting	Budgetary control	Budget	Budget Cost	Budgetary control
50	The employees must be _______ to improve their efficiency.	Motivation	Reporting	Follow up action	Cost of operation	Motivation
51	A good budgetary control system should include _____	Motivation	Reporting	Follow up action	Cost of operation	Follow up action
52	The _________ of budgetary control system should be considered	Motivation	Reporting	Follow up action	Cost of operation	Cost of operation
53	A good organization must be developed in order to achieve ____ benefits.	Maximum	Minimum	Both a and b	Average	Maximum
54	The _______ must should not be an expensive one.	Motivation	Reporting	Follow up action	Cost of operation	Cost of operation
55	A _______ may be a department or section of a department or any other part of the department.	Budgetary control	Budges centers	Budget manual	Budget Cost	None of these
56	Budgets centers is also necessary for ________purpose	Control	Co-ordinate	Motivate	Organize	Control
57	The head or a budgetary control organisation is designed as the________	Budgetary control	Budges centers	Budget officer	Budget manual	Budget officer
58	_______ is a written record.	Budgetary control	Budges centers	Budget officer	Budget manual	Budget manual

59	The budget officer is assisted by a ________	Budgetary control	Budges centers	Budget committee	Budget period	Budget committee
60	The _____ may be short term or long term.	Budgetary control	Budget centers	Budget committee	Budget period	Budget period

UNIT V

SYLLABUS

Introduction to standard costing – Various types of Standards – Comparison of Material, Labour and Overhead Variance.

STANDARD COSTING

Meaning:

The word standard means a 'norm' or a 'criterion'. Standard cost is thus a criterion cost which may be used as a yardstick to measure the efficiency with which actual cost has been incurred. There is a constant process of development effected in business through the help of standard costing method since the standard costs set in are sensible, capable of being attained and are revised from time to time in accord with needs and requirements of the business enterprise.

1) Standard cost:

Standard cost is a figure which represents an amount that can be taken as a typical of the cost of an article or other cost factor. It is established on the basis of planed operations, planed cost efficiency levels, and expected capacity utilization.

Standard cost is a predetermined calculation of the presumed cost under the specified conditions. It is built up from an assessment of the value of cost elements. It correlates technical specification of material, labour and other cost to the price or wage rate which have occurred during the period in which the standard cost is to be determined.

The standard cost is a predetermined cost which is calculated from management standard of efficient operation and relevant necessary expenditure.

- C.I.M.A. London

2) Standard Costing:

A standard costing system is a method of cost accounting in which standard costs are used in recording certain transaction and the actual costs are compared with the standard cost to learn the amount and reason for variations from the standard.

- W.B. Lawrence

Standard costing involves the preparation of cost based on pre-determined standards and continuous comparison of actual with them for the purpose of guidance and control.

- D. Joseph

Advantages of Standard Costing:

1. **Proper Planning:** It helps to apply the principle of "Management by exception". That is, the management need not worry over those activities which proceed in tandem plans. It is only on the issues of exceptions that they have to concentrate.
2. **Efficient Cost Control:** Standard Costing is a tool for the management to gain reduction in the cost and control over it. Under this technique, differences are analyzed and responsibilities are determined.
3. **Motivational Factor:** Labour efficiency is promoted and they are destined to be cost conscious. Standards provide incentives and motivation to work with greater effort. This increases efficiency and productivity.
4. **Comparison of Forecasting and Outcome:** A target of efficiency is set for the employees and the cost consciousness is stimulated. Since the process of standard costing allow an appraisal to be made of personnel, machines and method of working, current inefficiencies come to the notice and get eliminated.
5. **Inventory Control:** Standard costing facilitates inventory control and simplifies inventory valuations. This ensures uniform pricing of stocks in the form of raw materials, work-in-progress and finished goods.
6. **Economical System:** Standard costing system is economical system from the viewpoint that it does not require detailed records. It also des not require a big staff. It results in the reduction in paper work in accounting and needs very few records. Thus, there is saving of time as well as money.
7. **Helpful in Budgeting:** Budgets are prepared on the basis of standard costing. Standards which are set up in respect of materials, labour and overheads, are helpful in preparing various budgets. For example, flexible budget, sales budget, etc.
8. **Helps Formulate Policies:** This technique is a valuable aid to the management in determining prices and formulating production policies. Standard costing equips cost estimates while planning the production of new products.

9. **Helps Distinguish Activities:** Standard costing helps in distinguishing between skilled and unskilled activities. So the skilled worker only gives pays attention to improving the activities of the unskilled workers.

Limitations of Standard Costing:

1. **Costly System:** Because the Standard Costing requires highly skillful and competent personnel, it becomes a costly system too. For the same experts are paid high remuneration.
2. **Difficulties in Fixation of Standard:** It is always difficult to determine precise standard costs in a given situation which will coincide with actual cost when operations are over. Standard cost are determined partly by the past experience and partly by the cost projections based on advanced statistical techniques. Thus, uncertainties revolve around standards.
3. **Constraint for Service Industry:** Standard costing is applied for planning and controlling manufacturing costs. Thus, it cannot be applied in a service industry.
4. **Consistency of Standard:** because the standards of marginal costing fluctuate and vary time to time, it is difficult to always sustain and continue the same standards.

Objectives of Standard Costing:

1. To institute a control mechanism on all the elements of costs that affect production and sales
2. To measure different operational efficiencies and check the wastages
3. To improve the delegation of authority and generate a sense of responsibility among the employees
4. To develop a cost consciousness in the employees
5. To presume the production costs, sales and profit
6. To avail the benefits of 'Management by exception.'
7. To bring about a vivid progressive vision and sagacious decision making at each managerial level.

Meaning of Analysis of Variance

Variance means the deviation of the actual cost or actual sales from the standard cost or profit or sales. Calculation of variances is the main object of standard costing. This calculation shows that whether costs are under controlled or not. A variance may be favourable or adverse.

The process of computing the amount of variance and isolate the causes of variances between actual and standard.

- C.I.M.A. London

TYPES OF VARIANCE ANALYSIS

Variance Analysis can be broadly classified into the following heads:

1. Material Variance
2. Labour Variance
3. Variable Overhead Variance
4. Fixed Overhead Variance
5. Sales Variance

MATERIAL VARIANCE

Material Variances (MV): These variances include Material Cost Variances, Material Price Variances, Material Usage Variances, Material Mix Variances and Material Yield Variances.

MATERIAL COST VARIANCES (MCV): It is the difference between the standard cost of material specified for the output achieved and the actual cost of direct materials used.

Standard Cost – Actual Cost

In other words, (Standard Quantity x Standard Price) – (Actual Quantity x Actual Price)

= (200 x 10) – (150 x 8)

= 800 (Favorable)

Material Variance is further sub-divided into two heads:

MATERIAL PRICE VARIANCE:

It is that portion of the material cost variance which is due to the difference between the standard price specified and the actual price paid.

MPV = (Standard Price – Actual Price) x Actual Quantity

= (10 – 8) x 150

= 300 (Favorable)

MATERIAL USAGE VARIANCE:

Material usage variance is a part of Direct Material Cost Variance. MUV is determined by difference found between the standard quantity and the use of actual quantity. Later, the difference found is multiplied by the standard price.

MUV = (Standard Quantity – Actual Quantity) x Standard Price

= (200 – 150) x 10

= 500 (Favorable)

Material Mix Variances (MMV): It is that portion of direct material usage variance which is the difference between the actual quantities of elements used in a mixture at a standard price and the total quantity of elements used at the weighted average price per unit of element as shown by the standard cost sheet.

MMV = Standard Price (Std.Mix – Actual Mix).

Material Yield Variances (MYV): This is "that portion of the direct materials usage variances which is due to the difference between standard yield specified and the actual yield obtained.

MYV = Standard Yield Price (Std.Yield – Actual Yield).

LABOR VARIANCE

Labour variances occur because of the difference in actual rates and standard rates of labour and the variation in actual time taken by labours and the standard time allotted to them for doing a job. These variances include Labour Cost Variances, Labour Rate Variances, Labour Time or Efficiency Variances, Labour Idle Time Variances, Labour Mix Variances.

Standard Wages – Actual Wages

In other words, (Standard Hours x Standard Rate) – (Actual Hours x Actual Rate)

= (250 x 8) – (300 x 7)

= 100 (Adverse)

Labor Variance is further sub-divided into two heads:

Labour Cost Variances (LCV): This is the difference between the standard direct labour cost and the actual direct labour cost incurred for the production achieved.

LCV = (Std. Time x Std. Rate) - (Actual Time x Actual Rate) (ST X SR) - (AT x AR)

Labour Rate Variances (LRV): This is that portion of the labour cost variance which is due to the difference between the standard rate specified and the actual rate paid.

LRV = Actual Time (Std. Rate - Actual Rate)

Labour Time (Efficiency) Variances: (LTV/LEV): It is defined as the difference between the standard hours (Time) for the actual production achieved and the hours actually worked, valued at the standard labour rate.

LTV= Standard Rate (Std. Time - Actual Time)

Idle Time Variance (ITV): ITV comes up because of idle time of workers on account of abnormal causes. The wages paid for the time during which the workers remained idle due to causes like strikes, breakdown on plant, etc. are treated as idle time variances.
ITV = Idle Time x Standard Rate

OVERHEAD VARIANCES (OV):

Overhead is the aggregate of indirect materials, indirect labour and indirect expenses. Analysis of overhead variances is different from that of direct material and direct labour variances by two reasons.

(1) It is difficult to establish Standard overhead rate for fixed overhead because changes in the volume of output will affect the standard overhead rate even if there is no change in the amount of fixed overhead cost.

(2) For computing overhead variances, there are quite a few terminological options and methods.

The overhead variances include fixed overhead variances and variable overhead variances. Moreover, further analysis of overhead variances is also possible according as the available source information. It is significant to know at the beginning that the overhead variance is not anything but under or over-absorption of the overhead.

VARIABLE OVERHEAD VARIANCE

Variable Overhead Variance arises when there is a difference between the actual variable overhead and the standard variable overhead based on budgets.

VARIABLE OVERHEAD VARIANCE FORMULA

Standard Variable Overhead – Actual Variable Overhead

In other words, (Standard Rate – Actual Rate) x Actual Output

= (8 – 7) x 80

= 80 (Favorable)

Variable Overhead Variance is further sub-divided into two heads:

- **VARIABLE OVERHEAD EFFICIENCY VARIANCE**

VOEV = (Actual Output – Standard Output) x Standard Rate

= (80 – 100) x 8

= 160 (Adverse)

- **VARIABLE OVERHEAD EXPENDITURE VARIANCE**

VOEV = (Standard Output x Standard Rate) – (Actual Output x Actual Rate)

= (100 x 8) – (80 x 7)

= 240 (Favorable)

FIXED OVERHEAD VARIANCE

1. It arises when there is a difference between the standard fixed overhead for actual output and the actual fixed overhead.

FIXED OVERHEAD VARIANCE FORMULA

= (Actual Output x Standard Rate per unit) – Actual Fixed Overhead

= (80 x 30) – 3500

= 1100 (Adverse)

Fixed Overhead Variance is further sub-divided into two heads:

- FIXED OVERHEAD EXPENDITURE VARIANCE

FOEV = Standard Fixed Overhead – Actual Fixed Overhead

= 3000 – 3500

= 500 (Adverse)

- FIXED OVERHEAD VOLUME VARIANCE

FOVV = (Actual Output x Standard Rate per unit) – Standard Fixed Overhead

= (80 x 30) – 3000

= 600 (Adverse)

SALES VARIANCE

Sales Variance is the difference between the actual sales and budgeted sales of an organization.

SALES VARIANCE FORMULA

= (Budgeted Quantity x Budgeted Price) – (Actual Quantity x Actual Price)

= (100 x 50) – (80 x 65)

= 200 (Favorable)

Sales Variance is further sub-divided into two heads:

- SALES VOLUME VARIANCE

SVV = (Budgeted Quantity – Actual Quantity) x Budgeted Price

= (100 – 80) x 50

= 1000 (Adverse)

- SALES PRICE VARIANCE

SPV = (Budgeted Price – Actual Price) x Actual Quantity

= (50 – 65) x 80

= 1200 (Favorable)

POSSIBLE QUESTIONS

PART - B

1. From the following particulars, compute the Variable Overhead Variances :

	Standard	**Actual**
Output in Units	2,500 units	2,000 units
Labour Hours	5,000	6,000
Variable Overheads	Rs. 1,000	Rs. 1,500

2. From the following particulars, calculate Labour Variances:

Standard hours = 240

Standard rate for actual production = Re. 2 per hour

Actual hour: = 220

Actual Rate = Rs. 2.25 per hour

3. The standard cost of a chemical mixture is as under

8 tons of material A at Rs. 40 per ton

12 tons of material B at Rs. 60 per ton

Standard yield is 90% of input

Actual cost for a period is as under:

10 tons of material A at Rs. 30 per ton

20 tons of material B at Rs. 68 per ton

Actual Yield is 26.5 tons

Compute all material variances.

4. A gang of workers usually consist of 10 men, 5 women, and 5 boys in a factory. They are paid at standard hourly rates of Rs.1.25, Re.0.80 and Re.0.70 respectively. In a normal working week of 40 hours the gang is expected to produce 1000 units of output.

In a certain week, the gang consisted of 13 men, 4 women and 3 boys. Actual wages were paid at the rates of Rs. 1.20, Re. 0.85 and Re.0.65 respectively. Two hours per week were lost due to abnormal idle time and 960 units of output were produced. Calculate various labour variances.

5. From the following data, calculate overhead variances:

	Budgeted	Actual
Output	15,000 units	16,000 units
No. of working days	25	27
Fixed overheads	Rs.30,000	Rs.30,500
Variable overheads	Rs.45,000	Rs.47,000

There was an increase of 5% in capacity. **(Or)**

6. What is standard costing and explain a) Material variances b) Labour variance and c) Overhead variances?

7. Calculate overhead variances from the following data:

	Standard	Actual
Fixed overheads (Rs.)	8,000	8,500
Variable overheads (Rs.)	12,000	11,200
Output in Units	4,000	3,800

8. S.V Ltd, manufacturers a simple product, the standard mix of which is,

Material A	60% at Rs. 20 per kg.
Material B	40% at Rs.10 per kg.

Normal loss in production is 20% of input. Due to shortage of material A, the standard mix was changed. Actual results for march 2008 were,

Material A	105 kgs @Rs. 20 per kg.
Material B	95 kgs @Rs. 9 per kg.
Input	200 kgs.
Loss	35 kgs.
Output	165 kgs.

Calculate: i) Material price variance ii) Material usage variance iii) Material mix variance and iv) Material Yield variance.

9. From the following particulars calculate:

(a) Material Cost Variance (b) Material Price Variance (c) Material Usage Variance

(d) Material Mix Variance

The Standard Mix of Product is :

X 300 Units at Rs. 7.50 per unit

Y 400 Units at Rs. 10 per unit

Z 500 Units at Rs. 12.50 per unit

The Actual Consumption was:

X 320 Units at Rs. 10 per unit

Y 480 Units at Rs. 7.50 per unit

Z 420 Units at Rs. 15 per unit

10. From the following particulars, calculate Labour Variances:

Standard hours = 200

Standard rate for actual production = Re. 1 per hour

Actual hour: = 190

Actual Rate = Rs. 1.25 per hour.

S.NO	QUESTION	OPTION1	OPTION2	OPTION3	OPTION4	ANSWER
1	Fixed cost does not change with the n production with a certain range.	Increase	Decrease	Increase or decrease	Both a and b	Increase or decrease
2	______ is one which tends to vary does with the volume of output.	Fixed cost	Variable cost	Total cost	Marginal cost	Variable cost
3	_______ is a technique or working costing, which is used in conjunction with other methods of costing.	Job costing	Standard costing	Marginal costing	Standard costing	Marginal costing
4	______ are kept separate at every stage	Fixed costs	variable costs	Fixed and variable costs	Semi - variable Cost	Fixed and variable costs
5	As fixed costs are _____ costs	Total	Variable	Average	Period	Period
6	Period costs are _____ from product cost or cost of production or cost of sales.	Included	Excluded	Included or excluded	Included and Excluded	Excluded
7	Only ______ are considered as the cost of the product.	Fixed cost	Variable cost	Total cost	Marginal cost	Variable cost
8	Period costs are not carried forward to next years _____	Income	Expenses	Profit	Loss	Income
9	Marginal income or marginal contribution known as the ____	Income or expenses	Income or profit	Income or loss	Expenses or profit	Income or profit
10	The difference between the contribution and fixed costs is the_______	Net profit or loss	Net profit	Gross profit	Net loss	Net profit or loss
11	Fixed costs remain constant _______of level of activity.	Respective	Irrespective	Contribution	Variable	Irrespective
12	Sales price and variation cost per unit remain the ______	same	Different	Equal	Similar	same
13	Cost volume profit relationship is fully employed to reveal the state of ______ at various level of activity.	Assets	Liability	Profitability	Liquidity	Profitability

14	_______ fluctuates from time to time but in the ling run marginal cost are stable.	Fixed cost	Variable cost	Total cost	Fixed Cost	Variable cost
15	_____ remains the same, irrespective of the volume of production.	Total costs	Average costs	Marginal costs	Standard cost	Marginal costs
16	Fixed cost is _______ from product.	Included	Excluded	Both a and b	Included and Excluded	Excluded
17	The management can take decision regarding to _____ and tendering.	Pricing	Planning	co-ordinating	Controlling	Pricing
18	______ expenses remain unchanged at any level of operation	Fixed	Variable	semi- variable	Fixed and Variable	Fixed
19	_____expenses are those expenses which vary according to the units of production.	Fixed	Variable	semi- variable	Fixed and Variable	Variable
20	____expenses are those which are partly constant and partly variable.	Fixed	Variable	semi- variable	Fixed and Variable	semi- variable
21	The difference between sales value and variable cost is known as	Profit	Contribution	BEP	Fixed cost	Contribution
22	Contribution=_______	Sales – variable cost	Sales – fixed cost	Sales + variable cost	Sales + variable cost	Sales – variable cost
23	Marginal cost is also known as ______	Period cost	Fixed cost	Volume cost	Prime cost	Volume cost
24	Fixed cost is also known as ______	Period cost	Fixed cost	Volume cost	Prime cost	Period cost
25	______ indicates the relation ship of contribution to sales	p/v ratio	Contribution	Profit	Sales.	p/v ratio
26	P/v ratio can be improved by _______	Increase sales once	Decreasing selling price	Increasing the variable cost	Increasing the value of sale	Increase sales once
27	______= sales X p/v ratio.	Sales	Profit	Contribution	Fixed cost	Contribution
28	Contribution minus profit is equal to________	Sales	Loss	Variable	Fixed cost	Fixed cost

29	p/v ratio=______	Profit volume ratio	Profit variable ratio	Production volume ratio	price volume ratio	Profit volume ratio
30	Limiting factor is also known as ____________	Key factor	Production factors	price factor	decision factor	Key factor
31	The criteria to select a suitable limited factor is ___________	Highest contribution per unit of limited factor	Highest profit	Highest reduction	lowest reduction	Highest contribution per unit of limited factor
32	_____ is the point at which sales revenue is equal to total cost.	Margin of safety	Break even	Fixed cost	BEP	Break even
33	Break even point in unit can be ascertaining by dividing the break even sales value by _______	Profit	p/v ratio	Selling price	Marginal cost	Selling price
34	Increase in fixed cost =_______	No effect in bep	Higher BEP	No effect in p/v ratio	Lower profit	No effect in p/v ratio
35	Decrease in sales volume = ________	No effect in BEP	Higher BEP	No effect in p/v ratio	Lower profit	Lower profit
36	Increase in variable cost = ________	No effect in bep	Higher BEP	No effect in p/v ratio	Lower profit	No effect in p/v ratio
37	Decrease in selling price = _________	No effect in BEP	Higher BEP	No effect in p/v ratio	Lower profit	Higher BEP
38	Decrease in sales volume = _________	No effect in BEP	Higher BEP	No effect in p/v ratio	Lower profit	No effect in BEP
39	Is the angle at which sales line cuts the total cost line	BEP	Angle of incidence	Contribution	Variable cost	Angle of incidence
40	If the angle of incidence is _________ at indicates that the profits are being made at higher rate	Large	Small	Neither large nor small	Medium	Large
41	_________ is the difference between the total sales revenue and the sales	Actual sales	margin of safety	Reducing the fixed costs	all the above	margin of safety

	at breakeven point.					
42	Margin of safety can be improved by ________	Increasing the volume of sales	Decreasing the selling price	Reducing he fixed costs	All the above	Reducing he fixed costs
43	_______ margin safety indicates a favorable position of the business.	Large	Neither large nor small	Small	Medium	Large
44	Cost volume profit analysis may be applied for ______	Profit planning	Cost control	Decision making	All of these	All of these
45	Marginal cost is the sum of prime cost plus	Fixed cost	Variable cost	Variable overhead	Total cost	Variable overhead
46	At BEP contribution is equal to ________	Profit	Variable	Fixed cost	Sales	Fixed cost
47	At BEP, profit will be ________	High	Low	Zero	Medium	Zero
48	Total fixed cost of a company is Rs 21,000 per share ; variable cost per unit is Rs.7 and its selling price per unit is Rs10. BEP in units is equal to _________ units	3000	2100	7000	10,000	7000
49	p/v ratio of company a is 40% and company B is 50% state which company is likely to earn greater profits when the company have heavy demand for the product.	Company A	Company B	Can be determined	Company C	Company B
50	Margin of safety ratio=_____	Margin of safety/ actual sales	Margin of safety X actual sales	Margin of safety	Marginn of Safety Y	Margin of safety
51	What will be the selling price per unit, when variable cost per unit Rs.5.60 p/v ratio 60%?	6	8	14	10	14
52	Changes in profit between the two period Rs.10,000 changes in sales for the above periods rs.40,000 p/v ratio	25%	40%	10%	50%	25%

	is ________					
53	________ is the difference between the sales and marginal cost.	Fixed cost	Contribution	Profit	Sales	Contribution
54	p/v ratio shows the relationship between.	Contribution and sales	Profit and sales	Profit and contribution	Contribution	Contribution and sales
55	Sales Rs. 5,00,000 ; fixed cost Rs.1,50,000; profit Rs.1,00,000 p/v ratio is equal to _______	25%	75%	50%	80%	50%
56	Sales Rs. 1, 00,000; variable cost Rs.60, 000 p/v ratio is equal to ______	40%	75%	10%	100%	40%
57	Sales rs. 1, 00,000 break even sales Rs.40,000 margin of safety is equal to	60,000	40,000	1, 00,000	75,000	40,000
58	Sales are Rs.40, 000; variable cost Rs. 30,000 and fixed cost Rs. 15,000 here there will be ____	Profit of Rs 500	Loss of Rs. 5,000	Contribution of Rs 25,000	Profit of Rs 25,000	Loss of Rs. 5,000
59	If fixed cost is Rs 20,000 p/v ratio is 40% the BEP will be__	20,000	50,000	8,000	10,000	50,000
60	When fixed cost is Rs 10,000 and p/v ratio is 50% the break even point will be	20,000	40,000	50,000	90,000	20,000